

U.S.I. JOURNAL

INDIA'S OLDEST JOURNAL ON DEFENCE AFFAIRS

(Established : 1870)



PRINCIPAL CONTENTS

- | | |
|---|--|
| Is Indian Deterrence Effective Against Potential Aggressors? | - Lieutenant General PR Kumar, PVSM, AVSM, VSM (Retd) |
| Bridging the Military Technology Gap in the Sino - Indian Context | - Lieutenant General P R Shankar, PVSM, AVSM, VSM (Retd) |
| India and the Russian Far East | - Dr Sanjaya Baru |
| Competition for Supremacy Between US and China : An Analysis | - Shri JK Dadoo, IAS (Retd) |
| The Strategic Promise of India's Act East Policy | - Lieutenant General GS Katoch, PVSM, AVSM, VSM (Retd) |

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USI LATEST PUBLICATION DURING 2019

Pub Code	Title of Book & Name of Author	Price(Rs)	Year
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Op-1/2019**	"Kashmir Valley Politics : Alignments and Re-alignments" By Prof Kashi Nath Pandita	150	2019
R-98	"Modern Information Warfare – Operations, Doctrine and Force Structures" By Col Anurag Dwivedi M/s Pentagon Press	995	2019
R-99**	"STRATEGIC YEAR BOOK 2019" Edited by Lt Gen PK Singh, PVSM, AVSM (Retd), Maj Gen BK Sharma, AVSM, SM & Bar (Retd) and Dr Roshan Khanijo	1850	2019
R-100**	"Tibet : When the Gods Spoke - India Tibet Relations 1947-1962, Part -3" By Claude Arpi	1650	2019
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R-103	"China's Strategic Behaviour" By Brig Sanjeev Chauhan M/s Pentagon Press	995	2019
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A-1/2019	"China's Strategic Deterrence" By Col Anshuman Narang M/s Pentagon Press	2995	2019

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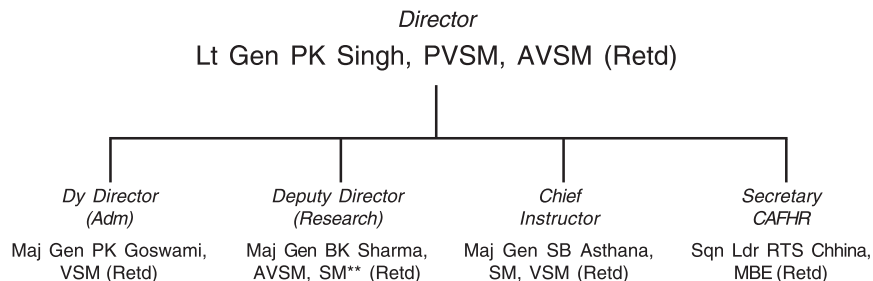
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Editor

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3. The article should be in Aerial Font (preferably), size 12 and English (U.K.). Abbreviations if any, should be used in their expanded form the first time and indicated in brackets.
4. The full name and address of the author along with a brief Curriculum Vitae should be given. Serving officers are advised to follow the prevailing Services instructions for publications of their articles.
5. The author will receive a copy of the issue of the Journal in which his/her article appears along with three offprints. A suitable honorarium will also be paid after the article is published.

GUIDE TO WRITING ENDNOTES

1. Endnotes are notes added to the main body of a paper or an article, in which the author directs readers to sources referred to or to add extra comments of his or her own. Endnotes are placed at the end of the paper/article. A superscript number (^{1,2,3,4,.....}) at the end of the sentence signals the reader to look for the corresponding endnote at the end of the article. The endnotes should be numbered consecutively, starting from '1'. Citations should include the author's name, title of the book (in italics), publishing information (in parenthesis) and pages consulted, all separated by commas. For example :-

¹ Michael Baxandall, *Painting and Experience in Fifteenth-Century Italy : A Primer in the Social History of Pictorial Style*, (Oxford University Press, London, 1988), p. 45.

² Lina Bolzoni and Pietro Corsi, *The Culture Memory*, (Bologna : Societa editrice il Mulino, 1992), p. 45.

2. Use of *Ibid.*, *op. cit.*, and *loc. cit.*

Ibid. refers to the immediate preceding reference; *op. cit.* refers to the prior reference by the same author and *loc. cit.* is used instead of *op. cit.* when reference is made to a work previously cited and to the same page in that work. For example :-

⁴ R Poirer, *Learning Physics*, (Academic, New York, 1993), p.4.

⁵ *Ibid.*, p. 9.

⁶ T Eliot, *Astrophysics*, (Springer, Berlin, 1989), p. 141.

⁷ R Millan, *Art of Latin Grammar*, (Academic, New York, 1997), p.23.

⁸ Eliot, *op. cit.*, p.148.

⁹ Eliot, *loc. cit.*

3. Where websites have been used to access information, the complete web address of the website should be cited, followed by the date the website was accessed by the author. For example :-

<http://www.fordham.edu/halsall/mod/1497degama.html>.
Accessed on 06 January 2016.

Additions to the USI Library for the Quarter Ending September 2019

During this period a total of 08 new books have been added. Details of the new books are available on USI Website.

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New USI Members

During the period Jul – Sep 2019, 19 registered as New Life Members; 4 Ordinary Members renewed membership and 12 registered as new Ordinary Members.

Course Members

During Jul-Sep 2019, 118 Officers registered for Course Membership.

CONTENTS

July-September 2019

Editorial.....	301
Is Indian Deterrence Effective Against Potential Aggressors?	
Lieutenant General PR Kumar, PVSM, AVSM, VSM (Retd).....	304
Bridging the Military Technology Gap in the Sino - Indian Context	
Lieutenant General P R Shankar, PVSM, AVSM, VSM (Retd).....	331
India and the Russian Far East	
Dr Sanjaya Baru.....	342
Competition for Supremacy Between US and China : An Analysis	
Shri JK Dadoo, IAS (Retd).....	349
The Strategic Promise of India's Act East Policy	
Lieutenant General GS Katoch, PVSM, AVSM, VSM (Retd).....	356
Stabilisation of Jammu and Kashmir (J&K) Post Reorganisation	
Brigadier Narendra Kumar, SM, VSM (Retd).....	364
Ramifications of the Fourth Gulf Crisis and India's Strategic Options	
Lieutenant Commander Bharat Singh (Retd).....	374
Apache and Chinook - Rotary Wing Capability Boost	
Air Marshal Anil Chopra, PVSM, AVSM, VM, VSM (Retd).....	384
Principles of Cyberwar	
Lieutenant General Sunit Kumar, AVSM (Retd) and Associate Professor (Dr) Anurag Jaiswal.....	393
From 'Landlocked' to 'Land-linked': Changes in the Emphasis on Nepal's Foreign Policy	
Professor Sangeeta Thapliyal.....	401
Sino-Russian Relations: Implications For Vietnam	
Major General Nguyen Hong Quan.....	411
Significance of Hypersonic Vehicles	
Dr Roshan Khanijo.....	418
Subhas Chandra Bose in Burma (1943-1944)	
Excerpts from the Unpublished Diary of Lieutenant General Masakazu Kawabe (Japanese)	
Professor K.C. Yadav.....	426
Reviews of Recent Books.....	440

NOTE

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Editorial

The article titled “Is Indian Deterrence Effective Against Potential Aggressors?” by Lt Gen PR Kumar, PVSM, AVSM, VSM (Retd) is of great relevance to professionals dealing with national security matters. In reality, deterrence should discourage an adversary from pursuing an undesirable action. It works by changing adversary’s calculation of costs, benefits and risks. Military competition is expanding to new domains from space and cyberspace to information and sea bed. New capabilities and disruptive technologies are making it difficult to accurately gauge the military balance of power. Besides, warfare has descended the domain of soldiers and is becoming a matter for politicians, scientists, banks and common citizens. The author has analysed the issue at length, the questions that need to be answered are – do our military capabilities and capacities prevent Pakistan from waging proxy war against us; are we confident that China and Pakistan collusively will not initiate a localised conflict against us; does China act on contentious issues keeping Indian interests in mind? An honest answer to these questions is “No” or at best “Not Yet”. Deterrence is also linked to demonstration of credible will, intent and synergy. India must rethink its deterrence strategy in changing geo-political and strategic environment.

The article “Bridging the Military Technology Gap in the Sino-Indian Context” by Lt Gen PR Shankar, PVSM, AVSM, VSM (Retd) is very perceptive and realistic. The author has brought out that China has moved closer to superpower status. She has embarked on military expansion of unparalleled proportions. On the other hand, India has lagged in scale, pace and content. The Chinese aim is to seek parity with the USA. However, as a result, the gap between India and China is widening. While China has global ambitions, India’s are regional and peripheral to her borders. India needs defence technologies to deter China from crossing red lines and give it a politico military defeat if it does so. In that context, the author has carried out relative military technology domain analysis. The fact is that there is military capability and technology gap between the two nations in favour of China. Sino-Indian military conflicts are likely to take place either in rugged terrain of Himalayas or in the Indian Ocean Region (IOR). Both theatres are away from

mainland China. An overstretched China might not be able to deploy its full military might. China's focus has been on attaining ascendancy on disruptive technologies, which may not work efficiently in mountainous terrain. In the IOR, China will have to contend with the military significance of the Andaman and Nicobar Islands. Overall, the Sino-Indian military geography is a technology spoiler. India needs to possess only such ability which deters China from any misadventure. China is slowing down due to ongoing US-China trade war as well as restrictions imposed by the US in ensuring that China cannot carry out Intellectual Property Right (IPR) theft of high-end technologies with impunity anymore. The BRI is also not going well. An opportunity window is available to enable India to catch up. However, there is need for adequate funding. Defence budgets need to be hiked. A five trillion-dollar economy will need more security than at present.

The article titled "India and the Russian Far East" by Dr Sanjaya Baru focuses on "Indo-Russian" relations, India's "Act East Policy" and "Economic Opportunities" in the Region. Fifth meeting of the Eastern Economic Forum was held at Vladivostok in September 2019 where Prime Minister Modi was the Chief Guest. He stressed on India's growing interest in building closer economic ties with the Russian Far East. The author has highlighted that Indian business should look beyond oil and gas and explore new opportunities in farming, mineral exploration, manufacturing and shipping.

The article titled "Competition for Supremacy between US and China: An Analysis" by Shri JK Dadoo is quite perceptive. United States of America is the sole superpower at present. However, China is catching up fast. As far as economy is concerned, GDP growth is considered to be a major parameter. The author has brought out that by 2030 China would have gained world ascendancy. The author has carried out comparison and analysis of a number of other indicators such as – Mobile phones; 5G Networks; new conglomerates emerging and making tremendous contribution to the economy; Artificial Intelligence (AI); food supply; volume of trade; development; technology; rare earth production; ocean wealth and so on. Most indicators reflect that China is making progress worldwide. However, the author, based

on study carried out by Prof Abdelal, has suggested that US should counter balance China with help from India, Japan and South Korea. Prof Abdelal's telling comment is that conscience and concessions are required to become a world hegemon and China has none. The world has to wait and watch for a decade or so to decide the next hegemon or the superpower.

Current issue of the Journal has 13 articles. Abstract has been given at the beginning of each article. These make interesting reading.

Review of the following books has been published in this Journal:-

- (a) For The Honour of My House by Tony McClenaghan.
Reviewed by Maj Gen Ian Cardozo, AVSM, SM (Retd)
- (b) India's Security Environment : Emerging Uncertainties and Challenges by Professor Satish Kumar
Reviewed by Maj Gen Ashok Joshi, VSM (Retd)
- (c) Pakistan's Internal Security Challenges and the Army's Ability to Overcome Them by Brig Shaman Chodha
Reviewed by Maj Gen YK Gera (Retd)
- (d) When Military Wages Peace: Military Bands in Diplomacy, War and Statecraft by Dr Saad S Khan
Reviewed by Maj Karun Khanna (Retd)

Major General YK Gera (Retd)

Is Indian Deterrence Effective Against Potential Aggressors?

Lieutenant General PR Kumar, PVSM, AVSM, VSM (Retd)^{*}

Abstract

The concept of deterrence is undergoing transformation in the emerging multi polar and multi nuclear world. The democratic world order and international institutions are being challenged, leading to a dynamic international security environment, where strategic balancing by even the global powers has become the norm. This has resulted in 24 X 7 Multi Domain Operations (MDO), where the military dimension is but one of the verticals albeit a decisive one. Applied effectively, deterrence discourages an adversary from pursuing an undesirable action. It works by changing the adversary's calculation of costs, benefits and risks.

The assumption that 'modern weapon systems are so destructive that no sane leader would risk igniting a war – and so the requirements of deterrence are relatively modest' is profoundly misplaced. Military competition is expanding to several new domains, from space and cyberspace to information and sea bed. New capabilities and disruptive technologies are making it harder to accurately gauge the military balance of power. More vitally, they make identification and attributability of adversary difficult and complicated, changing the landscape of confrontation, conflict and whom to deter. For India, our immediate neighbours, China and Pakistan (strategic partners), with unresolved border disputes are challenging our strategic space. China, an Asian

^{*}This is an edited version of the 17th Major General Samir Sinha Memorial Lecture 2019, delivered by Lt Gen PR Kumar, PVSM, AVSM, VSM (Retd), on 10 Jul 2019 at the USI.

[®]Lieutenant General PR Kumar, PVSM, AVSM, VSM (Retd) was commissioned into the Regiment of Artillery on 15 Dec 1976. He has held the appointment of Director General of Army Aviation. He superannuated, after 39 years of service, as Director General of Military Operations. He keeps abreast with contemporary strategic and security related issues worldwide.

goliath, will remain an adversary for the distant future. Deterrence by denial is a national imperative.

Warfare has already transcended the domains of soldiers and military affairs, and is increasingly becoming a matter for politicians, scientists, bankers and the 'common man'. Adversaries, such as China, have expanded the battlefield in time (a blurred distinction between peace and war), in domains (space, cyberspace and information), and in geography (including the hinterland/homeland) to create strategic, operational and tactical standoff. In a state of continuous competition, all nations exploit the conditions of operational environment to achieve their objectives without resorting to armed conflict by fracturing the adversary's resolve. We must focus on a capability based armed force to script future joint task forces for conducting operations in support of the nation and provide credible deterrence.

Warfare itself, and certainly deterrence, is not a numbers game. For India, a two front conflict scenario will prove a big challenge. While India will employ its Comprehensive National Power (CNP), and its entire repertoire of strategic tools, to avoid a two-front war, strategic prudence dictates that we must be prepared to confront and fight such a war and be prepared to prosecute MDO 24X7 along with other instruments of national power. Increase in number of Nuclear Weapon States (NWS), MDO specially in the cognitive and non-kinetic domain, high-technology delivery systems and munitions have made warfare more destructive. Increased transparency, difficulty of attribution for response, nations exploiting below the war threshold line to achieve strategic objectives, expansion and compression of the battle field have contributed to the ambiguity of deterrence.

Deterrence requires a national strategy that integrates political, diplomatic, military, and economic powers. We must develop strategies, plans and operations to effectively counter specific adversaries.

Deterrence must convince adversaries not to take actions that threaten India's vital interests. Decisive influence is achieved by credibly threatening to deny benefits and impose costs, while encouraging restraint. Deterrence must be planned and executed across all domains in concert with other elements of national and international power.

Recent studies regarding psychological dimension of human decision-making raise questions about the very logic of deterrence. Information Influence Operations (IIO) and weaponisation of social media are new game changers. Cyber warfare has further eroded effectiveness of deterrence and its ever increasing potency has alarmed the world. The distinction between online and offline confrontation has become blurred. Diplomacy, and to a large extent even confrontation and conflict, have become less private and policy-oriented. China and Pakistan are already playing this deadly game against us.

The article examines the aspect of effectiveness of Indian deterrence against our adversaries. MDO provide India with hitherto unused domains like cyber, IIO and space. A collusive China-Pakistan in our immediate neighbourhood, rising trend of ultra-nationalism infecting our immediate neighbours and contested strategic space of Asia and fluid internal security situation, dictate that India must get its act together, continue building its CNP, militarily transform into MDO capable armed forces and get its multi domain deterrence capabilities in place for specific nations and scenarios. India must rethink its deterrence strategy in changing geo-political and strategic environment, including psychology of decision making. 'Deterrence by Denial' against adversaries, will continue to remain the first priority for India.

"Even the Fruits of Victory would be Ashes in our Mouth"

President John F. Kennedy during
the Cuban Missile Crisis

Introduction

The concept of deterrence is undergoing a transformation in the emerging multi polar, multi nuclear world, where the liberal democratic world order and international institutions are being challenged, leading to a dynamic international security environment where strategic balancing by even the global powers has become the norm. This has resulted in 24 X 7 Multi Domain Competition, where the military dimension is but one of the verticals albeit a decisive one.

Dr Atul Gawande, a general and endocrine surgeon of Indian origin practicing in Boston, USA, in the phenomenal bestseller titled “Being Mortal”, to a question by a relative about a terminally ill parent, “Dr, so how long has he got”, answers ‘technically as long as we want’. What he meant was that modern medicine has advanced so far that they can keep humans alive using modern technology. But the issue is the ‘quality of life he will live’. Similarly, when it comes to Indian deterrence against potential aggressors, a quick response is ‘Yes and No or even Not Yet’; Yes on strategic and existential issues, No on tactical actions by adversaries and Not Yet for the remaining. Ironically, it is the same for the superpower and global powers, USA, China or Russia, forget the lesser mortals. Most of us believe that despite the nuclear overhang, India has a window for prosecuting conventional operations against Pakistan. The same logic applies for and against us and our adversaries including China. In fact, when it comes to China, due to the stated nuclear policy of both countries, the conventional space gets formalised. Given the overwhelming and overbearing CNP of USA, increasingly many minor nations such as Iran, North Korea, Venezuela, Philippines, Syria and Pakistan are thumbing their noses at USA with impunity.¹ Naturally, there are geo-political, geo-strategic and technological reasons for that, but it is a pointer to deterrence. In today’s world of realpolitik, strategic balancing and engaging in competition² (also cooperation and confrontation when required) by nations is in itself ‘a form of engaging in deterrence operations’. This also validates the popular quote ‘there are no permanent friends or enemies, only permanent interests’.³

Deterrence and Compellence

While generically understood, it is wise to benchmark the dictionary definition of deterrence and compellence at the outset. Oxford dictionary defines deterrence as ‘the action of discouraging an action or event through instilling doubt or fear of the consequences’, and compellence as a ‘direct action that persuades an opponent to give up something that is desired’.⁴ The Complex Deterrence Theory, General Deterrence Theory,⁵ Immediate Deterrence Theory, as applicable between USA and Russia during Cold War period, and a lot of papers have emerged on deterrence in recent years. Applied effectively, deterrence discourages an adversary from pursuing an undesirable action. It works by changing the adversary’s calculation of costs, benefits, and risks. A country can, for instance, convince its adversaries that an attack is so unlikely to succeed that it is not even worth the attempt: deterrence through denial. Or a country may convince its adversaries that defeating it would be so costly as to be a victory in name only: deterrence through punishment. On 04 July 2019, American politician Mike Gallagher argued in The Washington Quarterly that while the US has traditionally relied on the deterrence through punishment, it must now move to deterrence by denial like the Chinese do; indicating a decline in CNP (specially military), growing clout of China, Russia and regional powers, increase in number of NWS and availability of hi-tech domains. In most cases, a rational adversary will decide to stay put.

The assumption that ‘modern weapon systems are so destructive that no sane leader would risk igniting a general war; and so the requirements of deterrence are relatively modest’ is profoundly misplaced. Increase in nuclear weapon holding states, assumption that Tactical Nuclear Weapons (TNWs) specially those which generate electromagnetic pulse (EMP) form part of conventional warfare and technology creating transparency is leading countries to contemplate ‘use it or lose it’ regarding nuclear weapons. Technological advancements, and potency and accuracy of conventional weapons, have coupled conventional and nuclear domains with alarming implications for deterrence. Military competition is expanding to several new domains, from space and cyberspace to information and sea bed (energy pipelines and data cables) and new capabilities and disruptive technologies are making it harder to accurately gauge the military balance of power. More

vitality, they make identification and attributability of adversary difficult and complicated, changing the landscape of confrontation, conflict and whom to deter. Meanwhile, advances in cognitive science are challenging the theoretical underpinnings of deterrence by upending our understanding of how humans behave in high-risk situations – such as facing the possibility of war. Taken together, these developments lead to an inescapable and disturbing trend. The greatest threat is neither multi polar world or great power rivalries nor the spread of advanced weaponry or niche technology available off the shelf, but the decline of deterrence.⁶

Overview of International Security Environment

The liberal democratic world order established by the USA, and her allies, since World War II has not only changed but is also being challenged. The rapidity of change accelerated ever since 9/11 and launch of Global War on Terrorism (GWOT). We are living in paradoxical times and looking down a precipice; while at no point of mankind has the globe been more peaceful, healthier with man living longer, wealthier, better quality of life; concurrently we are looking at instantaneous mutually assured destruction, catastrophic global warming, biological and medical disasters, constant competition and confrontation for strategic space and resources which can any time result in conflict with high probability of turning global. The inevitable diminishing CNP and power projection capabilities of USA started the slide to a multi polar world with emergence of China as a global power and resurgence of Russia under President Putin. State controlled narratives leading to signs of ultra-nationalism; authoritarian governments like Philippines, North Korea, Syria, Turkmenistan; emerging powers with regional aspirations like Iran, Saudi Arabia, South Africa, Nigeria, Turkey, India which are not necessarily aligned with the thought process of a world order established and controlled by USA and her allies; rise of religious Islamic fundamentalism with a twist of occupying territory and establishing a caliphate like the Islamic State of Iraq and the Levant (ISIL); global warming and climate change indicators; transnational Multinational Companies (MNCs) with their own agendas, drug cartels and international crime syndicates have changed the world scape.⁷ There is a renewed political, ideological, economic and military competition due to globalisation, which brought many good practices and developmental growth but is a major driver of instability and conflict.

While threat of full-scale conventional wars has gone down, correspondingly the span of conflict, its complexity, unpredictability, lethality, accuracy, reach and manifestation into many domains have emerged. The physical and nonphysical domains, including the cognitive, have expanded. There are no front, rear and flanks and there is no place to hide. Many new types of warfare have also emerged like hybrid, media, cyber, information, network, electromagnetic spectrum (EMS), asymmetric, big data and digital, waged either singularly or cross domain in peace, no war no peace, or war. The environment continues to change in four fundamental and interrelated ways: adversaries challenging established states and practices in all domains; the battlespace becoming more lethal; operational complexity increasing globally; and contextually deterring aggressive acts becoming more challenging. Creating and retaining strategic space within a state's area of interest calls for prosecuting multi domain activities/operations against other state and non-state actors leading to constant competition 24X7. We are in an 'era of persistent, constant engagement'. Ironically, this process is providing some level of stability in an otherwise increasingly incoherent, chaotic and turbulent world order. Nations have their national vision and aspirations and want to find their legitimate place amongst the comity of nations. India, the ancient, proud civilisation with a glorious history, too aspires for the same and we are destined by our geography, size, population, resources and history to be a great power in the world order. Specifically in Asia, 'The Continent of the Century', the US is desperate to assert and implement their vision of a rule-based order, freedom of navigation and overflight in the maritime commons, respect for international law, enhancing connectivity, maritime security, non-proliferation and terrorism. Clearly, these are in response to China's growing assertiveness in the region. India, naturally, must strengthen its deterrence capabilities to ensure a stable security environment to achieve its vision.

Theoretical Precepts of Global and Regional Security Zones

International Relations Theory (IRT) and Regional Security Complex Theory (RSCT)⁸ state that territorial pre-eminence (military/kinetic) is more potent and powerful than non-territorial domains in the security calculus. Regional security zones are fairly independent of globalisation and global political trends due to their strong emotional, geographical and historical links (ironically, it rings true

even for our Act East Policy – we need to Act Northeast before we can fructify a robust Act East policy, which addresses vulnerable China's underbelly, and can act as a deterrent). RSCT enables one to understand new alliances and structures to evaluate relative balance of power, and relationship between regionalising and globalising trends. The capabilities of global powers enable them to transcend distance, while lesser powers are satisfied with subsystem level interplay whose main security environment is their local region. The central idea in RSCT is that, since most threats travel easily over short distances, security interdependence is normally patterned into regionally based clusters or security complexes. The hope was that economic liberalisation will eventually generate political liberalisation and a lowering of threat perceptions, especially amongst non-liberal states like China, Russia, Iran and North Korea. In the security chess board, as the international system reaches global scale, room is created in which distinct regional security subsystems can emerge. A handful of states at the top of the power league play a truly global game, treating each other as a special class and projecting their power into far-flung regions. But for the great majority of states, the main game of security is defined by their near neighbours. China dominates the regional security zones of Asia (East, South-East and South Asia). Geography, specially as our disputed borders are in the remote, attrition causing high Himalayas, economics and trade realities, anti-access area denial (A2AD) and cost of intervention discourage physical intervention by any of our allies. India, unfortunately, is caught in the classical power play of global and regional security dynamics as it's not yet a great power. However, these dynamics will prevent or provide opportunities for India to emerge as a unique balancing power and, if we get it right as a prequel to a global power. It remains a truism that 'physical geography has a continuous, powerful, and profound effect on the nature and course of combat'.⁹ On the multi-dimensional chessboard, the facts of geography, strategy and the realities of politics and technology all interact.¹⁰ For India, our neighbour with an unresolved border dispute and challenging our strategic space, China as a regional Asian goliath, will remain a truism and adversary for the distant future. Deterrence by denial is a national imperative.

Multi Domain Operations (MDO)¹¹

It is ironic that while change is inevitable, it is generally resisted

as it moves nations and individuals out of their comfort zone and is initially chaotic. And if change is at global level, driven by geo-strategic and geo-political considerations, economics, resources and technology, and is multi layered, multi-dimensional, cross-impacting and affecting nations, allies and adversaries, corporates, terrorist organisations, we are looking at a turbulent, insecure international security environment leading to global 'Competition'¹² 24X7'. The commonly held perception of deterrence has changed irrevocably. Warfare has already transcended the domains of military units and military affairs, and is increasingly becoming a matter for politicians, scientists, and even bankers.¹³

Incidentally this was stated as early as 1999 by Qiao Liang and Wang Xiangsui in their famous treatise 'Unrestricted Warfare'. Four interrelated trends are shaping competition and conflict: adversaries are contesting all domains, the EMS, and the information environment and dominance of any country is not assured; smaller armies fight on an expanded battlefield that is increasingly lethal and hyperactive; nation-states have more difficulty in imposing their will within a politically, culturally, technologically, and strategically complex environment; and near-peer states more readily compete below armed conflict making. Adversaries, such as China and Russia, have leveraged these trends to expand the battlefield in time (a blurred distinction between peace and war), in domains (space, cyberspace and information), and in geography (now extended into the Strategic Support Area, including the homeland) to create strategic, operational and tactical standoff. In a state of continuous competition, nations (like China and Russia) exploit the conditions of the operational environment to achieve their objectives without resorting to armed conflict by fracturing the adversary's (US's alliances, South China Sea (SCS) etc.) resolve. They attempt to create stand-off through integration of diplomatic and economic actions, unconventional and information warfare, thus making deterrence more challenging. In future, no one power (including USA) can dominate one or multiple domains forever. Multi-Domain Warfare (MDW) calls for a change of thought process, 'a transformation and not just modernisation'.¹⁴ Visualisation of battle spaces, cross domain operational capabilities and capacity in the military and non-military fields in war and peace, goes beyond the current jointmanship and synchronisation of operations. Multi-domain means creating an effect in one domain that produces an effect in other. Multi domain-specific capabilities

can be leveraged to defeat a capable foe in another domain. The resources must be capable of cross domain operations and must be robust, deployable, low maintenance and manoeuvrable.¹⁵ MDW envisions the military and non-military; everything from fighters to destroyers, space shuttle to submarine, cyber to satellites, tanks to attack helicopters, electromagnetic to electronic, media to information, influence operations, economists to MNCs, politicians to think tanks, munition factory worker to hacks - working together intrinsically as 'one', to overwhelm the enemy with attacks from all domains: land, sea (including sub surface), air, space, cyberspace, information including media and social media, and electronic. The span of operations addressed simultaneously is from the political, national, strategic and operational to the tactical. Traditional turf and domains are shed as it's everybody's domain and whoever is more effective, more lethal and faster, acts and reacts. Both, adapting to and driving change in the operating environment, adversaries continue to alter the battlespace in terms of time, geography, and domains and by blurring the distinctions between peace and war. Battle space has expanded, converged and compressed all at once during competition and actual conflict; tactically, by bringing kinetic and non-kinetic effects to bear from any place in the world and, strategically, by being able to challenge the deployment and echeloning¹⁶ of forces into the fight at all places simultaneously. In fiscally challenging times and amidst ever-increasing diversity throughout the globe, interdependence, interoperability, and integration are vital to inevitable success on the battlefield no matter its form. Are the Indian armed forces ready to fully commit to being an interdependent, interoperable and 'capabilities' based armed force and avoid paradigm paralysis? In order to maintain a ready-force that is able to conduct full-spectrum (military and non-military) operations in its fullest form and at a moment's notice, we must focus on capabilities based armed force to script future joint task forces for conducting operations in support of the nation and provide credible deterrence.

Global Power Rankings, Net Assessment and CNP of Nations

In an adversarial scenario, multi-dimensional power index of nations with special reference to India, China, Pakistan, USA, Russia and Japan has strategic relevance. CNP is relevant when we talk of a nation's standing and its deterrent capability. Most Defence and National Security Think Tanks (there are over 5000 think tanks in

the world and India has around 280¹⁷), when they collate and put together all ingredients to come up with Overall Nation's Power Index, generally rate US and China 1 and 2 and India between 3 to 5. When you speak individually of specific fields like military, economic, diplomatic, R&D, technological growth etc., generally US and China come within the top 3 and India within the top 6 and lowest 10. This index, being multi-dimensional, is itself an indicator to the question of our deterrent capabilities. The data researched, created and is captured by Lowy Institute, Australia in 2019 Asian Power Index is comprehensive. Warfare itself and certainly deterrence is not a numbers game. We appear very confident that India would not have to fight a two-front war, as our Political, Diplomatic, Information, Military and Economic (PDIME) standing would ensure that. Our armed forces are prepared and confident of responding credibly, and in case of Pakistan punitively, against a one front/one country threat. However, in case of an all-out two front war, while the bean count/arithmetic of human resource numbers may be acceptable, in terms of war waging equipment and armaments as also the high percentage of vintage equipment, and given China's very intense focused modernisation processes (quality over quantity) actually paint a sobering reality, specially when it comes to our army and air force. For the record, China's People's Liberation Army Navy (PLAN) with more fighting vessels 317 vs 283 of USA, 3 carriers, to be built to 5/6, 60 submarines (to be built up to 80), 1200 short-range missiles and up to 300 intermediate range missiles, new destroyers, amphibious vessels, stealth fighters and long-range weapons is quickly increasing its ability to threaten every part of the globe due to its massively expanded expeditionary military operations. In recent years, the Chinese have exponentially increased their foreign presence around the globe, in a transparent effort to rival the US as a global superpower. The Chinese have made large incursions into Africa, and even set up a military base in Djibouti, Africa. Chinese SSBNs are now able to patrol with nuclear-armed JL-2 missiles, able to strike targets more than 4,500 nautical miles. As for People's Liberation Army Air Force (PLAAF), all of China's fighters in 2000, with the potential exception of a few modified Su-27s, were limited to within-visual-range missiles. China over the last 15 years also has acquired a number of sophisticated short and medium-range air-to-air missiles; precision-guided munitions including all-weather, satellite-guided bombs, anti-radiation missiles, and laser-guided

bombs; and long-range, advanced air-launched land-attack cruise missiles and anti-ship cruise missiles. China's acquisition of Russian-built S-400 surface to air missiles will further enhance her A2AD capability. Niche technology like artificial intelligence (AI), robotics, big data, hypervelocity missiles, drone/robotic swarms, and the Chinese creation of 'quantity over quality' has its own impact. In response to US modernisation and expansion of its entire nuclear infrastructure, China is following suit at a much faster pace. The increasing strategic bonhomie between China, Russia and Pakistan also needs factoring in, more in the non-kinetic domain. One very important factor which is being increasingly accepted is the mind of the leader and people and their likely reaction to deterrence.

DETERRENCE IN THE INDIAN CONTEXT

"The Department of Defence's enduring mission is to provide combat-credible military forces needed to deter war and protect the security of our Nation"

- National Defence Strategy of the United States of America

As a regional power dominating South Asia, India is forging strategic alliances, trying to ensure neutrality of some and keep adversaries at bay by strategic balancing (internal, external, and soft power balancing) and deterrence. India has bilateral strategic partnerships including Security Agreements with USA, Japan, Bhutan and forged alliances in multi-national alliances/groupings (like Association of Southeast Asian Nations (ASEAN), Shanghai Cooperation Organisation (SCO), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) etc.). India also needs to prosecute 'Competition' operations in all domains as also develop deterrence tools and capabilities, to act/prohibit/restrain/react to other nations from degrading our CNP. To illustrate, ability to protect our networks and carry out cyber warfare, protect our space assets, our economic and trade pathways, defend and prosecute influence information operations down to the basic essentials of protecting India's sovereignty and integrity in all domains including Indian Ocean Region (IOR). We must be absolutely clear that all countries are in competition with us including our neighbours, strategic partners and our known collusive adversaries China and Pakistan.

