APRIL-JUNE 2019

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e-mail: director@usiofindia.org

dde@usiofindia.orgcs3@usiofindia.orgddadm@usiofindia.orgci@usiofindia.orgcafhr@usiofindia.orglibrary@usiofindia.org

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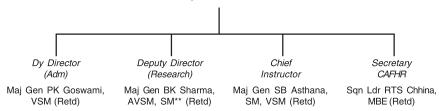
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Editor

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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.

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 - 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.
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Editorial

The article titled "Mission Shakti – India's ASAT Test – Strategic Implications" authored by Air Marshal Anil Chopra, PVSM, AVSM, VM, VSM (Retd) is the lead article in the current issue of the USI Journal. India successfully carried out anti satellite (ASAT) test on 27 March 2019 and sent a message of capability to geopolitical neighbours. India has joined group of space faring nations comprising USA, Russia and China. It is a strong military capability and showcases India's technological, industrial and military strength. India is committed to peaceful uses of space, while trying to keep abreast with technology and steadily evolving space programme.

Cyber warfare has emerged as the fifth dimension of warfare. It has outpaced the technological developments in conventional military hardware. China and Pakistan are known to be developing cyber warfare capability. There have been reports of cyber intrusions in India from China, targeting ministries, industrial houses, defence establishments and some sensitive government offices. Article titled "China's Cyber Warfare Capabilities" authored by Brigadier Saurabh Tewari focuses on China's capability in this field. China has made considerable progress in developing it. India needs to develop counter capabilities as well as make efforts to maintain an edge.

Warfare has progressively become more lethal and prohibitively expensive. Sub-conventional warfare has gained prominence with increase in employment of irregular forces in conjunction with Special Forces (SF) to promote national interests. The article titled "Special Forces – Combined Employment with Irregulars" authored by Lt Gen PC Katoch, PVSM, UYSM, AVSM, SC (Retd) focuses on this important aspect. India has adverse strategic asymmetry in terms of sub-conventional warfare vis-à-vis China and Pakistan. India needs to graduate beyond using SF in short distance cross-border raids. To that extent the raising of Armed Forces Special Operations Division (AFSOD) appears to be a half hearted effort to bridge the asymmetry. Serious effort needs to be made to keep abreast.

The article titled "The One Belt One Road (OBOR) / Belt and

Road Initiative (BRI) of China: Security Implications for India and the Indo - Pacific Region (IPR) and Response Strategies" authored by Commander Apoorv Pathak won Silver Medal in Group 'A' USI Gold Medal Essay Competition 2018. BRI is a major economic project for infrastructural development around the world, which comprises "Silk Road Economic Belt" and "Maritime Silk Road". BRI appears to be a tool to keep Chinese export led economy running. In the Indo-Pacific Region, Beijing is attempting to align economic and political interests of the regional countries with its geo-political interests. China Pakistan Economic Corridor (CPEC) is a reflection of the Sino-Centric global order. It is becoming a classic example of Chinese 'Cheque book' diplomacy by leveraging debt of Islamabad to promote Beijing's strategic interests. India opposes CPEC because of her core concerns of sovereignty and territorial integrity as major infrastructural project is to be implemented in Pakistan Occupied Kashmir, which is integral part of India. Regional balancing is the best way for India to balance a rising China. Henry Kissinger through 'ping pong' diplomacy tried to convey that in international politics realism triumphed over idealism. However, as the US grapples with authoritative China today at the world stage, the real winner of 1970's diplomatic coup is still awaited. BRI is the practical manifestation of the China's confidence to realise its 'dream'.

Current issue of the journal has 12 articles in all. 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) USI Strategic Yearbook 2019.
- (b) Sino Indian Equation Competition + Cooperation Confrontation.
- (c) Essence of Hinduism, India's Military Experience and Future Perspectives.
- (d) Azure Blue and Canary Yellow (62 Years of 62 Cavalry).

- (e) The Complexity Called Manipur: Roots, Perceptions and Reality.
- (f) First Line of Defence: Glorious 50 years of the Border Security Force.
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- (h) Tibet: When the Gods Spoke, India Tibet Relations 1947-1962, Part 3, July 1954 February 1957 .

Major General YK Gera (Retd)

Mission Shakti - India's ASAT Test Strategic Implications

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

Abstract

Within a month of carrying out the Balakot air strikes deep within Pakistan, India carried out a successful anti-satellite (ASAT) test and sent a clear message of capability to its larger geopolitical neighbour China. Through this test, India joined an exclusive group of space-faring nations consisting of USA, Russia and China. Interestingly, the name 'Mission Shakti' links it to the other strategic capability India achieved with 'Operation Shakti' nuclear tests of 1998. It also once again confirmed India's ability to engage and destroy incoming enemy ballistic missiles. This is thus a strong military capability. Politically it showcases India's technological, industrial and military strength.

The Indian ASAT test used a long-range BMD interceptor under development for its Anti Ballistic Missile (ABM) capability. Dr G Satheesh Reddy, the Chairman of Defence Research and Development Organisation (DRDO) was the Chief Architect of the ASAT. The missile travelled at hypersonic speed, to a satellite 300 km away in space and achieved a direct hit. India intentionally targeted a satellite at lower altitude to reduce the effects of debris. However, the interceptor missile used in the ASAT test has the capability to neutralise satellites up to 1,000 km in space.

India has had the capability to carry out ASAT test since 2007 when China did its test, but there was no political will at that time. PM Modi gave clearance to conduct the test in 2016. As China catapults

[®]Air Marshal Anil Chopra, PVSM, AVSM, VM, VSM (Retd) is a former Air Officer-in-Charge Personnel. He also served as a member of Armed Forces Tribunal after retirement from service.

ahead with major achievements in space, India has to steadily evolve space programme while remaining committed to peaceful use of space.

Introduction

Ithin a month of India carrying out the Balakot air strikes, V deep within Pakistan, in which it sent a punishing signal to the sponsors of terror, raised the strategic response threshold and called the Pakistani nuclear bluff, India carried out a successful anti-satellite (ASAT) test and sent a clear message of capability to its larger geopolitical neighbour China. Through this test India joined an exclusive group of space-faring nations consisting of USA. Russia and China.¹ In an address to the nation, Prime Minister Narendra Modi announced that through its missile test 'Mission Shakti' India had successfully tested an ASAT missile against a live satellite in low-Earth orbit on 27 March 2019. Interestingly, the name 'Mission Shakti' links it to the other strategic capability India achieved with 'Operation Shakti' nuclear tests of 1998. India, which has long struggled in its defence indigenisation and procurements, would now have the ability to destroy and disrupt enemy communications by knocking down enemy satellites if such an occasion arises. It also once again confirmed India's ability to engage and destroy incoming enemy ballistic missiles. This is thus a strong military capability. Politically it showcases India's technological, industrial and military strength. However, diplomatically, New Delhi was quick to clarify that they were not engaged in an arms race and that India stood by peaceful exploitation of weapons free Space.2 China had conducted a similar test 12 year earlier in 2007.3 The US Missile Defence Agency (MDA) undertook an interception of a dysfunctional satellite in low-Earth orbit in February 20084, the agency used the ballistic missile defence (BMD) interceptor, the Standard Missile-3 (SM-3), fired from Aegis-class destroyer deployed in the Pacific Ocean. The US had acquired ASAT capability as part of its Strategic Defence Initiative (SDI) in 1985. The successful flight test of Russia's direct ascent ASAT missile PL-19 Nudol, took place on 18 November 2015.5

The Test

The Indian ASAT test used a long-range BMD interceptor under development for its Anti Ballistic Missile (ABM) capability. The

Chinese ASAT test in January 2007 had also used a reconfigured DF 21-C or DF-25, the same which the Chinese used as mid-course interceptor for its first BMD test in January 2010. Dr G Satheesh Reddy, the Chairman of Defence Research and Development Organisation (DRDO) was the Chief Architect of the ASAT and led the entire launch operations.6 The missile travelled at hypersonic speed to a satellite 300 km away in space and achieved a direct hit on the satellite in orbit. The Indian ASAT test is believed to have destroyed either the DRDO Microsat-R or Microsat-TD, according to some sources. The Microsat-R weighs 740 kg and is in a 268 km by 289 km orbit. The Microsat-TD weighs 130 kg and is in a 327 km by 368 km orbit. Both are classified as Earth-observation satellites. Microsat-R had been launched on 24 January 2019 this year and the Microsat-TD a year before that. The target for the test was most likely Microsat-R.7 Low Earth Orbit (LEO) is the zone in space where a majority of man-made objects are. India intentionally targeted a satellite at lower altitude to reduce the effects of debris. However, the interceptor missile used in the ASAT test has the capability to neutralise satellites up to 1,000 km in space. "We don't need any more tests at this orbit now"8, Dr Reddy said, though he did not rule out the option of conducting more tests in the future. He also clarified that an earlier failed test done on 12 February was not an ASAT test, but a ballistic missile that was used to take out an electronic target. It was a measure for national security without contravention of any international law. International concerns of the test leaving small pieces of debris in space were allayed by Indian scientists, and the Pentagon also confirmed that the 250-270 pieces of debris in low earth orbit would be of no risk to the International Space Station (ISS) as its orbit was nearly 100 km higher than the destroyed satellite.9 The scientists had simulated the test to gauge the trajectory of debris and it was concluded that a direct head-on collision between the interceptor missile and the satellite would result in the least amount of debris. Also international agencies were tracking the debris and necessary notifications had been issued to all operators in space. International observers also complimented India for acting much more responsibly by doing a test on satellite much lower in orbit and the debris will clear of in a few months. On the other hand, China destroyed a Polar weather satellite at 865 km orbit in 2007 and Chinese satellite debris (647 pieces) was still orbiting in space.10 Reddy clarified that a "mission

of such nature" could not have been kept a secret technically, and had to be made public. Almost all the technologies used for the ASAT test were indigenously developed with some 50 industries contributing components for the 13 metre missiles weighing 19 tonnes. The missile was described as a kinetic kill vehicle, which means it does not carry any explosives or other devices, and it 'kills' by smashing into the target satellite and shatters it using its kinetic energy.

The Timing of the Test

India has had the capability to carry out the ASAT test since 2007 when China did its test, says the former Indian Space Research Organisation (ISRO) Chairman G Madhavan Nair, but there was no political will at the time to demonstrate it. 11 The PM had taken the initiative and he had the political will. Clearance to conduct the test was received in 2016 when the programme to develop the interceptor missile began in earnest, Reddy said. There were others who thought the event was timed for pre-election political reasons. However, the election commission of India confirmed that the model code of conduct for elections had not been violated by the test or the announcement. There was urgency for testing also because on a future date there could be an international treaty for ban on ASAT testing. USA has confirmed that they were aware of such a test, but Pentagon denied that they had launched an aircraft from its base Diego Garcia in Indian Ocean to spy the launch.¹² The US Air Force Missile Warning System at Buckley Air Force Base had detected and confirmed the hit and breakup of the satellite.

The ASAT-BMD Linkages

Up to an altitude of close to 200 km, one could intercept missiles both, within the Earth's atmosphere (endo atmosphere) and beyond (exo atmosphere). The intention in both ASAT and BMD is to take on military targets operating in or transiting through the space. If destroyed just before atmospheric re-entry, it would ensure that space assets in low-Earth orbit are not affected. In all tests, exo-atmospheric BMD type interceptor was used. Clear linkages can then be drawn that BMD and ASAT missions are similar in nature and intent. Targeting algorithms for ASAT and ballistic missile interception in outer space are usually different. In fact, the Indian ASAT test was done using the long-range

interceptor of the BMD programme (PDV). The test has been a breakthrough for the DRDO.