Deterrence is enhanced through security cooperation, military integration and interoperability with own security and intelligence

agencies, allied forces and partner nations and building trust and confidence between partners. The deterrent impact of such cooperation and integration is both political and military in nature. The political impacts are primarily derived from the effects that coalition-based responses have on adversary decision-makers' perception of India's and allied political will; the potentially long-lasting, harmful post-conflict political and economic effects of taking on India. Allied and partner contributions to the joint fight are significant. For example, they can provide host nation security, fly additional combat and support sorties, supplement naval presence, provide additional manoeuvre forces, supplement Intelligence, Surveillance and Reconnaissance (ISR) inputs, to name just a few. They could stay short of providing 'kinetic support'. These actions contribute significantly to deterrence, force protection and overall operational success. While military intervention of any of our strategic partners including USA is very tenuous at best, the unique potency of US Global Strike capabilities: their nuclear and armed forces contribute uniquely and fundamentally to deterrence¹⁸, through their ability to threaten to impose costs and deny benefits to an adversary in an exceedingly rapid and devastating manner (practice of imposing trade sanctions if adversary does not cooperate is a deterrent operation). A mention of US high end Conventional Prompt Global Strike (CPGS) system being developed by America is one such example. CPGS is based on a leading-edge military technology said to make it possible to accurately destroy any target on earth using a non-nuclear warhead that is carried by a strategic missile such as an intercontinental ballistic missile (ICBM) before detaching at a near-space altitude and then accelerating to fly at hypersonic speeds of Mach 5 or faster. While US is planning to only arm conventional weapons, it is rumoured that China will deploy even nuclear warheads on it (on the new Wu 14 missile).¹⁹ It must be noted that China and Russia too possess such strike capabilities and even USA feels threatened and insecure. Knowing our main adversaries, they can and will operate with and through proxies, and attempt to achieve their strategic and operational goals below the threshold of armed conflict. Terrorism, proxy insurgency, information and unconventional warfare (UW) are inherently difficult to attribute and subsequently to punish the originator, and, therefore, difficult to deter. Armed forces do not possess the capabilities to carry out deterrence in all domains, especially non-military.

Deterrence requires a national strategy that integrates political, diplomatic, informational, military, and economic powers. We must develop strategies, plans and operations that are tailored to the perceptions, values, and interests of specific adversaries. Deterrence strategies and actions must span daily operations and must be developed for all phases of competition and conflict planning. Deterrence operations convince adversaries not to take actions that threaten India's vital interests by means of decisive influence over their decision-making. Decisive influence is achieved by credibly threatening to deny benefits and/or impose costs, while encouraging restraint by convincing the actor that restraint will result in an acceptable outcome. Deterrence operations must, therefore, be planned and executed across all domains in concert with other elements of national and international power in order to achieve strategic objectives. Till we fine-tune our international security alliances and are fairly confident of their direct military and non-military participation, India must plan and prepare to go it alone.

A crucial aspect is that successful deterrence is knowledge-dependent and requires the ability to establish and secure communication access to adversaries in order to generate the desired decision outcomes. Our military capabilities and potential must be visible and known to all as it's a pivotal ingredient of deterrence. For India, to list some of the main military deterrents would be a credible nuclear triad with second strike capability²⁰ (China has it and Pakistan claims full spectrum capability to justify their tactical nuclear weapons^{21, 22}), capabilities of conventional ICBM / intermediate-range ballistic missile (IRBM), missile and rocket artillery; strategic lift; robust command, control, communications, computers, cyber, intelligence and information, reconnaissance and targeting (C5I2SRT); ballistic missile defence (BMD); dominate IOR; strategic offensive capabilities military and multi domain to provide credible deterrence and punitive deterrence against China and Pakistan respectively.

Conventional deterrence is more complicated than nuclear deterrence because it is hard to convince an adversary that you have the capacity to carry out sufficiently severe punishment, a problem that is less severe in nuclear deterrence because of the level of destructiveness associated with nuclear weapons. Moreover, in conventional deterrence efforts, adversaries

repeatedly miscalculate the relative power balance and their capacity to bear punishment. And deterrence of terrorism with threats of conventional retaliation is still more complicated, even when it is state-sponsored. Deterrence, the first option, is challenged because the threat of massive retaliation loses its value if adversaries are achieving their operational and strategic objectives before conflict. Effective deterrence combines military and non-military means. In some cases, military capabilities may not be an effective tool to deter a particular adversary's action, making other instruments of power the primary deterrent. Additionally, coalition support should be integrated to enhance deterrence credibility, but deterrence also must be viable as a unilateral strategy. Our deterrence will obviously be challenged by our adversaries. Military options/actions will always remain the final pivotal option to achieve national objectives, both proactive and reactive.

In relation to Pakistan, we face a peculiar problem of whom to deter? If Pakistan suffers significant conventional losses or loss of territory, she may assess that escalating the conflict by employing weapons of mass destruction or effect or disruption could recapture the initiative or drive policymakers to the negotiation table to end conflict on more favourable terms. Pakistan may also use TNWs, if presented an appropriate target, contributing to the attainment of operational or strategic objectives. This brings us to the strategic nuclear dilemma that India should not risk escalation for Pakistan to reach a perceived "use it or lose it" situation, especially if she perceives backing by USA. If and when India prosecutes offensive operations, we must conduct effective Influence Operations (IO) against Pakistan and to the world too about the dangers of employing Weapon of Mass Destruction (WMD), minimise vulnerabilities and demonstrate the ability to continue operations if attacked. If deterrence fails to preclude a tactical WMD or disruption attack, our IO must ensure isolation of Pakistan, internationally and regionally. The option of exercising our stated nuclear policy is a constant. When it comes to non-state actors and terrorist organisations, it's a different ball game. They differ in their susceptibility to our efforts to credibly threaten cost imposition. They have different goals/objectives, different values, and they employ different means to achieve them. Since India does not believe in using a hammer to kill a fly which is why planning and preparing for deterrence operations against specific targets (nation,

non-state actors like corporates, agencies, terrorist organisations or even individuals) is important. MDO provide India with hitherto unused domains like cyber, Information Influence Operations (IIO), space, psychological operations (psyops) and with the raising of the Special Forces Division our coercive kinetic response can be deeper, stronger with strategic intent, but restricting it locally.

Coming to deterrence against terrorist organisations, we need to hit their assets which they rely on for survival. Attack the organisation's leadership strata and commander; its military capability for carrying out terrorist attacks; its economic and financial support base; and the network of alliances with other organisations and states that provide support in the form of arms and finances. It is possible to achieve deterrence by demonstrating the will to use military force to inflict damage on these assets.²³ We can proudly say that our nation and army has identified the same but been only somewhat successful in following this deterrence concept in entirety, specially hitting their support bases across our borders, unlike Israel where the geo-political/strategic context is entirely different.

As far as China is concerned, the People's Liberation Army (PLA) is undergoing the most comprehensive restructuring in its history to become a force capable of conducting complex joint operations and global power projection. China is a past master and strong advocate of 'unrestricted warfare' in which deterrence forms a key component. Her rapid growth of CNP, with focus on military modernisation (A2/AD), coupled with development at par, if not superior capabilities, in niche technology poses multiple challenges even to USA, and she is currently engaging India in Competition 24X7 to ensure our CNP, strategic growth and space remains confined and restricted. In addition, China is increasingly discarding the rule based international system and conventional defined norms of international behaviour, as prescribed by USA and its allies, and its opaque strategic thinking and decision making make deterrence more difficult. China's military strategy and ongoing PLA reform reflect the abandonment of its historically land-centric mentality. Similarly, doctrinal references to "forward edge defence" that would move potential conflicts far from China's territory suggest PLA strategists envision an increasingly global role.²⁴ Recently President Xi asked the PLA to prepare for war.²⁵ Speaking at the US Naval War College, Prof James Holmes quoted Clausewitz,

“it’s wise to pick a fight with a stronger power today if you see the trend lines running against you”, and further elaborated that, “You might get part or all of what you want today, but not tomorrow, next year, or a decade from now. If China sees its rise plateauing or starting to decline, it might strike rather than wait.”²⁶ These proclamations should be taken very seriously by our leaders, and deterrence measures must be planned and put in place both military and non-military. Recent Chinese publications have increasingly spoken of strategic deterrence.

China’s existential importance of Belt and Road Initiative (BRI) and China–Pakistan Economic Corridor (CPEC), her relationship with Pakistan, her suspicions about Tibet and her desire to maintain levers in relationship with India suggest that a boundary settlement is not a Chinese priority at present. Add to this, China’s dependence on the Indian Ocean and her suspicions about India-US defence cooperation and strategic coordination. Taken together these factors make it likely that China will keep the boundary issue alive as a lever in relationship with India. Settling the boundary will not settle or eliminate strategic competition between India and China in their shared periphery. China’s confrontation with India is not all about the boundary issue but political. It is unlikely that Chinese Communist Party (CCP) leadership, which increasingly relies on nationalism for its legitimacy, will find it easy to make compromises necessary for a boundary settlement. That is one reason why public Chinese rhetoric on the boundary has become stronger in the last few years, even though their posture on the border has changed only marginally.

Possible Conflict Scenario

The confrontation being political, it could be ‘to teach India a lesson and show the world’ her power projection potential of an ‘Arrived Super Power’. The conflict could start as an aggressive competition and confrontation using both kinetic and non-kinetic means but could easily escalate to a broader conflict. Probability of Pakistan jumping into the fray must be factored as it could very well be part of the strategic plan. Similarly, using land and maritime routes through other immediate neighbouring states cannot be ruled out. Getting a little specific, with Pakistan along the western borders (both operated MDO pan India in hinterland), we anticipate his employment of fires across domains (cyber, computer, IO, hybrid,

EMS, space; Diplomatic, Information, Military and Economic (DIME)) during peace (constant competition) and imposition of his will with increasing tempo, focus and lethality just prior to conflict to try and achieve his political and military aims, without fighting. For instance, China's first step is to achieve what the Chinese call 'information dominance' by targeting adversary's data and communications networks.²⁷ Physical attacks on satellites, including 'blinding' them with lasers, would be combined with cyber-attacks on computer systems. Concurrently jamming air, rail, logistics, banking, financial networks and prosecuting IIO to create panic in local population in the mainland, delay and disrupt our armed forces mobilisation and impact morale. Shifting gears to actual combat, employ their air assets including attack helicopters, ISR capabilities, special forces, rockets, missiles and artillery to degrade our strategic, operational and tactical assets and military forces, isolate the battle field, and then employ offensive forces to defeat our land and air forces in detail. Permanent terminal objectives even in the event of a full scale war are most likely to be Chinese perception of his traditional borders which in Ladakh are close to the current Line of Actual Control (LAC) and in the eastern front include the state of Arunachal Pradesh. Except for the physical land boundary disputes, there is no other territorial or maritime dispute with China. However, terminal objective would be dictated by his political aim translated into military objectives, battle field success in terms of real estate, domains, Chinese casualties and vulnerabilities, India's response, specially military, including resolve and warfighting potential, international reactions and the nuclear dimension. The same is being war gamed on a regular basis at the strategic, operational and tactical levels within our armed forces. The intensity of hard and soft power would be nothing like the nation and our troops would have experienced. We have one of the most battle-hardened troops in the world, but the intangible effect of psyops, isolation, lack of situational awareness, operating in a degraded environment coupled with a 360 degree conflict with no front, rear and flanks will certainly impact them; if we do not train, prepare and have the capacity to counter and negate his design of conflict, China will wage such a war. Just as a stalemate for India is considered a defeat, if we launch pro-active operations against Pakistan, China too will aim to achieve his political and military objectives swiftly against India. While it will be a challenge, we must keep increasing our military capabilities to impose prohibitive costs to deter this adventure.

While focusing on China and Pakistan, we must not ignore other adversaries or conclude that the multi domain lessons learnt can be commonly applied, as every competitor is different. Naturally, India has to address non-state actors on equal priority. We must bear in mind that the traditional escalatory ladder is defunct in MDO, it will more likely look like a web of intersecting paths, where each intersection is a domain be it space, cyber, land and response can be on any one or multiple domains.

‘Know and understand your adversary’ is a pre-requisite for combating MDW and is bedrock of deterrence. This requires enhanced ISR and operational intelligence gathering capacity and capability including hi-tech mechanisms to understand adversary’s perceptions, assets, capabilities, vulnerabilities, his decision making hierarchy, procedure and structure, non-state actors sponsored by him, in short ‘a holistic situational awareness’ of all. We must develop cogent plans to identify and defeat his military and non-military plans during and after ‘Competition’ and create a proper military and non-military target list which we keep reviewing. What cannot be understated for above capability is understanding of our own capabilities including allies, limitations and real time situational awareness. Such understanding is achieved only by total synergy amongst all players involved in deterrence operations. Highly networked forces, which are integrated and interoperable, will increase the Commander’s flexibility to choose from widely varying types of capabilities to achieve the desired deterrence effect.

Nuclear Deterrence

If you type deterrence on the net, the response will overwhelmingly talk of nuclear deterrence. Most experts saw a balance of power as the structural condition necessary for peace to prevail globally. Indeed, at the dawn of the Cold War era, balance of power theory/ balance of terror or Mutual Assured Destruction (MAD) constituted the conventional wisdom of the field. Emergence of more nuclear weapon holding states threw this theory off kilter. With the emergence of MDO and options short of war, nuclear deterrence is increasingly being challenged by smaller states and even amongst nuclear states (China, Pakistan and India). Disruptive technologies like AI, surveillance capabilities, cyber domain and hypersonic weapons have further eroded deterrence potential of big powers (transparency and doubtful second strike

capability). This also creates pressure on less technologically endowed countries to put their nuclear arsenal at a hair-trigger operational status or adopt the 'use it or lose it' concept. It has led to creation and deployment of TNWs, which some nations assume are part of conventional warfare. Russia is talking of 'Escalate to De-escalate' if conventionally out manoeuvred. As an emerging nuclear power which is still striving to attain a robust second-strike capability, India needs to act expeditiously as we are dangerously behind the big three (US, China, Russia) in R&D and application of niche technologies. Our nuclear policy has stood the test of time. There is talk of urgent review which may not be a bad idea for creating ambiguity, but 'there is nothing in the present doctrine that prevents India from responding proportionately to a nuclear attack'.

Human and Psychological Dimension

Recent studies and insights into the nature of human decision-making raise questions about the very logic of deterrence. As a theoretical concept, deterrence rests on assumption that where risk is involved, humans act rationally, in the sense that they base their decisions on a cost-benefit calculus and act only when the expected gains outweigh the anticipated costs. Over the past 40 years, however, research in behavioural economics has cast great doubt on this assumption. Humans, it turns out, cannot be counted on to always maximise their prospective gains. Even when they do, they are remarkably inept at understanding how the other side – the adversary in a conflict – calculates its own costs, benefits and risks. The reference point for leaders and nations impacts risk taking. Security strategies built on deterrence may no longer assure peace as USA has found out to its consternation.

IIO and Weaponisation of Social Media

Through the weaponisation of social media, the internet is changing war and politics, just as war and politics are changing the internet.²⁸ Terrorists livestream their attacks, 'Twitter wars' produce real-world casualties, and viral disinformation alters not just the flow of battles but the very fate of nations. The result is that war, technology and politics have blurred into a new kind of battlespace that plays out on our smartphones. Today war has gone online and the online world is waging it against each other (ideals, ideas, politics, religion etc.). The occupation of northern Iraq by Islamic State of

Iraq and Syria (ISIS), during the summer of 2014, with hardly a fight is a classic example of social media winning a conflict on ground. The ISIS used the internet as a weapon to carry out a blitzkrieg. There is a lot of talk of 'cyber security and cyberwar' but the ISIS had no real cyber capabilities yet won a victory. It hadn't hacked the network but hacked the information on it. The distinction between online and offline confrontation/operations/conflict has become blurred. With each Trump tweet, US diplomats and foreign embassies alike scramble to figure out whether they should treat these online messages seriously. Meanwhile, Russia, China, Iran, North Korea and most others are playing their own IIO. Who can forget the intervention of Russia in the US Presidential elections in 2016, the probe of which is going on currently. Diplomacy has become less private and policy-oriented and more public and performative. China and Pakistan are already playing this deadly game against us.

Ground Realities Regarding Deterrence

The Cold War deterrence (mainly nuclear) has given way today, leading to a lot of cynicism about the relevance and even effectiveness of deterrence, especially on illiberal nations and terrorist organisations. MDO, especially attributes of ambiguity of cognitive domains, have given power to lesser states, organisations and even individuals to challenge established norms. Deterrence effect finds it difficult to prevent strategic competition which fall beneath the threshold of traditional military force (military dimension less than armed conflict), allowing these adversaries to make operational gains without tripping the 'go-to-war' calculus of the adversary. Russia demonstrated some of these capabilities as part of its operations into Georgia, Crimea and Ukraine. North Korea demonstrated its advanced cyber capabilities in November 2014 when they launched a cyberattack on Sony Pictures and China has built artificial islands in the SCS to advance its sovereignty claims on vital international waterways that are part of the busiest maritime trade routes in the world and closer home, the proxy war being waged by Pakistan against India.

Complex Deterrence Theory recognises that the credibility of the deterrence threat has been increasingly compromised due to the ambiguity and fluidity of the international system.²⁹ As a similar perspective to this, it is being pointed out that the growing complexity

of international nuclear order has played a part in exacerbating the uncertainty of nuclear deterrence.³⁰ Ironically, Emanuel Adler reasons that the asymmetrical power relationship between or among actors in the international political arena following the Cold War has given rise to the so-called deterrence trap.³¹ A deterrence trap refers to a situation in which a major power is unable to deter the actions of a relatively weaker actor, no matter whether the major power threatens the weaker actor with retaliation or abstains from threatening and appeases the weaker actor. For example, even if America threatens to use force in order to deter Iran from nuclear development, there is a possibility, Iran will turn America's threat against it in order to fortify its position on its nuclear development plan.³²

Cyber Deterrence

Cyber deterrence based on traditional deterrence theories is difficult and deterrence by retaliation, in particular, has been thought of as unworkable. However, recently cyber deterrent forces are being established, including ones that identify the sources of cyber-attacks and threaten to retaliate against such attacks. There is even talk that cyber-attack response could be war where nuclear weapons could be used as a means of retaliation.³³ However, it will not be a credible threat if announced by India or any nation. Some defence experts and Think Tanks feel that unless nations can deter cyber-attacks, the appeal of cyber-weapons to hostile forces will increase and the credibility of extended deterrence, including the nuclear deterrent, is likely to be undermined.³⁴ Chinese cyber intervention is a known practice and they are targeting India, and we need to protect ourselves against all adversaries and create robust and real time counter cyber warfare capabilities.

New niche technologies, and even low end and low-cost technologies, employed enmasse will further exacerbate the deterrence relationship between nations and even non state actor(s) but will also initiate a new arms race which has already commenced in the nuclear and niche technology domain of AI, robotics, space etc. Deterrence too has red lines which are sometimes stated and generally presumed by the adversary. The stronger powers possibly would like to spell out the red lines.

Conclusion

Similar to important factor of 'Surprise and Deception' in warfighting/

competition, Deterrence Operation too has generally appeared as an abstract operation for most ground soldiers even at the theatre level, but it impacts defensive or offensive action by the adversary. We have now entered the complex world of multi and cross domain competition and deterrence which needs to be synergised at the apex level with concerned agencies involved. At the military sphere, once the political directive (hopefully in the form a National Security Strategy) has been promulgated, strategic military deterrence will be planned and coordinated by the Chiefs of Staff Committee (COSC)/Chief of Defence Staff (CDS) Committee when formed and executed by the Services while operational deterrence is executed by Joint Theatre Commanders. Currently it is happening automatically and intrinsically like raising of new mountain corps for operations along Chinese border; strategic command assets and deployment; induction of nuclear submarine, aircraft carriers and modern fighter squadrons. Establishment of National Cyber Agency, creation of post of Director General Information Warfare (DGIW) and Deputy Chief of the Army Staff (Strategy) are steps in the right direction, thereby acknowledging the vital role of IIO and MDO. It needs to get institutionalised and synergised strategically and tactically, especially the non-military domains. When US intervention and multi-national activities to protect liberal rule based world order are not considered hegemonistic, India needs to think, prepare, plan and execute strategy to dominate its area of influence and interest.

To conclude, for the question 'Is the Indian deterrence effective against adversaries', some specific questions need to be probed. Do our CNP and military capabilities and capacities prevent Pakistan from waging proxy war against us? Does our immediate neighbourhood constantly keep our strategic interests in mind? Are we confident that China Pakistan collusivity will not initiate a localised conflict? Does China act on contentious issues keeping Indian interests in mind? But the flip side is that similar answers may be received by our adversaries and even USA in some domains. However, militarily speaking, no nation can afford to threaten USA, China and Russia. So the answer is 'in today's multi polar multi domain world', for an aspiring regional power and security provider in IOR, the rating has been downgraded to a no or at best 'not yet'. The main reason for this is not just our nation's CNP and current military capability and capacity to prosecute MDO and MDW, but demonstration of credible will, intent and lack

of national synergy. Deterrence should be aimed to achieve strategic and operational outcomes and may never stop tactical actions by our adversaries (even countries holding compellence capability against its adversaries may not prevent tactical actions). A collusive China-Pakistan in our immediate neighbourhood, rising trend of ultra-nationalism infecting our immediate neighbours and contested strategic space of Asia, fluid internal security situation dictate that India needs to get its act together, continue building its CNP, militarily transform into a MDO capable armed force and gets its multi domain deterrence capabilities in place for specific nations and scenarios. In a sense 'deterrence' has become a victim of its own success. India must rethink its deterrence strategy in changing geo-political and strategic environment including psychology of decision making. Even with diminishing returns, ensuring 'Deterrence by Denial' against adversaries will remain the first priority for India.

Endnotes

¹ James J. Wirtz, "Conclusions," *Complex Deterrence*, pp.322-328, pp.322-323. The outbreak of the Bosnia-Herzegovina conflict in 1992 and the Rwanda genocide of 1994 can be cited as examples of this.

² In competition, the adversary takes actions to achieve objectives below the level of armed conflict, as well as to posture forces to support the escalation of activity into armed conflict. His primary aim is to separate or isolate friendly forces politically, limiting a coordinated allied response and destabilizing target states internally to attain its objectives below the threshold for armed conflict. The adversary in competition may consider itself already engaged in national conflict and, therefore, employ all elements of its national power with few procedural limitations in a coordinated approach before own elements/forces receives authorization to respond. The adversary also positions systems to fragment own force capabilities and make a potential response costly and ineffective in the event of escalation.

Source Para 2-4(a) of Draft Multi Domain Battle: Evolution of Combined Arms for the 21st Century 2025-2040 Version 1.0 October 2017

³ The original of this pragmatism is generally conceded to Lord Palmerston (John Henry Temple) of Great Britain, but most world leaders have invoked it at one time or another to justify their policies and actions

⁴ Coined by Thomas C Schelling the Nobel Price Winner in Economics in 2005 in his book *Arms and Influence* (1966)

⁵ Patrick M. Morgan, *Deterrence: A Conceptual Analysis* (Beverly Hills: Sage Publications, 1977), pp.28, 31-43.

⁶ 'The Eroding Balance of Terror: The Decline of Deterrence' by Andrew F. Krepinevich, Jr, Foreign Affairs Journal, Jan-Feb 2019 Issue

⁷ Inputs available from a galaxy of articles, papers and online material on international relations, security and strategy.

⁸ *Relations Regions and Powers; The Structure of International Security*, Cambridge Studies International, Barry Buzan and Ole Wæver, CAMBRIDGE; www.cambridge.org/9780521814126

⁹ Harold A. Winters with Gerald E. Galloway Jr, William J. Reynolds and David W. Rhyne, *Battling the Elements: Weather and Terrain in the Conduct of War*, The Johns Hopkins University Press, Baltimore, MD, 1998, p. 4.

¹⁰ Paul Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*, Fontana, London, 1989, p. 111.

¹¹ 'Multi Domain Warfare in the Indian Context' by Lt Gen PR Kumar (Retd); 36th USI National Security Paper of 2018

¹² An important activity/word in multi domain warfare - In competition, the adversary takes multi domain actions 24X7 (political, economic, military, diplomatic, information, cyber, space etc) to achieve objectives below the level of armed conflict, as well as to posture forces to support the escalation of activity into armed conflict. His primary aim is to separate or isolate friendly forces politically, limiting a coordinated allied response and destabilising target states internally to attain its objectives below the threshold for armed conflict. The adversary in competition may consider themselves already engaged in national conflict and, therefore, employ all elements of its national power with few procedural limitations in a coordinated approach before own elements/forces receives authorization to respond. The adversary also positions systems to fragment own force capabilities and make a potential response costly and ineffective in the event of escalation. **Essence** taken from Para 2-4(a) of Draft Multi Domain Battle: Evolution of Combined Arms for the 21st Century 2025-2040 Version 1.0 October 2017

¹³ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, PLA Literature and Arts Publishing House, Beijing, 1999, pp. 221;189.

¹⁴ 'Multi Domain Warfare in the Indian Context' by Lt Gen PR Kumar, 36th USI National Strategic Paper, 2018

¹⁵ *ibid*

¹⁶ Draft 'Multi Domain Battle: Evolution of Combined Arms for the 21st Century 2025-2040 Version 1.0', October 2017

¹⁷ 2018 Global Go To Think Tank Index Report, University of Pennsylvania, Scholarly Commons

¹⁸ US Field Manual: Deterrence Operations Joint Operating Concept, Version 2.0, Dec 2006

¹⁹ “Prompt Global Strike: China and the Spear,” by Lora Saalman, APCSS, April 2014, http://apcss.org/wp-content/uploads/2014/04/APCSS_Saalman_PGS_China_Apr2014.pdf.

²⁰ ‘Modi hails ‘India’s successful establishment of Nuclear Triad’, The Dawn, 05 Nov 2018

²¹ ‘Pakistan completes nuclear triad’ by Kinza Asif, Foreign Policy News, 16 Jan 2017

²² Pakistani nuclear forces, 2018, Hans M. Kristensen, Robert S. Norris & Julia Diamond, pgs 348-358I published online: 31 Aug 2018, ‘Bulletin of the Atomic Scientists’, Volume 74, 2018

²³ “Deterrence against Non-State Actors: Thoughts following Operation Protective Edge”, by Yair Naveh, *The Institute for National Security Studies (INSS) Insight*, no. 663, February 11, 2015, <http://www.inss.org.il/index.aspx?id=4538&articleid=8720>.

²⁴ US-China Economic and Security Review Commission 2018 and US DoD Annual China Report 2018 (Military and Security Developments Involving the People’s Republic of China) both of which are largely in synch and both are Congressional Reports.

²⁵ ‘Prepare for War’ President Xi Jinping tells military region that monitors South China Sea and Taiwan, South China Morning Post, 20 Nov 2018

²⁶ Political newspaper ‘The Hill’ dated 30 Oct 2018, published in Washington by Capitol Hill Publishing

²⁷ Special report in ‘The Economist’ Dec 25/27, 2017: The Future of war; Power Projection- Stay well back

²⁸ Like War: The weaponization of Social Media by PW Singer and Emerson T. Brooking, An Eamon Dolan Book, Houghton Mifflin Harcourt, 2018

²⁹ “Beyond the Nuclear Umbrella: Re-Thinking the Theory and Practice of Nuclear Extended Deterrence in East Asia and the Pacific”, by Hayes and Tanter, Nautilus Institute for Security and Sustainability, 2011

³⁰ House of Commons Defence Committee, *Deterrence in the twenty-first century: Eleventh Report of Session 2013-14, Volume II* (London: Stationery Office, 2014), p. Ev w32, <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmdfence/1066/1066vw.pdf>.

³¹ “Unconventional Deterrence: How the Weak Deter the Strong” by Ivan Arreguin-Toft. Citing Israel’s retaliatory attack against Hezbollah in 2006 as an example, Adler argues that although Israel’s use of military force was aimed at deterring any further terrorist attacks from Hezbollah, it instead resulted in a bolstering of Hezbollah’s international standing, thus putting Israel in a deterrence trap.

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³³ “Cyberwar and the Nuclear Option,” by Elbridge Colby, *The National Interest*, June 24, 2013, <http://nationalinterest.org/commentary/cyberwar-the-nuclear-option-8638>.

³⁴ *Deterring Cyber Warfare: Bolstering Strategic Stability in Cyberspace* by Brian M. Mazanec and Bradley A. Thayer, Houndmills: Palgrave Macmillan, 2015, p.32

Bridging the Military Technology Gap in the Sino - Indian Context

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Abstract

China, our main adversary, has moved closer to superpower status and has embarked on a military expansion by embracing high end disruptive technologies. It seeks parity with the United States of America (USA). It's military technology and capability building plan is generally outlined in the recently released White Paper titled 'China's National Defence in the New Era'. Analysis indicates that the plan, though credible, has issues and will hit implementation roadblocks. On the other hand, India's military strides have lagged in scale, pace, consistency and content. There is a military technology and capability gap opening between both nations in China's favour. However, it is to be understood that India needs to possess only such ability which deters China from any misadventure. It is, therefore, very important that the military technological abilities of both nations be compared, in various military domains, to identify the gaps. These gaps must be seen in the context of the Sino Indian military geography. Further, an examination is necessary as to what are India's options to bridge these gaps. It clearly emerges that due to the current slowdown in China, India has a time window to narrow the gaps provided it gets its act right, reforms its procurement process, starts harnessing its potential in disruptive technologies and most importantly, it is able fund the process adequately.

Background

A brogation of Article 370 has reaffirmed that China is our main adversary. Reorganising Ladakh into a Union Territory (UT)

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was unacceptable¹ to China and it supported Pakistan in the United Nations Security Council (UNSC)². The Sino-Indian relationship will remain adversarial, especially when seen in the continuum of the Doklam faceoff. While India has become one of the fastest growing economies, China has moved closer to superpower status. Accordingly, China has embarked on a military expansion of unparalleled proportions. It is embracing high end technology with single-minded devotion. On the other hand, military strides of a seemingly chaotic Indian democracy have lagged in scale, pace, consistency and content. Apparently, there is a military technology gap opening between both nations. In this context, it is important to examine where each nation stands in an era where new technologies are causing a Disruption in Military Affairs. It is more important for us to make a realistic assessment of the technological gap between Chinese and Indian Armed Forces with a view to bridge these gaps.

Cornerstones of Chinese Ambitions in Defence Technology

The Chinese have high aims. They intend to build the world's dominant military force and seek parity with the USA. As per estimates, the Chinese intend to achieve parity in the early 2020s and surpass USA after 2030.³ The tangible ingredients of this ambition are outlined in the new White Paper titled 'China's National Defence in the New Era'.⁴ The military technology content in the document is highlighted in succeeding paragraphs.

Timelines. The timelines for modernisation as per the White Paper are: -

- (a) **2020.** Achieve mechanisation with significantly enhanced informationisation and greatly improved strategic capabilities.
- (b) **2035.** Modernisation of military theory, organisational structure, military personnel, and weaponry and equipment.
- (c) **2050.** Fully transform into world-class forces.

Technology Slant. The White Paper shows the technological slant in Chinese thinking, "Cutting edge technologies such as artificial intelligence (AI), quantum information, big data, cloud computing and the Internet of Things...New and high-tech military

technologies based on IT, prevailing trend to develop long-range, precision, intelligent, stealthy or unmanned weaponry and equipment. War is evolving in form towards informationised warfare, and intelligent warfare is on the horizon". Chinese defence spending has gone up by 7.5 per cent and research funding by 13.5 per cent. Additionally, Pentagon assesses that China has focused on five fields of military technology⁵:-

- (a) **AI and Advanced Robotics.** China intends to deploy autonomous and semi-autonomous, manned and unmanned systems embedded with AI on the battlefield. It is also looking at employing the predictive capability of AI in battle.
- (b) **Semi-Conductors and Advanced Computing.** This dual use technology was intended for the 'Made in China 2025' plan. Mastery of chip making technology frees China from import dependence which is critical to all fields of military computing.
- (c) **Quantum Technology.** China has invested heavily in Quantum computing to process data at significantly higher speeds than at present. It will help China in AI, building global communication networks, improve computing and decryption facilities, assist in stealth detection and make underwater navigation accurate.
- (d) **Hypersonic Weapons.** China is actively seeking hypersonic technologies which make missile/ anti-missile systems travel at 6-7 mach.
- (e) **Advanced Materials and Energy.** China is investing a lot in developing a range of robust, light, flexible, stealth based and heat resistant materials for various military uses.

Domain Specialisation. The White Paper also lays down the domain domination it seeks. These domains are **Nuclear Capability** to "enhance strategic deterrence capability to protect national strategic security and maintain international strategic stability". **Outer Space** "is a critical domain which provides strategic assurance...develops relevant technologies and capabilities, advances holistic management of space-based information resources, strengthens space situation awareness and, safeguards

space assets". **Cyberspace** "is a key area for national security. Develop cyber security and defence means and build cyber defence capabilities consistent with China's international standing".

Command and Control and Reorganisation. Consistent with its global agenda, China has revamped its command and control systems. Its armed forces have adopted the joint theatre concept. They are reorganising their armed forces to cut down flab. In addition, they are reorienting from being a predominantly land based force to a force which is more oriented to the sea, air and space.

Global Competition / Adversaries. In the Chinese view the countries which matter militarily and find mention in the White Paper, ecomaps "The US...is engaging in technological and institutional innovation in pursuit of absolute military superiority. Russia...is advancing its New Look military reform. Meanwhile, the UK, France, Germany, Japan and India are rebalancing and optimising the structure of their military forces".