Evolution of Space Weapons

The United States and erstwhile Soviet Union began conceiving and developing anti-satellite weapons in early 1960s. They were in the form of directed-energy lasers to decapacitate; kamikaze satellites for hard-kill; and possible orbital nuclear weapons. They felt that very long range Inter-Continental Ballistic Missiles (ICBM) spend significant time in sub-orbital flight and was best intercepted in space. The US 'Nike-Zeus' programme envisaged firing Nike nuclear missiles against incoming ICBMs.13 Project 'Defender' was to destroy Soviet ICBMs at launch with satellite weapon platforms that were to orbit over Russia. Both programmes were abandoned later. The 'Sentinel' and 'Safeguard' programmes were to use Anti-Ballistic Missiles (ABM) to shoot down incoming ICBMs. Initial plan was to use a nuclear tipped interceptor missile but as accuracy improved, hit-to-kill ABMs evolved. In 1983, US President Reagan proposed a space-based Strategic Defence Initiative (SDI) to protect the United States from attack by strategic nuclear missiles.

In the 1960s, Soviets developed a "co-orbital" system¹⁴ that would approach the space target using radar guidance, and then explode shrapnel warhead close enough to kill it. Soviets also evolved a low-Earth orbit Fractional Orbital Bombardment System (FOBS)¹⁵ for earth targets. It would de-orbit for the attack. The SALT II agreement of 1979 prohibited the deployment of FOBS systems. Polyus orbital weapons system was an anti-satellite weapon with nuclear space mines and a self-defence canon. Soviets also considered the space Shuttle as a single-orbit weapon that could manoeuvre to avoid existing anti-ballistic missile sites, and then bomb the target and land. The Soviets also experimented with large, ground-based ASAT lasers with a number of US spysatellites reportedly being temporarily 'blinded', and used a modified MiG-31 as an ASAT launch platform. End of Cold War saw new players like China, Japan, European Union and India create own space systems. Spy satellites continue to perform C4ISR missions. Satellites are also used to provide early warning of missile launches, locate nuclear detonations, and detect preparations for otherwise clandestine or surprise nuclear tests. Early-warning satellites were used to detect tactical missile launches, in Operation Desert Storm.

Weaponisation of Space

Space weapons can be categorised as those that attack targets in space (anti-satellite); or attack targets on ground from space; or attack targets transiting through space (anti-ballistic missile). It is technically possible to position conventional or nuclear missile in space which could reach targets on the ground, but the same could be expensive and difficult to maintain and service. Also carrying heavy missiles would be a logistic nightmare and have only small advantage of saving time vis-á-vis aircraft and submarine launched weapons. The Russian ASAT research has reportedly been resumed under President Putin to counter renewed US strategic defence efforts post ABM Treaty. The National Aeronautics and Space Administration (NASA) space plane X-37, now with US Department of Defence is akin to a space version of Uninhabited Aerial Vehicle (UAV) and its employability is evolving. International space treaties limit or regulate positioning of weapons or conflicts in space. To date, there have been no human casualties resulting from conflict in space, nor has any ground target been successfully neutralised from orbit.

ASAT tests are normally extremely controversial and are considered to be contributing towards weaponisation of space, which is prohibited by the Outer Space Treaty of 1967. The US and Russia have also shot down their own defunct satellites on multiple occasions. China and India have been vociferous against the arms race in outer space, and have backed Russia on the Prevention of an Arms Race in Outer Space (PAROS)¹⁶ and demanded a treaty banning weapons in outer space. ASAT and BMD tests by China confirmed that great powers cannot abstain from technological races where their rivals have a clear edge or can swing the strategic balance. Similarly, the Indian ASAT test followed a techno-strategic trajectory to catch-up with its immediate rival China. Satellites are used by countries for navigation, communications and also for guiding their missile weaponry. These ASAT tests defacto make one more act for weaponisation of space. The current Trump administration has been rather vocal about need to harness the space for military applications as also for basing missile interceptors in space. Even in 2008, US described its ASAT test as a part of the BMD system. This was more so because just a year earlier, the US had criticised the Chinese ASAT test as space weaponisation. Similarly, both Russia and China had censured the US for the SM-3 test.

Research is on into directed energy weapons, including a nuclear-explosion powered X-ray laser. AGM-69 SRAM carried on a modified F-15 Eagle was successfully tested in September 1985 targeting a satellite orbiting at 555 km.¹⁷ Russia has reportedly restarted development of a prototype laser system 'Sokol Exhelon'. Israel's Arrow 3 (Hetz 3) anti-ballistic missile, with exo-atmospheric interception capability, is in advanced stage of development. US National Missile Defence (NMD) programme has no weapon stations in space, but is designed to intercept incoming warheads at a very high altitude where the interceptor travels into space to achieve the intercept.

China Pulls Ahead in Space Capabilities

China enjoys a big lead over India, and is quickly trying to overtake Russia and catch up with USA. In January 2019, it became the first country to land a spacecraft on the far side of the moon. Its Space programme is run by the Chinese military. China continues to work closely on strategic technologies, including Hypersonic flight, Directed Energy Weapons (DEW) and MaRVs (Manoeuvrable re-entry vehicles). For years shrouded in secrecy, China's ambitious space programme is now well publicised. Lunar and Mars missions, a permanent space station, and ASAT are part of it. Increasing number of Chinese rockets have been launched in the past few years. China is working on hack-proof satellites. China plans a permanent space station 'Tiangong' by 2020 and a crewed expedition to the moon. 2020 is also the plan for Chinese Mars mission. China spends around \$6 billion a year on its space programme, albeit still a fraction of American US\$ 40 billion budget. It is preparing to launch new rocket designs.

In December 2015, China launched the Dark Matter Particle Explorer. It soon plans to launch the Hard X-ray Modulation Telescope to look for black holes. Twelve Chinese astronauts have now been into space, including Liu Yang who became the first Chinese woman in space. Chinese Satellite Aolong 1 (Roaming Dragon) has a robotic arm that can grab another satellite and guide it to burn up in Earth's atmosphere. Officially, it is to remove space debris from orbit but it could be used as a weapon, bringing down a rival's satellite. China continues to develop a formidable

arsenal of launch vehicles. Long March 7 in June 2017 was capable of lifting about 13 ton into low Earth orbit. Long March 5 has capability of lifting 25 ton into low Earth orbit, rivalling anything the Americans, Russians or Europeans currently have. Designs for a Long March 9 rocket are currently being studied. With the first launch for the Long March 9 due in 2025, China could very well be in a position to land astronauts on the moon by 2030.

Pakistan takes Chinese support for satellite launch. They have also joined the Chinese satellite navigation system Beidou. In January 2017, they tested the Abadeel, a development of the Shaheen-III with multiple independently targetable re-entry vehicles (MIRV). The intention of the system is to counteract the Indian Ballistic Missile Defence (BMD).

India's Space Programme

ISRO has come a long way since its first satellite Aryabhata was launched by Soviet Union in 1975. In 1980, Rohini became the first satellite to be placed in orbit by an Indian-made launch vehicle, SLV-3. ISRO subsequently developed the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV) for placing satellites into geostationary orbits. Satellite navigation systems GAGAN and IRNSS were deployed. In January 2014, ISRO successfully used an indigenous cryogenic engine in GSLV-D5 launch of the GSAT-14. ISRO sent one lunar orbiter 'Chandrayaan-1' on 22 October 2008, and a Mars orbiter mission which successfully entered Mars orbit on 24 September 2014, making India the first nation to succeed on its first attempt. ISRO thus became the fourth space agency in the world as well as the first in Asia to successfully reach Mars orbit. India's Space programme, though overtly for peaceful exploitation of space, has military off-shoots. These include remote sensing satellites of IRS series with some having spatial resolution of one metre or below. There are others with panchromatic cameras, synthetic aperture radars, satellites providing scene-specific spot imagery for cartographic/military applications. On 15 February 2017, ISRO launched 104 satellites in a single rocket, PSLV C-37, and created a world record. ISRO launched its heaviest rocket, Geosynchronous Satellite Launch Vehicle-Mark III (GSLV-Mk III), on 5 June 2017 and placed a communications satellite GSAT-19 in orbit. With this launch, ISRO became capable of launching 4 ton

heavy satellites. India has launched 100 Indian satellites of various types as on 31 January 2018. As of November 2018, ISRO has launched 239 satellites for 28 foreign countries. India will send its first manned mission to space by December 2021 says ISRO chief Kailasavadivoo Sivan.

Indian Military Application Satellites

India today has 11 operational Indian Remote Sensing (IRS) satellites. All these are placed in polar sun-synchronous orbit and provide data in a variety of spatial, spectral and temporal resolutions. Though most are civil satellites, some have a spatial resolution of 1 metre or below which can be also used for military applications. India also commercially offers images with one metre resolution. Radar Imaging Satellite 2 (RISAT-2) has synthetic aperture radar (SAR) from Israel Aerospace Industries (IAI). It has a day-night, all-weather monitoring capability with one metre resolution. The CARTOSAT-2 carries a state-of-the-art panchromatic (PAN) camera that take black and white pictures of the earth in the visible region of the electromagnetic spectrum. The swath covered by these high resolution PAN cameras is 9.6 km and their spatial resolution is 80 centimetres. The satellite can be steered up to 45 degrees along as well as across the track. It is capable of providing scene-specific spot imagery. The data from the satellite is used for detailed mapping and Geographical Information System (GIS). CARTOSAT-2A is a dedicated satellite for the Indian Armed Forces. Because of high agility, it can be steered to facilitate imaging of any area more frequently. CARTOSAT-2B offers multiple spot scene imagery. With CARTOSAT-2E launched in June 2017, India now has 13 satellites with military applications. Most of these remote-sensing satellites are placed in the near-earth polar orbit. GSAT-6 is the second strategic satellite mainly for use by the armed forces for quality and secure communication. Indian Navy uses GSAT-7 for realtime communication among its warships, submarines, aircraft and land systems. GSAT-7A an advanced military communications satellite exclusively for the Indian Air Force (IAF) was launched in December 2018.18 It will enhance network-centric warfare capabilities by interlinking with IAF ground radar network and Airborne Early Warning and Control (AEW&C) aircraft, GSAT-7A will also be used by Indian Army Aviation Corps.

Integrated Space Cell and Aerospace Command

The Integrated Space Cell was formed in June 2010 as the nodal agency within the Government of India which oversees security of its space based military and civilian hardware systems. The Cell is jointly operated by the three Armed Forces, Department of Space, and ISRO, It functions under the Integrated Defence Staff Headquarters of Ministry of Defence. USA has a Tri-Service US Strategic Command which oversees space assets. Russia fused all space and some air defence components and merged with the Russian Air Force to form the Russian Aerospace Forces. China's People's Liberation Army Strategic Support Force was created to gain regional advantages in the astronautic war, space war, network war and electromagnetic space war and ensure smooth operations. Indian Air Force (IAF) had outlined the Defence Space Vision 2020 to harness satellite resources to significantly boost India's defence preparedness. The Indian tri-service Space agency, as a prelude to a full-fledged Space Command will soon be set up at Bangalore. It will be headed by an IAF officer. Finally the Space Command with requisite space expertise and authority can transform the space vision into tangible operational outcomes.