Analysis

China is putting together a modern military machine, driven by disruptive technologies, which will be a formidable challenge to all powers and specially to India. The Chinese aim is to seek parity with the USA. However, as a result, the gap between India and China will widen. That is a matter of concern for Indian planners. However, China tends to overstate its capabilities. Many of these technologies are in a nascent stage and bear a reality check.

Rand Study. Rand Corporation brought out a report titled 'The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power'.^{6,7} It examined the United States (US) and Chinese military capabilities in ten operational areas involving two scenarios - conflict near the Chinese coastline (Taiwan scenario) and away from the coastline (Spratly Island scenario). As of 2017, Chinese ability in its periphery was formidable. However, its ability to project power to more distant locations remains weak. This will change as time passes.

Overview of Chinese Capability. A South China Morning Post report indicates that while the Chinese People's Liberation Army (PLA) is up in hardware technologies, its main problem is in software, which involves human expertise.⁸ It amplifies that PLA

military equipment - aircraft carriers, strategic nuclear submarines, and strategic bombers - are at least two generations behind the US equipment. This is compounded by lack of combat experience with modern systems. As per this report, PLA is ahead of other countries in areas such as hypersonic weapons, electromagnetic rail guns, laser weapons and short and medium-range ballistic missiles. Lastly, PLA knows that it must keep pace with cutting-edge military technology like AI, quantum information, big data, cloud computing and the internet of things (IOT). These facts are corroborated by other reports which have surfaced.^{9,10}

Dynamics of Transformation. China is downsizing its Army and is boosting its Navy, Missile Force and Strategic Support Force. Rebalancing, transformative changes like operating a blue water Navy with Aircraft Carriers and Submarines, building out of area capabilities, combat deployments at international scale are complex and time consuming. Equipping forces with new weaponry, logistics, infrastructure, training, deployment, rotation and gaining combat experience is complicated for China which has not experienced serious fighting since the Vietnam conflict.¹¹

Contextual Reality. The military build-up and the technology drive of China must be seen in contextual reality. After the ban on Huawei by USA, China cannot carry out Intellectual Property Right (IPR) theft of high-end technologies with impunity anymore.¹² Advances in military technology will suffer since its military personnel / scientists can no more study in USA and the West easily.¹³ The trade war with USA is debilitating China. Its economy has perceptibly slowed. The Belt and Road Initiative (BRI) is not going well. China might not be able to achieve all its goals set out in the White Paper. A window is opening which gives India some consolidation space. A relook at China's capability without hype is warranted.

The Diffusion of Indian Defence Technology

The Indian goals and achievements in defence technology appear diffused when compared to China. In the absence of a definitive plan, our strides in defence technology appear to be inorganic. However, a word of caution here. We tend to be critical about our own achievements as much as we hype Chinese achievements. Understand that China has global ambitions, whereas ours are regional and peripheral to our borders. We need defence

technologies to deter China from crossing red lines and give it a politico military defeat if it does so. In that context, it is very relevant to examine the areas where conflict can occur and carry out a relative military technology domain analysis.

Military Geography. Sino-Indian military conflicts are most likely to take place either in the high altitudes of Himalayas or in the open oceans of Indian Ocean Region (IOR). Both these theatres are away from mainland China. The significance of the Rand Corporation report¹⁴ that the Chinese military prowess starts diminishing as it moves away from its core areas has its relevance. The Chinese threat to India needs a reality check.¹⁵ An overstretched China¹⁶ might not be able to deploy its full might without opening an unaffordable vulnerability window in the mainland defences. Also, many disruptive technologies might not work in the high-altitude environment till they mature. China has also to contend with the geography of IOR and the military significance of the Andaman and Nicobar Islands. Overall, the Sino-Indian military geography is a technology spoiler.

Domain Analysis. A realistic idea about the military technology gap between India and China emerges when a relative analysis is carried out in various domains. This is as under:-

(a) **Space, Nuclear and Missile Technologies.** In the strategic domains of space, nuclear and missile technologies, both countries have full spectrum indigenous know how. The only difference is of scale, pace and volume. Their capabilities are consistent with their intent and ambitions. China has exploited space for military purposes better. India needs to catch up on military exploitation of space.

(b) **Conventional Arms Technologies.** In conventional arms technologies, China has a clear edge. We lag due to our inability in design and development or defence procurement due to myriad procedures, lack of knowledge and lack of funds. The following merit attention:-

(i) **Aerial Systems.** The Chinese edge is most apparent in aerial systems - manned and unmanned. Where China has started deploying stealth technology and near space unmanned systems, India is still unable to design and develop its own

technologies or even procure them from abroad.

(ii) **Sea Based Systems.** China has increased its naval prowess considerably. It has an ambitious and proven indigenous naval expansion programme. On the other hand, India has the requisite technologies to build ships but lags in outfitting them.

(iii) **Land Based Weapons.** In weapon technologies which can be deployed in the Himalayan battle fields, both countries are at par. The difference is in variety, scale and numbers. As far as support technologies relating to communication, surveillance, electronic warfare and cyber systems are concerned, China has a clear edge.

(c) **Disruptive Technologies.** China started investing in new generation technologies about a decade back. The edge is in starting early, and they have their act together. However, it has a problem of lack of ability. The USA will not allow intellectual theft anymore. Russia might not sell it to them. On the other hand, India is just about recognising the multiplicative ability of disruptive technologies. It must get its act together since it has the human ability to develop high-end technologies. India must start seriously thinking about quantum technology, advanced materials and energy, advanced computing, semi-conductor technology and hypersonic systems through outcome related projects.

(d) **Combat Reorganisation.** The Chinese are carrying out combat reorganisation as well as transforming into theatre-based joint operations. India lags far behind in this regard. The appointment of Chief of Defence Staff (CDS) has just been announced. Jointness is some distance away. China has a clear edge in its ability to synergise its forces with the available technologies. India needs to catch up.

Bridging the Gap

Holistically viewed, there is a military technology gap which is widening in the Sino- Indian context. At present, India can get

away with it due to the military geography factor. However, that will be an unaffordable luxury as time passes. India needs to seriously think as to how it can close this gap. Some options are discussed in succeeding paragraphs.

Hybridisation. “Taiwan independence”, “Tibet independence”, “Hong Kong” and “East Turkistan” pose threats to China’s national security and social stability. This is ideal terrain for hybridised asymmetric war. International experience suggests that technological edges are nullified by asymmetric hybrid options. A Sino-Indian conflict offers plenty of scope for hybridisation. It is up to the government and the military establishment to exercise the option through political will. General Padmanabhan has prophetically outlined this option in his book “Next China India War: World’s First Water War 2029”.

Exploit Technology Blind Spots. Cutting edge military technologies have blind spots which can be exploited. We were able to mask our nuclear tests in Pokhran from US satellites by exploiting a blind spot. Rather than creating new abilities in military technologies and trying to close gaps, it will be cost effective if we invest in countering the blind spots in Chinese military assets.

Alliance Strategy. A major method of bridging the technology gap is to form alliances. The Indo US Strategic relationship, the nebulous Quadrilateral Security Dialogue (QUAD), improved relationship with Japan are all manifestation of alliance strategies to nullify the edge which China enjoys. Alliances provide a ready-made hedge. This option is already being exercised.

Develop Own Conventional Technology. In the ultimate analysis we need to own conventional weapons technology either through import, which is a very costly option or develop them indigenously. India has had successful models of indigenisation in Navy and Artillery.¹⁷ These need to be replicated. We need to carry out surgical strikes on our Defence Procurement Machinery as outlined in the box given at the end.¹⁸

Development of Disruptive Technologies. Big powers are focusing on disruptive technologies to win battles at least cost. It’s an area where India has adequate talent. If our premier technical institutions are given the right opportunity, we could witness dramatic results. There should be a massive outreach consisting

of a series of seminars, demonstrations, competitions, focused workshops and promoting start-ups. Specialized defence research cells/centres should be established in Indian Institutes of Technology (IITs) / technical institutes of repute.¹⁹ Incubation processes should be put in place. We must harness these technologies for military purposes with zeal. We have no choice.

Funding. To put into effect any of the available options, there is a need for adequate funding. Defence budgets need to be hiked. To put it simply, a five trillion-dollar economy will need more security/protection than now. That will need greater degree of funding.

Conclusion

The Sino-Indian adversarial relationship will continue with their rise. Autocratic China, with global ambitions, is expanding its military aggressively by investing heavily in high end defence technologies to achieve its superpower status. This has widened the military technology gap in China's favour. However, the Chinese are slowing down due to many factors. It gives India time to set its systems and close the gap to the extent that it can deter China from any misadventure. India has multiple options to manage and nullify the Chinese edge. In a world of realpolitik, it should employ all options proportionately. Having said this, Indian strategists need to get their act together to achieve self-sufficiency in conventional weapon technologies and harness the potential of disruptive technologies. It demands a wise and knowledgeable leadership. Most importantly, it needs government commitment to adequately fund the plan.

SURGICAL STRIKES ON THE DEFENCE
PROCUREMENT MACHINERY

The First Strike

Overhaul the overweight MOD so that the politician who faces the hustings and the servicemen who face the bullets drive the system and not let unaccountable bureaucrats brake it. The tail cannot wag the dog.

The Second Strike

Get naval and artillery experts to replicate their successful models. Eject tried, tested and failed, self-proclaimed experts who dominate the Delhi Talk Circuit.

The Third Strike

Reform DPSUs and DRDO and make them perform. We have invested in building their capacities for seven decades. Management must perform or be changed ruthlessly.

The Fourth Strike

Ditch hype. Get down to serious knowledge-based indigenisation which is inclusive in nature to public and private players.

The Fifth Strike

Create empowered commissions to get some critical equipment off the Intensive Care Unit (ICU) list.

The Sixth Strike

Look ahead. Disruption in military affairs is happening. Disruptive technologies are making the brick and mortar defence industry redundant.

The Seventh Strike

The defence budget must specially fund outcome-based time critical projects (beyond normal allocation).

The Eighth Strike

Develop a knowledge path for defence technology and management from grass root levels upwards. Our knowledge base must be deeper.

Endnotes

- ¹ <https://swarajyamag.com/news-brief/live-different-countries-and-organisations-respond-to-article-370-abrogation>
- ² <https://economictimes.indiatimes.com/news/politics-and-nation/china-raked-up-status-of-aksai-chin-at-unsc-informal-session/articleshow/70747053.cms>
- ³ <https://www.msn.com/en-in/news/world/chinas-military-technology-now-close-to-parity-with-us-report-warns/ar-AACxbRQ>
- ⁴ www.andrewerickson.com/2019/07/full-text-of-defense-white-paper-chinas-national-defense-in-the-new-era-english-chinese-versions/
- ⁵ <https://www.scmp.com/news/china/military/article/3009586/chinas-goal-quantum-leap-defence-technology-makes-waves> and <https://www.businessinsider.in/Chinas-goal-of-a-quantum-leap-in-defence-technology-makes-waves-at-the-Pentagon/articleshow/69301404.cms>
- ⁶ https://www.rand.org/pubs/research_reports/RR392.html
- ⁷ <https://www.rand.org/paf/projects/us-china-scorecard.html>
- ⁸ <https://sg.news.yahoo.com/china-still-long-way-off-140111089.html>
- ⁹ <https://thediplomat.com/2019/04/chinas-rise-and-modern-military-technology-part-i/>
- ¹⁰ <https://thediplomat.com/2019/04/chinas-rise-and-modern-military-technology-part-ii/>
- ¹¹ https://palepurshankar.blogspot.com/2019/02/an-unstable-china-indian-window-of_11.html
- ¹² <https://www.cnet.com/news/huawei-ban-full-timeline-on-how-why-its-phones-are-under-fire/>
- ¹³ <https://www.washingtontimes.com/news/2018/oct/30/chinese-military-place-scientists-us-universities/> and <https://www.dailypioneer.com/2019/world/bill-introduced-to-ban-chinese-military-scientists-from-us-labs.html>
- ¹⁴ The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power
- ¹⁵ <https://bharatshakti.in/chinese-treat-a-reality-check/>
- ¹⁶ <https://bharatshakti.in/china-an-overstretched-hegemon/>
- ¹⁷ <https://palepurshankar.blogspot.com/2019/02/defence-in-distress-by-lt-gen-p-r.html>
- ¹⁸ <https://palepurshankar.blogspot.com/2019/04/india-needs-to-modernise-its-military.html>
- ¹⁹ <https://bharatshakti.in/disruption-in-military-affairs-dma-a-technology-centric-approach/>

India and the Russian Far East

Dr Sanjaya Baru®

Abstract

Prime Minister Narendra Modi was the Chief Guest at the fifth meeting of the Eastern Economic Forum (EEF) held at Vladivostok, Russia in early September 2019. The Prime Minister's participation in this meeting underscored India's growing interest in building closer economic ties with the Russian Far East. India and Russia have long shared geopolitical perspectives on the balance of power across Eurasia. In the post-Cold War era, both turned their attention to the West. However, over the past decade India has pursued a "Look East Policy", seeking to regain its political and economic influence in South-East Asia and building new strategic partnerships with East Asian powers like Japan and South Korea. Russia's 'pivot to the East' and India's move from 'Look East' to 'Act East' have created a new framework for closer India-Russia geo-economic and geopolitical relations.

India views Russia's new Far East policy as both a geopolitical and geo-economic opportunity. To be able to realise the full potential of the opportunity, Russia will have to simplify its visa and residency procedures and policies and ensure a simple and transparent foreign investment policy. On their part, Indian business should look beyond oil and gas and explore new opportunities in farming, mineral exploration, manufacturing and shipping. The Russian Far East can also become a manufacturing base for Indian exporters seeking to tap the markets of North-East Asia.

This paper was originally written for the Annual Meeting of Valdai Club, Russia scheduled on 30 September 2019 at Sochi, Russia.

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Introduction

Until the late 1980s, the erstwhile Soviet Union was among India's largest trade partners, along with the European Union (EU). The implosion of the Union of Soviet Socialist Republics (USSR) disrupted this important economic relationship with Russia's share in India's external trade collapsing from 16 per cent in 1988 to 2 per cent in 1992. Even as India and Russia were grappling with issues like the transition from Rupee-Rouble trade to Dollar-denominated trade and ensuring continued access to strategic imports, including nuclear and defence related materials, the idea of looking for new ways to sustain the bilateral relationship did figure in policy conversations in New Delhi. I recall a conversation with late K Subrahmanyam, long-time director of the Indian Institute of Defence Studies and Analysis (IDSA), in the mid-1990s when he spoke of the need for India to tap the resource potential of the Russian Far East.¹ Subrahmanyam was far-sighted. He compared the Russian Far East to parts of Canada where farmers from the Punjab state in India have long settled and become highly productive farmers.² Despite such an early recognition of the economic importance of the Russian Far East for India, neither government went beyond the energy sector to tap this potential. India's investments in oil and gas fields remain the only major economic link to date.

The Russia-India bilateral strategic partnership agreement signed in 2000 became the basis for long-term cooperation in the energy field between the two countries. In 2001, the international arm of the Indian Oil and Natural Gas Commission (ONGC), Oil Videsh Limited invested in the Sakhalin-I oil field, taking a share of 20 per cent, making it the biggest Indian investment abroad in the oil sector. In 2004, Russia and India agreed to undertake joint exploration of gas in the Caspian Sea. Since then, India has shown increasing interest in investing in Far East oil and gas fields, including offshore fields. This activity in the energy sector has, however, not been matched by any progress on the farming and industrial fronts until recently.

The lack of adequate engagement with the Russian Far East was only an aspect of a more generalised disengagement between India and Russia during the 1990s. The main reason for this was the fact that both countries were busy looking to improve their relations with the West. While Russia remained focused on relations

with Europe, India was busy building a new partnership with the United States (US). This reduced bilateral engagement underpinned the lack of any active engagement in the Russian Far East. Even India's "Look East Policy", enunciated in the early 1990s with an aim to renew ties with the countries of South-East Asia, was extended at best to closer economic engagement with Japan and South Korea but did not go beyond that till recently.

While there has been limited Indian interest in the Russian Far East, the fact is that such an engagement is a natural corollary of the structure of the two economies. Russia is a resource-surplus economy while India is a resource-deficit economy. This difference has become the basis of a new partnership based on shared geo-economic interests. As a labour-surplus and energy deficient economy, India can benefit from access to land (farming and food) and energy resources in the Russian Far East. As a labour-deficit economy, Russia can benefit from Indian in-migration, which does not pose any long-term strategic challenge in the manner that an influx from neighbouring regions could. India is also a growing market for Russian exports.

The government of India has indicated Indian business interest in sectors such as diamond-processing, petroleum and natural gas, mining coal and other minerals, agro-processing and tourism, each of which have been identified as priority areas for development in the Russian Far East. The new thinking shaping Russia-India relations is a response both, to their mutual economic needs especially in the context of Western economic sanctions on Russia and to the emergence of China as a geo-economic and geopolitical challenge in the Far East. To take full advantage of this opportunity, India must improve its connectivity to the region. India's growing engagement of East Asia and the emergence of the Indo-Pacific Region (IPR) as a link between India and the eastern rim of the Pacific offer new opportunities for Russia-India partnership.

Developments Post 2012

Interestingly, both India and Russia stepped up their engagement with South-East Asia in the 1990s, becoming dialogue partners of the Association of South-East Asian Nations (ASEAN), member of the ASEAN Regional Forum and subsequently members of the East Asian Summit. Most analysts mark Russia's chairmanship of the Asia-Pacific Economic Cooperation (APEC) in 2012 as marking

the point of departure of a new and higher level of engagement with East Asia. Several factors have driven this process – Russia's disappointment with its attempt to move closer to Europe; Russia's concern with China's emergence as a dominant geo-economic and geopolitical power in Asia; and above all, the emergence of Asia, especially East and South-East Asia, as the new engine of global growth.

Following the 2008-09 Trans-Atlantic financial crisis, both the US and the EU had an economic setback while China emerged a stronger economy. This crisis only accelerated an underlying trend of the shift of the centre of gravity of the world economy from the West to the East. Taken together, all these factors encouraged Russia to pay greater attention to its own Far East. The hosting of APEC in 2012 at Vladivostok only signalled this shift. In the same year President Putin told the St Petersburg Economic Forum, "We are ready to give investors more than just a new quality of financial, transport and energy infrastructure. A new Eurasian market offering a new configuration and immense potential opportunities is in the process of formation. Russia is developing integration projects in the Eurasian region at a rate and scale not yet seen before". The outreach to Eurasia was part of the same "Look East" policy.

India was not, as yet, focussed on the new Russian pivot to the East. However, by 2017 India too linked itself to this process. At the St Petersburg Economic Forum 2017 India was a special guest. Addressing the Forum, Prime Minister Narendra Modi emphasised that India-Russia relations were based on trust and, would gain in strength in an ever-changing world. In September 2017, the then Indian foreign minister Sushma Swaraj led a high-level business delegation to the meeting of the EEF in Vladivostok and committed India to closer economic cooperation with the Russian Far East.

The Geo-economics of Indian Policy

As already mentioned, Indian interest in the Russian Far East has been focussed mainly on its need to tap into the region's natural resources, including arable land. A recent Indian study identifies oil and natural gas, iron ore, copper, diamonds and gold, fresh water, timber and fish stocks as the resources of the region that would find an Indian market.³ One should also add arable land to this list. The key to India being able to tap these resources lies in

better connectivity. India has been emphasising the need for investment in shipping and ports and the development of a Blue Economy in the Indian Ocean and Indo-Pacific region. India's growing economic ties with Japan, South Korea, Taiwan and China have together made North-East Asia an important geo-economic region for India's own development. The Russian Far East is but a step beyond and offers significant economic benefits for India.

Hence, a necessary pre-condition for increased trade and investment relations between India and the Russian Far East would be the development of necessary infrastructure aimed at improved connectivity between the two regions. To encourage investment in connectivity and the related infrastructure of agricultural and industrial development in the Russian Far East, and to secure the interest of Indian investors in the region, India and Russia should put in place a free trade agreement, easier visa norms and improved travel facilities. Connectivity is key to development in the modern world. China's Belt and Road Initiative (BRI) underscores the importance of investment in connectivity for overall economic development. India and Russia too would need to invest in improved and more efficient connectivity between the two countries. While land connectivity is impaired by several geopolitical and security constraints, developing sea connectivity is possible. Hence the importance of maritime development and the growth of the Blue Economy.

It is in this context that the Chennai-Vladivostok sea route development has been proposed.⁴ This link would facilitate cargo transfers between the two eastern ports of the two countries in 24 days compared to 40 days that it now takes for ships that sail via Europe. The Chennai-Vladivostok shipping route would become the backbone of the Indo-Pacific maritime link between India and the Far East as a whole. However, the economics of this route will depend on the overall level of economic engagement between India and North-East Asia in general, and the Russian Far East in particular. Any viable maritime activity will require two-way trade so that ships are laden with goods on both journeys, to and fro.

Geopolitical Factors in Play

While long-term economic interests form the foundation for a meaningful bilateral relationship between India and the Russian Far East, the fact is that more immediate geopolitical and security

factors are also shaping economic decision-making in this case. China's emergence as a major economic power in Asia, as a source of investment, a market for exports and, above all, the source of mass labour migration have altered both, the geo-economics and the geopolitics of the Russian Far East. While China will remain an important economic and political player and security provider in the region, a fact reinforced by its BRI, Russia should de-risk its excessive dependence on China. Reaching out to other economic players in the East, including Japan, Korea and India, would make immense sense from a Russian viewpoint. India offers both, a market for Russian exports and a destination for Russian investment. However, going beyond pure economics, the Russia-India relationship has been built on longstanding-shared geopolitical interests and a security relationship based on mutual trust.

In the light of China's recently acquired dominance in the region, it should be obvious that geopolitical factors will balance out any economic imbalance that may exist on account of the low level of such engagement. In other words, even if Russia and China do more business with each other than Russia and India, the latter may in fact have a stake in cross subsidising their economic engagement for geopolitical reasons. To give just one example, even if the Chennai-Vladivostok shipping line does not make economic sense at this stage, given the low level of bilateral trade, it could still secure governmental support in both countries on account of shared geopolitical and security interests.

Prospects for the Future

The rapid manner in which the economic engagement between India and the Russian Far East has progressed in the past two years suggests that both governments are viewing the renewal of India-Russia relations, especially in the context of the development of the Russian Far East and Russia's "Look East" policy, seriously. This augurs well. However, to maintain the momentum of this engagement, both governments must ensure that their respective private sector firms participate actively in the new economic opportunities, going beyond oil and gas into manufacturing and agriculture. Indian out-migration, especially of farmers, and investment in energy and industrial projects on a sustained basis is essential at least to partly balance China's over-whelming presence in the region.

Prime Minister Modi's participation in the 2019 meeting of the EEF has been helpful in laying foundation for a deeper and stronger economic cooperation to India-Russia strategic relations, especially in the Far East.

Endnotes

¹ Author's conversations with K Subrahmanyam, 1993-94.

² See for example, "Punjabi farmers in Canada contribute immensely", *Hindustan Times*, 19 March 2016. Accessed at <https://www.hindustantimes.com/punjab/kisan-mela-punjabi-farmers-in-canada-contribute-immensely/story-qoV4wqT8oqmZYL7ucbmQgJ.html>

³ See Chandra Rekha (2017).

⁴ *Silk Road Briefing*

References

Apurva Sanghi, et al, A Rebalancing China and Resurging India: How will the pendulum swing for Russia? The World Bank Group, Russia, 2017.

Bobo Lo & Fiona Hill, Putin's Pivot: Why Russia is Looking East, Brookings Institution, Washington DC, July 2013. Accessed at: <https://www.brookings.edu/opinions/putins-pivot-why-russia-is-looking-east/>

Chandra Rekha, Relevance of Russian Far East in India's Geo-economic Interests, Centre for Air Power Studies, December 2017, New Delhi. Accessed at: http://capsindia.org/files/documents/CAPS_ExpertView_CR_04.pdf

Dipanjana Roy Chaudhury, 'In balancing act, Russia opens far eastern region to India', *The Economic Times*, India, 12 July 2018. Accessed at: <https://economictimes.indiatimes.com/news/defence/in-balancing-act-russia-opens-far-eastern-region-to-india/articleshow/60283658.cms>

Silk Road Briefing, Chennai to Vladivostok, 14 September 2017. Accessed at: <https://www.silkroadbriefing.com/news/2017/09/14/chennai-vladivostok-india-russia-maritime-overland-routes-develop/>

'India wants to extend its ties with Russia's Far East: Swaraj', *The Hindu Business Line*, India, 7 September 2017. Accessed at: <https://www.thehindubusinessline.com/economy/india-wants-to-extend-its-ties-with-russias-far-east-swaraj/article9847330.ece>

Rajeev Sharma, 'India and Russia are getting together to counter-balance China – This time in Russian Far East'. *CNN News18*, 11 September 2017. Accessed at: <https://www.news18.com/news/india/opinion-india-and-russia-are-getting-together-to-counterbalance-china-this-time-in-russian-far-east-1514833.html>

Competition for Supremacy Between US and China : An Analysis

Shri JK Dadoo, IAS (Retd)*

Abstract

Jeremy Friedman, in a Harvard Business School case study, analyses as to who will be the world hegemon in future, as China becomes the largest economy in the world by 2030 according to various experts. German Foreign Minister expects China to “put its stamp on the world”. Prof. Rawi Abdelal of Harvard Business School, studying the above case questions Chinese capabilities to become the world hegemon in view of its autocratic leadership. However, if several data points are examined globally, increasingly China is seen to flex its muscles worldwide. It boasts of being the largest factory of the world and gives enormous indications of dominating this universe with economics, technology and demographics.

Introduction

In 2007, China became the largest exporter in the world. Four years later, it turned out to be the largest manufacturer on the globe. This rapid incline will only stop when China beats United States (US) in GDP, which is considered the holiest of hegemon indicators. Experts believe that this is likely to happen in 2030, by which time China would have gained world ascendancy.

The crucial question is what are the indicators to decide who is the world's hegemon? While GDP serves as a benchmark, a penetrating analysis will need to look at several indicators to grade world's number one. With every passing year, China is adding titles in various indicators and, therefore, inching closer to the target of ruling the world in the near future. This is further elucidated in succeeding paragraphs.

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A Look at Various Indicators

Mobile phones are ubiquitous. China today is 11 times bigger than US in terms of share of mobile payments, due to its very large population compared to US. It has invested \$ 180 billion to deploy 5G network in the next five years. No other country can match this size.

New conglomerates are emerging in China every year, at a pace faster than anywhere else in the world. Experts, therefore, deduce that the day is not very far when China's economic might will become its stupendous strength to run the world.

In artificial intelligence, experts are of the view that China will be the forerunner by 2030. Already, in facial recognition technology, it is world's number one. It claims to have the largest number of smart cities and automotive cars. The title of big brother worldwide, it is felt, is no longer elusive for China.

By 2030, world's population is likely to rise from the present 6.5 billion to nearly 8.5 billion. Severe constraints on global food supply are likely to arise. The famous Science magazine predicts food riots in future. Here too, China is expected to become the world's largest supplier of food, enabling it to dictate terms and prices. It boasts of lifting 800 million people above the poverty line, with adequate food supply to feed its population. A day is not far when it will feed the whole world.

To demonstrate its trade might, China held an International Trade Fair in November 2018. The idea was to challenge all countries of the world to come and display their products and bridge their trade deficits. Each of these offerings had to compete with Chinese products. Sitting on \$ 3.16 trillion of foreign exchange reserves, China could afford to do this. No other country is even close enough to challenge the foreign exchange potency of this country. The response to the fair was lukewarm as penetrating the Chinese market was not easy.

Yet, China is likely to become the largest global buyer by 2022, demanding goods and services worth \$ 10 trillion annually. The only country with which China has a trade deficit today is South Korea. Imagine, countries wanting to sell to China to tap its enormous market, and not able to do so, competing on prices and quality. India has a trade deficit of \$ 58 billion with China. As the

only other developing country which can ever come closer to China, it is not in a position to bridge this trade gap. Trade experts believe that if Regional Comprehensive Economic Partnership (RCEP) fructifies, the trade deficit with India may touch \$ 100 billion as lower tariffs would have to be offered to China, and this would give legitimacy to the large magnitude of dumping operating today.

One indicator of trade supremacy is the number of containers which a country possesses to execute foreign trade. China leads from the front with 234 million containers which is four times the size of US's strength. As a result, one third of global container traffic is in China, 20 times bigger than India. It is clear that the future hegemon will control the tentacles of sea trade worldwide by the sheer size of its receptacles.

Skyscrapers indicate skyline of the country. 89 skyscrapers were completed in 2018 in 34 cities, surpassing the total number of skyscrapers in New York. Out of these, only 14 were in USA with nine in New York alone. 60 of the 89 skyscrapers were in 10 cities of China which is a clear evidence of how fast the Chinese cities are growing. And if you look at the spread, remaining 29 skyscrapers were in 24 other cities of the world. Undoubtedly, China is growing in all directions.

In drone delivery, China has already acquired second position in the universe, integrating it with the distribution channels of trade. China today delivers goods to thousands of villages using drones in far flung areas. Chinese experts believe that the target is to service the entire population of China by drones to ensure quicker and faster delivery of goods and enable better and higher standards of living. Online rural retail touches the lives of 600 million Chinese daily, with a total business size of \$ 180 billion. This is seven times the size of India rural retail. China's growth story, therefore, is trade based largely.

Five top US companies, known by the title of FAANG (Facebook, Amazon, Apple, Netflix and Google), are competing with the largest four firms of China, popularly known as BATS (Baidu, Alibaba, Tencent and SNP). One yardstick of world hegemon is who overtakes the other. A stray example of this is that Amazon pumped in \$ 5 billion investment in India. Promptly, China matched it by an \$ 8 billion investment through Alibaba.

Global market supremacy is, therefore, becoming another engine of hegemony. Another example is traditional bicycles including e-bikes. China caters to 30 million bikes domestically, but in an effort to capture the world market, it exports 80 million bikes to all corners of planet earth. These examples will multiply every year and become a yardstick to decide who rules the world.

In terms of rare earth production, which is vital for manufacturing sensitive products, China controls 85 per cent of the world supply. US is trying hard to drop its dependence on Chinese imports, but China is merrily buying mines of important metals wherever it can lay its hands. Whether it is graphite or vanadium or cobalt, required for leadership in battery production globally, China has a clear lead. Undoubtedly, it has become the largest manufacturer of lithium ion batteries which will fuel all electronic vehicles and several electronic products in the future.

In ocean wealth tapping, China is scouting for fist sized mineral nodules in Clarion Clipperton Zone, reports the Economist. This area is the richest source of ocean wealth with huge reserves of nickel, cobalt and manganese, five km below the Pacific Ocean. Other countries are still searching for the elusive gold, diamonds, iron and copper, little realising that these are no longer the metals of the future.

US opened its gates for 75 million tourists last year. China has already attracted 61 million tourists despite being a very late starter. Its tourism revenue touched \$ 640 billion and as it gains ascendancy in several world parameters, it will become a beehive for tourists.

The traditional GDP yardstick is also being breached by China, as it is estimated that by 2030 China will contribute 35 per cent to the world's GDP. It has 100 cities with one million or more population today and three out of eight cities in the world exceeding 10 million population. By 2025, China is expected to have 221 cities grossing population beyond one million. At that time, this would be about half the number of cities globally with one million plus population – 500 cities to be precise. Just seven Chinese cities namely, Shangou, Suzhan, Hangzhou, Wuxi, Nantong, Changzhou and Nanking account for GDP of \$ 2.6 trillion, which is equal to India's GDP with 5000 towns.

Looking at the top seven airlines on earth with revenues in excess of \$ 15 billion, Visual Capitalist reports that US is one ahead of China. Air space will be breached by China through cheap fares, and air travel predominance will also pass on to Chinese carriers, in the next few decades.

World's financial currency USD is anathema to China. Accordingly, it is reducing dollar's international supremacy wherever it can. One example is that China is arm twisting Saudi Arabia to quote its oil prices in yuan. This, Prof. Friedman, in the Harvard Business School case, concludes, it will be a crucial blow to the US and its dollar heritage. China is doing yuan based deals with several countries. All future oil contracts are being attempted in yuan. President Xi and President Putin are romancing to put dollar to shame. Examples of this abound including, Alibaba developing Russia's e-commerce market; Siberian natural gas pipeline assuring large supplies to China; and continuation of Liquefied Natural Gas (LNG) supplies to China from Russia, all happening in bilateral currencies and not the dollar.

China is also not happy with US control of the World Bank and the International Monetary Fund (IMF). It has begun the Asian Infrastructure Investment Bank (AIIB), drawn on the support of 57 member countries and created a capital base of USD 100 billion. This bank is funding infrastructure projects in Asia including the massive Belt and Road initiative of China, which will open transport links within Asia and Africa. China has committed \$ 300 billion to this project which has a projected trajectory of \$ one trillion. If China succeeds, it would have gained clear ascendancy in these two continents.