India's Anti-Satellite Ability and Implications

The Government of India stated that the test was done "to verify the capability to safeguard our space assets." Today's test does not violate any international law or treaty. We will only use modern technology for the security and welfare of 130 crore Indians. A strong India is necessary for the security of this region. Our strategic goal is "to ensure peace and not create an environment for war," the Prime Minister said. It clearly means that if someone threatens Indian assets, their assets could be targeted. The capability is a deterrent against a potential rival, like China. It means India now has the option of shooting down the satellites of any country in the event of conflict. That could have vast military implications, especially for the use of spy satellites or even navigation satellites of a particular country.

Indian ballistic defence programme is a multi-layered system consisting of two interceptor missiles, the Prithvi Air Defence (PAD) missile for high altitude, and the Advanced Air Defence (AAD) missile for lower altitude interception. It would be able to intercept

incoming missile launched 5,000 kilometres away. The 'Swordfish' radar for the BMD system currently has a range of 800 km. It is planned to upgrade to 1,500-2,000 km. Two new anti-ballistic missiles to intercept IRBMs are being developed to cover a range of up to 5,000 km. India is also planning a laser based weapon system to destroy a ballistic missile in its boost phase.

Way Ahead

Noted strategist Guilio Douhet had said, "Victory smiles upon those who anticipate the changes in the character of war not upon those who wait to adapt themselves after the changes occur". India needs early warning satellites to monitor ICBM launches and even tactical airspace as an important military asset. Ground/space based lasers to disable enemy satellites or destroy/degrade attacking ICBM as part of ASAT capability.

There is also a need to develop Directed Energy Weapons. India one-day needs a permanent space station. The establishment of tri-services Space Command would be operational next step. Space is the future for all action and capabilities are the real force multiplier. Time to invest and prepare is now.

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Terror Strikes in Sri Lanka: A Sign of Weaponisaion of Ideology

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

Radical ideology is the driving force behind the transnational terrorism. The attack in Sri Lanka has proved that ideology can become a potent weapon to perpetrate the acts of terrorism on unsuspecting innocent civilians. The outcome of such terror attack is neither a decisive victory nor a tangible change in behaviour of the government under coercion or threat of more terror attacks. However, there is a perception in the minds of terrorists that they are committing such acts of terror as part of their duty to the religion for fulfilment of larger objective of establishment of Caliphate. In most cases, self radicalised terrorists are using every day utility technology and objects such as vehicles, locally assembled drones and even fertiliser as explosive. Battle of narrative is as important as battle with guns to defeat the idea of Jihad. This is not a war of one nation; it is a collective war of the global community. It would require kinetic and non-kinetic measures to defeat this threat.

Introduction

The character of transnational terrorism and grey zone conflict is ever evolving and has created war between the people on the basis of religion, ethnicity and nationalities. The terror attacks in Sri Lanka are influenced by transnational terrorism where ideology of terrorism has been imbibed from the Islamic State (IS) but it is perpetrated by homegrown terrorists and directed against people of the host nation. It is a case of domestic act of terrorism where the perpetrators, victims, and audience hail from the venue country¹. But there is flipside to the terror strike where ideology is

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Brigadier Narender Kumar, SM, VSM (Retd) is an Infantry Officer retired after 33 years of Service. He has authored two books, on "Challenges in the Indian Ocean Region and Response Options" and "Rise of China: A Military Challenge to India". He is currently a Distinguished Fellow at USI, New Delhi.

from transnational terror organisation but victims and perpetrators are from Sri Lanka. In fact there is no history of Islamic terrorism in Sri Lanka nor an overt confrontation between the Muslim and Christian community, yet Christians were targeted on the Easter. In spite of Sri Lanka being low threat nation from the point of view of Islamic terrorism, the Islamic State of Iraq and Syria (ISIS) operatives (most of them self radicalised) chose to target people during religious function to register their presence in Sri Lanka. Is it an indication of impending inexorable religious war in South Asia? Is Sri Lanka being used as a maritime pivot or is it an attack to maintain unpredictability? It is difficult to find answers at this stage, however, the philosophy ISIS and Al Qaeda maintains is "exploit every unguarded approach and target disbeliever whether he is a civilian or military, whether that country is in collusion with the West or not, for they have the same ruling. Both of them are disbelievers".2 Defensively, the key point is that terrorists go where they see the opportunities, thus undermining distinctions between high- and low-threat areas.3

The attack in Sri Lanka that killed more than 200 civilians, while praying on Easter, appears to be a case of weaponisation of ideology for larger objectives of IS to proliferate the idea of Caliphate by sensational act of terror. The message is clear, that no geographical barrier or counter terror forces can stop a terror organisation to penetrate from unexpected quarters and create a situation of war between the people in their own streets. The battle space is now urban cities, population centres, religious places, and even historical sites. The battle space also extends to cyber and cognitive domain to weaponise ideology by creating a narrative that dilutes idea of states and reshape public perceptions. The grey zone is now cluttered by transnational terrorists, drug cartels, criminal gangs, religious radicals, and politically disaffected subjects of the states.

Since August 2014, ISIS had chosen to fight frontal battles with security forces and supportive militia. This trend continued up to March 2019 when it lost its last bastion in Syria. It is unthinkable that the core ISIS leadership was not working on a strategy for its post-Caliphate phase, like the al Qaeda did after 9/11 anticipating the US-led response. IS ideologues are conscious that if they have to keep this movement alive, they have no option but to take the idea of Jihad for Caliphate to every part of the world where

Muslims reside. Therefore, every country that has footprints of radical ideology of Jihad must be prepared to face the emerging threat of terror through local proxies. It is difficult for the counter terrorist forces to identify or stop local proxies if they show no signature of overt presence of armed and even unarmed radicalised gangs. It is not possible to stop a man using his personal car to drive into public gathering and killing unsuspecting congregation. The new trend is that the terror organisations are not using sophisticated weapons, but technology and material of daily use easily available in the market for common usage by public. States must keep in view that there are three most potent weapons that are used by transnational terror organisations; information, demonstration of reach and capabilities, and access to financial support. The attack in Sri Lanka was no different, the terror organisations had information of targets, access to the material for Improvised Explosive Device (IED) and unobstructed access to reach the desired targets without being intercepted by security forces and access to the money to support operations.

Future Trends

The attack in Sri Lanka has demonstrated that transnational terrorism is going to be increasingly diffused, diverse, dispersed and disruptive. Such a strategy will ensure that they remain amorphous, faceless, invisible, and unpredictable. The objective is to demonstrate that institutions of governance are helpless and incapable of fighting them and will endeavour to create a perception of invincibility. They try to demonstrate honour and glory on a narrative spread by radicals, of "Dying to Win". Transnational terror organisations create a narrative, of people fighting a just war with the state and attempt to create an impression of blurring the lines between peace and wartime. Post disabling of the Caliphate in Syria and Iraq, the goal has been to stay below the threshold of triggering a full armed struggle by employing mostly noncombat tools, often backed by ideologues to achieve political objectives⁵ for establishment of Caliphate.

Use of disruptive and lethal technologies and weapons will become a routine and mass drone attack on Russian bases in Syria is a curtain raiser of what is coming next. Though terrorists did not use high technology weapons in Sri Lanka, but the same cannot be overruled in future especially, when useable technology is available for making IEDs, assembled drones or cyber as weapon to disorient or disrupt air traffic, jamming of police and security forces net and fake fire alarms. Even triggering fire in crowded complexes / industrial hubs can cause massive collateral damage. This is further aided by violation of rules for illegal construction and running of illegal institutions and factories.

The strategy is that modules remain incognito by concealing their identity and maintaining complete isolation from other affiliates by design. The Sri Lankan suicide bombers maintained secrecy and ensured their intent was concealed till they executed the task. Though some intelligence agencies, including India, had warned Sri Lankan government but it was not acted upon probably thinking that Sri Lanka will not be targeted by IS affiliates since it has no history of Islamic terror. These affiliates defy conventions and selection of hit men is carefully done so that they do not reveal intent by actions or expressions. In the case of Sri Lanka, the nine suicide bombers did not buckle under fear or emotion of losing their lives and dear ones. They showed normal behaviour till they blew themselves up. It indicates that some amount of psychological mentoring and selection of bombers would have gone into.

The terror organisations are exploiting ideas and different identities to further their cause. The unique concept they have developed is to penetrate through interconnected world to reach their potential cadres and through this network create ideological and identity fissures to wage Jihad. Al Qaeda and ISIS have exploited 'World Wide Web' to the extent that no organisation has ever done. They have used it to recruit cadres, align ideologies with local proxies and even execute operations on social media to conceal intent and identities. The terrorist organistaions have effectively used connectivity to disengage with the state and its institutions. It is a concept that needs to be carefully examined and analysed. It is bound to have profound impact on national security.

War from afar⁶, by state and non-state actors, will continue to develop with greater capacity for stand-off and remote attacks. The difference is that a state uses both kinetic and non-kinetic means for 'war from afar' whereas, non-state actors rely on exploiting ideas as weapon. The group that struck the World Trade Centre, for example, did not exist until its members, foreigners of

diverse nationalities, coalesced in New York for that one attack. That they belonged to no terrorist group when they entered the United States, underscores how the mere movement of highly discontented people can bring about the malignant combination of collaborators, and target, despite a very elaborate security set up.7 It was the idea of Jihad that brought them together and they planned and executed one of the biggest terror attack in the history of mankind. In a survey by The New York Times, the overall loss was approximately \$3.3 trillion, or about \$7 million for every dollar Al Qaeda spent planning and executing the attacks.8 Attack on World Trade Centre demonstrated that there is no need for weapons of mass destruction to cause unprecedented collateral damage. It required discontented and motivated cadres prepared to die for Jihad. These ideologically mentored terrorists cannot be disabled or disarmed by counter terrorist forces because they use mind as the weapon. Thus, such threats can be disabled by a narrative and digital intelligence that can assist in decoding and disengaging them from the idea of Jihad.

Lessons for India for Calibrated Response

The counter terrorist forces are not suitable to fight the transnational terror organisations, especially those who weaponise ideology, because they remain amorphous and faceless till they unleash acts of terror. Therefore, important aspect is to harden the accessibility to the targets, including public places, by putting in place structural, digital, cyber and human security. There is a need to create an environment that, "you are being watched in public and in private". The terrorists will 'leave no access point unexploited' and thus, misuse of technology by terrorists will be more frequent than before. There is a growing consensus among the counter terrorist analysts that governments can no longer rely on countering terror threats with traditional security mechanisms. It is near impossible to develop counter terrorist strategies purely based on human skills and instinct, thus investment in technology to deal with emerging threats from terrorism is a necessity.

Technological Wall and Technological Spear: The Future Weapon to Fight Terrorism. There is a need to formalise the capabilities and legal framework to use technology to counter transnational terrorism and violent extremism. It will require incorporation and adaptation of technology to build capabilities of

detection, prevention, pre-emption and elimination of terrorists through multi-layered technological wall and technological spear. What is important is, employment of combination of technology in synergy with human intelligence and counter terrorist forces. Some of the important measures that need to be put in place are digital mapping of population, cyber intelligence, surveillance of suspects, monitoring of funding, sale purchase of crypto currency, browsing and distribution of radical literature on social media and forming of social groups based on radicalism. Thus, there is a need to map entire population for facial recognition for easy monitoring. There is a growing perception that even Deoxyribonucleic Acid (DNA) mapping is required today because facial and finger prints can be altered by surgery but DNA cannot be altered. As a system, every child born must be sampled so that digital and DNA mapping of population data can be stored. The caveat is to maintain security of personal data to prevent misuse by unscrupulous organisations and individuals. UK, China and many European countries are slowly achieving digital and DNA mapping to ensure criminals, terrorists and absconding outlaws can be pinned as soon as they expose to the CCTV cameras and in case of doubt their DNA can be matched.