Economist reports that China wants to become a leading scientific power. In the first 16 years of this century, China's R&D expenditure has jumped 10 times resulting in several firsts for the country. Today China has the world's largest radio telescope and the world's largest particle accelerator. It has the world's second most powerful super computer. It is one of the few countries to have underground neutrino and dark matter detectors. It has created a new anti-malarial drug and started the world's largest genome sequencing centre. It is the first country in the world to send a quantum encrypted message via a satellite. It has become the biggest nuclear power producer, adding 15 nuclear reactors to

its strength of 43, and not stopping before putting 43 more as work in progress. China did 38 orbital launches in 2018 surpassing 34 of US, thereby creating a real threat in the space of Space. The Commercial Aircraft Corporation of China is making C-919 commercial aircraft to replace Boeing 737 in China. If they succeed effectively and efficiently, they would have hit the monopoly of Airbus and Boeing for decades to come. The writing on the wall is clear – science is an important part of the hegemon planning process. China showed that it wants “half the moon”, when it landed its spacecraft in January 2019 on moon’s earth facing side. How and how far this scientific conflict will grow, between the two giants, remains to be seen.

Trade war began between US and China with additional tariff of 25 per cent on \$ 50 billion worth of goods imported by each other. It has further escalated with additional tariffs imposed by US of 15 per cent on \$ 200 billion worth of Chinese imports. Retaliating as best as it could, China has increased tariffs on \$ 60 billion worth of US goods, including natural gas. As against additional tariffs of \$ 250 billion of Chinese imports, the retaliation is on \$ 110 billion of US imports. The crucial equation here is that \$ 525 billion of Chinese imports support 25 million jobs in China, causing huge implications. Comparatively, any effect of Chinese imports is only on one million US jobs. This trade war is a war between two giants because trade between China and US is \$ 2 billion daily. Chinese exports are now dearer by 25 per cent on a total value of \$ 560 billion. Even if China puts additional tariffs on 100 per cent of US imports, it will be able to touch only \$ 180 billion. This trade war is also an important indicator of the power of the hegemon today. China calls it “naked economic terror”. Economist reports that “economic iron curtain” is dividing China and US very badly and this war may escalate dangerously. IMF warns that global economic production may reduce by 0.5 per cent in 2020 due to this trade war. China is already facing a domestic deceleration. How the trade war fans out in the future is anybody’s guess, but it has sent a shiver down the spine of all financial markets in the world.

US considers China to be the most comprehensive threat because the ‘Made in China 2025 Plan’ encompasses building world class firms in 10 high technology fields. US feels that crucial technologies, like chip making and 5G, have equal implications for trade and national security. US accuses China of hacking and

stealing secrets in several sectors like aviation, space, pharma, oil and gas, maritime and other technologies. It is clear that the world hegemon is sensitive to its exorbitant threat from China, and wants to contain it in all possible ways.

Prof. Friedman, in his Harvard Business School study, focuses on the power of US as a hegemon. After the First World War, US developed the largest financial muscle with dollar as a reserve currency. It also amassed enormous global security power through 800 military bases in 70 countries. China is far behind in this race as its military spending is one third of US. However, China cannot be kept down as it prepares for a real comparison through its blue water navy in 2020.

Prof. Abdelal has other issues for China. He calls it an autocratic leader creating global mistrust by curbing human freedom. Its focus on bilateral trade is against the principles of globalisation. It is encouraging fear in Asia and Africa and infringes the territorial integrity of its neighbours. Hence, its global economics and dynamics will prevent yuan from ever becoming a reserve currency to threaten the dollar.

Conclusion

Prof. Abdelal, concludes that US must counter balance China with the help of India, Japan and South Korea, especially in the five forces that matter the most namely food, water, environment, skill sets, and technology to harness outer space. His telling comment is that conscience and concessions are both required to become a world hegemon and China has none.

The world has to wait and watch the next decade to decide the next hegemon.

The Strategic Promise of India's Act East Policy

Lieutenant General GS Katoch, PVSM, AVSM, VSM (Retd)[®]

Abstract

The Act East Policy (AEP) was brought in by the Narendra Modi government as an evolution to the Look East Policy of the PV Narasimha Rao's government in 1991. The evolution was required due to change in strategic and economic environment in over two decades since the enunciation of the first policy. Through the AEP India must strengthen its relations and cooperation with other East Asian regional powers as well as Japan, South Korea and Australia. As China's military strength and presence in Asia grows and it starts to flex its muscles so should the efforts by India and other powers to create a military and strategic counterweight in response.

"For thousands of years, Indians have turned to the East. Not just to see the Sun rise, but also to pray for its light to spread over the entire world. The human-kind now looks to the Rising East, with the hope to see the promise that this 21st century beholds for the whole world, because the destiny of the world will be deeply influenced by the course of developments in [this] region."

- Prime Minister Narendra Modi at the Shangri la Dialogue, 01 Jun 2018

Introduction

The 'Look East' policy had emerged as an important foreign policy initiative of India in the post-Cold War period. It was launched in 1991 by the then PV Narasimha Rao government with the aim of developing political contacts, increasing economic integration and forging security cooperation with countries of Southeast Asia.¹ The policy marked a shift in India's perspective of the world, with the strategic and economic importance of

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Southeast Asia to India's national interests being recognised. This recognition was accelerated by the worsened relations with Pakistan from 1984 onwards, with the Pakistan fuelled Punjab and J and K insurgencies. The roadblock by Pakistan for access to the markets in Central Asia, as well as the oil and gas there, has ensured that economic relations with Central Asia will remain tenuous and hence stunted. The promise of economic dividends and linkages is ipso facto eastwards. The second phase of Look East, which began in 2003, was also provided impetus by China's growing power and influence in Southeast and East Asia. India extended the coverage of the Look East policy from Australia to East Asia, with the Association of Southeast Asian Nations (ASEAN) as its core.

ASEAN

The establishment of ASEAN in 1967, as a regional grouping comprising Indonesia, Malaysia, Philippines, Singapore and Thailand, was motivated less by a sense of common identity than by a realisation that failure to prevent conflicts within the region would invite external intervention, which would in turn increase intra-regional tensions.² Although economic cooperation was foreseen, the evolution of ASEAN was driven by political and security concerns. On the security front, in the context of withdrawal of Vietnam from Cambodia and the end of the Cold War, a number of proposals culminated in formation of the Asian Regional Forum (ARF). This came into effect in 1994, with the aim of creating confidence building measures, pursuing preventive diplomacy, and aiding conflict resolution. In 2003, the member states agreed to create an Asian Security Community by 2020³, a goal now moved to 2025.⁴ The security community was to consist of three pillars, namely the ASEAN Political Security Community (APSC), the ASEAN Economic Community (AEC) and the ASEAN Socio-Cultural Community (ASCC).⁵ But for now these multilateral structures remain unrealised.

The Act East Policy (AEP)

The policy had been brought in by the first National Democratic Alliance (NDA) government led by Prime Minister Narendra Modi in 2014. It was brought out in Mr Modi's trip to Myanmar in November 2014, when he attended his first India-ASEAN summit and the 18-nation East Asia Summit.⁶ It infuses increased dynamism in the Look East policy whose promise to bring prosperity to India's

insurgency prone North-East region, as well as, be a catalyst to economic growth had not really taken off. The AEP is an effort to cultivate extensive economic and strategic relations with the nations of Southeast Asia in order to bolster India's standing as a regional power and a counterweight to the strategic influence of the People's Republic of China. The AEP focusses on the extended neighbourhood in the Asia Pacific Region (APR). With this policy, India's approach to Southeast Asia has seen a shift from one dominated by trade and development to one in which strategic considerations play an important complementary role. The policy, which in its previous "Look East" avatar was conceived as an economic initiative, has gained political and strategic dimensions including establishment of institutional mechanisms for dialogue and cooperation. It involved expanding Indian political and security relationships in East Asia and balancing Chinese dominance in the region. Under this impetus, India has signed free trade agreements with South Korea and Japan and her navy has conducted joint exercises with the Japanese, Australian and US navies. It is noteworthy that the first trip outside South Asia by Prime Minister Narendra Modi, after taking office in 2014, was to Japan. His later visits to Korea and Australia and a joint statement with the then United States (US) President Barack Obama on the common US and Indian strategic interests in Asia have showcased a balancing policy that India started conducting simultaneously with its efforts to expand its already substantial economic ties with China.

ASEAN Related Groupings. The East Asia Summit (EAS) and ARF are economic and security groupings centred upon ASEAN and related to the Indo Pacific Region (IPR), in which India is a member. This fits well into India's strategic outlook as the ways to further the AEP. The ARF is an important platform for security dialogue in the Indo Pacific. It provides a setting in which members can discuss current security issues and develop cooperative measures to enhance peace and security in the region. The ARF has five work streams: Counterterrorism and Transnational Crime; Information and Communications Technology (ICT) Security; Disaster Relief; Maritime Security; and Non-Proliferation and Disarmament.⁷ However, with China being a member in both forums, as far as security issues are concerned it is a sort of dichotomy as the prime, but unstated, security threat

of most of the countries involved is China. Counter-terrorism cooperation can be used as a fig leaf to hide the apprehension about China, or great power rivalry in this region, only up to a point. The ASEAN countries, affected by belligerent Chinese posturing and policy in the South China Sea (SCS), want India inside the tent as a counterweight to China but also want to downplay their own rivalry with China.

The India-China Equation. The AEP must factor in the India-China equation. Trade wise the balance of payment between these two countries favours China, with China having a \$ 57.4 billion surplus in 2018.⁸ The US-China tariff war is giving impetus to the signing of the Regional Comprehensive Economic Partnership (RCEP), which is a China initiative. India has apprehensions about it as lower tariffs on Chinese goods will increase the influx of cheaper Chinese imports. This may benefit the Indian consumers but will harm competing Indian industries. This has a long-term effect on India's policy of strategic autonomy whose important pillar is economic self-sufficiency. Till the India-China boundary dispute is resolved, India's security interests will naturally coalesce with those of the US, at least in its AEP dimension. Indian policies will be wary of facilitating the growing dominance of China in East Asia. However, China is both, a security challenge and an important economic partner for India.

The Weak Points of the ASEAN Construct

ASEAN's weaknesses in managing China are becoming more evident with time. While its success in regional economic integration is undeniable, on more fractious political issues, ASEAN has been less effective. These divisions become deeper when it comes to China. So far, ASEAN has not been able to act in a united manner against China impinging upon the freedom of navigation in the SCS through artificial islands on what are miniscule shoals. Smaller ASEAN countries are still wary of inviting China's wrath by an open embrace of the Indo-Pacific concept. This is, paradoxically, a consequence of ASEAN's success in integrating economically with China, making it hard for these countries to break with it. Smaller and landlocked countries like Cambodia, or those away from the SCS, do not see their interests met by alienating China. ASEAN, therefore, is a divided house on the SCS issue.

New Delhi recognises this problem. It is probably this recognition that has led India to stress additional platforms like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) which includes Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan, and Nepal. However, so far BIMSTEC has not been able to meet all of India's expectations. One reason for this is that some members see it as an attempt to side-line the South Asian Association for Regional Cooperation (SAARC) because of the protracted nature of the India-Pakistan conflict over J and K. An effort by India to expand the scope of BIMSTEC by conducting its first-ever low-level military exercise saw two countries, Nepal and Thailand not participating. One way to make ASEAN less dependent on China is to provide greater infrastructure aid to needy ASEAN nations, who otherwise have no option but to turn to China. India's acting eastwards in this respect cannot be done alone; it must have an understanding with USA and Japan to chip away at this source of ASEAN's dependence on China.

The Way Forward

Despite the declared nature of the AEP, the strengthened outreach is nowhere near its desired capacity. The capacity to extend regional connectivity through India's North East and infrastructure building has been insufficient. The Trilateral Highway with Myanmar and Thailand is a case in point: though Thailand has completed its part of the highway, India has yet to do so, on the Indian side of the border.⁹ If India lags in developing its own connectivity with ASEAN, its pledges to help others in ASEAN with infrastructure are bound to sound hollow. India needs to give impetus to this. India clearly wants to help ASEAN stand up to China, however, ASEAN countries are still not confident that India can be an effective substitute for China. The ASEAN-India Plan of Action for the period 2016-20 had been adopted in August 2015, which identifies concrete initiatives and areas of cooperation along three pillars of political-security, economic and socio-cultural.¹⁰

There is no doubt that global wealth and power are shifting eastwards. The geo-politics in this region are essential to counterbalance our security concerns in the West and North. China's defence budget is 56 per cent larger than those of all 10 ASEAN economies, Japan and India combined.¹¹ It is axiomatic

that only multilateral security groupings, interests and alliances can maintain the balance of power. The USA will remain the predominant power in the IPR for many decades. Yet, unless there is war — and in a globalised, nuclearised security construct that should not happen — the USA is unlikely to halt the narrowing power differential between itself and China.

Despite Prime Minister Narendra Modi's AEP, India trails in sixth and eighth place for economic relationships and defence networks and is down two places in diplomatic influence in 2019 as brought out by the power index developed by the Lowy Institute, a prominent Australian think tank.¹² These are the very factors that permit a distant USA to exercise overriding influence in the IPR. However, what India lacks in influence, it can make up for in scale. India's economy is predicted to double in size and reach approximate parity with the United States by 2030.¹³ India's working age population is expected to increase by 200 million by 2045, by which time China's is expected to decrease by approximately 158 million.¹⁴ The consequent shifts in military and economic strength can lead to deterioration of security in the region. India, however, cannot meet its security challenges alone and needs to build up its bilateral and multilateral security alliances and relationships. From 02 to 14 April 2019, AUSINDEX, the major biennial bilateral navy-to-navy exchange between India and Australia, was the most complex to date, focussing on anti-submarine warfare exercises, air defence exercises, anti-surface warfare exercises including live-fire drills, replenishment at sea, and cross deck landings.¹⁵ This exercise showcased a significant upswing in the India-Australia strategic relations and defence collaboration, which has previously been complicated due to Australia's exclusion from some exercises and the start-stop nature of the "Quad"— the Quadrilateral Security Dialogue, an informal strategic partnership between India, the United States, Japan and Australia.¹⁶ India needs to manage, balance and expand such security partnerships if it is to reap benefits to its security along with its economics with its AEP.

Conclusion

India's AEP must factor in fading US strategic predominance and the increasing 'Great Power' ambition of China. Presently, India has not achieved influence and power relative to both its size and potential to fill in this vacuum, which is in its security and economic

interest. “Act East” foreign policy, is likely to further boost engagement between India and the East Asian region. Prime Minister Modi's vision for the IPR outlined at the Shangri la Dialogue, brought out the security aspect and interest of India's AEP when he said, “We believe that our common prosperity and security require us to evolve, through dialogue, a common rule-based order for the region. And, it must equally apply to all individually as well as to the global commons. Such an order must believe in sovereignty and territorial integrity, as well as equality of all nations, irrespective of size and strength. These rules and norms should be based on the consent of all, not on the power of the few. This must be based on faith in dialogue, and not dependence on force. It also means that when nations make international commitments, they must uphold them. This is the foundation of India's faith in multilateralism and regionalism; and, of our principled commitment to rule of law.”¹⁷

Through the AEP India must strengthen its relations and cooperation with other East Asian regional powers, with ASEAN nations as well as Japan, South Korea, Australia and others. Like India, they too are concerned by the direction of the policies of the Great Powers towards other countries in Asia. As the region changes, it is better to be prepared than penitent because we did not heed the signs which portended the future. As China's military strength and presence in Asia grows and it starts to flex its muscles as it is doing in the SCS, so should the efforts by India and other powers to create a military and strategic counterweight in response. India will find no allies for this purpose in the West; they will be only in the East. This is the strategic promise of India's AEP.

Endnotes

¹ Thongkholal Haokip, India's Look East Policy: Its Evolution and Approach, 05 March 2014, *South Asia Survey* Sage Journals. Accessed 12 August 2019 from <https://doi.org/10.1177%2F0971523113513368>

² John Baylis, Steve Smith & Patrica Owens, *The Globalization of World Politics*, (Oxford, The Oxford University Press: 2011) p.436.

³ Ibid.p.237.

⁴ ASEAN Political Security Community, Accessed 24 August 2019 from <https://www.asean2019.go.th/en/abouts/>

⁵ *ASEAN Political-Security Community Blueprint*, Jakarta ASEAN Security Community Secretariat, 2009, Accessed 14 August 2019 from <https://asean.org/wp-content/uploads/images/archive/5187-18.pdf>

⁶ Manish Chand. Act East: India's ASEAN Journey, 10 November, 2014. *MEA, Public Diplomacy*. Accessed 24 August 2019 from <https://www.mea.gov.in/in-focus-article.htm?24216/Act+East+Indias+ASEAN+Journey>

⁷ Australian Government, Department of Foreign Affairs and Trade, *ASEAN Regional Forum*, Accessed 23 August 2019 from <https://dfat.gov.au/international-relations/regional-architecture/Pages/asean-regional-forum-arf.aspx>

⁸ China may have found a way to keep India in the dark over trade deficit, *Economic Times Online*, 15 Apr, 2019, Accessed 24 August 2019 from <https://economictimes.indiatimes.com/news/economy/foreign-trade/china-may-have-found-a-way-to-keep-india-in-the-dark-over-trade-deficit/articleshow/68884958.cms?from=mdr>

⁹ Thailand Dissatisfied With Tri-Lateral Highway progress, 10, Sep 2018, UNI. Accessed 22 August 2019 from <http://www.uniindia.com/thailand-dissatisfied-with-trilateral-highway-progress/states/news/1347082.html>

¹⁰ Press Information Bureau, Government of India, Ministry of Defence 23 Dec 2015. Accessed 17 August 2019 from <https://pib.gov.in/newsite/PrintRelease.aspx?relid=133837>

¹¹ Herve Lemahieu, Five big takeaways from the 2019 Asia Power Index, The Lowy Institute, 29 May, 2019, <https://www.loyyinstitute.org/the-interpreter/power-shifts-fevered-times-2019-asia-power-index>

¹² Lowy Institute, Asia Power Index, Accessed 24 August 2019 from <https://power.loyyinstitute.org/>

¹³ Ibid.

¹⁴ Lowy Institute Podcast. The Octagon of Power- unlocking the Asian Power Index. Accessed 24 August 2019 from <https://soundcloud.com/user-369007633/the-octagon-of-power-unpacking-the-asia-power-index>

¹⁵ Press Information Bureau, Government of India, Ministry of Defence, AUSINDEX concludes, 16 April 2019. Accessed <https://pib.gov.in/newsite/PrintRelease.aspx?relid=189774>

¹⁶ Teesta Prakash, *Modi's second term: what it means for the South Pacific*, The Lowy Institute, 27 May 2019, Accessed 19 August 2019 from <https://www.loyyinstitute.org/the-interpreter/modi-s-second-term-what-it-means-south-pacific>

¹⁷ Text of Prime Minister's Keynote Address at Shangri La Dialogue . Posted On: 01 Jun 2018 7:35PM by PIB Delhi. Accessed 21 August 2019 from <https://pib.gov.in/PressReleasePage.aspx?PRID=1534144>

Stabilisation of Jammu and Kashmir (J&K) Post Reorganisation

Brigadier Narender Kumar, SM, VSM (Retd)[®]

Abstract

In a historic move, Parliament of India has amended Article 370 and revoked 35A for complete merger of Jammu and Kashmir (J & K) with India. The bifurcation of the state is another strategic move to liberate Ladakh from political arm twisting by Valley based leadership. It will pave the way for development and empowerment of this sensitive region. It has sent message to China and Pakistan that India can no more be blackmailed on J & K in the name of collusive threat. Pakistan and separatists were confident that Article 370 and 35A are the instruments cast in iron and no political dispensation in Delhi can alter this status quo. This notion stands shredded today. It will be a miscalculation to assume that this bold move will have any impact on proxy war or terrorism. There is a possibility that instability in Kashmir may rise before it limps back to normalcy. Thus, government will have to guard and block all perils of corridors. Pakistan and separatists would try and disrupt the stability and thus, the government will have to take all precautions to deal with it firmly.

Overview of New Reality

Government of India took a momentous decision on 05 August 2019, by revoking Article 35A and amending Article 370. At the same time, Parliament also passed reorganisation of J & K into two Union Territories (UTs) of J & K and Ladakh. It was strategic wisdom to keep J & K together even against the popular demand by the people of Jammu to have separate UT. Keeping the identity of J & K intact is important because there is a perception that Jammu will always act as a bridge to connect with Kashmir.

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The aim of this move is to deliver governance, bring more transparency, accountability and fight cross border terrorism effectively. The Government of India showed political will to undo a colossal mistake that had prevented full integration of the State with the main stream. The so called special status not only led to regional imbalance among the three regions but also led to monopolisation of politics, government jobs and infrastructure development by Valley based leadership. This arrangement suited Pakistan, separatists, Jamaat and Jihadi terrorists to pursue their agenda without being made accountable for their unethical and illegal activities.

Reorganisation of state, revocation of Article 35A and amendment of Article 370 was comparatively an easy task, but the more challenging task is to bring political, social and administrative stability so that government is able to execute the proposed plans to put in place more vibrant governance. Hence, these measures in no way should be seen as a solution to end the three decades old terrorism. The disaffection, due to virulent toxic campaign, against the actions of the Government of India will see sudden rise and Pakistan and separatists will try and fuel instability not only in Kashmir but would attempt to spread it South of Pir Panjal and North of Zoji La. Thus, there is unlikely to be any thaw in acts of terrorism. It needs to be understood that conflict in Kashmir is underpinned by competing religious, political and national ideologies and conflicting ethnic aspirations. The issue at hand is, will Kashmir really accept stripping of special status anytime soon or it will trigger more vicious public disorder and cross border terrorism? May be the key to the conflict management and conflict resolution in J & K lies on how soon the imperatives and opportunities are recognised and how creatively and courageously political leaders respond to the evolving conflict and political landscape. It will also determine how India as a nation wants to see UTs of J & K and Ladakh in next one decade.

Real Challenges Post Reorganisation

The challenge to stability in Kashmir comes from deep state of Pakistan, terror groups, separatists, political parties and disaffected population. There is a possibility of mischief from Pakistan Army to show that they are committed to the people of Kashmir and are willing to go to any extent to stand with the Kashmiri Awam. In the

backdrop of the above, India cannot lose focus from the heightened threat from Pakistan along the Line of Control (LOC), International Borders (IB) and maritime boundary. Terror groups would be attempting to carryout sensational terror attacks in J & K and even rest of India. Separatists will lose political patronage and the source of funding has already been strangled, thus, cash for agitation would see a decline in near future. The appeasement and protective umbrella will be out, thus separatists will certainly feel like fish out of water. To give impetus to sagging morale of the terrorists and separatists, violent reaction is on the cards as and when they get space and opportunity. Separatists would be looking to immobilise administrative functioning as well as any endeavour of the government to restart political process. Political parties will come together to fight back to protect their own turf and prevent government to proceed against them to investigate the corruption and immunity they enjoyed for seven decades. The anger among the population of Kashmir is at all-time high. There is a perception that state has been stripped of special status and now there will be colonisation, loss of jobs and loss of land. Though government's offer to fill 50,000 vacancies may act as a balm to cool down the anger of the youth but, it is unlikely to win hearts and minds of the people if government fails to deliver promised jobs and development in a transparent manner.

There is a need to empirically examine how reorganisation of the state is likely to unfold if it is not handled as a national security challenge. Pakistan may attempt sensational terror attacks or uprising that may be difficult to control after restrictions on movement and connectivity are lifted. Political leadership of Pakistan has got a handle to deflect their own internal political and economic instability to Azadi of Kashmir. Pakistan has been trying to garner support from Muslim nations, however, so far it has received little or no support. But if the ground situation does not improve, it may lead to human rights issues and lot of explaining to the international community. It is important to comprehend that disengagement leads to disaffection, and disaffection leads to dispute. The conflict in Kashmir has the potential to become complex and lethal, especially if state sponsored non state actors employ irregular tactics in conjunction with disaffected and radicalised population. The tentative manifestation of inexorable conflict in Kashmir, if current trend is not reversed, could be as given below:-

- (a) It will be difficult for India to justify lockdown and restriction on movement and freedom of expression for a prolonged period. It could be seen by international community as repressive state policy against the subjects of the UT of J & K.
- (b) With the prolonged lockdown, separatists may be able to create a narrative that state is at war with its own people.
- (c) There is a danger of alienation and further disaffection of the youth from the state. Dissenting voices from other parts of the country in support of separatists may find resonance. It has the potential to spill over the instability to South of Pir Panjal in Jammu Division.
- (d) Pakistan and China left no stone unturned to internationalise Kashmir issue. Pakistan, for sure, has raised the issue at United Nations (UN) during 74th UN General Assembly (UNGA) meeting with vigour.
- (e) Pakistan is trying to drag China in this conflict and making it a potential stakeholder.
- (f) Propensity of conflict in other parts of the state and neighbouring states of J & K may unfold in near future if government is unable to deliver governance and promised economic development.
- (g) Vulnerabilities to democracy within the UT if all political parties boycott democratic process in view of the reorganisation and detention of political activists.
- (h) It will give impetus to ethnic and sectarian polarisation within the UT, especially between Dogras of Jammu and Kashmiri Muslims.

George Washington had said, "To be prepared for war is one of the most effective means of preserving peace". Thus, India has to be prepared to deal with the manoeuvre of deep state of Pakistan. Abu Dujana, in one of the conversations, had said that, "Pakistan want to run shop in Kashmir and is only interested in Kashmiri land. He further said, the terrorists who come from Pakistan are soldiers without uniform and they are not here to fight for the cause of Kashmir but are only interested in grabbing land".¹ This narrative needs to be espoused and real intent of Pakistan

should be exposed through Kashmiri intellectuals. If the situation is not reversed, Kashmir Valley will become even more unstable. In view of the foregoing, we need to answer as to how we are preparing to contain conflict in near and distant future?

The Way Forward

Conflict resolution should be politically viable, socially acceptable and implementable in a given timeframe. It must set in motion grievance redressal mechanism and assure peace, dignity and economic sustenance in the changed political environment of J & K. At this stage, what is more important is to understand the tenets of conflict management and conflict resolution in Kashmir as elucidated below:-.

(a) **Pakistan: an Elephant in the Room.** Pakistan will make all efforts to keep Kashmir Valley on the edge. Endeavour of Pakistan will be to create violence and public disorder so that Government of India is forced to place restrictions on communications and free movement of public at large. Revocation of Article 35A and amendment of Article 370 has given a stick in the hands of Pakistan to hit India in all international forums, such as the UN and the Organisation of Islamic Cooperation (OIC), for human rights issues, suppression of freedom and liberty of Kashmiri *Awam*. Pakistan will not allow such a strategic leverage against India to let go so easily. Whereas, the ground situation suggests that people want normalisation of situation at the earliest so that they can resume their business, students can go to education institutes and people can get on with their daily life. But Pakistan sponsored separatists and terror groups are threatening people to remain off streets, boycott schools and maintain no engagement with the state administration. Therefore, unless Pakistan is made to pay the price for bleeding India, there are all the reasons for continuation of conflict in Kashmir. Proactive measures are required to prevent mischief from Pakistan and efforts should be made to expose Pakistan's proxies if they meddle in creating public disorder in Kashmir.

(b) **Dissipation of Anger.** There are apprehensions among people that on becoming a UT and with revocation of Article 35A and amendment of Article 370, there may be colonisation

of J & K and loss of job opportunities. These apprehensions need to be addressed so that separatists and proxies of Pakistan are not given a handle to fish in troubled water, especially on these issues. It will be incorrect to say that people of Kashmir were happy to lose special status, though it was notional since all benefits were garnered by the dynasts to take advantage of the provisions for vote bank and loot of public money. The dissipation of anger to cool down tempers is a must and best way to do that is to allow youths to express their grievances in an organised manner. There is a need to create platforms where public can voice their grievances and responsible government functionaries answer them to set aside their apprehensions and fears. Dissipation of anger cannot be done by denial of engagement, rather it's time for national political leadership to reach out to the people, hear them out and assure them of their wellbeing.

(c) **Deliverance of Governance.** The key to succeed in J & K is through deliverance by government. It is a huge challenge since the administrative machinery is same that till yesterday was termed as parochial, inefficient and corrupt. In fact, this is the same state administrative machinery that permitted politicians to mismanage funds and allowed proxies of Pakistan to run their writ, including money laundering for anti-India narrative. As per some locals, entire state administration is coloured, some are pro-political parties and some are pro separatists and proxies of Pakistan (working within but against the government). The biggest challenge for the government today is how to make this dilapidated administration to deliver. The options with the UT administration are limited, thus most important is to bring transparency and accountability. Any government servant involved in separatist movement or in anti-India activities must face the consequences of law. If the ethos of governance doesn't change, nothing will change on ground. Pakistani proxies would do everything possible to derail efforts of the government to push development and economic empowerment of the state. Vision of the Prime Minister to make J & K and Ladakh model UTs to set a benchmark for Gilgit Baltistan and Pakistan Occupied Kashmir (POK) can only fructify if administration is gingered up and skeletons of corruption cleaned up.

(d) **Elimination of Terrorists.** Elimination of terrorists is one of the steps of suppression of violence. However, it has failed to act as deterrence against recruitment of new cadres. Reclaiming the youths is more important than elimination. Though, on one side, friction on terror cadres must continue but efforts to deal with terrorism by invoking laws to deal with unarmed Jihadi, choking of funds, actions against clerics who are spreading hate and preaching Jihad must be pursued vigorously. All apprehended terrorists must be tried for waging war against the nation in a time bound manner. These cases now should be moved out of the UT of J & K and be tried at a place where the separatists and terrorists cannot interfere or disrupt process of law.

(e) **Concept of Peace.** It needs to be understood that reorganisation will not end terrorism automatically. Rather, now there will be more intense efforts from Pakistan to destabilise Kashmir to show to the world that this experiment is anti-Muslim and anti-Kashmiris. It must be understood that here is interdependence between peace and development, "There can be no sustainable development without peace and no peace without sustainable development".² Suppression or end of violence is not resolution of conflict. The concept of peace is interactive and peace cannot be established without indulgence of people, opposing parties to conflict and government agencies. It is not possible to establish enduring peace unless the entire process of establishment of temporary peace/negative peace and adequate peace is established. When temporary peace is established, it has the potential to relapse if adequate cushions are not built for restoration and stabilisation of situation. During this phase, there would be trust deficit but peace can be maintained through statesmanship and parties to conflict should refrain from display of brinkmanship. In phase two, temporary peace gives way to adequate peace when capacity for peace is built and trust is developed on the basis of fulfilment of certain mutually agreed promises. After successfully transiting this phase, it automatically lends itself to enduring peace, where reversal, if any, can be managed by the mechanism and intervention of both parties. The problem in Kashmir is that whenever there is threshold of peace being achieved, terror strikes

disrupt peace process and situation is created that leads to further alienation of youth and public at large. People are angry over revocation of Article 35A and amendment of Article 370, but if the Kashmiri society is not demonised, anger can be suppressed by constructive engagement with the people.

(f) **Absorb Reversal.** The cushion to prevent reversal is a nuanced process and cannot be just indulged by a simple politico-bureaucratic initiative. It must be seen by the population as a process of conflict resolution. Thus, the strategy to be employed is at two levels, “structural prevention” and “operational prevention.” Structural prevention involves creating organisations or institutionalised systems through government institutions and public participation. It should formalise a structure for regular interaction and review of situation, with concrete steps by the government and the civil society to strengthen nonviolent channels for adjudicating grievances of the people, accommodating conflicting interests, and transforming conflicts by finding common ground.³ Operational prevention involves dealing with immediate crises likely to erupt quickly into deadly violence.⁴ Operational prevention is primarily undertaken by the law enforcement agencies, security forces and political intervention to prevent violence or manage a volatile situation. While state administration looks at delivery of governance and winning the trust of the people post reorganisation, efforts through non-government organisations must pursue reconciliation. The forum for reconciliation should consist of nominated public representatives, both political and non-political, clerics (Sufi & Jamaat), youth representatives, government officials authorised or nominated by the Lieutenant Governor, and nominated members of security forces involved in operation ‘Sadbhavna’ and tactical operations. This will act as a cushion, a source of feedback and a platform for public grievance resolution. This will also assist in restoration of societal space and also make people partners in peace dividends. Such an initiative will also create space for alternative conflict resolution platform.

(g) **Political Opportunity.** It is imperative to understand that restoration of rule of law and stability can be re-established through political establishment of J & K. Demonisation of

politicians may not be a good idea. However, corrupt cannot be allowed to get immunity but those who are clean should not be targeted since they belong to a particular party. Adequate care should be taken while carrying out delimitation of new assembly seats so that Gujjars, Bakrwals and Paharis get adequate representation in the new assembly.

(h) **Rehabilitation of Radicalised Youths.** The reorganisation of state has given an opportunity to deal with the ideologues that are at the forefront of radicalisation of youths in Kashmir. Law must deal with those who run factories of Jihad in Kashmir. Simultaneously, efforts should be made to understand the tenets of radicalisation. Radicalisation is synonymous with violence and unfortunately, in Kashmir it is associated with Islam and Muslims. Radicalisation minimises the role of politics and destroys the pluralism in a society. The focus, thus, has to be to disengage an individual from the casual relationship manifested between ideas and violence. Therefore, de-radicalisation ideally should be to treat an individual and not as an exercise for masses. The individual has to be taken away from the environment so that he can be reclaimed to the point of origin. There is a need to avoid use of word de-radicalisation because it portrays the victim as weak, who can be influenced and manipulated by radical ideologues. Thus, it may be prudent to term it as rehabilitation and reintegration and transition to transformation. Reorganisation of the state has given an opportunity to fight disaffection and radicalisation through human development.