Demystify Web of Uncertainty. Creation of haze and uncertainty is a character of transnational terrorism and grey zone conflict. Success of state lies in finding clarity in the web of fog created by transnational terrorists and their local proxies. This web can be broken by incorporating technology and calibration of human efforts. Through penetration into the unarmed terrorist's network, who are working overtly as preachers of peace in society or as professionals employed in public or private sector as common citizens, India needs to build a data of all suspects within the country and outside as is being maintained by Morocco, the US and some European nations. In fact, Morocco not only provided lead to Sri Lanka but also provided inputs to India to prevent any further attacks. As per Moroccan intelligence agencies, terrorists were planning to launch second wave of attack after Easter bombing which was averted due to timely input. An Islamic country like Morocco dismantled "183 terrorist cells" in the country that were in various stages of planning of terror attacks, 361 devastating terrorist projects were neutralised by Moroccan intelligence agencies. More than 3,000 people, including 292 individuals with previous criminal record,

were arrested by Moroccan authorities.⁹ Such inputs can only be obtained when there is deeper penetration of intelligence agencies into terror organisations, radical organisations and carefully chosen undercover agents, posing as modules on the social media as well as on the ground, keep the terror modules and their inner network under surveillance.

Home First Approach. To prevent any terror attack, 'home first' approach to security is must. Therefore, it requires uninterrupted intelligence, surveillance and counter terror combat forces to work in tandem. The efficiency of counter terrorism intelligence and force lies in preempting and preventing terror attacks by proactive intelligence and timely neutralisation of suspects. What happens behind the four walls of religious places also needs to be monitored and if any religious place or social organisation is indulging in radicalisation and recruitment, such organisations, without bias, should be banned and culprits be brought to book. In addition, critical targets must be hardened to deny exposed flanks.

Law as a Tool of Deterrence. A nation with archaic laws cannot deter armed and unarmed terrorists and their ideologues. Thus, law must be used as a weapon to deal with proxies of transnational terror and hardliners. India needs to enact a law to punish those who indulge in terrorism in a foreign country and then return to lead a normal life. Similarly, legal framework needs to be strengthened to bring to book unarmed terrorists and those who radicalise youths to join terror groups.

Think Ahead to Remain Ahead of Terrorists. Intelligence agencies cannot sit back and remain satisfied by past success. They must continue to work to decode what can happen in future. Did anyone ever believe that terrorists will take charge of the aircraft in flight and bring down World Trade Centre, or mount an attack through sea in the case of 26/11 Mumbai or carry out suicide attacks on the occasion of Easter in Sri Lanka? Therefore, there should be a continuous research or thinking as to what can they do next and intelligence agencies should then start looking at new leads to neutralise further attacks. In addition, in fact not only intelligence agencies or police should be working to defeat terrorists but every government department from public health and safety to municipal conservancy should feed inputs to the centralised agencies so that these activities can be analysed and collated and that no signature goes unnoticed.

Over-reaction is a Dangerous Phenomenon. Over-reaction is a dangerous phenomenon and it can create antagonism in the society. Media also needs to be careful and not hype issues related to fear and apprehension of people on the basis of rumours and fake news. Over-reaction can lead to societal tension and further alienation of population. Counter terrorist forces, government agencies and media must maintain balance and avoid any over reaction. Post Sri Lanka terror strike, the political leaders did not speak in different languages and entire nation, including media, was on the same page and reading from the same script. Whereas in India, media trial and cooking up of narrative often takes place leading to politicisation of and polarisation of terrorism. It has become a routine for political parties and so called human right activists to question counter terrorist operations and their veracity. Under such circumstances, at times culprits can get away and innocent may be victimised.

Conclusion

Patrick J Kennedy had said, "Terrorism is a psychological warfare. Terrorists try to manipulate us and change our behaviour by creating fear, uncertainty, and division in society". Anwar al-Awlaki, the Al Qaeda leader, in one of his lectures had said that war for establishment of Islamic Caliphate is "the Battle of Hearts and Minds". 10 Al-Awlaki during his discourse had sent message to Jihadists across the globe, "don't rush to Iraq and Afghanistan, stay back in your own country and wait for the opportunity". There is a need to understand that the IS has been disabled but not destroyed. As a result, the threat from IS has increased manifold after the collapse of the Caliphate, especially from returning cadres from Syria, Iraq and those who stayed back on the advice of Anwar al-Awlaki.

If counterterrorist activities are to go global, it will require a broad outlook in planning kinetic and non-kinetic measures against terrorism. It will also mean enlisting cooperation of foreign partners in going after terrorists offensively. The syndrome "it is your war" must end. It is a common threat to modern states and societies and needs to be dealt as "our war". It will require collaborative security mechanism to make participating nations stakeholders with definite commitment to the cause. There is also a need to isolate nations supporting acts of terror by implementation of

instruments, such as Financial Action Task Force, for money laundering and funding of terrorism. The Security Council stresses that capacity-building in all member states is a core element of the global counter-terrorism efforts. Technology is a vital tool to deal with transnational terrorism and must be optimally utilised to make streets and states safe and secure.

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China's Cyber Warfare Capabilities

Brigadier Saurabh Tewari®

Abstract

The potency and overwhelming lethal effects of cyber warfare have outpaced the technological development in conventional military weapons space, changing the very character of future wars, and the role of cyber warfare in them. Worldwide cyber warfare is now being acknowledged as the fifth dimension of warfare.

In the last decade or so there has been consistency in reports of cyber intrusions in India from China. Important Indian targets include ministries, embassies, industrial houses, defence establishments, apart from sensitive government offices. No Indian cyber intrusion investigation reports are available in the open domain; however, investigation reports of major cyber breaches world over by foreign investigators do exist, wherein India is mentioned as one of the victims, with intrusions attributed to China.

China and Pakistan are known to be developing cyber warfare capability to deter a physically and technologically superior military adversary. India needs to be aware and conscious of these threats, and needs to develop counter capabilities. In the last decade. China has made considerable progress in developing cyber warfare capabilities in terms of revising its policies, restructuring organisations, building human expertise, and raising new establishments.

This article analyses Chinese cyber warfare strategy and capabilities and its impact on India.

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[®]Brigadier Saurabh Tewari is B Tech in Electronics and Telecommunications and M Tech in Optical Communications. He has served in insurgency affected areas, Siachen Glacier, Ladakh and Sri Lanka. He holds PG diploma in management and diploma in Cyber Law.

Global Cyber Warfare Trends

Although one saw glimpses of cyber and electronic warfare in the Gulf War, there has been a major rise in use of cyber warfare by nation states over the last decade or so, as elucidated below:-

- (a) In 2007, operation "Orchid" was carried out by the Israeli Air Force to destroy Syrian nuclear facilities near the border, in which Israel resorted to cyber warfare to blind the Syrian air defence system (radars) deployed along the Syrian-Israel border. Taking it's advantage the Israeli air force fighter aircraft bombed the nuclear facility without being detected by Syrian radars.^{1,2}
- (b) In 2010, the stuxnet virus destroyed a major portion of Iranian nuclear facility. This incident was globally assessed as a joint effort of Israel and the USA.³
- (c) In 2012, there was a major power grid failure in northern India, and reports indicate that the same could be attributable to hacking of the Supervisory Control and Data Acquisition System (SCADA) by a China-Pakistan nexus.⁴
- (d) In 2014/15, during Russian Ukraine conflicts, Russians resorted to blanking of Ukraine military communication systems, thereby forcing them to use the cellular network, which enabled their location fixing, and easing their neutralisation.^{5,6}
- (e) In 2016, the deadly ransom-ware virus Wannacry adversely effected individual and organisational networks across the globe.

These events go to show that cyber warfare is now the preferred tool, being non-contact, shrouded in obscurity, and low cost, but having an infinite reach.

Cyber Warfare Incidents against India

Cyber incidents against India have been occurring at regular intervals, especially in the last decade. This has been acknowledged at the highest levels like the former National Security Advisor (NSA) of India, MK Narayanan.⁷ Recently, a report by US Cyber Security Company, called 'FireEye', said that China has been spying on Indian government and business for more than a decade

without India being aware of it, and there is more to come.⁸ The consistency of incidents indicate a dedicated India-targeted espionage system purportedly originating in China. Summary of some activities is given below:-

- (a) 2009: National Informatics Centre (NIC) servers breached.
- (b) 2012: Ministry of Home Affairs (MHA), Ministry of External Affairs (MEA) intruded.⁹
- (c) 2012: Northern India Power grid crashed.¹⁰
- (d) 2013: Defence Research and Development Organistaion (DRDO), Prime Minister's Office (PMO) website hacked.¹¹
- (e) 2014: Bharat Sanchar Nigam Limited (BSNL) website hacked.¹²
- (f) 2015: Indian Space Research Organisation (ISRO) webpage defaced.¹³
- (g) On 23 May 2017, an Indian Air Force Sukhoi 30 fighter aircraft was downed, purportedly by a cyber attack from China.¹⁴

Understanding our vulnerabilities and China's cyber capabilities will play a major role in arriving at appropriate response to accredit cyber attacks to China and undertake countermeasures. Own vulnerabilities are two-fold. Firstly, there is a lack of effective cyber security environment, integration amongst organisations and lack of offensive capability. Secondly, vast proliferation of Chinese computer and telecommunication hardware, as well as mobile phones have increased vulnerabilities to a great extent.

Chinese Cyber Warfare Capabilities

In April 1997, a 100-member elite corps was set up by the Central Military Commission (CMC) to devise ways of hacking into American and other western countries computer systems. Since then, China has been making steady progress in acquiring cyber warfare capabilities in terms of organisations, policies and expertise. In 2015, People's Liberation Army (PLA) decided to raise Strategic Support Force which is being touted as the fifth Service and not just a branch of PLA.^{15,16}

China uses the term "Integrated Network Electronic Warfare" (INEW) to describe an integrated approach to information warfare operations and includes electronic warfare (EW), computer network warfare and psychological operations.¹⁷ Salient aspects of Chinese strategy on cyber space are given below:-

- (a) **Global Superpower**. China aims to become global internet superpower and have an impregnable cyber security system by 2025. ¹⁸ Apropos, it is reasonable to assume that China would develop its cyber warfare capabilities in equal measure.
- (b) **Whole of Nation Approach**. China has "Whole of Nation" approach for conducting cyber war, to include patriotic hackers and university students as cyber warriors in conjunction with the PLA.¹⁹
- (c) **First Option**. The PLA sees cyber warfare as a first-strike option to preclude the requirement of conventional military operations, and not as a force multiplier to conventional operations.²⁰
- (d) **Strategic / Space Cyber War**. China has elevated cyber warfare to strategic level by adding cyber attacks on satellites or space warfare, to its offensive operations.²¹
- (e) **Concurrency**. It is logical to assume that PLA intends to conduct concurrent operations in all five domains viz. land, sea, air, space and cyber.
- (f) **Cyber Espionage**. China is involved in continuous cyber reconnaissance to identify weak spots and glean information which can be exploited during war.
- (g) Crippling the Critical Infrastructure. Target information infrastructure of critical services like financial institutions, banking, electrical, water, sewage, railway and telecommunication networks.
- (h) Proliferate Chinese computers / laptops, modems and telecommunication hardware in enemy country networks (embedded with virus, trojans, malware), which can glean information on regular basis, and may be exploited later during war to cripple the nation.

Important Cyber Organisations

The major cyber organisations of China are:-

- (a) **PLA 3**rd **Department**. 3rd Department is responsible for Signal Intelligence (SIGINT), Computer Network Defence (CND) and Computer Network Exploitation (CNE).^{22,23}
- (b) **PLA 4**th **Department**. 4th Department is responsible for Electronic Warfare (EW), Computer Network Attack (CNA) and Integrated Network Electronic Warfare (INEW).²⁴
- (c) **IW Militia Units.** Militia units were established by the PLA in 2002 within commercial organisations.²⁵
- (d) **Strategic Support Force (SSF).** China created a new force called the SSF in 2015 which is likely to integrate intelligence, communications, electronic warfare with cyber warfare to create an integrated information warfare force.
- (e) Non State Actors This comprises:-
 - (i) **State Backed Hackers**. Keeping with the concept of 'whole of nation' approach, university students and patriotic hacker groups are facilitated by the PLA and transformed into legitimate cyber warfare units. Hackers are recruited under the guise of software engineers and security experts. China is purportedly maintaining approximately 30,000 citizens and 250 Patriotic Hacker groups.
 - (ii) **Telecommunication Enterprises**. Civil telecommunication companies are part of China's cyber espionage system. Firms like Huawei, and ZTE are closely associated with the government and receive preferential funding for Research and Development and predatory trading.

Implications for India

(a) **Cyber Environment.** The cyber environment in India is very discouraging, to say the least. Penetration testing by own agencies have divulged that Indian networks/computers are flooded with virus, trojans etc. Most of the critical hardware like routers could be easily penetrated. This includes hardware of important and critical organisations like the DRDO, National

Thermal Power Corporation (NTPC), police, Public Works Department (PWD), finance, space, ministries etc.

- (b) **Chinese Hardware.** Chinese firms like ZTE and Huawei have been underbidding in tendering process in India (and elsewhere, eg USA) and thereby, becoming the L1 (lowest) bidder. ^{26,27} To do this, they probably get the financial support from State owned banks in China. As a result, a number of computers and telecommunication hardware in Indian telecommunication networks, government departments, railway network, power network etc. are of Chinese origin and are (in all likely-hood) infested with virus, worms and trojans. It is almost a foregone conclusion that China is collecting all the critical information about our networks/ systems which may be used to disrupt them at a critical time. Further, classified information is also being stolen from computers.
- (c) Commercial Off-The-Shelf (COTS) Microchips. China is the major source of silicon integrated microchips (being used in all electronic devices) for all manufacturers across the globe, including American and European brands.^{28,29} Possibility of undesired alterations in these integrated circuits cannot be ruled out. Consequently, China's intelligence collection and system vulnerability identification would give the PLA a tremendous advantage in a confrontation situation with India.
- (d) Threat to Critical Infrastructure. Way back in August 2012, when the northern power grid failed, cyber analysts suspected "Pak-China" nexus for the failure. In 2015, in a letter to the NSA, Ajit Doval, Indian Electronics and Electricals Manufacturers' Association (IEEMA)³⁰, asked for a complete ban on Chinese equipment in the Indian power sector citing security concerns. According to IEEMA's database, in the last decade, India's import of electrical equipment has increased considerably and in order to make power distribution network efficient, many cities in India have awarded the contract to deploy Supervisory Control and Data Acquisition system (SCADA) to Chinese firms which pose a danger to the power infrastructure. Similarly, there is a grave threat to other critical infrastructure like telecommunication, railways,

irrigation etc. which are dependent on telecommunication / IT hardware and SCADA systems.

- (e) **Digital India**. The digital India focus of present government is a cause for concern as digital economy is being pushed without requisite cyber safety measures being in place. The recent news about availability of personal AADHAAR data of Indian citizens at a mere Rs 500 is shocking to say the least, and should be a major wake-up call for the government.
- (f) Lack of Integration between Various Agencies. India has various organisations dealing with cyber issues like the National Technical Research Organisation (NTRO), National Critical Information Infrastructure Protection Centre (NCIPC), National Cyber Coordination Centre (NCCC), Tri Service Cyber Command for the Armed Forces (proposed) etc. However; they are not integrated with each other and operate independently. There is a need to have a single policy level agency and a single execution level agency, which can coordinate at national level, so as to derive maximum dividends out of the efforts being put in.
- (g) **Development of HR.** The total strength of cyber security experts deployed in various government agencies of the government is mere 550 compared to 1 lac+ in China, 91,000 in USA and 7000 in Russia.³¹ There is thus a dire need to develop and hire cyber security experts by the government and exploit their talent to protect critical information infrastructure as well as acquire cyber offensive capabilities.
- (h) **No Research Institution**. China has a number of cyber security academies to train cyber experts. India too should establish such state sponsored academic institutions.

Conclusion

Indian is moving fast on the road to digital India, including digital economy, in a big way. If it does not want to be surprised, India should prepare for futuristic war in cyber domain. With society becoming increasingly dependent on automation and computers, and concepts like Internet of Things (IoT) knocking at our doors, we will become vulnerable to information warfare attacks.

Further, as time progresses, China will develop greater expertise and sophistication in its understanding of information warfare techniques. Unless India takes concrete steps to strengthen its cyber security posture and develop cyber warfare capabilities to match that of China, we may be facing a grim situation, sooner than later.

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Special Forces – Combined Employment with Irregulars

Lieutenant General PC Katoch, PVSM, UYSM, AVSM, SC (Retd)[®]

Abstract

The sub-conventional warfare has gained prominence in the continuum of war with increased lethality of weapon systems and transparency in battlefield. Costs in conflict having become prohibitive, including in terms of lives, has led to reduction in 'boots on ground'. The alternative force has become irregular forces, which are being used increasingly in conjunction with Special Forces (SF) to promote own national interests by countries big and small. India has adverse sub-conventional asymmetry vis-à-vis China-Pakistan. India needs to graduate beyond using SF in short-distance cross-border raids. The manner in which the Armed Forces Special Operations Division (AFSOD) is being raised appears a half-hearted attempt to bridge this asymmetry. The new Indian government needs to address these issues more seriously.

Introduction

Use of SF in conflict is as old as warfare. But a perceptible change in warfare, in recent years, is the emergence of subconventional segment of conflict over even the conventional and nuclear segments within the overall ambit of hybrid wars. Conventional conflict has become prohibitively costly in terms of finances and lives. Powerful nations care little about financial costs of war, especially when promoting conflict is aimed at geopolitical supremacy, control of oil, water, minerals, and promotion of own defence and industrial export objectives, in addition to other reasons. But even in such cases, costs in terms of lives matter which politicians vying for power can justify only up to a particular level as perceived by them. Therefore, the reduction in 'boots on ground' is visible, especially in conflicts raging on foreign territories.

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[®]Lieutenant General PC Katoch, PVSM, UYSM, AVSM, SC (Retd) is a Distinguished Fellow at the United Service Institution of India.

Employment of SF is on the rise, as they provide low cost option with high gains, leaving ambiguous signatures or none at all. Yet, SF are 'force multipliers', not the end means by themselves. This too is evident from instances where excessive use of SF, experimented as replacement of the 'force' for which they are to provide the 'multiplier' effect, have not produced the expected results. In turn, such mass has caused avoidable excess casualties to SF. Therefore, the replacement 'force' is being found amongst the host of terrorist organisations roaming the world; armed, sustained, fought, suitably relocated, reused and exploited in conflict to meet political objectives of powerful nations or group of nations and their protégés, an example of the latter being Pakistan. SF employment has been integrated into this process, with instances of them operating in synch with terrorist organisations, enhancing their game-changer effect. This by no means implies that individual SF operations including against terrorist organisations have ceased.

Special Forces

In asymmetric settings, SF have limitless pro-active employment possibilities to exploit dissidence; employ asymmetric approaches from the nuclear and space spheres to psychological operations, information war, economic, technical, financial war. In counter terrorism and counter insurgency, SF can be used for intelligence, surveillance and psychological operations, rival / pseudo gang operations, infiltrating radical organisations, neutralising terrorist leaders, organisations, support groups, infrastructure, selective raids, ambushes, snatch operations and incident response operations. In out of area contingencies, they can assist airborne / conventional forces or be called upon to perform politico-military missions like assistance to third world nations, surgical strikes, recovery missions, prevent terrorist use of weapon of mass destruction, humanitarian assistance and the like.

Future conflicts will see heightened need for intelligence and deniable covert capabilities for achieving strategic aims, both of which will have a major SF component. In context of the Indian sub-continent, there is little doubt that asymmetric wars (of which terrorism and insurgencies are manifestations) will continue to dominate the conflict spectrum, albeit windows of conventional war under the nuclear backdrop will remain. Warfare is no longer confined to the battlefield. Boundaries between war and no war

are blurred by asymmetric wars that have no borders, no rules, and no regulations. Psychological warfare probably imposes the largest penalty but affords the highest payoffs. Successful psychological warfare demands integrated themes and subjects which need to be developed.

The best use of SF is at the strategic level to achieve political objectives, albeit their use in support of conventional forces at the tactical and operational levels will continue. They are ideally suited to manipulate fault lines of the adversaries, in order to shape the environment in favour of own country, as an extension of foreign policy. A fact often - understood little is that SF do not create resistance movements but advice, train and assist resistance movements already in existence. A bigger misnomer also is the dividing line between 'resistance movement', 'insurgencies' and 'terrorist organisations', which depending on what one individually perceives, and there is little difference, if at all.

Special and Irregular Forces Mix

As mentioned above, the sub-conventional has emerged as the principal component of war and the replacement or part-replacement force has emerged in resistance movements-insurgencies-terrorist organisations, latter being non-state actors or state-sponsored non-state actors, depending on which euphuism is used as cover. Why SF can be easily mixed with these forces is because SF operating techniques are similar to or closer to irregular forces, rather than conventional forces. This mixed employment is not new either. US-NATO, Russia, China, Pakistan etc have all been indulging in such mixed employment for past decades. Little information of such employment is available in communist countries like China and Russia because of the 'iron curtain' and fear of being eliminated, while western media and bloggers have no such compunctions.

Russia's 'Little Green Men' were hardly operating independently in Ukraine-Crimea. China's development projects worldwide are executed by People's Liberation Army (PLA) or PLA-owned companies with fair amount of PLA cadres in civil attire, as well as required numbers of SF in specific projects. Their activities remain covert and in consonance with Chinese concept of 'Unrestricted Warfare', though China portrays its intentions as most peaceful in the world.¹ China and / or Pakistan could send in

their "peace" troops, which by their presence would help to ensure the desired outcome. The main weight of the warfare would, however, rest on the support of local opposition movements; manipulation of public opinion, cyber-attacks, special operations and disinformation campaigns — namely, on non-military power ingredients.² The three-step act could involve: first, internal and external political subversion to undermine credibility of local government and create unrest by supporting anti-government forces, propaganda tools and media campaigns, creating pockets of influence; second, ensure toppling the government, preferably peacefully using legal or semi-legal means, and; third, overtly intervene with kinetic means presenting fait accompli.