(i) **Disruption in Conflict Economy.** This is an opportune time to disrupt conflict economy and make all those responsible for terror funding accountable to law. Conflict economy is being run by Pakistan through hawala, fake currency, over invoicing of cross border trade, funding from Saudi Arabia (as Zakat) and drug money. In the period from 2011 to 2013, Saudi Arabia alone had pumped in \$ 250 million to propagate Wahhabism, \$ 460 million to set up *madrasas* and \$ 300 million for miscellaneous costs⁵ for propagation of Wahhabism. The National Investigation Agency (NIA) has come down heavily on money laundering and unauthorised foreign funding. This initiative has disrupted conflict economy and activities of separatists have been curtailed to a great

extent. However, these measures must continue since Inter-Services Intelligence (ISI) and separatists will find alternative methods and routes to pump in money to support radicalisation and acts of terrorism.

Conclusion

Kashmir conflict is a national security challenge and its reorganisation may facilitate dealing with terrorism but resolution still remains a challenge. Pakistan sees this as an opportunity to create irrevocable conditions so that it can internationalise Kashmir to fulfil its ultimate dream of “Kashmir *Banega* Pakistan”. Endeavour of India should be to bring stability soonest, so that it does not get undue international attention. If the conflict persists, it has the potential to spill over to South of Pir Panjal and that will be a big reversal to the efforts made by security forces to roll up terrorism from South of Pir Panjal (Jammu, Poonch, Rajouri and Chenab valley). It is the right time for creating political alternatives to dismantle the negative forces that have played into the hands of *Jamaat* and Pakistan backed separatists. New look UT must remove regional imbalance in number of seats and backward classes should also get due representation in the proposed UT of J & K.

Endnotes

¹ Vicky Nanjappa, The Terrorist vs Terrorist battle Gets Uglier in Kashmir and why we must Rejoice, Indian Express, July 03,2019.

² The Legacies of Armed Conflict on Lasting Peace and Development in Latin America, UN Chronicle, April 2016.

³ Conflict Resolution in a Changing World, Committee on International Conflict Resolution, Accessed from <https://www.nap.edu/read/9897/chapter/2> on June 20,2019.

⁴ Ibid.

⁵ Abhinav Pandya, Does Saudi Funded Muslim Radicalisation Threaten India, HAARETZ, April 16, 2018.

Ramifications of the Fourth Gulf Crisis and India's Strategic Options

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Abstract

The article analyses current Persian Gulf crisis. It explores relevance and geostrategic importance of Gulf of Hormuz for India and the entire world by highlighting the statistics of International trade transiting through and likely to be affected by further deterioration in the Persian Gulf. The article covers origins and growth of the Persian Gulf crisis from Iran's suspected ambitions and actions to become a nuclear power and the resultant sanctions imposed by USA. Iran's Nuclear Programme has also been discussed in brief. The article also examines Iran's past and present relations with other countries in its neighbourhood and evaluates its relations with India. The article critically examines nature of political, diplomatic and economic challenges for India due to the current Gulf crisis and concludes with suggested India's response options.

India's Energy Dilemma

India's growing international stature, and her acknowledgement as a regional maritime power, is evident from the fact that many foreign navies seek to undertake exercises with the Indian Navy. Series of joint naval exercises being regularly held, with the Japanese and the US Navy, French, Russian, Thailand, Malaysian, Indonesian, Australian and with the Singaporean Navy, are indicative of the fact. The US Secretary of State Mike Pompeo's visit to New Delhi on 26 Jun 2019 coincided with India's endorsement of non-permanent seat of the United Nations Security Council (UNSC) for a two year term from 2021 to 2022. The United States (US) has renamed the US Pacific Command as Indo-Pacific

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Command. It is a symbolic move to highlight importance of India and to seek its assistance to emphasise a rule based international order in the wake of rising tensions in the South China Sea (SCS).

India finds itself at a crossroad and in a dilemma when it finds the USA enforcing trade sanctions on Iran; its most important crude oil supplier for its power hungry economy. Although India has had good trade relations with Iran since ancient times, its present state of relations with Iran can only be termed as complex. Iran's traditional support to Pakistan on the latter's stand on Jammu and Kashmir has not been welcomed by Delhi. Iran's nuclear programme raises fear of nuclear weapon falling in hands of an Islamic Theocratic State. The present Persian Gulf crises raise important questions for India's foreign, economic and military policy. As it seeks permanent membership in UNSC, India's stand and voting pattern on international issues as a temporary member of UNSC will play dominant role in garnering necessary support for permanent membership when the time comes. She will have to discriminate in supporting right cause from wrong, to ensure rule based international order, while safeguarding her own national interests.

The Relevance of Strait of Hormuz

The Strait of Hormuz connects Arabian Sea and Gulf of Oman to Persian Gulf Strait. The Gulf of Oman is approximately 1500 km from Mumbai coast. Gulf of Oman has Iran and Pakistan to its North, Oman to its South and UAE to its West. The Persian Gulf states, comprising Bahrain, Iraq, Iran, Saudi Arabia, Kuwait, Qatar, and United Arab Emirates (UAE), have the largest reserves of crude oil and natural gas. The Persian Gulf states produce 25 per cent of the world's oil and hold 2/3rd of the world's crude reserve. They also have 35 per cent of world's natural gas reserves.

Historically India had robust economic and trade relations with Persian Gulf states. Presently too, India provides the largest number of skilled and unskilled work force to Persian Gulf states. Qatar alone has more than 650,000 inhabitants from India. Presently, India imports 75 to 80 per cent of oil from Gulf States. Indian cinema and satellite channels are extremely popular among local Arabs and the resident Indians. By 2019, India has been exporting more to Persian Gulf states than European Union combined. India's exports to the Gulf Cooperation Council (GCC), amounting to \$41.55 billion, mostly comprise agriculture and dairy

products, garments, jewellery and petro-chemicals; with export growth rate pegged at 5.5 per cent. About 15 to 20 per cent of Indian exports go to Persian Gulf states. India is also UAE's second largest trade partner. Imports from Gulf countries to India until May 2019 amounted close to \$79.70 billion.

Iran's Troubled Relations with Neighbours

Iran, a Shia majority Islamic republic state, has always had troubled relations with its neighbours. The 1979 Iranian revolution brought about considerable foreign policy changes in Iran, which has since been virulently anti-Israel and anti US. Iran was also involved in a series of covert operations and proxy wars in its neighbourhood. Iran has always supported Hezbollah fighters against Israel, including manning their posts by the Islamic Revolutionary Guard Corps (IRGC) during the 2006 Lebanon war. The IRGC have also actively supported Hamas against Israel and supplied them arms and ammunition.

India and Iran have held mostly conflicting political views. During the Cold War era, as well as during the Iranian Revolution, Iran's close relations with Pakistan and India's strong relations with Iraq prevented cementing of Indo-Iran ties. Iran has also supported and consistently backed Pakistan vis-à-vis India in matters pertaining to Jammu and Kashmir.

Iran's Trade Relations with India

India is the world's third-biggest oil consumer and meets 80 per cent of its crude oil requirements through imports. Iran in 2017-18 was its third-largest supplier after Iraq and Saudi Arabia. Iran meets about 10 per cent of India's total oil needs. India imported 24 million tonnes of crude oil in fiscal year 2018. The Chabahar Port in Iran has also been jointly financed by Iran and India. India is also providing financial aid to build a highway in Iran between Zaranj and Delaram (Zaranj-Delaram Highway). Chabahar Port will also provide India access to the oil and gas resources in Iran and the Central Asian states. This will also provide Central Asian states an alternate trade route to the Chinese built Gwadar Port in Pakistan's Baluchistan to complement China-Pakistan Economic Corridor (CPEC)-Belt and Road Initiative (BRI). India, Iran and Afghanistan have signed an agreement to give Indian goods, heading for Central Asia and Afghanistan, preferential treatment and tariff reductions at Chabahar.

Iran's Nuclear Programme

Reports of undisclosed activities pertaining to Iranian nuclear programme in 2000 had raised several eyebrows around the world. In 2003 International Atomic Energy Agency (IAEA) reported that Iran had not complied with Non-Proliferation Treaty (NPT) of Nuclear Weapons and had not declared sensitive enrichment activities and possibilities of enrichment of weapon grade uranium. The UNSC imposed sanctions on Iran. Iran's tense relation with the neighbouring state Iraq, hard-line Islamic ideology, threat to wipe out Israel and USA, its endorsement and striving for an Islamic nuclear bomb, its support to Hamas, Hezbollah and the separatist movement in Jammu and Kashmir led to the perception of considerable threat to the world peace, and to India. Consequently, in spite of close trade relations, India voted against Iran in IAEA in 2005 enabling matters to be referred to UNSC for punitive action against Iran. India gave primacy to discomfort it felt with the possibility of nuclear weapons in Islamic Theocratic State falling in hands of hardliners and Islamic militants, over its trade relations with Iran.

A deal was made between Iran and the six major world powers, led by the US in 2015, to limit Iran's stockpile of enriched uranium. In return, relevant sanctions on Iran were lifted, allowing Iran to resume oil exports under UNSC Resolution 2231. However, the US pulled out of the deal in 2018 and reinstated sanctions in May 2018, stating that the 2015 deal puts no curb on Iranian ballistic missiles programme and the condition must be included in the deal. Further, under Countering American Adversaries through Sanctions Act (CAATSA), the US had threatened to sanction any country or entity doing business with Iran or purchasing Iranian crude with effect from 04 November 2018. In response, Iran has threatened to scale back their obligations under 2015 deal and to block Strait of Hormuz; a key transit of crude oil for other Persian Gulf states.

USA's temporary waiver of sanctions to top buyers of Iranian crude, including India, ended on 02 May 2019. India has stopped taking oil from Iran and has started purchasing oil from other Persian Gulf countries to avoid sanctions from Washington under CAATSA.

Recent Developments in Strait of Hormuz

On 13 Jun 2019, two Saudi Arabia's tankers were reportedly targeted by "a sabotage attack" near Fujairah Port in UAE.

Explosions also took place on Japanese tanker ship Kokuka Courageous and Norwegian Front Altair on Strait of Hormuz, although there were no reported casualties. The culprit behind the blasts has not been conclusively identified. Saudi Arabia and USA have attributed the blasts to planting of “Limpet Mines” in the strait by Iran. The latter, in turn, has charged the USA for orchestrating the incident by air launched missiles. On 20 June 2019, Iran claimed to have shot down an American Global Hawk spy drone, which it said had intruded into its air space, by surface to air missile (SAM). The Americans have acknowledged the downing of their spy drone but claimed that the drone was in the international air space. President Donald Trump has promised an appropriate response, and has begun augmenting the US naval, air and land forces in the region. With rising tensions and induction of additional US forces in the region, there is a sense of déjà vu in the air.

International Laws Applicable in the Current Scenario

The laws applicable in the existing scenario are elucidated below:-

- (a) **NPT of Nuclear Weapons.** Iran has ratified the NPT. Under Article II of NPT, except for the five declared nuclear power states, non-nuclear states cannot acquire or exercise control over nuclear weapons and explosives and have to accept IAEA safeguards.
- (b) **Article 41 of the United Nations Charter and UNSC Resolution 2231.** Article 41 of chapter VII of the UN Charter authorises the UNSC to decide measures, other than use of armed force, to be employed to give effect to its decisions. It may call upon member states to give effect to its decisions. Resolution 2231 passed unanimously by the 15 members UNSC, calls for Iran to refrain from activities related to nuclear-capable missiles. However, no punitive action is indicated for any violation of the resolution by Iran.
- (c) **United Nations Convention on the Law of the Sea (UNCLOS) (1982)** –The shooting down of the US spy drone raises important questions of international law. It is, therefore, relevant to understand the concept of territorial sea, contiguous zone, and innocent passage. As per Article 3 of UNCLOS, the breadth of a nation’s ‘territorial sea’ is 12 nautical miles (nm) from the baseline of its coast. Article 2 of UNCLOS states that the sovereignty of the coastal state extends beyond its land territory and internal waters till adjacent belt of sea,

called territorial sea. It also lays down that sovereignty of the coastal state extends to the subsoil, sea bed and the airspace above the territorial sea. According to Article 17 of UNCLOS, ships of all states, whether coastal or landlocked, have a right to innocent passage through the territorial sea. However, Article 19 defines “innocent passage” as that which is not prejudicial to the peace, good order or security of the coastal state. Several activities that are prohibited within another country’s territorial seas (12 nm from the coast) include: threats to use force, military exercises, research and survey activities, fishing activities, and activities that may interfere with the coastal state’s communication systems, security and defence. Article 20 of the UNCLOS provides that submarines and underwater vehicles are to surface in territorial water of the coastal states and show their flags. In view of Article 19, if the Iran’s claim of violation of its airspace is correct, flying of a spy drone in Iranian airspace cannot be termed as innocent passage. In military terms, a confirmed espionage mission by an adversary, within one’s airspace, is deemed a hostile act which justifies a hostile and violent reaction. However, if the US’s claim of 21 nm is correct, then the drone was beyond territorial sea of Iran and within its contiguous zone. The Contiguous Zone, according to article 33 of the UNCLOS, extends up to 24 nm i.e. starts after 12 nm breadth of territorial sea. However, coastal states do not have absolute sovereignty rights over the sea and airspace above the contiguous zone. A coastal state may exercise control only to prevent infringement of its customs, fiscal, immigration and sanitary laws.

(d) **Enforcement Rights of Coastal States and Immunity of Government Ships.** Article 25 of UNCLOS provides right of protection of the coastal state. A coastal state may prevent passage from its territorial sea which is not innocent. Article 30 provides that if a foreign warship does not comply with the rules and regulations of the coastal state in territorial seas, it may be asked to leave territorial sea immediately. Article 31 provides that the flag state will bear responsibility and cost of any damage caused by the warship operated for non-commercial purpose. However, subject to the exceptions provided by Articles 30 and 31, Article 32 provides immunity to warships and government operated ships for non-commercial activities.

(e) **Straits used for International Navigation.** According to Article 38 of UNCLOS, all ships and aircraft enjoy right to transit passage and overflight from the straits. Transit passage would involve continuous and expeditious transit. Article 39 lays down the duties of ships and aircraft during transit passage and guidelines for passage from straits and the recommended code of conduct to prevent obstruction to straits. Article 44 of UNCLOS provides that the states bordering the strait shall not hamper transit passage and there shall be no suspension of transient passage. In the light of Article 44, Iran's threat of blocking the Strait of Hormuz, and its possible mining of the Strait resulting in damage to the Japanese and Norwegian tankers, is in violation of the UNCLOS.

(f) **Identifying Legitimate Military Targets.** Article 48 of additional protocol of the Geneva Convention of 12 Aug 1949 prohibits intentional targeting of civilians and obligates parties to distinguish civilian from military targets. Article 52 (2) of the First additional protocols of the Geneva Convention 1949 elaborates on military targets as "attacks shall be limited to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military objectives and whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definitive military advantage". Article 51 recommends proportionality of attack and prohibits indiscriminate attacks. It follows, therefore, that the recent mysterious attack on civilian oil tankers of nations not involved in any military activities, by state / or non-state actors, is not justified. Consequently, it gives the flag state of the vessels the right to retaliate once the entity responsible is identified.

Nature and Extent of the Present Threat to Peace

The Strait of Hormuz is only 33-60 km wide throughout its length. It is a choke point and the main artery from which 80 per cent of crude oil passes from Middle East. Iran has threatened to choke the strait on various occasions. The width of shipping lanes of 'Traffic Separation Scheme' is 2-3 miles on each side. This makes it an ideal place for laying sea mines. On 18 April 1988, USS

Samuel B Roberts was sunk by Iran using a mine. On 13 June 2019, oil tankers 'Front Altairs' and 'Kokuka' were rocked by explosion. However, the crew later reported flying objects striking the ship, leading Iran to claim it was an American missile attack. The high traffic density in the shipping lanes, and presence of fishing and small speed boats, makes asymmetric threat attack a definite possibility. On 03 July 1988, USS Vincennes, a US Navy guided missile cruiser, had wrongly identified Iran Air 655 as a jet fighter and shot it down with a SAM, killing 290 people on board. On 20 June 2019, Iran's SAM shot down a US spy drone. With induction of additional US forces, the region is growing tense by the day and is gradually gravitating towards war zone criteria. These incidents highlight the increasing vulnerability of air traffic in the area and high potential risk of ships, boats and aircraft being misidentified as a target. As a matter of fact, in retaliation to UK royal marines seizing Iranian oil tanker Grace 1 off the Gibraltar, the Iranian Revolutionary forces seized British flagged ship Stena Impero on 04 Jul 2019, leading to worsening of crisis.

India's Response

The Indian Navy deployed two warships, INS Chennai and INS Sunayna, for armed escort's duties, including Maritime petrol aircraft, in the region in mid Jun 2019 and continues to monitor the situation. The Director General Shipping too has issued various advisories to Indian flagged vessels to take precautionary measures. These deployed warships would also be vulnerable to sea mines, as and when deployed by any of the actors involved. They will have to ward off threat of mines if they are to provide any meaningful protection to oil tankers being escorted by them. The small team of Indian Naval officers deployed on board oil tankers can neither undertake prolonged watch nor can appreciate threat from under water mines or a missile attack. In such a scenario, they are also unlikely to provide significant protection against underwater or aerial threat. The warships have to be given clear directions pertaining to rules of engagement, commensurate with their capability and role, so as to enable them to take appropriate action as the situation demands. The government must be prepared to absorb and respond to international obligations arising out of any such action. Cognisance must be taken of any promulgated Air Defence Identification Zone (ADIZ) to prevent any mishap to own air assets deployed in the area for maritime petrol and

cooperation of foreign forces deployed must be taken even through political means.

India's Options and Alternatives

India's efforts to build additional nuclear power stations, her emphasis on in-house technology development to harness alternate green energy sources including solar, wind and bio-diesel, which have shown considerable promise, must continue. However, at the present rate of progress, India's demand for conventional fuel will persist and may even grow in future. USA, which began supplying crude oil to India in 2017, is now our fourth largest supplier. It provided 6.4 million tons of crude oil to India in fiscal year 2018-2019. In 2018, Venezuela had supplied 18.34 tonnes of crude oil; Nigeria supplied 16.8 tonnes while Mexico supplied 10.28 tonnes. Saudi oil can still be accessed through all its ports based in Red Sea. India must also work towards expeditious completion of all projects to source oil from Central Asian states through Iran's Chabahar Port. In case of rise in tension and armed conflict in the Persian Gulf region, India should look at sourcing additional oil supplies from non-Persian Gulf region. Also, with an eye on India's growing energy needs, even in the near future, we must never give up our claim to Pakistan Occupied Kashmir (PoK) as a compromise with Pakistan to settle the Jammu and Kashmir dispute, as is often proposed by some entities involved in track-2 diplomacy. Rather, we must actively exploit existing fault lines between the Islamabad regime and the people of Gilgit Baltistan region. We must seriously consider our direct overland linkages to the Central Asian Region (CAR) and to Russia through the present POK, once it is reclaimed. The Chinese have shown that the challenges of the terrain and climate in the region can always be overcome. We may do it even better. This option must, therefore, always remain a part of our strategic calculus. Besides, the Himalayan region will also play a major role as a water source for a thirsty India in future.

Conclusion

Those who do not learn from history are doomed to repeat it. However, all the actors in the Persian Gulf region appear doomed to repeat history multiple times in a single lifetime. After three major conflicts in the last four decades, including the prolonged Iraq-Iran war of the eighties, the 1991 'Operation Desert Storm'

and the USA's 2003 'Shock and Awe' operation against Iraq's Saddam Hussain, the region is headed towards its fourth crisis; a showdown between the USA and Iran over the latter's alleged nuclear ambitions. The American sanctions have started biting and drawn the expected and, perhaps, desired response from Iran; an unbecoming threat of denial of 'Strait of Hormuz'. This may suit the US who is possibly planning for display of another round of their 'shock and awe' operation. The threat from USA may also serve to drive Iran closer to China and Russia to hedge its bets. However, Iran would also do well to reconsider that the sea is a common heritage of mankind with all its facilities and resources open to fair universal exploitation. Choking critical ocean passages, and the airspace above them, can disrupt trade, seriously hamper world economy and expedite Iran's further loss of friends and goodwill. A conflict with the USA would decimate Iran's industrial infrastructure and destroy its economy. In spite of a plethora of existing international laws, 'might' still remains 'right' in international relations and transactions; and 'overwhelming might' more so. Laws are only good as long as they can be enforced. As Austin said "Law is the command of sovereign, backed by a threat of sanction in the event of non-compliance". On its part, India would do well to firm up its alternate options to meet its present and projected energy requirements in the near as well as distant future, with suitable redundancies, at the earliest.

References

- ¹ United Nations Conventions of the Laws of the Sea
- ² Dr. HO Aggerwal, International Laws, and Human Rights., 21st edition
- ³ Malcolm NShaw, International Law, 8th edition
- ⁴ Samreshwar Mahanty, Maritime Jurisdiction, and Admiralty Law in India, 2nd Edition
- ⁵ M Habibur Rehman, International Law of the Sea,
- ⁶ Indian Express 26 Jun 2019, Article "55 Asia-Pacific countries unanimously back India's bid for non-permanent seat at UNSC",
- ⁷ United Nations Charter
- ⁸ United Nations Security Council Resolution 2231
- ⁹ Addition Protocol to Geneva Convention 12 Aug 1949

Apache and Chinook - Rotary Wing Capability Boost

Air Marshal Anil Chopra, PVSM, AVSM, VM, VSM (Retd)[®]

Abstract

Indian Air Force (IAF) and Indian Army (IA) will soon have formidable attack helicopter capability and will use for Suppression of Enemy Air Defences (SEAD) / Destruction of Enemy Air Defences (DEAD), Counter Air, Interdiction at varying depths inside enemy territory, Combat Search and Rescue (CSAR), etc. in furtherance of both air and ground battles. It would act as a tremendous force-multiplier at the point of decision, when required. Indigenous helicopters have taken reasonable shape but are held up due to delayed decision on weapons. Addition of the Chinook, Apache, the Rudra and MH 60 Romeo Seahawk helicopters will give a massive boost to the capability. Rotary wing fleet will continue to remain a very significant fleet both, in war and peace.

Introduction

In a major capability boost for the IAF, the Boeing Company delivered four AH-64E Apache attack helicopters on 27 July 2019, ahead of the contracted schedule, at the Hindan Air Force Station, outside Delhi. Four more Apache helicopters arrived in early August 2019. The eight then moved to Pathankot Air Force Station for their formal induction in September 2019. By next year, the IAF will operate a fleet of 22 Apache helicopters. Selected air and ground crew have undergone training at the training facilities at US Army base Fort Rucker, Alabama.¹ The Apache will be a significant boost to IAF's combat capability. The helicopter is customised for IAF's future requirements and the aircraft has significant capability in the mountains. The two pilot Apache is considered a "game changer" in the tactical battle scenario. The helicopter will carry precision lethal attacks at standoff ranges with

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networked weapon systems. The Indian government had placed an order for 22 AH-64E Apache helicopters as a part of a \$ 1.4 bn deal that was signed in September 2015. Apache will be based at Pathankot and Jorhat.

On 25 March 2019, IAF formally inducted four out of the 15 contracted Boeing Chinook CH-47F (I) heavy-lift helicopters at their home base, Air Force Station, Chandigarh. Two more came in early July 2019. Air Chief Marshal BS Dhanoa, PVSM, AVSM, YSM, VM, ADC, hailed the induction, saying that it was a national asset and these will boost India's security through increased vertical lift capability. The US \$ 1.5 billion Chinook contract included India specific enhancements. The second helicopter unit of heavy-lift choppers will be created in the East in Dinjan (Assam). Chinook can deliver heavy payloads to high altitudes and is eminently suited for operations in the high Himalayas. It will greatly enhance India's capabilities across a range of military and Humanitarian Assistance and Disaster Relief (HADR) missions. Chinook serves armed forces of 19 countries.

Helicopter Operational Roles

Helicopter today has many civil roles including transportation, cargo, construction, fire-fighting, tourism, air ambulance, law enforcement, agriculture, news and media, and aerial observation, among others. Military transport helicopters are used to transport personnel (troops) and cargo in support of military operations. The larger helicopters like Mil Mi-26 can carry 90 troops or 20,000 kg cargo.² Boeing CH-47 Chinook can carry 55 troops or 10,886 Kg cargo.³ These can also carry large under-slung loads. The personnel and cargo can be picked and dropped at unprepared locations. These helicopters are also used for air assault to move assault force from assembly areas to Landing Zone (LZ) or Drop Zone (DZ).

Attack helicopters, often referred to as 'Gunships', are designed with capability of engaging targets on the ground such as armour vehicles, enemy infantry and light vehicle convoys. They can quickly provide direct and accurate close air support (CAS) for ground forces, including against armour concentrations. They could also attack static targets close to the Forward Edge of Battle Area (FEBA) such as radars. Attack helicopters could be used as air support escorts in a heliborne operation or for CSAR. They could also be used in the armed scout role. They are armed

with guns, rockets and air-to-ground missiles. Many attack helicopters are also capable of carrying air-to-air missiles, primarily for self-defence. Attack helicopters are designed with narrow fuselage, tandem seating, high external visibility and have high manoeuvrability. They take on anti-tank, anti-helicopter, anti-UAV and close air support (CAS) roles. Guns and important sensors are chin-mounted. Rockets and missiles are carried on stub wings. They are normally equipped with short range radar and Forward Looking Infra-Red (FLIR) sensors. They have laser rangefinder and laser target designator. Many gunships can also carry a few troops.

Observation helicopters are used to monitor the battle in Tactical Battle Area (TBA). The observation could be visual by the aircrew or using an optical sensor like low-light level television (LLLTV) or FLIR camera. These helicopters also assist targeting by artillery fire and airstrikes. They can also do laser illumination for laser-guided bombs (LGBs) and other weapons fired by mother or other armed aircraft.

Maritime helicopter tasks include observation duties; inter-ship movements; and also for recovery of pilots who may have ditched, or sailors fallen overboard. Special tasks include anti-submarine warfare role and dropping air-launched torpedoes and depth chargers. Integral dunking sonar, radar and magnetic anomaly detectors help better response to submarine threats. Multi-role maritime helicopters nowadays operate nearly autonomously in the Anti-submarine warfare (ASW), anti-shipping, transport, Search and Rescue (SAR) and reconnaissance roles. Helicopters form an important anti-submarine strength of an aircraft carrier. SAR and medical evacuation remain key roles for helicopters. A similar mission from behind enemy lines would be a CSAR.

Mil Mi-25 and Mi-35

The Russian Mi-24 'Hind' was essentially a large attack helicopter.⁴ Also referred to as the 'flying tank', they were operated since 1972 by the Soviet/Russian Air Force and more than 60 other nations. The export variant was the Mi-25 and later upgraded Mi-35. The airframe is streamlined and fitted with retractable landing gear to reduce drag. At high speed, the stub-wings provide considerable lift. The helicopter has a maximum speed of 335 km/h and service ceiling of 4,900 m. It has removable armour plating around the

cockpit and below the cabin and can carry eight troops or four stretchers. It has integral gun and window mounted machine guns. Total payload is 1,500 kg of external stores which include the Shturm anti-tank missile. Aircraft has seen extensive action in Afghanistan and in many other wars. After Balakot, India made Rs 200 crore emergency purchase of 'Strum Ataka' anti-tank missiles for Mi-35s.⁵ IAF's two squadrons of Mi-25/35 will gradually be replaced by Apache.

Hindustan Aeronautics Limited (HAL) Rudra ALH-WSI⁶

HAL 'Rudra' is the armed version of HAL's Advanced Light Helicopter (ALH) 'Dhruv'. It has integrated sensors, weapons and electronic warfare suite, and uses an upgraded version of the glass cockpit used in the HAL Dhruv Mk-III. The avionics suite integrates a global positioning system (GPS), FLIR, HF/UHF communications radio, Identify Friend or Foe (IFF) system, Doppler navigation and a radio altimeter. The electro-optic pod, helmet-mounted sight and fixed sights ensure that the pilots can accurately engage targets using on-board weapons. The sensors include stabilised day and night cameras, infrared imaging as well as laser ranging and designation. It has an Integrated Defensive Aids Suite (IDAS) from SAAB (Sweden), with electronic warfare self-protection, which is fully integrated into the glass cockpit. Mark IV is meant to have a French Nexter 20 mm turret gun, Belgian 70 mm rockets, MBDA air-to-air and air-to-ground missiles and the indigenous Helina (Helicopter-launched Nag) anti-tank missile. The two crew helicopter is powered by two HAL/Turbomeca 'Shakti' turbo-shaft engines and can carry 12 passengers or 4 stretchers. Useful maximum load is 2,600 kg and maximum speed 290 km/h. The service ceiling is 6,096 m. HAL handed over the first Rudra to IA in 2013. The current total order is for 76 Rudra Mk IV (60 for IA and 16 for IAF). Indian Navy (IN) is keen to order at least 20 helicopters for coastal security.

Light Combat Helicopter⁷ (LCH)

The LCH is an indigenous multirole combat aircraft under development by HAL. It will have capability to operate at high-altitudes. The tandem seat LCH drew extensively from the ALH Dhruv. On 29 March 2010, LCH prototype did its maiden flight. LCH also became the first attack helicopter to land in Siachen. Ever since, it has repeatedly landed at helipads up to 15,800 feet.

On 26 August 2017, full-rate production of the LCH was started. IA has ordered 114 and IAF 65 LCH. LCH also has a data-link for network centric operations. Along with Israel, HAL is developing a FLIR. LCH will have the M621 cannon. Up to four missiles can be carried including the Helina and MBDA Mistral 2. On 17 January 2019, LCH completed weapons trials with the successful firing of Mistral-2 air-to-air missile at a flying target. Payloads of rockets can also be carried. Initial Operational Clearance (IOC) is expected later in 2019.

Boeing AH-64 Apache Longbow⁸

AH-64 Apache is a stealth versatile machine, designed for all kinds of missions. It comes equipped with laser and infrared systems for day-night operations and armed with air-to-surface Hellfire missiles, 70 mm rockets and automatic cannon. Apache has a twin turbo-shaft engine with a tail wheel-type landing gear and a tandem two-crew cockpit. It has a nose-mounted sensor suite for target acquisition and night vision system. It is armed with a 30 mm M230 chain gun and has four hard-points on stub-wing pylons for armament and stores. Typically, it can carry a mixture of AGM-114 Hellfire missiles and Hydra 70 rocket pods. The AH-64 has large amount of systems redundancy to improve combat survivability. The prototype YAH-64 first flew in September 1975. The helicopter was inducted into the US Army in April 1986. The first production AH-64D Apache Longbow, an upgraded Apache variant, was delivered to the US Army in March 1997. Over 2,000 AH-64s have been produced.

The crew compartment has shielding between the cockpits, such that at least one crew member can survive hits. The compartment and the rotor blades are designed to sustain a hit from 23 mm rounds. The airframe has armour protection and has self-sealing fuel system. It has a maximum service ceiling of 6,400 m and maximum speed of 365 km/h. The state-of-the-art integrated avionics include an extended range radar. The Ground Fire Acquisition System (GFAS) detects and targets ground-based weapon fire sources. High-resolution colour imagery is provided to the crew. Weapons include the Stinger air-to-air missiles, the AGM-122 Sidarm anti-radiation missile and the MBDA Brimstone anti-armour missile. The AH-64E Apache has the ability to control unmanned aerial vehicles (UAVs), to perform aerial scouting

missions. Boeing has suggested that the AH-64 could be fitted with a directed energy weapon (small laser weapon), initially designed to engage small UAVs. The updated Longbow mast mounted active electronically scanned array (AESA) radar has an over sea capacity, potentially enabling naval strikes. Apache has seen extensive operational deployment in Iraq and Afghanistan.

Boeing CH-47F (I) Chinook

Chinook is a twin-engine, tandem rotor, heavy-lift helicopter, original variant of which first flew in 1962. The Chinook possesses several means of loading various cargoes, including multiple doors across the fuselage, a wide loading ramp located at the rear of the fuselage and a total of three external ventral cargo hooks to carry under-slung loads. Its top speed is 315 km/h. IAF variant has upgraded engines, composite rotor blades, a redesigned cockpit, modern avionics, advanced digital flight control system, and lower maintenance requirement. Maximum payload is 24,000 lb (10,886 kg) or 33–55 troops and maximum range is 740 km. Its maximum flight altitude is 6,100 m. Aircraft has taken part in most major operations since Vietnam War.

Helicopters in Counter Insurgency Role

Helicopter's versatility is a big asset for use in counter insurgency role. IAF's helicopters are deployed in 'Op Triveni' against Maoist insurgency. Day and night operations include aerial surveillance, infiltration/exfiltration of ground forces, maintaining crucial operational supply line, ambulance operations and casualty evacuation. The helicopters are armed for self-defence and have clearance to fire in case the helicopter is attacked. In Jammu and Kashmir (J and K) IA uses helicopters for surveillance of possible infiltration points while IAF supports quick reinforcements. Helicopters can be used to pursue militants and help ground forces to join up with them. They are often mounted with search lights and thermal sensors for night pursuits. The slow moving helicopter faces risk from ground fire, especially man-portable short range ground-to-air missiles.