United States (US). The US has been playing the game of regime change for decades.³ According to a US historian who worked in US State Department, "Since 1945, US has tried to overthrow more than 50 governments, many of them democratically elected; grossly interfered in 30 countries; bombed the civilian population of 30 countries; interfered in elections in 30 countries; used chemical and biological weapons; and attempted to assassinate foreign leaders. In many cases Britain has been a collaborator".⁴ An example of the mechanics of how the US effects regime change is as under:

- (a) **Phase I**: Preparation. Approval of President / Secretary of Defence in conjunction of continuing intelligence and psychological operations..
- (b) **Phase II**: Initial Contact. Pilot team comprising individuals with specialised skills, appropriate for the mission, contacts established / potential irregular element.
- (c) **Phase III**: Infiltration. Special operations forces infiltrate into the operating area overtly using civilian chartered flights or clandestinely.
- (d) **Phase IV**: Organisation. Determine and agree on plan to organise expansion of resistance operations, as also confirm mutual objectives and prior agreements.
- (e) **Phase V**: Build-up. Amount of effort required for build up will depend on resistance organisation or friendly forces could fall upon well-established and robust organisations.
- (f) **Phase VI**: Employment. Maximum growth of organisation effectiveness, synchronised with planned future operations while Phases IV and V continue.

(g) **Phase VII**: Transition. Overthrow of state or liberation of occupied territory leading to a new government.

China. The Chinese concept of 'Unrestricted Warfare' is well known but not many are conversant with China's strategy of 'Deep Coalitions' 5, though the idea of deep coalitions is present in all but in name in Unrestricted Warfare, with its repeated references to the political role played by non-state actors ranging from credit rating agencies to narco-mafias, and its emphasis on the "civilianisation of war" thesis. China's 'Deep Coalition' implies it could group one-two or more nation states, civil society organisations, a narco-mafia, private corporations, individual speculator (s) and other components; implying players at many levels in the systems. Execution is at multi-dimensional levels; all groups operating simultaneously in continuous flow - multiplying, fissioning, then fusing into others, and so on. Balance of power relations among coalition nations and ability to configure the right combination of players at every level is important. China's SF are integrated with both, 'Unrestricted Warfare' and the strategy of 'Deep Coalitions'.6 China's Maoists intervention in Nepal is typical example of exploiting such strategies.

Pakistan. Pakistan has been using mix of regulars and irregulars since its birth in 1947. Pakistan's ISI is linked with some 15 regional and international terrorist organisations including ISIS, al-Qaeda, Taliban, LeT, JeM, LeJ, HM, Sipah-e-Sahiba, IM, SIMI, Muslim militant groups in India's northeast, PFI etc. Asim Umar, Al Qaeda in the Indian Subcontinent (AQIS) chief of South Asia and Pakistani national, has called on Indian Muslims to undertake 'lone wolf' attacks. The Myanmar-based Arakan Rohingya Salvation Army (ARSA) too is supported by ISI and LeT.7 Pakistan Army's bible is the book 'The Quranic Concept of War' published in 1979, that justifies terrorism, urging jihad as collective responsibility of the Muslim ummah, and is not restricted to soldiers. Special Service Group (SSG), Pakistani army regulars and Mujahids are covertly assisting Afghan Taliban in large numbers past several years.8 In 2007, a Taliban commander who turned out to be a Pakistani SSG officer was killed in Helmand Province of Afghanistan by the British Special Air Service (SAS). These are just few examples for a country which is often referred as 'Terroristan' in media.

Indian Scene

Despite having large number of SF, India has ignored the basics of employment of SF. This is perhaps because India still doesn't have a national security strategy, leave aside defining a national level concept for employment of SF. Ignorance and inability to grasp the strategic environment, its setting and compulsion under which such forces are employed are evident. We have failed to acknowledge that tasks of SF have widened to include controlling fault-lines of the adversaries, shaping the environment in favour of own country, building partner capabilities and the like. SF do not create insurgencies but optimise prevailing dissent and instability in enemy territory. Employing SF strategically is a different ball game from using them as super infantry in counter insurgency within India and an odd trans-border direct action raid. Operations by SF are usually conducted at operational and strategic levels in low-profile manner that aims to achieve the advantages of speed, surprise, and violence of action against an unsuspecting target.

The irony in India is that everything is viewed through the prism of political gain and vote-bank politics. The military is kept at arm's length even on issues like strategic security policy formulation, perhaps because of strong militaries in Pakistan and Myanmar and fear of military takeover despite the Indian Military being the most disciplined. That is why India's Ministry of Defence continues with its dubious distinction of being wholly manned by generalist bureaucrats, sans military professionals, and no one with military background has ever been appointed as Defence Minister or National Security Advisor. India has yet to find the right balance between security and economy. Defence allocations by the last government over the last five years, have been the lowest since 1962, when India lost the war horribly to China.

Despite a government-appointed committee on national security recommending establishment of a Special Operations Command in year 2012, in the backdrop of India combating proxy wars for over past three decades, India has made a lame duck beginning in going in for an Armed Forces Special Operations Division (AFSOD) seven years later. Ironically, the formation of AFSOD is commencing with just one battalion worth of commandos from the Army, Navy and Air Force (Army has nine SF battalions) and the Divisional Headquarter. The Divisional Headquarter is planned to be raised not in the national capital where HQ IDS is

located, but at Agra, which itself will stymie it from day one since the Divisional Commander will need to liaise with HQ IDS on daily basis for formulating various policies relating to employment, manpower, training, equipment, plus selection, prioritising and training for missions. It is also understood that the Navy and Air Force are agreeable to contribute only officers for AFSOD for the time being, not other manpower.

As part of AFSOD, there appears no plan for an intelligence cell, 'dedicated' insertion and extraction resources (helicopters, aircraft etc), support group, logistics group, cyber cell, training cell, R&D group, interface with R&AW, NTRO, IB, with SF Training School (SFTS) and the like. We may propagate that India is raising AFSOD on the lines of United States Special Operations Command (US SOCOM) but there is little understanding that aircraft and helicopters integral to SOCOM are specially modified for special operations forces. The permanent location (Key Location Plan) of SOD is not earmarked either. Given the number of SF units Army has, more units could have gone to AFSOD. Similarly, the Navy and Air Force should have been 'ordered' to provide specified number of manpower – officers and below. Continuous employment of AFSOD in areas of our strategic interests is apparently not visualised. General Raymond Thomas, Commander SOCOM, visited India in March 2019 and offered help in establishing AFSOD, but his offer was politely deflected. Given these indications, not only would complete establishment of AFSOD take few years, the political hierarchy would need to make concerted efforts to graduate beyond employment of SF in operations such as cross-border raids.

Despite a Group of Ministers strongly recommending early establishment of a Chief of Defence Staff (CDS) immediately post the 1999 India-Pakistan Kargil conflict, successive Indian governments have failed to do so. Plans are afoot to make the post of Chairman Chiefs of Staff Committee permanent, which is presently rotated among the Army, Navy and Air Force whenever the senior most serving Chief retires. But with the limited operational powers with HQ IDS, which provides the secretariat for the Chiefs of Staff Committee, optimisation of the AFSOD at the strategic level can hardly be expected. India needs an upper layer of special operations forces directly under the Prime Minister, who should also have a SF Cell comprising SF and R&AW operatives as

adjunct to the prime minister's office to evolve a national doctrine and strategy for employment of SF, oversee their manning, equipping, training, consolidation, operational and intelligence inputs, inter-agency synergy and strategic tasking.

Conclusion

India has an urgent need to create credible deterrence against irregular and unconventional forces. Pro-active employment of SF on the ground of our choosing can help create such deterrence. Defensive-reactive mentality in non-traditional conflict situations can hardly meet the operational requirements. Presently, India has adverse strategic asymmetry in terms of sub-conventional warfare vis-à-vis China and Pakistan, while the collusive China-Pakistan threat is intact and expanding. Hopefully, the government will address these issues seriously.

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The One Belt One Road (OBOR) / Belt and Road Initiative (BRI) of China: Security Implications for India and the Indo-Pacific Region (IPR) and Response Strategies

Commander Apoorv Pathak®

"Nations have no eternal allies and no perpetual enemies, only interests that are perpetual and eternal and those interests it is our duty to follow".1

-Lord Palmerston

Abstract

The economic prowess which China gained in last three decades has given its leadership the confidence to bring the blueprint of 'Chinese Dream', in the form of 'Belt and Road Initiative (BRI)', on the world stage. BRI is a major economic project for infrastructure development around the world which comprises 'Silk Road Economic Belt' and 'Maritime Silk Road'.

BRI is the tool to keep Chinese export led economy running, by shifting focus to South-South trade, in the wake of economic slowdown of the West. Beijing wants to use BRI to up the ante in the Indo Pacific Region, by ensuring that economic and thus, political interests of regional countries are aligned with its geo-political interests.

China Pakistan Economic Corridor (CPEC) is the flagship project of the BRI, a reflection of the Sinocentric global order. While promising to change the destiny of Beijing's 'all weather friend' Pakistan, it is becoming a classic example of Chinese 'cheque book' diplomacy, by leveraging huge debt of

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[®]Commander Apoorv Pathak was commissioned on 01 Jan 05. He has keen interest in International Relations and Strategic Studies and has contributed for leading Journals including Naval War College Journal and Naval Despatch.

Islamabad to promote Beijing's strategic interests. The principle opposition of India to CPEC is about the core concerns on sovereignty and territorial integrity, as major infrastructure projects are implemented in Pakistan occupied Kashmir (PoK).

India has taken an in-principle stand against BRI in view of its unequal terms and opacity. Chinese empirical planning has ensured project inroads into the entire IPR with economic and strategic challenges to India in its immediate neighbourhood in South Asia. As India confronts growing Chinese assertion in IOR, it has to choose from a diverse range of options to achieve the national objectives.

As the US aims to counter Beijing's growing assertion by aligning with New Delhi, India could utilise the US economic power and global dominance for its advancement. However, as the strategic conflict intensifies and India decides to join the US led bloc, a possible troika of Russia-China-Pakistan could seriously jeopardise India's interests in its regional sphere. Hence, while a strategic alignment for security dependency is advantageous for India, a complete alliance with the US would adversely affect its overall interests.

Regional balancing is the best bet for India to balance a rising China, without becoming a pawn in the 'Grand Game'. A stronger economic bonding and strategic alignment with potential partners, to form an alliance, would assist in maintaining regional balance without a direct confrontation. Thus, India's vision of 'Security and Growth for All in the Region (SAGAR)' could provide a platform for an open, stable, secure and prosperous future for the world.

Introduction

enry Kissinger through 'ping pong' diplomacy proved to the world that in international politics realism has triumphed over idealism. However, as the US grapples with an authoritative China today on the world stage, the real winner of his 1970's diplomatic

coup is still awaited. The economic prowess which China has gained gives its leadership today the confidence to step forward from Deng Xiaoping's philosophy of 'hide our capacities and bide our time'² to Xi Jinping's belief that it's '..time for China to take center stage'³. One Belt One Road (OBOR) / Belt and Road Initiative (BRI) is the practical manifestation of this confidence to realise the 'Chinese dream'.