HADR Operations

The largest single non-combat helicopter operation in history was the disaster management operation following the 1986 Chernobyl nuclear disaster involving airdrops. Use of helicopters to control wild-fires using heli-buckets is routine nowadays. The helicopter

fleets are engaged round-the-year for HADR missions. In India, parts of J&K are cut-off every winter during heavy snow-fall. IAF sets up air-bridge to move stranded men and materials. IAF and IA fly around the year to sustain troops and civilians in the Siachen glacier and elsewhere in J&K and North east. Similarly they are used during cyclones and floods. Helicopters also rescue skiers during landslides. IAF's role in the relatively inaccessible mountainous terrain, as was the case during Uttarakhand floods of 2013, or Sikkim earthquake was crucial and time-critical. IAF was the first to reach Nepal during the massive 2015 earthquake and helicopters went village hopping pulling-out survivors. Helicopters crew are proud that invariably they are the 'first to enter and the last to leave'.

Helicopters in Indian Sub-Continent

Attack helicopters in India have been operated by the IAF under combat tasking by IA. IAF has its own attack helicopter related tasks, such as interdiction, armed recce, radar bursting, CSAR, front-tier airfield attack etc. It has been decided that in due course IA will have its own attack helicopters. Indian armed forces have inducted the ALH and its weaponised version 'Rudra'. Over 240 ALH variants have been produced till date. These aircraft have night vision goggles (NVG) compatible cockpit. IAF has a fleet of 240 Mil Mi-8, Mi-17, Mi-17 1V and Mi-17V 5 medium lift utility helicopters. IAF currently has three Mil Mi-26 heavy lift helicopters and they are due for overhaul. Chinooks have been inducted. The HAL Chetak and Cheetah are light utility helicopters operated by all the three Services and Coast Guard. India awaits signing of Kamov Ka 226 T contract. 200 of which are planned to be produced in India jointly by Kamov and HAL. Indian Navy operates the Kamov-31 for airborne early warning, Sea King, Ka-25, Ka-28 and Dhruv in anti-submarine role. So are Westland Sea King and Sikorsky Sea King. Seventeen of the Sea King helicopters will be upgraded with night capability and integration of two anti-ship missiles and new radar. 16 Multi-role S-70B Seahawk helicopters have been selected to replace Westland Sea King. Defence ministry has approved the procurement of 10 Kamov Ka-31 Airborne Early Warning and Control helicopters for the Indian Navy at a cost of around Rs 3,600 crore. They will be deployed on the aircraft carriers and other warships. US has approved sale of 24 MH 60 Romeo Seahawk helicopters to India for \$2.4 bn. India has been

in need of these formidable anti-submarine hunter helicopters for more than a decade now.

China's People's Liberation Army Air Force (PLAAF)⁹ operates Changhe Z-8, Z-9, and Z-11 which were supported by Eurocopter and are built under license. They also have medium lift Z-18, Z-19, Z-20, Mi-8/Mi-17, and Eurocopter AS332 Super Puma helicopters. WZ-10 and the smaller Z-19 attack helicopters are under advanced stage of development. Pakistan operates 45 Mi-17 helicopters, a few which have been transferred by China. They also have around 100 Aerospatiale Alouette III light helicopters, a few assembled locally. Pakistan received the four Mi-35M heavy attack helicopters ordered from Russia in 2015. They are interested in 20 more.

IAF Helicopter Operation

IAF Mi-4 helicopters were used for Heli-borne operation in the 1971 Bangladesh war. Siachen Glacier is the highest battlefield in the world with posts at heights up to 23,000 feet. IAF's Mi-8/17 and Cheetah helicopters airlifted hundreds of Indian troops to Siachen in 1984, and till date continue to support them. In 1987, for Operation Pawan of Indian Peace Keeping Force (IPKF) in Sri Lanka, about 70,000 sorties were flown by the IAF's transport and helicopter force without a single aircraft lost or mission aborted. Mi-8s supported the ground forces and also provided air transportation to the Sri Lankan civil administration. Mi-25s provided suppressive fire against militant strong points and to interdict coastal and clandestine riverine traffic. In the 1999 Kargil Conflict, IAF provided close air support using helicopters. While on an offensive sortie, a Mi-17 was shot down by three Stinger missiles and lost its entire crew of four. Helicopters thereafter were used only in operational logistic and communication missions. IAF has regularly contributed helicopters to UN Peace keeping force. Indian armed forces will shortly have an upgraded inventory of helicopters to undertake various roles. This would be a great force multiplier. Rotary wing fleet will continue to remain a very significant fleet both in war and peace.

Endnotes

¹ <http://www.pib.nic.in/PressReleasePage.aspx?PRID=1571884> accessed on 10 Aug 2019.

² <https://www.globalsecurity.org/military/world/russia/mi-26.htm> accessed on 10 Aug 2019.

³ <https://www.boeing.com/history/products/ch47-chinook.page> accessed on 10 Aug 2019.

⁴ <https://fas.org/man/dod-101/sys/ac/row/mi-24.htm> accessed on 12 Aug 2019.

⁵ <https://economictimes.indiatimes.com/news/defence/india-signs-rs-200-crore-anti-tank-missile-deal-with-russia/articleshow/70019412.cms?from=mdr> accessed on 12 Aug 2019.

⁶ https://www.militaryfactory.com/aircraft/detail.asp?aircraft_id=1943 accessed on 14 Aug 2019.

⁷ https://hal-india.co.in/Product_Details.aspx?Mkey=54&IKey= &CKey=63 accessed on 16 Aug 2019.

⁸ <https://www.indiatoday.in/mail-today/story/boeing-made-ah-64e-apache-attack-helicopters-to-join-iaf-fleet-in-19-1298619-2018-07-28> accessed on 18 Aug 2019.

⁹ <https://www.vifindia.org/sites/default/files/growing-muscle-of-plaaf.pdf> accessed on 20 Aug 2019.

Principles of Cyberwar

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“Principles are a code of conduct, but not an absolute one”¹

- George Kennan

Abstract

For decades military strategists have studied and evolved the ‘Principles of War’. Drawn from the long history of armed conflicts, these guidelines encapsulate the things that often lead to battle field successes. They reflect the accumulated wisdom of conventional war fighting. In this regard, some authors have said that cyberwar is also the continuation of kinetic war by other means. However, it is not; the two are quite different. One might say that they are checkers and chess – which only look the same because their terrain is the same and some of the pieces have the same name. It is, therefore, a great challenge to those military and cyber security experts who apply the rules of conventional war to the cyberwar². Cyberwar does have rules, but they are not the ones we are used to – and sense of fair play is certainly not one of them because of the inbuilt plausible deniability in cyber war. This article is not intended to be a comprehensive list but rather an attempt to suggest ‘Principles of Cyberwar’ to initiate a general discussion and dialogue on this subject³.

Introduction

In the history of warfare, the first person credited with principles to regularise methods of fighting should be SunTzu. Principles

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which he advocated, such as “know your enemy and yourself and in a hundred battles you will never be defeated”, “strike where the enemy is not prepared, take him by surprise” and “avoid the solid and strike the weak”⁴ are still articles of faith for modern strategists. A hundred year after the demise of ‘Napoleon the Great’, who elicited dread in the British both during life and after death; a British General by the name of JFC Fuller induced five principles of directing modern wars. All of the West’s principles of modern warfare have descended from these. This is because, from the beginning of the Napoleonic wars to the time prior to the Gulf war, apart from the continual increase in lethality and destructiveness, there was no essential change in the nature of war itself.

The digital revolution brought about a new type of war: Cyberwar. Its impact was seen vividly in the First Gulf war. Cyberwar refers to conducting, and preparing to conduct, military operations according to information-related principles.⁵ Since IT and the internet have developed to such an extent that they have become a major element of national power, cyberwar has become the drumbeat of the day, as nation-states are arming themselves for the cyber battle space. Cyber space is increasingly used as a theatre of conflict as political, economic and military conflicts are even more often mirrored by a parallel campaign of hostile actions on the internet. The principles of kinetic warfare as we know them are well documented, but they are not fully applicable to cyber warfare. Differences between cyberspace and the real world suggest some additional principles; this article therefore, proposes some new principles of cyber warfare.

Principles of War: The Conventional View

Before the battle of Kalinga, when the ‘Maurya Empire’ was at its peak, the emperor is reported to have proclaimed, “*Vijay hi ek-matra yudh ka sidhant hai* (Victory is the only principle of war)”. A similar quote by Winston Churchill, too, is significant, “Victory at all costs, victory despite all terror, victory, however long and hard the road may be; for without victory, there is no survival.”⁶ Overarching principles immutable through the ages, however, have a problem, they do not factor in the tremendous changes which have occurred due to technology and provide no direction to the strategists who plan war. Hence, greater detail is required by specifying the principles which give direction to reach the ultimate principle of victory in the digital

technology era. For decades military strategists have studied and refined what they call 'the principles of war'. Drawn from the long history of armed conflict, these guidelines encapsulate the things that often lead to battlefield success. They are not immutable laws; bold commanders sometimes ignore them and still win. But they reflect the accumulated wisdom of war fighting.

The principles of war as taught in the schools of instruction of the Indian Army, are based on Clausewitzian traditions. The principles that constitute the present doctrine are⁷:

- (a) Selection and Maintenance of Aim.
- (b) Offensive Action.
- (c) Concentration of Force.
- (d) Economy of Effort.
- (e) Flexibility.
- (f) Cooperation.
- (g) Security.
- (h) Surprise.
- (i) Administration.
- (j) Maintenance of Morale.

Principles of Unrestricted War — Chinese “Unofficial, Official” Views

Unrestricted Warfare which in Chinese translates to literally “warfare beyond bounds” is a book written in 1999 by Colonels Qiao Liang and Wang Xiangsui of the Peoples Liberation Army. In 1989⁸ they had stated that “the first rule of unrestricted warfare is that there are no rules, with nothing forbidden”.⁹ Elaborating this idea, the authors asserted that strong countries would not use the same approach against weak countries because “strong countries make the rules, while rising ones break them and exploit loopholes[...]”. The concept of unrestricted warfare is closer to British strategist Liddell Hart’s concept of ‘Grand Strategy’ than to German Strategist Ludendorff’s ‘Concept of Total War’. Not only do the non-kinetic aspects take precedence over the kinetic dimension, but the modus operandi is not based upon the all-encompassing mobilisation

of a nation's resources. The occurrence of the 'Revolution in Military Affairs' — the emergence of technologies so disruptive that they make existing concepts obsolete and necessitate a rethinking of how, with what, and by whom, war is waged has altered the dynamics of war. The First Gulf war showed that war is still brutal, however, the mass carnage of World Wars I and II was missing. War is still disruptive but not in a kinetic manner. In warfare of the era of globalisation, all participants are interconnected and interlocked. This makes unavoidable that people, places and economies far removed from the battlefield will be affected. This is obvious because the concept of a "battlefield", a "frontline" or a "rear area" all get diluted in "unrestricted warfare". The increasing incidence of non-state actors, low intensity conflict, nuclear weapons which make conventional war prohibitive and globalisation has set on course events which change the way wars are increasingly being fought. This has set in motion the first change of course since the dawn of history where "bloodless" wars in cyber space which indirectly attack the enemy can take place. This has laid a new track for war in the next century and given rise to principles with which professional military people are unfamiliar. No principle can rest on a platform of a different era waiting to collapse.

As per the authors of Unrestricted Warfare, the concept of "empty basket", (of military thinking) relies upon the principle of utilising the non-changing to deal with the myriad changes¹⁰. The key to whether or not victory is won in a war is nowhere else but in "what things you are able to pack into this basket"¹¹. On the specifics, the authors put forward as principles to pursue a "beyond limits combined war"¹² as principles of unrestricted warfare, quite different from the conventional principles of war. They state these as under:

- (a) Omni-directionality.
- (b) Synchrony.
- (c) Limited Objectives.
- (d) Unlimited Measures.
- (e) Asymmetry.
- (f) Minimal Consumption.
- (g) Multi-dimensional Coordination.
- (h) Adjustment and Control of the Entire Process.

Views of Western Writers

The Western World view of Clausewitz conceptualises war using enunciation and upholding of aim, mass and manoeuvre among other principles in a state-on-state kinetic war for a political intent. Contrarily, Sun Tzu's Eastern World conceptualises war, focusing on the criticality of intelligence and deception to defeat the mind of the enemy, knowing that relationships matter most in the strategy of war.

However, the great challenge for military and cyber security professionals in the present era much removed from Clausewitz and Sun Tzu is that incoming attacks are not predictable and current strategies for prevention tend to share the flawed assumption that the rules of conventional war extend to cyberspace as well. Cyber warfare does have rules, but they are not those we are used to and a sense of fair play is certainly not one of them. Moreover, these rules are not intuitive to the generals, who are versed in fighting the conventional wars. That's the problem because cyberwar won't be waged with the informed participation of much of the technology sector.

Stuart H Starr of the National Defence University, USA has written a chapter in *Cyber Power and National Security*¹³, which focuses on initial efforts for developing a framework for theory of cyberpower. He discusses the merits of a revised set of modernised principles of war for the 21st Century, as suggested by Charles Dunlap in 2006, vis-à-vis their relationship to the traditional principles¹⁴. These are :-

- (a) **Perceived Worthiness.** Morale: is it worthwhile to risk one's life?
- (b) **Informed Insight.** Sense-making, cognitive, surprise.
- (c) **Strategic Anchoring.** Concentration on and prominence of the offensive.
- (d) **Durability.** Incorporate security into plan; depends on logistics.
- (e) **Engagement Dominance.** Incorporates and simplifies manoeuvre; improve/oppose surprise.
- (f) **Unity of Effect.** Draws on unity of command, reinterprets economy of force mass, manoeuvre.

(g) **Adaptability.** Presupposes flexibility but does not mandate simplicity.

(h) **Culminating Power.** Power needed to attain satisfactory closure at a given level of conflict.

Cyberwar is the continuation of kinetic war by plausibly deniable means. May be we can state that cyberwar is kinetic war by other means; well it's not; the two are quite different. One might say they are as checkers and chess – which only look the same because their terrain is the same and some of the pieces have the same name.

Suggested Principles of Cyber War

Do the principles of war, hitherto circumscribed as they are due to lack of familiarity and first-hand experience of non-traditional war-milieu, coupled with hi-tech destitution in reference to cyber domain, continue to be valid ? This article states that they are not valid. Hence, a new list of principles of cyberwar are required. These principles — fairly enthused by what are listed and described in Unrestricted Warfare — are distinct from the conventional principles of war. An understanding of irregular warfare fosters a rudimentary knowledge of cyber warfare. By highlighting how irregular warfare and cyber warfare are similar and providing the critical framework for using IW principles to approach, define and integrate cyberspace operations across all domains and services, military planners can begin to understand how cyber power can increase the effectiveness of the nation's military cyber force.¹⁵

Sun Tzu's principles that steer non-kinetic cyberspace operations are still important guides. The most advantageous way to subdue the enemy is to attack the mind of the commander(s) or better still, that of the political leader(s) at the helm. Cyber war provides the most effective means for that – gathering intelligence through cyberspace and exploiting deception in cyberspace. Therefore, the new set of principles of cyberwar proposed are:-

- (a) Pursuance of National Interests.
- (b) Mobilisation, Motivation and Morale.
- (c) Unity of Command and its Well-defined Chain.
- (d) Technological Supremacy.

- (e) Network Knowledge and Cortex Centricity.
- (f) Surprise, Stealth and Subterfuge.
- (g) Organisational Agility and Power to the Edges.
- (h) Synchrony and Integration.
- (i) Spontaneity in Response.
- (j) Situational Understanding.
- (k) Security of Centres of Gravity.
- (l) Global Cooperation

Conclusion

The new principles of war are no longer using armed forces to compel the enemy to submit to one's will, but are using all means, including armed forces or non-armed force, military and non-military, and lethal and non-lethal means to compel the enemy to accept one's interests. Though some military writers have attempted to apply the traditional principles¹⁶ of war to cyberwar, but it seems more useful to start with a blank sheet of paper to begin discussion and debate about what should constitute the principle of cybeware. The principles of conventional war emerged from centuries of experience. Cyber is new, so its parameters and implications will be dynamic for quite some time and will evolve with usage and experience.

Endnotes

¹ American diplomat and historian. He was best known as an advocate of a policy of containment of Soviet expansion during the Cold War.

² Tarah Wheeler, "In Cyberwar, there are no Rules", illustration by Kyle Hilton for Foreign Policy, September 12, 2018, <https://foreignpolicy.com/2018/09/12/in-cyberwar-there-are-no-rules-cybersecurity-war-defense/>

³ R.C. Parks, and D.P. Duggan, "Principles of Cyberwarfare," September/October 2011, pp. 30-35, vol. 9

⁴ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, (Beijing: PLA Literature and Arts Publishing House, February 1999), Accessed <https://www.c4i.org/unrestricted.pdf>

⁵ John Arquilla & David Rondfelt, *Cyber War is Coming*, https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR880/MR880.ch2.pdf

⁶<<http://www.brainyquote.com/quotes/quotes/w/winstonchu138231.html#d2OYWgw ykh>

⁷ Indian Army Doctrine, n. 2, ch.3

⁸ Qiao Liang and Wang Xiangsui

⁹ *ibid*

¹⁰*Ibid.* n 7, ch. 4

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*Chapter 3 “ Towards a Preliminary Theory of Cyberpower” in n.2, ch 2, pp 43-88

¹⁴ *Ibid*, pp. 56-57

¹⁵ Frank C Sanchez, Weilun Lin and Kent Korunka, “Applying Irregular Warfare Principles to Cyber Warfare”, 01 Apr 2019, NDU press

¹⁶ Samuel Liles, J. Eric Dietz, Marcus Rogers and Dean Larson, “Applying Traditional Military Principles to Cyber Warfare.

From 'Landlocked' to 'Land-linked': Changes in the Emphasis on Nepal's Foreign Policy

Professor Sangeeta Thapliyal®

Abstract

Nepal's relations with its neighbours are taking a new trajectory. It is coming out of its landlocked status and taking upon itself the role of a bridge between India and China. During his visit to China in June 2018, Prime Minister KP Oli had said "We believe that Nepal can serve as a bridge between our two neighbours. In fact, we want to move from the state of a land-locked to a land-linked country through the development of adequate cross-border connectivity. Our friendship with both our neighbours places us in an advantageous position to realise this goal".¹ Oli's statement surmises changes in Nepal's foreign policy with its neighbours in a nutshell. The statement isn't new on the neighbourhood relationship. In the recent past, previous prime ministers and ambassadors have made similar statements. Gone are the days of special relationship with India or the policy of balancing one against the other. The new emphasis is on connectivity and economic development. By this, Nepal is trying to redefine its foreign policy. In this article the term foreign policy is used in a limited sense of relations with Nepal's neighbours.

Landlocked Nepal and its Foreign Policy

The first ever prominent pronouncement on Nepal's foreign policy was by King Prithvi Narayan Shah, in his *Divine Counsel*, in which he emphasised on Nepal being landlocked and counselled on the kind of relationship Nepal should develop with its neighbours.

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He wrote, "This state is like a yam between two stones. Keep strong friendship with the emperor of China.... maintain friendship with the emperor of the Sea (British) in the south".² He further cautioned that the British may eye the plains of Nepal as it would find difficult to hold on to the Indian territory in the wake of rising opposition of its people.³

This yam between the two boulders developed close working relationship with the British India. Prime Minister Jung Bahadur Rana, during his visit to England in 1850, saw the industrial development and military might of the British and realised the power differentials between the two.⁴ It was not easy to overthrow them hence, Nepal developed friendly relations with the British. He sent troops to help the British during the 'sepoy's mutiny' in 1857 and during the first and the second world wars. This started a new relationship between the Ranas and the British.

On the other hand, people of the two countries were giving a new meaning to the relationship. Young Nepali political activists, seeped in the ideology of democracy, participated in India's struggle for independence and also got support from Indians for their struggle for democracy and end of Rana rule.⁵ The Nepali nationals, many of them studying in India, set up Nepali Congress in Benaras and the Communist Party of Nepal in Calcutta. Subsequently, many prominent among them, like BP Koirala, Ganeshman Singh, KP Bhattarai and Manmohan Adhikari, led governments in Nepal or became influencers on Nepali politics. The political idealism and activism was a link that was cherished by the leaders of both the countries. It acted as glue which helped the countries face many storms together.

One such incident was when King Tribhuvan took refuge in the Indian embassy in 1950. He was brought to India, following which the Defence and Foreign minister and other political leaders came for negotiations and a compromise was arrived at between them which eventually paved way for democracy in the country. The two friendly neighbours also perceived regional politics from similar prism such as communist China's occupation of Tibet. Both considered this disturbing development as a strategic threat because independent Tibet was a buffer which wasn't anymore. The regional political dynamics brought India and Nepal closer which is evident from the Treaty of Peace and Friendship and the

Treaty of Trade and Transit signed in 1950. This 'special relationship' had underscored Nepal's apprehension from China's physical proximity on its northern border.

The apprehension was short lived as Nepal started diplomatic relations with China in 1956. Nepal became a member of United Nations (UN) in 1955 and took stand on issues independent of India such as on the Hungarian issue in 1956.⁶ The change in narrative took place when King Mahendra assumed power in 1955 and started bringing changes in Nepal's foreign policy. He asserted on Nepal's policy of 'non-alignment' with 'equal friendship for all' and 'diversification'.⁷ At the domestic front, there were ideological conflicts between the King and political parties. The King took power in his hands by dismissing BP Koirala led government in December 1960, alleging misuse of power, corruption and failure in law and order.⁸ Many leaders were arrested and others moved to India. With monarchy perceiving the democrats having links with the Indian leadership, there was a move to find another support which could balance out this linkage. Nepal's first major step to move out of its special relationship was by signing an agreement on road construction linking Kathmandu with Kodari in 1961.⁹ Nepal did not consider China as a security threat but considered democratic linkages of political leaders with India a bigger concern. Threat to monarchy was a threat to the country. The policy of 'special relationship' was now replaced with the 'balance of power' or 'equi-distance from neighbours'. The policy was propounded to balance the close relationship with India by bringing in China as a balancer. Following similar threat perceptions, yet another foreign policy pronouncement of Nepal was the Zone of Peace (ZoP) put forth by King Birendra in 1975.¹⁰ The ZoP initiative was moved to create distance from India and showcase Nepal as a neutral country.

The ZoP proposal was removed from the new Constitution in 1990. Two major developments preceded the new Constitution of Nepal. One was the closure of trade and transit points between India and Nepal in 1989. The Treaty of Trade and Transit was due for renewal but India wanted the two to be brought in within one treaty whereas Nepal desired two separate treaties. The negotiations did not succeed and the Treaty was not renewed within the stipulated time. This led to the closure of border points barring two in Raxaul and Jogbani and two more were provided

with Bangladesh and Bhutan.¹¹ King Birendra looked towards China for economic aid and support but poor logistics and infrastructure could not bring in fruitful results. It is said that China had expressed geographical and financial constraints in delivering goods to Nepal and suggested to improve relations with India.¹² Nepal's strategy of looking towards China and international aid rather than resolving crisis with India backfired. This added fuel to the fire and agitation against the King became more intense. Nepal adopted multiparty democracy and constitutional monarchy in 1990. KP Bhattarai, Nepal's interim Prime Minister, said on his visit to India that even though people faced difficulties due to expiry of the Treaty of Trade and Transit but the "negative benefit for the same was derived".¹³ On 6 December 1991, two separate treaties on Trade and Transit were signed. In the Treaty of Trade, both the signatories agreed to give most favoured status to each other. For this, the Indian government agreed to pay Nepal excise and other duties collected on goods produced in India and exported to Nepal. During his visit to India in 1991, Prime Minister GP Koirala assured India that things like arms import from China in 1988 "would not be allowed to vitiate the atmosphere in future".¹⁴

This democratic euphoria was short-lived as the country faced political instability due to frequent changes in governments and armed rebellion by the Maoists that lasted for ten years. In political mayhem, in 2002, King Gyanendra took power in his hands and dismissed Sher Bahadur Deuba led government on charges of corruption and inability to resolve the political crisis. India expressed concern on the royal takeover where as China considered it as an internal affair. India had stopped military supplies to Nepal. Given the circumstances, Gyanendra looked towards China for supply of arms and equipment. In order to please China the office of the representative of Dalai Lama was closed in Kathmandu.¹⁵

A massive people's movement led by political parties forced King Gyanendra to reinstate parliament in 2006. The reinstated parliament, under Prime Minister GP Koirala, nationalised the King's assets, dropped royal titles from all the institutions including Army and ended the *Raj Parishad*. In 2007, the interim Constitution declared Nepal as a federal democratic republic and abolished monarchy. A new constitution was written by the elected Constituent Assembly that was adopted in 2015.

Contrary to the expectations that democratic Nepal would develop close relations with India, the relations were strained even before the Constitution was promulgated. India wanted that the government should cater for interests of all the stakeholders like *madhesis* or *janjatis* in the new Constitution. Nepal government considered it to be interference in its domestic matters. As India had expected, there were protests within Nepal against the Constitution. Indian position was that the protests would have spill over effect in states bordering Nepal's terai.¹⁶ Open border created emotional bonds between people who shared each other's anxieties and concerns. In the meantime, *madhesis* took advantage of their geographical location and blockaded the border with India.

There was shortage of essential supplies, petrol, gas etc. Nepal government blamed India for the border blockade. Their hyperbole invoked Nepali nationalism that was ready to stand up to the perceived Indian interference. Instead of negotiating with the protestors, Nepal government brought China into the equation. China agreed to supply 1000 tonnes of fuel on grant basis. Nepal also signed an agreement with China to open another trade route from Rasuagarhi to Kerung. It further proposed to open seven more trade routes with China. Nepal wants to come out of its geographical dependence on India and have trade and transit routes through China.¹⁷ In 2017, Nepal signed China's proposed Belt and Road Initiative (BRI). However, this time around Nepal has asserted that developing links with China would not be at the cost of relations with India. Nilambar Acharya, Nepal's Ambassador to India said that, "Nepal and China may be getting closer for mutual economic and trade gains but their emerging relationship is not at all at the cost of India".¹⁸

An Assessment

Even though landlocked between India and China, Nepal is land opened towards India. It shares 1751 km of borders with India that is open for the citizens of the two countries to cross without any restriction. Citizens can avail economic opportunities in each other's country or can buy land and property. Nepalese can join any government job in India except Indian administrative, foreign and police service. These provisions are included in the Treaty of Peace and Friendship, also commonly referred to as the '1950 Treaty'. The strategic concerns on China's occupation of Tibet were such that India and Nepal developed close political-economic

relationship. Nepal was underdeveloped and poor and could not have found it easy to deter the communist influence from its north. Also, the rugged terrain along border with Tibet did not offer much scope for close social or economic relations. Lack of infrastructure was another hindrance. The political change in the north was also the reason for including certain security related provisions in the 1950 Treaty.¹⁹ The signatories agreed to inform each other if they encountered any friction with another country. India agreed to provide transit rights to Nepal for buying arms and ammunition provided it had prior knowledge of the same. This nature of relationship could evolve because both the countries had similar concerns towards China. This phase of special relationship between India and Nepal reflected close socio-cultural linkages and frequent interaction with the people. It reflected the cordial relations and understanding developed between the political leaders of the two countries while fighting for independence and democracy from the British or the Rana oligarchy. India was Nepal's largest trading partner, helped in developing infrastructure (roads and airfield), education, health, agriculture, power, irrigation and modernised Royal Nepal Army etc.

With change in leadership, there was a change in priorities and perceptions of Nepal and its foreign policy, which now laid emphasis on equidistance between its neighbours. This was the time when King Mahendra had dismissed Nepali congress government and brought in Panchayat in its place. Official Indian reaction was not in favour of the royal action. Fearing Indian support to the democratic forces, Nepal took measures to keep distance from India on matters such as road connectivity with China through Kathmandu-Kodari road. China was also involved in building roads within Nepal such as 'Prithvi Rajmarg' linking Kathmandu with Pokhara or Chakrapath around Kathmandu. Nepal tried to match the policy of equidistance with rising Nepali nationalism, which was basically sloganeering against India. Nepal's policy shift coincided with strained relations between its neighbours that eventually led to war.

Yet another important foreign policy pronouncement by Nepal was the ZoP proposal, which was declared by King Birendra during his coronation ceremony in 1975. Emphasising adherence to the policy of non-alignment, King Birendra said that Nepal wants peace within, with its neighbours and in the world.²⁰ India raised a few clarifications on the proposal before giving a formal response. The

ZoP proposal did not see the light of the day. Nepal's contention that it could follow equidistance was more rhetorical than substantive. A country which had social linkages and economic dependence on India was equating relations with its northern neighbour with whom she had formal relations. In 1980s, Nepal gave duty concessions to Chinese products that made them cheaper than the Indian goods, gave projects to the Chinese firms near the Terai border and bought arms from China (1988). Consequent to the strains in relations, the Treaty of Trade and Transit with India lapsed in 1989.²¹

Nepal's policy of non-alignment or equidistance was the result of its domestic politics on foreign policy. Whenever the government in Nepal felt that it was getting a raw deal or felt threatened by India, it used China as a balancer. Presumably, it was posturing because Nepal knew that it could not replace India with China for meeting its economic needs or close socio-cultural connections. Nonetheless, landlocked countries play different strategic games for their existence. They can become a larger country's ally, satellite, be neutral or play one against another. Nepal played all these. However, in reality, China could not replace India. It is said that when the Communist Party of Nepal (United Marxist Leninist) came to power in 1994, it looked towards China for support but they were advised to mend their fences with India. China had realised its geographical limitations to replace India in Nepal during the border blockade in 1989.

The economic blockade in 2015 by the Madhesi agitators once again brought the geographical location of Nepal to the centre-stage of its relations with India. Nepal once again looked towards China for support. This time people gave support to the government to look for alternative routes in the north in order to come out of dependence on India. The blockade created a public opinion amongst the hill people to open trans-Himalayan linkages with China. The previous blockades in 1971 and 1989 were due to differences in the Treaty of Trade and Transit and popular perception was against their own king for not finding solutions. Those opposing the king were pro-democracy supporters but the 2015 blockade was done by the Nepali protestors from *Madhes*, perceived as Indians, which was above ideological divisions and the popular perception against India was echoed by the hill people. The open border is no longer leverage against Nepal and the border blockade showed it in 2015.

Secondly, the political scenario had changed from the previous years when China was unable to provide much help to Nepal. China has become economically strong and through its BRI has given emphasis on connectivity. Nepal tried to utilise the opportunity to get into the bandwagon and became its signatory in 2017. China is a major investor in Nepal focusing on infrastructure development. It has entered into new areas such as hydropower, tourism and cultural linkages through Buddhism. It has made attempts to reach out to all the political parties and actors in Nepal. The crisis gave an opportunity to China to fill in the vacuum created by deteriorating India-Nepal relations. Knowing that China would not be able to immediately replace India in fulfilling Nepal's everyday requirements, Kamal Thapa, Nepal's Foreign Minister, during his three days visit to India said, "We (Nepal) would like to take advantage from both our neighbours but not at the cost of each other. Nepal does not have a policy of playing cards against each other".²²

In his second tenure, Prime Minister KP Oli has made it clear to go ahead with the projects signed with China but is careful to say that Nepal would like to be a transit between its two neighbours. Nepal is trying to redefine its role in the Himalayas and finds China as the ready partner. Almost all projects are important for the Chinese businesses but the strategic importance of road and rail links from Tibet to Nepal cannot be ignored.

China has expressed its interest on Nepal's new foreign policy thrust. In 2016, President Xi Jinping had said that Nepal could be a link between India and China.²³ In April 2018, Chinese foreign minister Wang Yi said, "Nepal stands as a natural beneficiary for cooperation and development from China and India. I think this is a logical desire that should be supported by both China and India".²⁴ China has taken a proactive stance and asked India to cooperate on Nepal's economic development. This is a new turn in the relations wherein China is projecting to take lead and asking India to join in. However, without addressing each other's strategic concerns in the Himalayas, it would not be easy for India and China to cooperate on economic projects in Nepal, especially when India has reservations on China's BRI too. India may, however, find it difficult to stop Nepal from developing relations with China.

India, on the other hand, has made concerted efforts to develop trade and infrastructure development projects with Nepal. In fact,

during his visit to Nepal in 2014, Indian Prime Minister Narendra Modi had emphasised on Highway, Information and Technological linkages for Nepal's economic development. This was reciprocated by Nepal and projects on hydropower, rail and road linkages were signed. Agreement on broad gauge railway line was signed linking Janakpur in Nepal with Jaynagar (Bihar) in India. Direct bus service has started linking Kathmandu with Delhi, Varanasi and Patna.

In such a scenario of divergent perceptions, Nepal's desire to act as a bridge or link is an interesting proposition. Nepal has not made its stand clear on what it implies by a bridge between its two neighbours. Does it indicate Nepal's infrastructure links with both the neighbours bilaterally, trilaterally or does it mean that it would be a transit for Chinese goods to India?

Conclusion

Nepal's journey on its relations with the neighbouring countries has seen interesting shifts from the policy of special relationship with India to the policy of equidistance between India and China or non-alignment or the ZoP. These policies, at best, remained on paper, such as in the presence of 1950 Treaty it was not possible to have equidistance with its neighbours or to remain neutral with an open border and free movement of people in India. Nepal made attempts to utilise strained relations of India and China to its advantage but geography has placed its own limitations. The effectiveness of the policies depends on whether neighbours want to play the game. Now, it is trying to enter a new phase of trans-Himalayan linkages or bridge between the two neighbours. It would be interesting to see how the politics evolve and unfold.

Endnotes

¹ "KP Oli says Nepal will maintain close ties with India, China while pursuing independent foreign policy," Firstpost, 23 June 2018, <https://www.firstpost.com/world/kp-oli-says-nepal-will-maintain-close-ties-with-india-china-while-pursuing-independent-foreign-policy-4577861.html>

² "Dibbaya Upadesh of Prithvi Narayan Shah", www.lawcommission.gov.np/.../dibbaya-upadesh-of-prithivi-narayan-shah....

³ Ibid.

⁴ Adrian Sever, *Nepal under the Ranas* (New Delhi, Oxford and IBH Publishing, 1993), pp. 72-74.

⁵ For details refer Kanchanmoy Mojumdar, *Nepal and the Indian Nationalist Movement* (Calcutta: Firma K.L. Mukhopadhyay, 1975)

⁶ Leo E. Rose, *Nepal: Strategy for Survival* (Bombay, Oxford University Press 1971, p. 214.

⁷ Leo E. Rose and Roger Dial, "Can a mini state find true happiness in a world dominated by protagonist power?", *The Annals of American Academy*, vol. 386, November 1969, p. 92.

⁸ HM King Mahendra, *Proclamations, Speeches and Messages*, vol. II, Department of Publicity, Ministry of Information and Broadcasting, HMG, Nepal, Kathmandu, June 1967, pp. 1-3.

⁹ For the test of the highway construction agreement between China and Nepal refer A.S. Bhasin, *Documents on Nepal's relations with India and China 1947-1992*, vol. I (Delhi: Siba publications, 1994), p. 553.

¹⁰ *Rising Nepal*, 26 February 1975.

¹¹ *The Telegraph*, 2 April 1989.

¹² *IDSA News Review*, vol 23, no.1, January 1990.

¹³ Refer A.S. Bhasin, *Documents on Nepal's relations with India and China 1947-1992*, vol. I (Delhi: Siba publications, 1994), p. 483.

¹⁴ *The Hindustan Times*, 7 December 1991.

¹⁵ 'Tibet's Stateless Nationals: Tibetan Refugees in Nepal,' <http://www.tibetjustice.org/reports/nepal.pdf>

¹⁶ Sangeeta Thapliyal, 'Politics in Nepal and India's Options', *Scholar Warrior*, Centre for Land Warfare Studies, Autumn 2016.

¹⁷ Sangeeta Thapliyal, "Nepal: Response to Political Crisis", *China-India Brief*, no.63, November 12 – December 01, 2015

¹⁸ *Business Standard*, 26 March 2019.

¹⁹ For detailed analysis on 1950 Treaty refer, Sangeeta Thapliyal, "India and Nepal Treaty of 1950: The Continuing Discourse," *India Quarterly*, vol. 68, issue 2, 2012.

²⁰ Refer test of the speech of King Birendra *Rising Nepal* (Kathmandu) 26 February 1975.

²¹ *The Telegraph* (Calcutta) 2 April 1989.

²² 'Nepal's relations with China not at India's cost: Kamal Thapa', 10 June 2016.

²³ "Nepal can be a bridge between China and India: Xi Jinping," *Economic Times*, 21 March 2016.

²⁴ Sutirtho Patranobis, "China firms up connectivity projects with Nepal, asks India to join in," *Hindustan Times*, 18 April 2018.

Sino-Russian Relations: Implications For Vietnam

Major General Nguyen Hong Quan®

Abstract

Sino-Russian relations have witnessed remarkable developments in recent years. China's big market, high demand for energy, and weapon systems have contributed to mitigating Russian economic difficulty to a certain extent. The two nations have resolved border disputes of more than 4,000 km. This article focuses on real situation, nature of ties and their implications for Vietnam.

Introduction

Consequent to annexation of Crimea, by use of military force, Russia has suffered from political isolation and economic stagnation,² and has turned eastwards. China's big market, high demand for energy, and weapon systems have contributed to mitigating Russian economic difficulty to a certain extent. The two nations have resolved border disputes of more than 4,000 km. Cooperation in the fields of defence and energy has achieved breakthrough; and in other fields cooperation has deepened. Sino-Russian strategic partnership has been established for a period of 20 years and is likely to attain new heights.³ China is Russia's biggest trading partner. The two nations intend to increase two-way trade to US \$ 200 billion in the next 10 years.⁴

The two nations have shared positions⁵ on defence. Russia has granted China a "special" status, and has been selling to China more items of weapon systems⁶ than any other country. Naval cooperation between the two has been on the rise in terms of scale, quality, content, and conduct of exercises.⁷ It reflects China's readiness to expand global reach and military cooperation with Russia. China also appears ready to assist Russia not only in the Pacific Ocean, but also in the Atlantic Ocean and the North Sea. China has adopted pro-Russia policy since the 18th Congress

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in 2012. To curb US influence near China's borders, Russian Navy has designated China as a "core partner" in its naval doctrine, signalling to exert greater influence in regional waters.⁸ Russia has supported China's position on the ruling of the Permanent Court of Arbitration (PCA) regarding the South China Sea case.

Both nations refrain from using the term "alliance" to describe their political and military relations. Their relations have been modelled to compete with US and its allies, leading towards emergence of a new Cold War. It has encouraged US and its allies in Europe and Asia-Pacific to strengthen ties. It has increased risk of a global arms race as well as potential conflict in the South and East China Seas.

Analysis of Strategies Adopted

The two nations jointly want an end to US dominance in the international financial system, and oppose US measures to change regimes in several countries.⁹ China wants to replace the US as the sole superpower. It competes with US in Latin America. Meanwhile, Russia is in competition with US for influence in the Middle East, North Africa and in Latin America. Russia wants to stop NATO's eastward expansion, and an arms race in outer space. While Russia is in direct confrontation with US, China has adopted a more flexible approach. Russia may resort to military measures if its national interests are threatened.¹⁰ China treats its relations with the West with caution since China benefits a lot from economic globalisation, especially from its ties¹¹ with US.

China favours policy of "soft expansion". She seeks to buy Russia's natural resources and technologies at cheap rates while gradually encroaching upon Russian territory. China challenges Russia's monopoly in export of oil and gas to the Central Asia by means of "Belt and Road Initiative" (BRI). Putin has agreed to connect the Eurasian Economic Union (EEU) with BRI, but its feasibility is unclear. Russia is apprehensive of China's military power. That explains why Russia continues to deploy its military units in the Far East close to China border. Russia is worried about China's infiltration in the Far East and its growing influence in Central Asia, particularly in Ukraine. Russia is afraid of the possibility that China would become its major competitor for export of military hardware, and compete with Russia for influence in Central Asian nations.

Despite close cooperation, there remains distrust in Sino-Russian relations. China took advantage of Russia's difficulty during negotiations regarding construction of a gas pipeline from Siberia to China in 2014, and sales of Su-35 fighters and S-400 missile system. Russia is worried about losing its military technology edge to China. Chinese businesses are worried about Russia's incapability to pay debts, and risk is high due to sanctions imposed by the West on Russia. China did not follow Russia to recognise South Ossetia and Abkhazia as independent states.

Russia has periodically given priority to its relations with some of the Western countries which may harm Sino-Russian strategic partnership.¹² Both nations are neither allies nor adversaries. Russia's decision to sell weapons to India, challenges China's ambition to dominate the region. Admission of both India and Pakistan to Shanghai Cooperation Organisation (SCO) implies hidden motives of both, Russia and China. While Russia seeks to develop alliances resembling the BRICS Group¹³ to contain US, China pays more attention to establishment of bipolar international system with US. China exploits its trade surplus as a weapon to control Russia.

Implications for Vietnam

China will need to maintain stability and take help of neighbouring countries, at least for the next 5 to 10 years, to secure its southern borders. China would not like Vietnam to go against China's strategic interests. Russia also wants to improve current scenario to promote regional security.

China wants to cooperate with Vietnam, which is a big market and has extensive network of free trade agreements conducive to economic development in southern China. Russia is attempting to promote economic competition of Eurasian Economic Union (EEU) countries, including Vietnam. It can be visualised as an opportunity to enhance cooperation in military technology, defence industry, science and so on. Vietnam-Russia comprehensive strategic partnership is an opportunity to share Russia's advantages of defence industry, military technology, cadre education and training.

Vietnam has developed trade relations with both China and Russia. These are favourable conditions for Vietnam to promote its diplomatic relations.

Negative impact

China fears that Vietnam would be induced by the US to contain China. China continues to follow its policy of “courting” and “coercion” to keep Vietnam within its sphere of influence or as a buffer zone. China sustains moderate development of “comprehensive strategic partnership” with Vietnam, exaggerates risk of “Westernisation” and “disintegration” of Vietnam, periodically. China increases or eases tension; and sets conditions for tackling the South China Sea issue through “joint exploitation” for the sake of smooth bilateral relations. On one hand, China takes advantage of Russia, and embroils Laos and Cambodia. On the other hand, it applies pressure on “stubborn” ASEAN state members such as Singapore, and creates hardship for Vietnam.

As per Russia’s National Security Strategy 2016; the US is perceived as a threat to its security. China seeks to prevent the US from increasing influence in Vietnam, and hinders Vietnam from developing comprehensive partnership with the US. Russia’s comprehensive strategic partnership with China and bilateral settlement of South China Sea issue; naval cooperation with China in the South China Sea, have led to disappointment and suspicion. It has also posed a serious challenge to Vietnam.

Russia is keen to muster international support to cope with US and European Union (EU). Both, China and Russia do not have proper understanding of the nature of Vietnam-US relations, and are keen that Vietnam should refrain from upgrading its relationship with US.

Russia gives priority to its relations with China.¹⁴ In March 1988, Russia did not respond to Vietnam’s request to send its ships in Cam Ranh Base to support Vietnam’s naval vessels damaged in the conflict in Johnson Reef, Spratly Islands. Russia continues to maintain an ambiguous position regarding South China Sea. It does not criticise China’s moves to dominate South China Sea, conduct build-up and militarisation of islands and reefs, and step up their activities. China may impede naval vessels of US, Japan, India, etc., but does not do so to Russian warships operating in the South China Sea or making port calls at Vietnam’s harbours.

Recommendations

Vietnam should strive to settle maritime issues with China, thus creating momentum for developing good relations between the two countries. During strategic dialogues with China, Russia, and other countries, it is necessary to put forth the Vietnamese position on the resolution of disputes in a straightforward manner.

There is a need to promote economic cooperation on the basis of equality and mutual benefit while preventing China from doing harm to Vietnamese national interests. Vietnam also needs to continue to deepen cooperation with Russia on the basis of mutual benefit.

Vietnam should enhance its defence and security ties; upgrade strategic dialogues; and coordinate resolution of multilateral issues like the South China Sea case at multilateral forums. Vietnam has to take initiative in developing mechanisms for strengthening maritime security, conflict prevention, and consolidation of forces for dealing with contingencies, catering for the worst case scenario. It is necessary for Vietnam to resolutely defend its sovereignty, territorial integrity, and legitimate interests at sea; preserve its islands, and economic-science-service complexes; and create environment conducive for national development.

There is a need to maintain free flow of information between advisory offices, be judicious for allowing Russian aircraft to transit and refuel in Vietnam, so as to avoid difficulty in Vietnam - US diplomatic relations. It is important to make public awareness about the Vietnamese strength and advantages.

Vietnam needs to deepen its relations with both China and Russia. Vietnam – China borders should be developed into borders of peace and friendship. Focus should be on defending Vietnam's island territory.

We also need to improve relations with countries seeking economic and cultural ties with Vietnam and garner international support for important issues.

Conclusion

China is improving relations with Russia. Russia has to pivot to Asia because she is facing difficulty with US and EU. China and

Russia jointly may try to keep the US out of the South China Sea and Asia. Despite recent developments in their bilateral relations, China and Russia might not become allies. Their relations are potentially complex, fragile and imbalanced. However, US administration's approach towards North Korea and South China Sea is likely to bring China and Russia closer.

Vietnam should continue to preserve its independence, give priority to developing relations with China, harmoniously maintain Vietnam-China-Russia relations, broaden its relations with other major powers in the world, and develop harmonious relations with the US for promoting Vietnam's national interests.

Endnotes

¹ Russian economic power became weak, accounting for 1.5 per cent of global GDP as compared to 2.5 per cent.

² These two nations have concluded an agreement to produce high-speed trains; agreements to produce long-range civilian aircraft and heavy helicopters; energy contracts; MOU on cooperation for electric production and construction of underground gas depots in China.

³ Despite its current rate of \$66 billion, Sino-Russian trade has dropped from its peak of \$88 billion in 2012, before decreasing oil prices and Russia's subsequent economic recession. China still imposes trade restrictions to several Russian exports, including wheat and cattle.

⁴ Both China and Russia consider "Rebalance" and NATO's eastward expansion as US-initiated policies; and object US deployment of missile systems in Europe and THAAD in South Korea. China did not oppose Russia's annexation of Crimea and support of opposition factions in Ukraine.

⁵ These items include Kilo-class submarines, Su-27 and Su-35 fighters, Sovremenny –class destroyers, S-400 air-defence missiles.

⁶ The 2012 exercise in the Yellow Sea (China) witnessed the participation of 25 warships and submarines, 13 aircrafts, 9 helicopters; the 2013 exercise was conducted in Primorie (Russia) and the Sea of Japan with the involvement of 18 warships; the 2014 exercise was carried out in the East China Sea, near the Senkaku Islands (the Diaoyu Islands in China).

⁷ See aspistrategic.org.au, TASS - 15, 16 September 2016.

⁸ The two nations opposed the 1990s Wars in the Former Yugoslavia, the 2003 Iraq War, the "color revolutions" in Georgia and Ukraine, and the 2011 Arab Spring.

⁹ Russia's strategic bombers often fly close to the airspace of NATO countries, including the U.S; opposes Kosovo's declaration of independence, Georgia and Ukraine's inclination towards NATO and EU, U.S. deployment of missile defence system in Europe, and so on.

¹⁰ In financial terms, Sino-U.S. trade is 10 times higher than Sino-Russian trade. China promotes exchange with U.S. in the realms of investment and technology, and training and education of young elites at U.S. universities.

¹¹ After the 9/11 terrorist attacks, Russia allowed U.S. to set up its military bases in Central Asia without consulting China. When Russia revealed shortcomings between Russia and NATO regarding the theater missile defence, China was very annoyed since it would become vulnerable to U.S. missile systems.

¹² The combined economies of Brazil, Russia, India, China, and South Africa.

¹³ A new concept of Russia's foreign policy was unveiled on November 30th, 2016. Accordingly, Russia put China on the top of its priority list, followed by India, Mongolia, Japan, and so on. See more Sergey Luzyanin, "Russia pivots to the East in geopolitical terms," *International Studies Review*, No.2 (109), June 2017, page 119.

Significance of Hypersonic Vehicles

Dr Roshan Khanijo®

Abstract

The development of new technologies like Hypersonic Vehicles has led to a revolution in military affairs. Since speed and manoeuvrability are important parts of these weapons, any country having this technology has an added advantage. This technology creates uncertainty for the adversaries as it becomes increasingly difficult to track these weapons. Further, dual use nature of these weapons will make it difficult for the adversary to decipher whether the approaching weapon is a nuclear or a conventional one and hence the competition amongst the nations to develop this technology. Though the technology was broached by the Americans, the Russian and the Chinese have conducted more tests and the number of nations developing hypersonic technology has increased. This has also impacted arms control and disarmament initiatives. This article analyses these issues.

Introduction

New tools and processes of waging war, like information warfare (IW), network-centric warfare (NCW), integrated Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR), system of systems, all powered by information technology (IT), have led to the revolution in military affairs (RMA).¹ Further the integration of satellite and computer technology has greatly enhanced and facilitated command and control and reduced time and space dimension to an extent that it is the new real time information gathering, processing and dissemination² which has become extremely critical to any warfare. Post-Cold War, with the advent of atomic age the nature of conflict changed. Nuclear weapons had decreased the possibility of a full-fledged war, but due to the development of new technologies fierce

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arms race emerged amongst the major powers. One such technology which has been developed is the hypersonic technology.

Nature of Hypersonic Glide Vehicles (HGVs)

Hypersonic vehicles generally refer to flight of vehicles experiencing a sustained long-range manoeuvrable flight in the atmosphere layer, or trans-atmosphere layer at a Mach number above 5.³ The main challenge, therefore, is the manoeuvrability and the hypersonic speed with which these vehicles travel. There are broadly two categories of hypersonic weapons; the Hypersonic Glide Vehicle (HGV) which is launched from a rocket and the second is Hypersonic Cruise Missile (HCM) powered by “scramjets” capable of Mach 5+ speeds. Further, HGVs are unpowered after separation, do not follow a ballistic flight path after the boost phase, and so they may have an enhanced ability to overcome missile defences due to both, their manoeuvrability as well as their depressed trajectories relative to standard ballistic missiles.⁴ This potential could change the deterrence calculus for nuclear-armed states, increase ambiguity in terms of crisis thresholds, and dramatically escalate a crisis or conflict if used.⁵ Since the nations, particularly Russia and China, are developing dual use warheads (nuclear and conventional), the ambiguity in terms of nature and the target of the approaching weapon creates confusion which is further precipitated by their hypersonic speeds which alarm the adversary due to short reaction time. These weapons are, therefore, escalatory in nature and will invariably lead to arms race. Though the research on hypersonic weapons had started in the 1990s, it will be in the next few years that these weapons will be operationalised. Three major powers, namely Russia, China and the US, have advanced HGV acquisition programme. Though the Americans were the first to conduct preliminary tests but the other two countries have now conducted more tests than the Americans. France and Australia are also researching on this technology. Thus, the challenges to disarmament and arms control are bound to increase in future.

Development of HGVs

Though US was a pioneer of this technology in the past, the progress was restrained due to paucity of funds. Nevertheless, there has been an enhanced impetus in developing these weapons now, due to considerable progress achieved by Russians and

Chinese. The US is developing hypersonic programme for all the three Services and some of them are, Navy's Intermediate Range Conventional Prompt Strike Weapon (IR CPS); Army's Land-Based Hypersonic Missile (also known as the Long Range Hypersonic Weapon); Air Force's Hypersonic Conventional Strike Weapon (HCSW, pronounced "hacksaw"); AGM-183A Air-launched Rapid Response Weapon (ARRW, pronounced "arrow"); Defence Advanced Research Projects Agency's (DARPA)—Tactical Boost Glide (TBG); ...and DARPA's Hypersonic Air-breathing Weapon Concept (HAWC, pronounced "hawk").⁶ Army is developing it with the aim to "provide the Army with a prototype strategic attack weapon system to defeat Anti-Access/Area Denial (A2/AD) capabilities, suppress adversary's Long Range Fires, and engage other high payoff/time sensitive targets".⁷ However, the navy's environment is very complex hence the navy is developing an IR CPS and is expected to pair the common glide vehicle with a submarine-launched booster system.⁸ Similarly, the air force's ARRW is expected to develop an air-launched HGV prototype capable of travelling at speeds up to Mach 20 at a range of approximately 575 miles.⁹ ARRW completed a successful flight test in June 2019 and is expected to complete further flight tests in financial year 2022.¹⁰ Thus, the US is trying to refocus on this technology.

Russia's main objective was to develop a weapon which could neutralise American Ballistic Missile Defence (BMD) systems. The Russians developed the Kinzhal air-launched hypersonic missile system. The range of the Kinzhal air-launched hypersonic missile will reach about 3,000 km aboard the new Tu-22M3 carrier bomber, compared to over 2,000 km on board the MiG-31K fighter jet.¹¹ Russia has also increased its defence allocations and according to Jane's CNBC reports, in 2018, the Kremlin set aside \$ 43 billion for defence.¹² They now have the 'Avangard' as their HGV, which along with conventional warhead may carry nuclear warhead also. The Avangard is a strategic intercontinental ballistic missile (ICBM) system equipped with a hypersonic glide vehicle.¹³ It's designed to sit atop an ICBM and, once launched, it uses aerodynamic forces to sail on top of the atmosphere.¹⁴ According to the data of Russia's Strategic Missile Force, Avangard hypersonic missile systems will enter combat duty at the Dombrovsky missile division in the Orenburg Region ...Russia's

Defence Ministry noted, overall, 31 silo-based launchers of the Yars and Avangard missile systems are expected to assume combat duty.¹⁵ This Russian weapon has a two way advantage, firstly its manoeuvrability, which as stated by President Vladimir Putin that, “the weapon is capable of performing sharp manoeuvres on its way to targets making it absolutely invulnerable for any missile defence system”.¹⁶ Second is its versatility as this weapon can be fitted with either conventional or nuclear payloads.

Like Russia, Chinese objective to develop HGVs was to neutralise the American BMD systems. They have their DF-ZF (formerly known as WU-14) HGVs. The DF-ZF HGV can allegedly reach speeds between Mach 5 and Mach 10, or 6,173 kilometres (3,836 miles) per hour and 12,359 kilometres (7,680 miles) per hour.¹⁷ In 2017, China conducted two tests of a new missile known as the DF-17, the first test took place on November 1 and the second test on November 15.¹⁸ Further, China also successfully tested Starry Sky-2 (or Xing Kong-2), a nuclear-capable hypersonic vehicle prototype, in August 2018.¹⁹ The Starry Sky-2, which is an experimental design known as a wave rider – for its ability to ride on the shock waves it generates, completed its first test flight... and during independent flight it conducted extreme turning manoeuvres, maintained velocities above Mach 5.5 for more than 400 seconds, and achieved a top speed of Mach 6, or 7,344km/h (4,563mph).²⁰ This ‘waverider’ technology enables the aircraft to achieve greater manoeuvrability, which would invariably make its early detection difficult for the adversary. The cause of concern is also that it has the ability to carry nuclear warheads. Further, China has increased its defence spending especially in building advance versions of missiles, aircraft carriers, frigates, stealth warships etc. China’s military spending is forecast to reach \$ 203.3 billion, up nearly 6 per cent from \$ 192.5 billion.²¹

India has also been researching on this technology and in 2008, the then DRDO Chief, VK Saraswat, had stated that through the Hypersonic Technology Demonstrator Vehicle (HSTDV) project, “we are developing a hypersonic vehicle that will be powered by a scram-jet engine, this is dual-use technology, which, when developed, will have multiple civilian applications. It can be used for launching satellites at low cost. It will also be available for long-range cruise missiles of the future”.²² India on her part has also conducted her first maiden test of an indigenously developed

HSTDV on 12 June 2019.²³ Though some technologies were validated through this test but for others, more tests are required.

Significance of Hypersonic Technologies

This technology is considered to be a game changer as far as military strategy is concerned. Any country having this technology has an added advantage, as it creates uncertainty for its adversaries on number of counts. The weapons' manoeuvrability allows them to travel on unpredictable trajectories, making it difficult to track and destroy them before they successfully penetrate advanced air and ballistic missile defences.²⁴ Lower signatures, and an ability to fly at lower altitudes, also compound the challenge of finding, targeting, and intercepting hypersonic vehicles for current missile defence systems like the Ground-Based Interceptor (GBI), Terminal High Altitude Area Defence (THAAD), and Patriot.²⁵ Since these weapons travel with great speed, the reaction time for the adversaries is greatly reduced and this is more pronounced for neighbours where the geographical distances are less. Further, the variation which this class of weapon provides makes it difficult for the adversary to decipher whether the approaching weapon is a nuclear or a conventional weapon and as a result a conventional strike may be conceived as nuclear strike. This may lead to nations' rethink of their strategic postures and may think of using their nuclear weapons against an attack with these weapons, thus placing their weapons on high alert. This technology is thus, escalatory in nature and presents a challenge to the nations who are developing it, as also to Arms Control and Disarmament regimes who are already under tremendous constraints due to abrogation of Intermediate-Range Nuclear Forces (INF) Treaty.

Further, US is already trying to find the countermeasure. The 2019 US Missile Defence Review stated that the US Department of Defence has a HGV defence programme which has "demonstrated a limited capability to defend against HGVs in the terminal phase, and is pursuing new capability for early warning and tracking of HGVs".²⁶ Some analysts have suggested that space-based sensor layers—integrated with tracking and fire-control systems to direct high-performance interceptors or directed energy weapons—could theoretically present viable options for defending against hypersonic weapons in the future.²⁷ Such sensors take advantage of the large area viewable from space for improved

tracking and potentially targeting of advanced threats, including HGVs and HCMs.²⁸ In future, 'space' would become a significant frontier and competition would be to develop technologies to control this domain. Thus, this will further exacerbate arms race as technology driven innovations give impetus to nations to compete in order to maintain the strategic balance. This trend of advancements in niche technologies has put disarmament and arms control at a back stage. There are no signs visible that in near future any substantial efforts would be made to control the technological advancements of major powers.

Conclusion

Nuclear weapon states have aimed to maintain deterrence by developing their triads but now with the advent of hypersonic technology, a new layer has been added to the game. With the weaponisation of hypersonic technology, concept of nuclear deterrence will also be challenged. The arms race which will follow will add new complexities where apart from nuclear weapon states, other nations will be forced to develop this technology to prevent coercion, as also, space would become the next frontier of competition and dominance.

Endnotes

¹ Sharjeel Rizwan, 'Revolution in Military Affairs (RMA)', at <http://www.defencejournal.com/2000/sept/military.htm>

² Ibid

³ Zhiqiang Chen and Yonghui Zhao, 'Aerothermoelastic Analysis of a Hypersonic Vehicle Based on Thermal Modal Reconstruction', International Journal of Aerospace Engineering Volume 2019, Article ID 8384639, at <https://www.hindawi.com/journals/ijae/2019/8384639/>

⁴ 'Hypersonic Weapon: A Challenge and Opportunity for strategic Arms Control', United Nations Office for Disarmament Affairs United Nations Institute for Disarmament Research, 2019

⁵ Ibid

⁶ Hypersonic Weapons: Background and Issues for Congress, Congressional Research Service, July 11 2019, at <https://fas.org/sgp/crs/weapons/R45811.pdf>

⁷ Department of Defense Fiscal Year (FY) 2020 Budget Estimates, Army Justification Book of Research, Development, Test and Evaluation, Volume II, Budget Activity 4, pp. 579-584, https://www.asafm.army.mil/documents/BudgetMaterial/fy2020/rdte_ba4.pdf; and Sydney J. Freedberg Jr., "Army Sets 2023 Hypersonic Flight Test; Strategic Cannon Advances," Breaking

Defense, March 19, 2019, <https://breakingdefense.com/2019/03/army-sets-2023-hypersonic-flight-test-strategic-cannon-advances/>.

⁸ Steve Trimble and Guy Norris, "Sandia's Swerve Could Lead to First-gen Hypersonic Production Line," Aviation Week, October 11, 2018, <http://aviationweek.com/air-dominance/sandia-s-swerve-could-lead-first-gen-hypersonic-production-line>; and Sydney J. Freedberg, Jr., "Army Warhead Is Key To Joint Hypersonics," Breaking Defense, August 22, 2018, <https://breakingdefense.com/2018/08/army-warhead-is-key-to-joint-hypersonics/>.

⁹ Hypersonic Weapons: Background and Issues for Congress, Congressional Research Service, July 11 2019, at <https://fas.org/sgp/crs/weapons/R45811.pdf>

¹⁰ Ibid

¹¹ Russian strategic bomber to extend Kinzhal hypersonic missile's range' TASS Russian Military Agency ,July 18 2017, at <http://tass.com/defense/1013794>

¹² 'Introducing 'Avangard' and 'Sarmat': Putin shows off new hypersonic, nuclear missiles', The National Post, March 01, 2018 at <https://nationalpost.com/news/world/introducing-the-avangard-hypersonic-missile-a-look-inside-putins-new-high-tech-arsenal>

¹³ TASS Russian New Agency 02 July 2019, at <https://tass.com/defense/1066695>

¹⁴ Amanda Macias 'US intelligence reports: Russia's new hypersonic weapon will likely be ready for war by 2020', <https://www.cnn.com/2018/05/15/russia-hypersonic-weapon-likely-ready-for-war-by-2020-us-intel.html>

¹⁵ TASS Russian New Agency 02 July 2019, at <https://tass.com/defense/1066695>

¹⁶ Avangard (Hypersonic Glide Vehicle), Missile Defence Advocacy Alliance (MDAA),AT https://missiledefenseadvocacy.org/missile-threat-and-proliferation/missile-proliferation/russia/avangard-hypersonic-glide-vehicle/#_edn5

¹⁷ Franz-Stefan Gady, "China Tests New Weapon Capable of Breaching US Missile Defense Systems",28 April 2016, at <https://thediplomat.com/2016/04/china-tests-new-weapon-capable-of-breaching-u-s-missile-defense-systems/>

¹⁸ Ankit Panda, "Introducing the DF-17: China's Newly Tested Ballistic Missile Armed With a Hypersonic Glide Vehicle", The Diplomat, 28 December 2017, at <https://thediplomat.com/2017/12/introducing-the-df-17-chinas-newly-tested-ballistic-missile-armed-with-a-hypersonic-glide-vehicle/>

¹⁹ Jessie Yeung, "China claims to have successfully tested its first hypersonic aircraft. CNN, August 7, 2018, <https://www.cnn.com/2018/08/07/china/china-hypersonic-aircraft-intl/index.html>. See also U.S.-China Economic and Security Review Commission 2018 Annual Report, p. 220, https://www.uscc.gov/sites/default/files/annual_reports/2018%20Annual%20Report%20to%20Congress.pdf.

²⁰ Liu Zhen , "China's hypersonic aircraft, Starry Sky-2, could be used to carry nuclear missiles at six times the speed of sound", South China Morning Post, 06 August 2018, at <https://www.scmp.com/news/china/diplomacy-defence/article/2158524/chinas-hypersonic-aircraft-starry-sky-2-could-be-used>

²¹ Craig Caffrey, principal analyst at IHS Jane's, as quoted in 'Global defense spending to reach levels not seen since end of Cold War', by Jeff Daniels, CNBC Report, December 18, 2017 at <https://www.cnbc.com/2017/12/18/ihs-janes-global-defense-spending-to-see-best-growth-rate-in-decade.html>

²² Dinakar Peri, "DRDO conducts maiden test of hypersonic technology demonstrator", The Hindu, 13 June 2019, at <https://www.thehindu.com/news/national/drdo-conducts-maiden-test-of-hypersonic-technology-demonstrator/article27890922.ece>

²³ Ibid

²⁴ Geoff Brumfiel, "Nations Rush Ahead with Hypersonic Weapons Amid Arms Race Fear," National Public Radio, October 23, 2018: <https://www.npr.org/2018/10/23/659602274/amid-arms-race-fears-the-u-s-russia-and-china-are-racing-ahead-with-a-new-missil>.

²⁵ Sydney J. Freeberg Jr., "DoD Boosts Hypersonics 136% in 2019: DARPA," Breaking Defense, March 1, 2018: <https://breakingdefense.com/2018/03/dod-boosts-hypersonics-136-in-2019-darpa/>.

²⁶ US Department of Defense, "Missile Defense Review 2019", p. 58.

²⁷ Hypersonic Weapons: Background and Issues for Congress, Congressional Research Service, July 11 2019, at <https://fas.org/sgp/crs/weapons/R45811.pdf>

²⁸ Department of Defense, 2019 Missile Defense Review, p. XVI, <https://media.defense.gov/2019/Jan/17/2002080666/-1/-1/1/2019-MISSILE-DEFENSE-REVIEW.PDF>.

Subhas Chandra Bose in Burma (1943-1944)

Excerpts from the Unpublished Diary of Lieutenant General Masakazu Kawabe (Japanese)

Professor K.C. Yadav®

Abstract

The article presents translated excerpts from 17 entries about Netaji Subhas Chandra Bose from Lieutenant General Masakazu Kawabe's diary. Lieutenant General Masakazu Kawabe was the General Officer Commanding-in-Chief of the Burma Area, Japanese Army during the period March 1943 to August 1944. The diary was maintained in Japanese and has been translated in English by Mrs Akiko Seki. The entries are dated between 29 July 1943 and 01 September 1944 and document the General's views regarding his meetings with Bose and his high regard for the latter's personality and competence.

Introduction

By mid-1943, the Jap-typhoon had washed off the British forces from Burma. The British Governor and his cabinet were gone, and a new order headed by a well-known Burmese leader, Dr. Ba Maw, had taken charge of the country. Subhas Chandra Bose, who had moved to the eastern sector by now, was mighty pleased with these changes, for in them he saw an opportunity of transforming his slogan of 'Chalo Delhi' into a working reality. He made Singapore his headquarters.

The article has been translated from Japanese to English by Mrs Akiko Seki.

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Bose in conference with Lt. Gen Kawabe (right)

Short of time, Subhas moved at stupendous speed: For instance, he assumed the leadership of the Indian Independence Movement in East Asia on 4 July 1943; took up supreme command of the *Azad Hind Fauj* (INA) on 25 August; and formed the Provisional Government of Free India on 21 October 1943. The following nine countries recognised the new regime: Japan on 23 October; Germany on 24 October; Burma on 25 October; Philippines on 26 October; Croatia on 27 October; China and Manchukuo on 1 November; Italy on 9 November and Thailand on 18 November. On 23 October, Subhas declared war on Britain and the US.¹

Over anxious to get to the war front, Subhas took some time off his official duties at the headquarters and visited Mingladone, a town about 20 km from Rangoon, to discuss his future plans at the front and established working relationship with Lieutenant General Maszuka Kawabe, the Commander-in-Chief of the Japanese Burma Army.

The present diary of Lieutenant General Kawabe tells the story of what happened next. The first entry in the diary is—Subhas arrived at Mingladone (29 July 1943). The next three entries are dated 22 October, 23 October and 24 October 1943. This was

perhaps Subhas's second short visit. He shifted his headquarters from Singapore to Rangoon on 7 January 1944. The entries in the General's Diary begin to appear again from 4 October 1944 and there are 17 entries. The last entry is dated 1 September 1944 when the General was called back from Burma. The taste of pudding, they say, lies in eating. The usefulness of the Diary as a precious source of information for a historian can be appreciated only on going through the short diary.