BRI Architecture

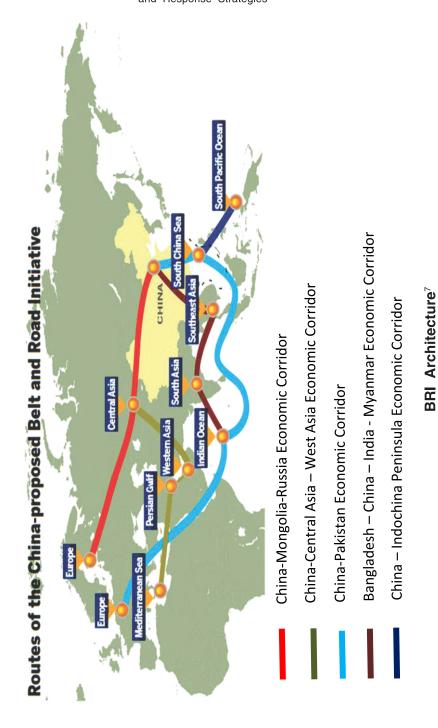
China's OBOR was initiated as a major economic project for infrastructure development around the world. The Silk Road Economic Belt (SREB) concept was introduced by President Xi Jinping during his visit to Kazakhstan and 21st Century Maritime Silk Road (MSR) in Indonesia in September and October 2013 respectively. It is a web of infrastructure including roads, railways, telecommunications, energy pipelines, and ports, led by Chinese investment. In order to give it more credibility, OBOR was rechristened as BRI - an initiative for "promoting peace, mutually-beneficial cooperation" 5.

SREB forms the land route extending from eastern coast of China to western ports of Europe. It encompasses five major routes forming economic corridors: China-Mongolia-Russia; China-Central Asia-West Asia; China-Pakistan; China-Indochina peninsula; and Bangladesh-China-India-Myanmar.⁶

MSR concept is towards developing the waterways of infrastructure development from coast of China, encompassing Indo-Pacific Region (IPR), to sea trade routes to Africa and Europe. It involves development of major ports on its route as well as economic hubs around these ports.

The Economic Factors

The three decades of manufacturing led growth created in China a large appetite for natural resources, which coupled it to Africa. However, Chinese fear of Japanese type stagnation came close to reality with General Financial Crisis (GFC) of 2008. The jolt made Chinese leadership initiate an export growth led by South-South trade in what former Vice-President Li Yuanchao emphasised 'a profound adjustment' in international trade landscape.⁸ The fundamental economic factors behind the BRI can be summed up as follows:-



- (a) Global Slowdown. As the leading exporter of manufactured goods, Chinese economy was adversely affected by GFC. Beijing has accordingly developed a blueprint for integrating world markets directly to its manufacturing base.
- **(b) Over Capacity.** The huge manufacturing industrial capacity generated for the world consumption was suddenly devoid of markets by GFC. BRI is anticipated as the solution for finding new international avenues for Chinese industries at the cost of host countries.⁹
- **(c) Surplus Capital.** China has an excess of \$ 3 trillion capital reserves with three decades of export led growth. BRI provides an opportunity for Beijing to diverse its portfolio to other than United States (US) Treasury bonds. It will also assist in increasing the acceptance value of renminbi, with China as the lead creditor for various countries.¹⁰
- (d) International Avenue for Domestic Labour. Even with the scenario of over-capacity, any reduction in jobs would impact social stability, thus seriously eroding the foundations of the Communist Party of China (CPC). Through BRI, China is not only exporting the capital but also the manpower to execute infrastructure projects abroad.
- **(e) Securing the Resources.** BRI is the instrument through which China is not only securing the markets for its products but also the natural resources required for its industries.

BRI Implications

The economic, political and strategic implications of BRI are as elucidated in the succeeding paragraphs.

Geo-economic Implications

While Beijing projects BRI as a benign project with "shared interests" and "shared growth" through "discussion and collaboration", a closer look at the financial aspects reveals its one sided nature.¹¹ In the footsteps of earlier superpowers, China is using trade as the stepping stone for global supremacy. BRI is the practical implementation of 'Chinese Marshall Plan' to use huge Chinese foreign reserves to provide loans, expanding the Chinese sphere of influence.¹²

The financial instruments for implementation of the BRI are the first external challenge to the existing global financial order under the Bretton Wood system. Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund provide an alternate to the funding mechanism dominated by the International Monetary Fund (IMF), the World Bank (WB), and the Asian Development Bank (ADB). Further, with minimal political restrictions required for Chinese loans, the authoritarian power structures are ready to usurp the opportunity.¹³

However, as China celebrated fifth anniversary of BRI, the negative aspects for host countries have started coming out in the open domain in the form of 'trap of debt'. Beijing, through a cocktail of opaque loans, has been financing projects with questionable viability. As debt stress soars, compromises in favour of loaning agencies are the only feasible options.

Geo-political Implications

As Beijing has been emboldened by its economic strength, the US sphere has been challenged by an assertive Chinese diplomacy. While the challenge to US supremacy of the 'commons' was initiated in the South China Sea (SCS), Beijing wants to use BRI to up the ante in the IPR, by ensuring that economic and thus political interests of regional countries are aligned with 'New Era of Socialism with Chinese Special Characteristics'.¹⁴

The problem is compounded by the US perceived retreat and imposition of trade tariffs across the spectrum. The US pull out from Trans Pacific Partnership (TPP) has created a void in IPR, which China is successfully utilising by leading the formation of Regional Comprehensive Economic Partnership (RCEP). However, the US understands the challenges posed by a rising China to 'American power, influence and interests' and its 2017 National Security Strategy (NSS) accordingly reflects this shift in approach. As "China seeks to displace the United States, in the IPR...and reorder the region in its favour", the US aims to "raise...competitive game to meet that challenge, to protect American interests, and to advance our values". ¹⁵

Geo-strategic Implications

The fundamental change in Chinese ambitions is predominantly reflected in the outlook of its security forces. The Revolution in

Military Affairs (RMA) is rapidly transforming it from a large infantry dominated defensive force to a technologically advanced modern force. The task assigned to Chinese armed forces is now 'to participate in regional and international security cooperation and maintain regional and world peace'¹⁶ - a reflection of its intent to interfere at foreign lands, if the need arises.

BRI, through expansion of Chinese interests, provides the platform to give Chinese forces the umbrella to operate internationally. Djibouti has already been formally established as first overseas Chinese military base. However, equally strategic are commercial ports/land bases under BRI which could provide covert platforms for Chinese security forces to expand their operations. In case of any conflict, this 'String of Pearls' can be used to protect Chinese economic interest, while also spreading Chinese sphere of influence worldwide. With their strategic locations, the sea ports may be utilised for securing Chinese Sea—Lanes of Communications (SLOCs) while the SREB bases can provide alternate land trade routes for 'choke points'.

China-Pakistan Economic Corridor (CPEC)

CPEC is the flagship project of the BRI, a reflection of the Sinocentric global order. While promising to change the destiny of Beijing's 'all weather friend' Pakistan, it's becoming a classic example of Chinese 'cheque book' diplomacy. It aims to utilize estimated Chinese loan of \$ 56 billion to construct a 2000 miles route extending through the length of Pakistan from Gwadar port in Baluchistan to Kashgar in China's western province of Xinjiang.¹⁷

With its existing high debt, and miniscule foreign investment, promised Chinese investments are at odds when viewed with an economic sense. However, it's the prism of Pakistan's geostrategic location, through which CPEC is being executed by Beijing. The projects under the scheme are classic case of lopsided 'Chinese development model'- sponsored by China, contracts awarded to Chinese firms and executed by Chinese labour. With its opaque financing model, CPEC loans would deepen Pakistan's debt problem, providing further leverage to China for fulfilling its strategic interests. It has the potential to achieve three strategic objectives with one move- reduction of the US strategic space in Central and South Asia, control of access routes from Central to South Asia and counter India with Pakistan as the proxy.



CPEC Architecture¹⁸

CPEC Implications for India

- (a) India has opposed CPEC since inception in view of its opaque nature and uneven balance towards Beijing.
- (b) As the corridor passes through Pakistan occupied Kashmir (PoK), India has flagged its objection about Chinese project "that ignores its core concerns on sovereignty and territorial integrity" ¹⁹.
- (c) The strategic location of port of Gwadar could be used against Indian SLOCs, threatening hydrocarbon supply through the Strait of Homruz.
- (d) With Chinese control over transport routes in Pakistan and growing Chinese relations with Iran, India's access to Afghanistan and Central Asia may be restricted.

- (e) As Chinese economic influence increases in South Asian countries, the balance may tilt towards Beijing, with even a futuristic containment policy towards India.
- (f) Further as CPEC integrates Pakistan and China economically, politically and militarily, any future conflict for India could be on two fronts.

BRI Implications for India

As China launched its OBOR in 2013, India displayed a lukewarm response to the proposal in view of its opacity and one-sided control with Beijing. However, Chinese empirical planning has ensured project inroads into the entire IPR with economic and strategic challenges to India in its immediate neighbourhood in South Asia. The details are:-

- (a) **Bangladesh.** Even though the present ruling party has ensured strong relations with New Delhi, Chinese economic influence is evident. With Bangladesh formally joining OBOR initiative in October 2016, New Delhi is making concerted efforts to maintain its balance.²⁰
- (b) **Nepal.** The political turmoil in Nepal in recent past has occasionally disturbed the strong relations with New Delhi. While recent cancellation of a few projects displays Nepal's sensitivity towards 'debt-trap', it's response to New Delhi led BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) exercise recently gave opposing signals. As China offers its ports for trade with land-locked Nepal, New Delhi is required to put up lot of economic and diplomatic efforts to ensure long term bonding with Nepal is closely maintained.
- (c) **Myanmar.** While BRI has manifested itself as CPEC on India's western front, the eastern side would be covered by CMEC (China Myanmar Economic Corridor). With MoU already signed, it intends to connect Yunnan province in China to Kyaukpyu port in Burma.²¹ The project would provide China an alternate route from Strait of Malacca for hydrocarbon supply, along with increased Chinese strategic presence in Bay of Bengal.

- (d) **Sri Lanka.** With the change in government, the 'debt trap' has most glaringly been exposed with Hambantota port project in southern Sri Lanka. As present government realised its inability to pay off the huge debts and unviability of the project, the port was leased to Chinese for 99 years, a stark similarity to history of Hong Kong leasing to British Imperial powers.²² While Colombo has presently warded off possibilities of PLAN usage of these assets; future is uncertain considering the continuation of Chinese 'cheque book diplomacy'.
- (e) **Maldives.** Maldives is the most glaring example of strategic value of BRI for Beijing. A small archipelago in Indian Ocean, its strategic location at the prime SLOC makes it a key asset. The years of Indian diplomatic, economic, and even military support has been dwarfed by the huge Chinese investment in a short time period.