Lieutenant General Maszuka Kawabe was, we are told, difficult-to-understand type of Japanese officer. But, as the Diary shows, he was a totally different man insofar as his dealings with Subhas were concerned. Right on the very first day, when he met the General at Rangoon (29 July 1943), the General seems to have developed a sort of great liking for him. He found a dignified person in Subhas, and called him 'today's crop', a Japanese expression for a man of the hour.² Kawabe's liking for Subhas deepened further when the latter shifted the headquarters of his Government and the Army to Rangoon in January 1944. The two 'Generals' became good friends; unlike high-ranking Japanese officers of those days, Kawabew always tried to understand the point of view of his Indian friend. The latter reciprocated quite favourably.

The unpublished (in 1980) Diary of Lieutenant General Kawabe was very kindly supplied to me, when I was in Japan, by my friend Mr Kenji Yashiro, a Japanese writer from Tokyo. All the entries relating to Subhas and INA reproduced here in the present paper were translated into English by my another Japanese friend, Mrs Akiko Seki, whose contribution to our freedom struggle has been acknowledged by such eminent persons as Rash Behari Bose, Raja Mahendra Pratap and Justice Radha Binod Pal. The letter of Subhas Chandra Bose to General Kawabe, reproduced at the end, was very kindly given to me by the General's daughter.³ I am most grateful to all of them.

The Diary

July 29, 1943

Mr. Subhas Chandra Bose arrived at Mingladone⁴ at 11 a.m. He called on me at my official residence at 3 p.m. We talked with the help of an interpreter about routine matters. I have the impression

that Mr. Bose is a man of strong will. I invited Mr. Bose to dinner. I was very much impressed by the seriousness that he took his business with, as also by his firm determination, cultural refinement, and courteous and respectable behaviour. I have come to hold him in high esteem. I see him quite capable of having stood against Mahatma Gandhi⁵ as a leader believing in armed revolution.

Regarding his various proposals pertaining to his INA, I think, these were too simplistic and vague. I cannot but feel doubtful as to his having seriously pondered over these proposals in his mind. In fact, what I worry about is how competent are the persons around him⁶. Anyway, I must listen to what he says, and make use of his special capabilities as much as possible.

Col. Yamamoto⁷ has been in close association with Mr. C. Bose since Berlin days. He might serve well as an advisor to Mr. C. Bose, but I think, he can't be entrusted with the work of advising him on stratagem and administration. Who will take responsibility for these things? Mr. Sen⁸ is reported to be an authority on Indian affairs, but I don't know about his background. Apparently he does not seem to be a suitable person to be an assistant to Mr. C. Bose in the matters relating to administration, etc. There is another person, Mr. Maruyama⁹, the priest of the Nichiren sect. He is reported to be a disciple of Rev. Fuji.¹⁰ He worked at the battlefield of Akyab. I have never met him myself. (He can be considered for being an assistant). In the present circumstances, I do not think we can have some other organization like the Hikari Kikan¹¹. Mr. C. Bose is a dignified person. He is today's crop.

Friday, October 22, 1943

On my way back to my residence, I visited the Ambassador's¹² home and prayed for his safe journey to Japan. We talked about the future of Burma and relations between Baw Maw¹³ and Mr. C. Bose.

Saturday, October 23, 1943

Siren once. Today's news broadcast gave that Lord Mountbatten returned from Chung Ching to Delhi on the 21 October. The news about the establishment of Provisional Government of Free India was made public.

Sunday, October 24, 1943

At 2 p.m. Colonel¹⁴ came on behalf of Mr. C. Bose to thank us (Japan) for the establishment of the Provisional Government of Free India¹⁵. We toasted with Sake,¹⁶ expressed our joy, and sent hearty congratulations.

Tuesday, January 4, 1944

I talked with Katakura¹⁷, staff officer, about Mr. C. Bose, and the problem of appointing supreme advisor to him. Name of Nobutoki Ide was given. I could not reject it, though I know Mr. C. Bose wanted to have Mr. Chiwa.¹⁸ I think he is not suitable for Mr. C. Bose. It was very strange that the name of Mr. Mustuharu Homma was also given.

Thursday, January 6, 1944

Mr. C. Bose will be coming to Rangoon tomorrow.

Friday, January 7, 1944

On the way to my office in a car, I saw many cars running in a line on the road. It indicated the arrival of Mr. C. Bose.

At 4 p.m. President C. Bose accompanied by Head of the Women's Unit¹⁹, Chief Secretary²⁰ who speaks good Japanese, and Cabinet Ministers visited. I welcomed them and told that I have sent a part of the INA to the front. He (Subhas) expressed his gratitude for the Japanese Army in allowing the transfer of headquarters of the Provisional Government of Free India.²¹ He repeated his usual wish that the entire I.N.A. be sent to the front very soon.

I invited Mr. C. Bose to dinner. Our Ambassador²² also attended. In reply to my greetings, Mr. C. Bose said in all seriousness: I pray to God only one thing, and that is, that we may go to the front and be able to shed our blood for the Motherland at the earliest. He again requested to send his soldiers to the front.

The food was a strange mixture of the Japanese and Western things. Mr. C. Bose drank a lot, ate much. The head of the Women Unit who was sitting on my right side was feeling quite at home.

After the party dispersed, Mr. C. Bose and Mr. Tanaka,²³ staff officer of General Army, stayed back, and we talked till 11 p.m. Soon after there were air aids.

Sunday, January 9, 1944

Our Ambassador called on me, and told me that Mr. C. Bose had expressed his keen desire to go to the front lines. He wanted to know what the reaction of the Japanese Army was to his proposal.

Tuesday January 18, 1944

Col. Katakura informed me that Mr. C. Bose had written a letter of protest about the Japanese Army's treatment of the INA²⁴. Mr. C. Bose has taken up the issue of saluting the Japanese personnel by the INA men²⁵ and also the overall Japanese control of the INA²⁶. The language that he had used was reported to be very strong. I felt very bad about this unpleasant thing, but I thought it was not the time for racking up such matters. I, therefore, agreed to what he said about the saluting business. This was just to save his face. But regarding overall control of the Japanese army and the unified command, I told Col. Katakura to persuade (Bose) not to hinder execution of war operations like that. Such problems bring setback.

Wednesday, January 19, 1944

I thought it necessary to give a definite reply to Mr. C. Bose's proposals, so I asked the staff officer to send a letter to him (Subhas). But afterwards I thought it was better to settle it verbally through Col. Katakura.

Thursday, January 20, 1944

Col. Katakura reported that he had met Mr. C. Bose and that they had talks for three hours. The result was a success after all. Mr. C. Bose was convinced of the correctness of our approach.²⁷ It is important, nevertheless, that we keep him telling the theoretical details of the war.

Saturday January 22, 1944

Dr. Ba Maw gave a garden party at his residence at 7 p.m. it was attended by about more than 500 prominent persons in full dress or in uniform. I attended in an informal suit as I was in a great hurry. Mr. Bose and his Provisional Government's officials were also there. The head of the Women Unit wearing uniform was all the time with Mr. Ba Maw. She behaved very gently.

Saturday, March 18, 1944

Col. Katakura came to report about the general war situation. He also reported about his discussions with Mr. C. Bose. The talk will be a good reference point when I meet Mr. C. Bose this evening. In the evening Lieut. Col. Isoda²⁸ came to report the recent condition of the I.N.A. Then Mr. C. Bose came. I explained to him two points: The importance of unified command; and special feelings of the occupied area people towards war.

I tried to clear misunderstandings between India and Japan. Mr. C. Bose appreciated my stand and said that he had discussed these matters only because he desired full co-operation between the two countries. We moved to the dining room.

Thursday, March 21, 1944

Mr. C. Bose made an official statement.²⁹

Wednesday, March 29, 1944

I attended a tea party given by the Provisional Government of Free India at 5 p.m. I thanked Mr. C. Bose and others for their hearty co-operation. It lasted for more than two hours. Mr. and Mrs. Ba Maw, other prominent Burmese and our Ambassador, officers of the Hikari Kikan and chief of the staff officer, Suzuki, also attended the party.

I attended with Mr. C. Bose the Japan-India Co-operation Conference held at Kaikesha Hall. We were observers. In the anteroom I promised Mr. C. Bose to supply quinine for the army in the event they entered Imphal.

Wednesday, April 5, 1944

Before starting for the front, Mr. C. Bose came to see me. I advised him not to be swayed by the propaganda of the enemy if there was some pause; and to take a firm stand even if the international situation got worsened.

I could see he was full of determination. This determination can be seen on his brows also when he speaks. My impression of Mr. C. Bose is quite different from what I think of Mr. Baw Maw.³⁰

Tuesday, April 18, 1944

Lieut. Col. Isoda came from Meimyo and told me of his negotiations regarding the question as to who should be the chairman of the Indo-Japanese War Co-operation Council³¹ consisting of the Japanese Army and the Provisional Government of Free India. Mr. Bose insisted that the IJWCC be chaired by him. I had consented to this on the advice of Major Katakura to keep Bose's face. But I have not much interest in that matter now.

Wednesday, April 19, 1944

It was decided after all that the Co-operation Council be not put into effect. Obviously, the question as to who should be the chairman fell through.

I read a book entitled 'Topography of India' by Rev. Kozui Ohtani, and was impressed by his deep knowledge of the subject.

Sunday, May 7, 1944

Presentation ceremony of an airplane to the President of the Provisional Government of Free India, Mr. C. Bose, was held under the chairmanship of Major Watari.³²

Tuesday, May 9, 1944

Two ministers and chief secretary Mr. Sahay called on me at 4 p.m. to report about the situation on the front on behalf of the President. According to Mr. Sahay, they are in very much need of mechanized guns, as well as rifles. He also requested to give more medical facilities for the injured and sick soldiers, and adequate supply of vehicles. One of the ministers was again that Head of the Women Unit, Captain Lakshmi. She would often but in while others were talking as if she were of the same rank as others. At any rate, I earnestly wish to let them enter Imphal as quickly as possible.

Thursday, June 22, 1944

I called on Mr. C. Bose at his temporary residence at 4 p.m. for I wished to know whether he was attending a celebration party at Dr. Ba Maw's residence tomorrow³³. I wanted to apprise him beforehand his (Dr. Ba Maw's) position.

He (Bose) described the situation at the front as he saw it on the occasion of his recent inspection tour of the forward area. He stated in no uncertain terms his desire to fight to the last. He also proposed to go to the front again. I argued very hard with him against this, but he did not say 'all right'. Impressed by his enthusiasm, I promised him to reconsider his proposal. Besides this, he emphasized as before, to order advance of the rest of the INA, including even the Women's Unit, to the front.

It seems Indians will not lose their fighting spirit, no matter how long the war may continue. They will gladly face all sufferings as long as they do not accomplish their great objective— independence. That is why he (Subhas) is doing all that he can do to achieve his objective under the Japanese command. Though it is not an unusual thing, I felt something very encouraging the way he talked. It was owing to his wonderful moral power.

Wednesday, July 12, 1944

I ordered a staff officer to explain the general situation of war to Mr. C. Bose, and at the same time to inform him that the INA was sent back by compulsion. Mr. C. Bose seemed to understand the circumstances. However, he earnestly requested the staff officer to send the troops to a place as near the Indian borders as was possible, and not to send them to the south of Mandalay.

Friday, September 1, 1944

After a little rest, I called on Mr. C. Bose to bid him farewell. I told him almost the same thing as to Mr. Baw Maw whom I visited at 11a.m. the same morning at his residence. Mr. Baw Maw was shocked to hear about my leaving Burma. I conveyed to him however, that there will be no effect on the relations between Burma and Japan. Mr. Bose received me calmly, as if he had expected my leaving Burma. He requested me to convey to the Tokyo Government that there would be no change in his decision to fight no matter how the war situation in the East and West might turn. He put emphasis on improvement of the channel of contact between the INA and the Japanese army; and for this he suggested a direct channel between the two and not through Hikari Kikan. Finally, he agreed to entrust the repairs of war weapons and machines to the Japanese army. He is a sincere man with practical approach.

I had heard that Mr. C. Bose was worn out. But to me he looked quite healthy.

The diary is, as noted above, indeed a valuable source of information. It would be helpful in understanding how Subhas Bose faced terrible situations with cool head, stone-hard determination, great moral courage and following 'Tagore line', confronted fearful odds with head kept high. The Japanese General who saw him in those depressingly gloomy days appreciated his these qualities of head and heart, his patriotism, devotion to duty and love for his motherland and people to the hilt.

Endnotes

¹ For more details on these developments, as also for the Diary, see K C Yadav, Akiko Seki, eds. *Adventure into the unknown: the last days of Subhas Chandra Bose*, Gurgaon, 1996, pp. 18-24.

² See *The Diary*, 29 July 1943.

³ The original letter was given by me to Shri Sisir Kumar Bose, Netaji's nephew, for being kept at the Netaji Research Bureau, Kolkata.

⁴ Military base about 20 km from Rangoon city.

⁵ He refers to the Bose-Gandhi conflict of 1939.

⁶ He means the Japanese intelligence persons.

⁷ He was military attaché to the Japanese Embassy in Berlin when Bose was there. He was shifted to this sector to assist Bose and was made chief of the Hikari Kikan.

⁸ Major He also served with Hikari Kikan.

⁹ A Pro-Gandhi Buddhist monk; taken into honorary service by the Japanese army authorities for creating good will between Indians and Japanese.

¹⁰ A famous Buddhist monk of the Nichiren sect, also known as Guruji; highly respected in Japan and elsewhere 'for his eminent religious activities and pacifist movement'. See, for details, his autobiography, *My Non-Violence* (Tokyo, 1975). He was closely connected with Gandhiji. He received the 'Nehru Peace Prize' for his outstanding contribution to world understanding and peace.

¹¹ A liaison- section for co-ordination between Japanese military authorities and INA.

¹² Col. Akiko Ishi I, the Japanese Ambassador to Burma.

¹³ The first Premier under the 1937 reforms, he later became President of Independent Burma under the Japanese.

¹⁴ Name not mentioned. He was Shah Nawaz Khan.

¹⁵ The Provisional Government was founded on 21 October 1943.

¹⁶ Japanese liquor.

¹⁷ Lieut. Colonel; he became friendly with Netaji; retired as Lt. General after the war.

¹⁸ All army officers; connected with intelligence activities.

¹⁹ Capt. (Dr.) Laxami Swaminathan

²⁰ Mr. A. M. Sahay.

²¹ The headquarter was shifted, 6 January 1944.

²² Col. Akiko Ishi I.

²³ Major in rank.

²⁴ General Kawabe wanted the INA forces to be split up into small detachments to be attached to the Japanese units for mostly non-combatant work, like spying, sabotaging, etc. Bose objected to this and the INA units were kept intact under their own officers. Secondly, Bose objected to the INA being treated as an inferior army, subordinate to the Japanese. Theirs was an ally army of an equal status, he said. The Japanese authorities at Rangoon accepted the proposal.

²⁵ Some Japanese insisted upon being saluted by the Indians without any consideration of their seniority etc. To this Bose objected. There was a lot of misunderstanding. But ultimately Bose's proposal was accepted: The junior man of the either force would salute his senior irrespective of the fact whether he came from India or Japan. However, if the two officers , Indian and Japanese, held the same rank, they would salute each other at the same time.

²⁶ This, however, remained unchanged.

²⁷ To fight under the overall control of the Japanese operational command.

²⁸ Successor of Col. Yamamoto as chief of the Hikari Kikan; later promoted as general; good friend of Bose.

²⁹ On 18 March 1944, the INA crossed the Burma border and kissed the sacred soil of their motherland. The great news was given to the world by Subhas on this day (21 March, 1944) in a special proclamation.

³⁰ Dr. Ba Maw believed in show off, but Subhas was entirely different from him. He meant a serious business.

³¹ The IJWCC was meant to function on the Indian soil after it was captured by the INA and Japanese forces. The Japanese insisted that a high-ranking Japanese official should be the chairman of the Council. But Netaji said 'no' and insisted on his being the chairman. The Japanese showed reluctance, but when Netaji threatened to write to Tokyo, they accepted his proposal.

³² Bose had made a request to Tojo for an airplane. Tojo ordered the Southern Command to give a plane. The Southern Command gave an eleven-seater plane manned by the Japanese crew. Bose got Indian Tricolour containing the springing Tiger (national emblem) in its centre painted on the both sides of the plane's nose. Besides, Netaji also desired to have the Japanese crew substituted by Indian crew. However ,the proposal was not accepted for the sake of safety.

³³ Relations between the two leaders were strained at this time.

ARZI HUKUMATE AZAD HIND
(THE PROVISIONAL GOVERNMENT OF FREE INDIA)

R A N G O O N,
12th September, 1944.

Your Excellency,

On behalf of the Azad Hind Fauj and of myself, I desire to thank Your Excellency from the bottom of my heart for the deep sympathy shown by Your Excellency for the wounded soldiers of the Azad Hind Fauj by generously contributing a sum of Rs.10,000/= for their welfare. This gesture of sympathy has profoundly moved the hearts of my Officers and men.

Before Your Excellency's departure from Rangoon, I desire to thank Your Excellency once again for all the sympathy, co-operation and support that the Provisional Government of Azad Hind and the Azad Hind Fauj have always received at Your Excellency's hands. I have no doubt that wherever Your Excellency may be in future, Your Excellency will keep up interest in our struggle for freedom. On our side, I can assure Your Excellency that though there may be difficult days ahead of us, we shall continue to fight shoulder to shoulder with the Imperial Nipponese Army in spite of all suffering and hardship, until our common victory is achieved.

I wish Your Excellency a safe and comfortable journey.

With kindest regards,

His Excellency Lt. General M. Kawabe,
Imperial Nipponese Army.

Yours sincerely,
Subhas Chandra Bose

Short Reviews of Recent Books

For The Honour of My House by Tony McClenaghan, (West Midlands : Helion and Company Ltd. and United Service Institution of India (USI), 2018), Pages 352, Price not indicated. ISBN 978-1-912390-87-8

This book is an excellent rendition of the long forgotten contribution of the Imperial Service Troops of the Indian State Forces to the Great War.

Far too long has the part played by the Indian Army and the Indian State Forces been ignored and buried by the official archivers and unofficial chroniclers of the Great War. The State Forces along with the Indian Army had taken part in the battles in France, Flanders, East Africa, Egypt, Palestine, Mesopotamia, Gallipoli, Macedonia and the North West Frontier.

It also needs to be acknowledged that the battlefields of Europe, Africa and Asia lay sodden with the blood of Indian soldiers during the First World War, and, therefore, there is no excuse for their story not to be told. Courage has no connect with creed, caste or class and it is, therefore, difficult to accept or understand the attitude of those chroniclers who failed to give credit where and when it was due.

This book fortunately endeavours to correct this omission with a special focus on the contribution and achievements of the Indian State Forces.

As has been brought out by the author, the rulers of the Indian States unitedly, whole heartedly and unequivocally contributed in great measure to the Great War with men, money, materials and animals. They not only funded their own units during the entire duration of the war but also in addition, contributed more than five million pounds sterling to the war effort and this did not include their individual contribution for the purchase of fighter aircraft, naval ships and boats, a three hundred bedded hospital ship and thousands of horses, camels and ponies for animal transport needs.

By the end of World War I, 1,15,891 officers and soldiers of the Indian State Forces had taken part in the war and 1,600 of them had been killed in action or perished due to wounds. Seven hundred and thirty nine decorations and awards were given to

personnel of the State Forces and battle honours awarded for every battle that they fought.

The Indian Imperial Service Cavalry Brigade played a decisive part in the Palestine campaign and the capture of Haifa by Jodhpur and Mysore Lancers helped to bring closure to the campaign against the Turks and indirectly to the end of the war in Europe. Their success has been commemorated by the Teen Murti War Memorial at New Delhi.

This account by Tony McClenaghan about achievements and contribution of the princely states of India to the Great War is an outcome of more than forty years of dedicated research into Indian military history in general and the history of the Princely States of India in particular. This book, therefore, is a valuable contribution to the military history of the Indian Army and the Indian State Forces and needs to be part of every library of military institutions and Indian universities.

The author needs to be commended for resurrecting the honour of the Imperial Service Troops of Princely India and placing on record their valuable contribution to World War I.

Major General Ian Cardozo, AVSM, SM (Retd)

India's Security Environment : Emerging Uncertainties and Challenges. By Satish Kumar (New Delhi: Pentagon Press LLP, 2019, Pages 231, Rs.995/- ISBN 978-93-86618-90-0)

This is a well researched compendium from the Foundation for National Security Research. Apart from the introduction and summation by Professor Satish Kumar there are ten articles of merit by scholars.

The threat from China has been well analysed by Langel. For unfathomable reasons, India, from Nehru's times has taken what can at best be described as timorous steps to counter China's bullying tactics. China is determined to obstruct India's rise as a major power at all costs. Langel's suggestion though to use Tibet and Taiwan for leverage over China is questionable as India has long accepted Chinese suzerainty over Tibet and in 1950 accepted One China Policy of People's Republic of China. It might perhaps be more advantageous to increase our collaboration with Vietnam, Japan and Australia.

The papers on Pakistan by Dutta, on Jammu and Kashmir (J and K) by Valte and the Summation by Satish Kumar examine a host of factors. Strangely, they recommend restraint on use of security forces, implementation of recommendations of interlocutors, removal of AFSPA and to take along all 'stake holders' (separatists). The Authors feel that the situation in J and K has worsened only in the last few years. None of the writers opines that radicalisation of the youth to Wahhabi Islam is confined to a few districts of the Valley and that random cases of shooting of bystanders by security forces is but collateral damage. The catalyst was the genocide of Pandits when the spineless governments at the State and Centre kept mum and were content to run with fox and hunt with the hounds. Successive CM's of J and K downplayed the display of ISIS flags and demonstrations at mosques and public places.

Notwithstanding the religious, historical, cultural and military ties of yore between Nepal and India, our relationship is headed southwards. The informal economic blockade in 2015, lethargic progress of projects in Nepal and support to Madhesis has made Nepal China centric. Nepal snubbed India by not participating in BIMSTEC exercise 2018 and instead took part in a joint exercise with Chinese troops! A dynamic change is urgently needed in our Nepal policy to stem the Chinese march as Nepal is important in our security architecture.

The paper on Bangla Desh brings out clearly why good relations with that country are germane to India's security. The Land Boundary Agreement 2015 that exchanged enclaves in adverse possession of either country was indicative of high statesmanship displayed by the two Prime Ministers. It is not surprising then to see complete cooperation in defence and security issues including joint exercises of BSF, Army and the Navy for multilateral maritime search and rescue. Bangladesh has acted against ISI inspired terrorist groups planning attacks in India. More significantly, it has cancelled the Sonadia port project earlier given to China. The maturity displayed by Sheikh Hasina needs to be reciprocated and the Teesta Water sharing issue resolved soon.

The article on Sri Lanka comprehensively covers its constitutional crisis, Chinese ventures in the island nation and our strategic engagements. As Langel brings out India brokered an alliance between Sirisena and Wickremesinghe to remove

Rajapaksa who had openly favoured China. This accrued no advantage as Sirisena only increased business deals with China. Now, Hambantota is on a 99 years lease to China and work on Colombo Port City project funded by China has also commenced. It is a great pity that a country that is important in India's strategic calculus has been allowed to be weaned away by the Chinese.

Bhutan- India relations have been firm and cordial since 1949 with leaders from both sides showing great maturity. India continues to be the largest donor for Bhutan's growth and development. Hydropower projects that contribute up to 40 per cent of Bhutan's revenue have been done with Indian assistance. Bhutan has responded by helping India in counter-terrorism operations. In 1996, as Yadav brings out Chinese offer was to forsake its claim of 495 sq km between Northern Bhutan and China, for 269 sq km of land in the Doklam Plateau. Since it went against India's strategic interest Bhutan rejected the offer. India needs to keep a close watch and nurture our relationship with Bhutan.

In his paper on Maldives, Valte for some unknown reason entirely fails to mention how India gloriously saved the island nation from the clutches of brigands. In 1988, LTTE renegades together with some sea pirates had done a coup d'état and taken control of Maldives ousting President Gayoom. In a swift operation Indian military recaptured Male and restored President Gayoom to his rightful place. Maldives seems to have forgotten India's selfless act as Maldives- India relations took a nose dive later. Though the two nations have signed a crucial action plan on defence cooperation in the IOR, Maldives has signed a Free Trade Agreement (FTA) with China. Maldives has also rescinded contract of GMR to modernize and operate the airport at Male and gave it to a Chinese company. Apparently, Maldives is not averse to play India against China.

The two papers on Indo-US Strategic Partnership and Indo-Russia Partnership have been well conceived and analysed. Though Russia remains the largest supplier of defence armaments and Brahmos is a good example of joint collaboration, USA remains a major supplier too. Indo- Russian Partnership, unlike Indo-US Partnership is at times mired in time delays and cost-overruns.

Prof Satish Kumar identifies uncertainty and unpredictability for the instability in a polycentric world. Be that as it may, in

today's world it is perhaps more important for a nation to maximise harmonious relations in the immediate neighbourhood and keep a sharp lookout in its own backyard to checkmate inimical forces before banking on strong alliances in distant lands.

This is a useful volume comprising thoughtful essays on subjects that will evince interest in thinkers and analysts alike.

Major General Ashok Joshi, VSM (Retd)

Pakistan's Internal Security Challenges and the Army's Ability to Overcome Them. By Brigadier Shaman Chodha (Delhi: Vlj Books Pvt Ltd, 2019) pp 270, Price Rs. 995/- ISBN 978-93-8816-86-2.

The book takes a *denovo* look at the present internal security situation of Pakistan. It has four chapters: Fault Lines of Pakistan; A critical Appraisal of Pakistan's National Action Plan (NAP) and Military Operation; Policy Perception for Pakistan; Implications and Recommendations for India.

Fault-lines in Pakistan broadly cover political, social and religious, economic and security issues. Religious fault lines encompass divide between Sunnis and Shias, Deobandis and Salafists. Economic fault lines are rising inequalities of income and economic opportunities. Security fault lines pertain to rift between the Army and the civil government and politicians. Many fault-lines overlap. According to the author, the overall picture is very complicated.

National Action Plan was ratified by Pakistan Parliament in May 2014. According to the author, it was a comprehensive plan which identified core issues of extremism and terrorism, suggested a road map and remedial measures, including *madrasah* reforms, curbing terrorist financing and so on. However, due to misunderstanding between the civilian government and the Army and fund constraints, NAP failed.

Pakistan's policy perceptions revolve around her relations with major powers. Decline of United States, emergence of China as an aspiring super power, resurgence of Russia, reconciliation efforts in Afghanistan and China's ambitious belt and road initiative have again put Pakistan at the centre of global pulls. US, China and Russia share concerns about Islamist extremism. The author

is of the view that Pakistan can play a role in Afghanistan reconciliation, and other issues of concern to the major powers.

The last chapter pertains to Implications and Recommendations for India. Earlier, India followed policy of restraint towards Pakistan. This restraint encouraged Pakistan to carry out ceasefire violations and terrorist infiltration. The Modi government shifted response from strategic restraint to offensive defence. However, the author feels that Pakistan is unlikely to change its policy of proxy war. Pakistan's deep state does not want peace with India, because it is a threat to the very existence of the Army. India must raise the cost of terrorism to Pakistan. India's actions should be well thought through, with target analysis and escalation appreciation.

The author has carried out a balanced analysis of Pakistan's internal security challenges, linking it with the country's flawed national ideology based on "Two Nation Theory" and its failure to develop an inclusive form of nationalism. The author has carried out appreciation of the likely future situation in Pakistan and its impact on India. He has also made logical and practical recommendations for India. The author has made a laudable effort to encapsulate analytical insights on Pakistan. It will enhance understanding of the complexities faced by Pakistan. A good reference book for scholars. It has been written in an easy to read style and makes enjoyable reading. An excellent compendium for Pakistan watchers.

Major General YK Gera (Retd)

When Military Wages Peace: Military Bands in Diplomacy, War and Statecraft. By Saad S Khan (New Delhi: Pentagon Press LLP, 2019, Pages 296, Price – Rs. 1495/-, ISBN: 9789386618726.

Dr Saad S Khan is a faculty member of the National School of Public Policy, Pakistan. Saad's work - When Military Wages Peace - must certainly rank among the first endeavours to introduce the importance of military bands in the public and private lives of humankind, in state governance and in international relations in both, war and peace. I would recommend it as a compendium, guide, authority, call it what you will, for all, in whatever position or rank, in the military band organisations anywhere. The author has greatly enhanced the existing knowledge on this little known subject.

Martial music's genre has been closely linked with the rise and fall of the great military empires. The linkage of military music to the needs of rulers and administrators, to instil spirit de corps, discipline, pride, camaraderie, passion and, most important, patriotism, was paramount and Saad has deftly traced the historical evolution with great understanding and accuracy. But most important, the author has established the *raison d'être* for the existence, establishment and retention of such a vital component of the armed forces. His support for the retention of military ensembles fundamentally rests on the belief that musical silence is a cultural death of humankind. Bands are needed to help us celebrate, mourn, honour, remember and give us pride.

Most military ensembles in continental Europe, Britain and the United States have naturally 'walked in step' with their national cultures. So then, how does Saad explain how basic, raw musicians in the Indian Subcontinent are equally adept to deliver a Mozart composition or Bollywood numbers? It all boils down to discipline and the vision of our early leaders. India's first Commander-in-Chief, General Cariappa created the Army School of Music at Pachmarhi which continues to train army musicians.

Although bands in India and Pakistan today far outnumber those in Europe, UK and US combined, quality is the major casualty. The penchant for 'indigenisation' and the absence of adequate guidance by our officer class has led to serious deterioration in the end result. Saad emphasises the importance of amalgamating march themes and there are several Indian marches and compositions that have now attained recognition.

Saad's book is a chronicle covering a niche subject in the most thorough and educative style, effectively covering every aspect, type and variation of bands ranging from the traditional military brass and pipes to mounted, orchestral, educational institutions and private entertainment groups. His style is both effective and instructive. Although music is a universal language, the end result of Dr Saad Khan's work is not for the layman. For the aficionado, however, it is a class act!

Major Karun Khanna (Retd)

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OUR ACTIVITIES

Library and Reading Room

The library holds over 68,000 books, and journals, including some books of 17th, 18th and 19th centuries, on an astonishing variety of subjects. While the principal emphasis is on strategy and defence, there are a large number of works on different vistas of Indian life. There are memoirs, biographies, recollections, diaries, journals, manuscripts for scholars and researchers. The reading room is air-conditioned, spacious and well stocked in terms of current reading material. Library was automated in 2002.

Correspondence Courses

The Institution runs regular correspondence courses for officers of the Armed Forces to assist them in preparing for promotion examinations, and for the entrance examinations to the Defence Services Staff College and Technical Staff College. Over the years, this has been a significant and well-received activity.

USI Journal

The *USI Journal* is the oldest surviving defence journal in the country and in Asia, having first appeared in 1871. In an era when there is a feeling that free expression of views by Defence personnel is not looked upon kindly by the establishment, the Journal in fact provides just such a forum, without regard to seniority and length of service in the Armed Forces, subject of course, to propriety and quality of the written work.

Centre for Strategic Studies and Simulation

The Erstwhile Centre for Research and its resources have been merged into the new Centre named as USI Centre for Strategic Studies and Simulation (USI-CS3) wef 01 January 2005. The Centre aims at conducting detailed and comprehensive enquiry, research and analyses of national and international security related issues, and gaming and simulation of strategic scenarios, to evolve options for wider discussion and consideration.

USI Centre for UN Peacekeeping (CUNPK)

The Centre was established in 2000 and functioned with USI till Aug 2014, when it moved out of USI premises and was delinked from USI. Its aims were organising workshops, seminars and training capsules for peacekeepers, observers and staff officers – both Indian and foreign. It also oversaw the practical training of Indian contingents. It functioned under a Board of Management headed by the Vice Chief of the Army Staff and worked in close coordination with the Service Headquarters and the Ministries of External Affairs and Defence. In August 2014, CUNPK moved out to the accommodation allotted by the Army HQ.

Centre for Armed Forces Historical Research (CAFHR)

The Centre was established on 01 Dec 2000 and encourages study and research into the history of the Indian Armed Forces with objectivity, covering different facets such as strategy, tactics, logistics, organisation and socio-economic aspects and their implementation.

Gold Medal Essay Competitions

Every year the Institution organises two gold medal essay competitions: one for officers below 10 years of service and the other open to all officers. These essays, the first one of which was introduced in 1871, constitute a barometer of opinion on matters that affect national security in general and the defence forces in particular.

Lt Gen SL Menezes Memorial Essay Competition

This has been instituted from 2015 on a subject related to Armed Forces Historical Research. The Essay Competition is open to all across the globe.

Lectures, Discussions and Seminars

A series of lectures, discussions and seminars on service matters, international affairs, and topics of general interest to the Services, are organised for the benefit of local members in Delhi.

MacGregor Medal

This medal is awarded to Armed Forces personnel for valuable reconnaissance and adventure activity they may have undertaken.

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The following are eligible to become members of the Institution :

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- Class I Gazetted Officers of Group 'A' Central Services.
- Any category mentioned above will be eligible even though retired or released from the Service.
- Cadets from the NDA and Cadets from the Service Academies and Midshipmen.

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