India's Response

The requirement of investment, specifically for South Asia with large populations, high growth rate and poor connectivity is paramount. With financial edge of Western countries slightly blunted after GFC, China is a promising avenue for providing this foreign investment. However, the same has to be on terms which are open and balanced. Accordingly, India has showed a positive response towards AIIB, RCEP and NDB (New Development Bank) while expressing its reservations about the opaque nature of BRI.²³

India has been among the very few countries which didn't attend Belt and Road Forum (BRF) in May 2017, attended by heads of 29 states and representatives from 100 countries, including the US and Japan. The principle opposition of India to CPEC is about the 'core concerns on sovereignty and territorial integrity'. Further, New Delhi has brought out its view that, "connectivity initiatives must be based on universally recognized international norms,openness, transparency and equality" which "must follow principles of financial responsibility to avoid projects that would create an unsustainable debt burden for communities".²⁴

Accordingly, India has taken its own steps to provide practical alternatives to BRI which are economically viable and strategically balance Chinese spreading sphere of influence. India has rightly

transformed its 'Look East' policy to 'Act East' policy. Strong relations with Vietnam, pursuance of Trilateral Highway project, proposed Mekong-Ganga Economic Corridor, strengthening BIMSTEC and developing maritime relations with Indonesia and Singapore are steps in this ambit. Further with 'Go West' strategy, India is pursuing to be a partner in International North South Transport Corridor, ensuring access to Central Asia.²⁵ India's interest in development of strategic Chabahar port in Iran is viewed as a counter to Gwadar. Additionally, India and Japan are also collectively working on 'Asia Africa Growth Corridor' (AAGC).²⁶

On the strategic front, India has donned the role of a 'Net Security Provider' in the Indian Ocean Region (IOR). The Indian Navy, transforming its operational philosophy to 'mission based deployment' is playing a key role in 'securing the seas'. Through the conduct of joint naval exercises such as Malabar, Varuna, MILAN, coordinated patrol with neighbouring regional navies; participation in RIMPAC (Rim of Pacific Exercise), KOMODO multinational exercises; goodwill visits to foreign ports and HADR (Humanitarian Assistance and Disaster Relief) – the Indian Navy has built strong partnerships with strategic partners.²⁷ Further, through strong security relations with the IOR countries such as Seychelles, Mauritius and Oman and leading role in promoting collective security forums like Indian Ocean Naval Symposium (IONS)²⁸, India has gained a leading and respectful position in the IOR.

However, India's responses to BRI have not been that visual as they are executed in a more piecemeal manner. Further, the strategic responses have been reactive rather than an execution of a well calibrated plan. While one major factor has been the comparative lack of economic and industrial resources compared to China, more important factor is the fragmented execution of even a well thought out plan. Further, the plethora of options available in today's emerging multipolar world, diverge the views of policymakers.

Response Strategies Available for India

The three main factors which are shaping up the world today are declining western powers after GFC, an aggressive China in strategic alliance with Russia, posing a challenge to the US, and the US strategic and economic push back to these challenges to

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maintain its supremacy over global affairs. India with its fast growing economy, huge population and unique geographical location can act as a swing state in this duel and hence is going to play a unique role in shaping up the world future. This provides Indian policy makers a diverse range of options to achieve the national objectives.²⁹

An Alliance with the US

A hegemonic China, with imperial interests, poses direct challenges to India's natural balance in her immediate neighbourhood. These challenges align India naturally to the US, whose global supremacy is challenged by a rising China. India could continue to utilise the US economic power and global dominance for its advancement. Further, the US assistance could help serving Indian interests in multilateral forums.

As the biggest military power in the world, the US could provide India a strategic umbrella for increasing its sphere of influence and countering Beijing's expansionism. The ever-growing Indo-US military relationship, defined by strategic agreements of Logistics Exchange Memorandum of Agreement (LEMOA) in 2016 and Communications Compatibility and Security Agreement (COMCASA) in September 2018, is a testimony to their converging security interests. As Secretary of State Mike Pompeo expressed after 2+2 dialogue, "... India and the United States have a natural starting point for advancing a free and open Indo-Pacific. We should continue to ensure the freedom of the seas and the skies; uphold the peaceful resolution of territorial maritime disputes". 30

However, as India acts along with the US to balance Chinese influence, the bonhomie brings her in direct strategic conflict with Beijing. If Beijing views Washington's steps as containment of China with India as the willing partner, it could use its own resources for containment of India. India's geo-political situation in this case could become more precarious, if it doesn't get intended support from the US in case of any conflict. Further, this new bonding is creating stresses on existing time tested Indian relationships, specifically with Russia. Russia has been India's most reliable strategic partner and weapons supplier for decades. However, as the US share of the Indian arms market has increased, it has affected New Delhi's strategic relations with Moscow. As the strategic conflict intensifies and India decides to join the US led

bloc, a troika of Russia-China-Pakistan could seriously jeopardise India's interests in its regional sphere.

Further, with the US administration's present policy of 'America first', prompting partners to take more responsibility for joint interests, unpredictability of the US support has increased. Washington and New Delhi have been at the opposing ends of various global summits, specially related to trade and environment. Further, straightjacket approach of US administration could actually be detrimental for Indian interests. Already, the US pressure through Countering America's Adversaries Through Sanctions Act (CAATSA) and renewal of sanctions against Iran are conflicting with Indian strategic autonomy. Hence, while a strategic alignment for security dependency is advantageous for India, a complete alliance would adversely affect its overall interests.

Self-sustenance

Unlike the Cold War, in the present globalised economy, the dependency of the states is intertwined, creating a complex strategic environment. As the opposing forces compete in a multipolar world, each state has to keep its self-interests paramount. India, with its economic growth and demographic advantage, can chart a path towards achieving a dominant position for itself in global affairs. While tweaking its earlier non-alignment policy, New Delhi can have the best of both the worlds, while avoiding the downsides of a rigid alliance. Thus a security alliance with the US, to check Chinese expansionism, can be blunted through strong economic relations with Beijing. Similarly, maintaining Russia as a prime arms supplier can give a boost to 'Make in India' strengthening self-reliance in development of indigenous arms industries with positive strategic relations with Moscow.

However, maintaining these conflicting relationships is itself challenging. With each side hardening its position, Indian policy makers are already feeling the heat. Further, in order to counter a hegemonic China, India doesn't have sufficient economic and material capacity. Without an external balance, an assertive China could compromise India's regional interests. In order to maintain its present pace of growth, India is required to keep a strong military to ensure secure environment. However, with the present numerical and technological advantage with Beijing, an arms race may actually burn out Indian economy.

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Bilateral Support Agreements

Regional balancing is the best bet for India to balance a rising China, without becoming a pawn in the Grand game. As a hegemonic China exerts its assertiveness, there are nations who wish to chart a non-aligned path towards peaceful development. India could lead by example by securing its national interests without joining any power bloc. With its large population and high growth potential, India could align with Japan and Australia, gaining from their technological prowess and large natural resources respectively. Such a regional alignment in the IPR could adequately balance China without potential concerns of containment.

However, this process needs active diplomatic efforts to overcome the inherent road blocks to identify core common interests. While all these countries have shown willingness towards formation of 'the Quad', their diverse regional interests and strong economic alignment with China has hampered its formal growth. A stronger economic bonding and strategic alignment, with defined red lines for the common adversaries, could serve the potential partners. As a strong economic and strategic union, they could dictate their interests to even stronger powers.

Conclusion

The inclusion of BRI in the CPC Constitution during the XIX National Congress signifies its pivotal position in overall strategic ambit of China to gain dominance in global affairs.³¹ It implies that BRI is not just an economic scheme but a strategic project for expansion of China. The initiative has already gained a strong foothold in the IPR and is now involving countries in Europe and Latin America. The operational control by Chinese firms of Haifa port in Israel and Piraeus port in Greece are reflection of Chinese strategic inroads through economic projects under BRI.

However, there are signs of resistance in countries where the high debt has affected the overall national economic and strategic policy. As with Sri Lanka, the new government under Mahathir Mohamad in Malaysia is re-negotiating projects under BRI for their economic viability. The recent loss of President Abdulla Yammen in Maldives elections can be viewed under the same lens. However, even after the change of government, Beijing can utilise the high debt to maintain its sphere of influence, as evident in the case of Sri Lanka.

Further, Indian policy makers couldn't expect BRI to collapse under its own weight. There are immediate actions required to maintain India's regional superiority and emerging force in global affairs. India has to tread carefully to ensure its peaceful rise, without getting entangled in 'The Grand Game'. Through strong alliances with nations having common interests, India could contribute to maintain regional balance in IPR. Similarly, a security agreement with the US, without impinging on strategic autonomy, could provide India a better say in multilateral forums.

The path being adopted is best reflected in Prime Minister Narendra Modi's speech at Shangri La Dialogue on 01 June 2018 wherein there is recognition of "shifts in global power, change in the character of global economy... of unsettled questions and unresolved disputes; contests and claims; and clashing visions and competing models". In these challenging times, India envisions a world, "when nations stand on the side of principles, not behind one power or other". Accordingly, India shares with Russia, its "views on the need for a strong multi-polar world order", while also maintaining "global strategic partnership with the United States", encompassing "shared vision of an open, stable, secure and prosperous Indo-Pacific Region". Further, underlying Indian nuanced approach towards China, where Wuhan summit, "helped us cement our understanding that strong and stable relations between our two nations are an important factor for global peace and progress", PM Modi stressed, "Asia and the world will have a better future when India and China work together in trust and confidence, sensitive to each other's interests". India's vision is thus described in one word - "SAGAR which stands for Security and Growth for All in the Region".32

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Multilateral Mechanisms in the Asia – Pacific Region: Impact on Asean's Centrality and Implications for Vietnam

Hong Quan NGUYEN[®] Van Khu NGUYEN*

Abstract

In the 21st Century, the Asia-Pacific has gained geo-strategic prominence because of its importance for both, regional and global security. Regional multilateral mechanisms have grown after the end of the Cold War. The growth has not only been in numbers, but also in terms of participants, cooperation agenda and programmes. This may either contribute towards strengthening centrality of Association of South East Asian Nations (ASEAN), or cause obstacles in its functioning. The influence of ASEAN has decreased in recent years. So far, ASEAN has been considered strategic fulcrum for Vietnam's foreign policy. Together with other ASEAN members and its partners, Vietnam should make efforts to support, maintain and promote ASEAN's centrality in regional multilateral security architecture for peace, security and stability.

Introduction

Over the last couple of decades, multilateralism has promoted political, economic and security cooperation among states in the Asia-Pacific Region (APR). Till mid-1990s, there was no multilateral mechanism for dealing with security concerns¹, except the Five Power Defence Arrangement (FPDA).

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[£] Major General Hong Quan NGUYEN, is working as Associate Professor at Vietnam National University – Ho Chi Minh City. He is leading a research group on socio hydrology at Centre of Water management and climate change. Earlier he had a tenure as Deputy Director General of the Institute for Defence Strategy (IDS), Ministry of Defence of Vietnam.

^{*}Mr.Van Khu NGUYEN is doing PhD in University of Social Sciences and Humanities, Vietnam National University (VNU), Hanoi.

Since the establishment of ASEAN Regional Forum (ARF) in 1994, the region has had rapid growth of multilateral security cooperation institutions and processes such as Shanghai Cooperation Organisation (SCO), Shangri-La Dialogue, ASEAN Defence Minister Meeting (ADMM) and ASEAN Defence Minister Meeting Plus (ADMM Plus). Multilateral cooperation has facilitated peace, stability, security and rapid economic growth.

ARF, East Asia Summit (EAS), Shangri-La Dialogue, ADMM and ADMM Plus are examples where ASEAN has contributed towards establishment of these bodies. ASEAN exercised central coordinating role with varying degree of effectiveness. Some members feel that emergence of multilateral mechanisms have undermined ASEAN's centrality in the APR.

Multilateral Mechanisms in the APR

The collapse of the Soviet Union marked end of the Cold War, resulting in turbulent changes in international and regional security environment. A new international political order emerged where United States (US) maintained dominance. Both, the US and Russia reduced their presence in the region, particularly in East Asia, creating concerns among regional states about a 'power vacuum' in the region.²

With the American withdrawal from the Philippines; regional countries became sceptical about the US commitment for regional security. At that time China's capacities were limited, but its growing political and economic influence and emergence as a major regional power caused concerns. There were no regional institutions to manage security ambiguity and uncertainty in the region.³ One option was to establish a multilateral institutional framework that could accommodate US, China, and Japan, as well as cater for needs of smaller countries for a stable region. The stage was set for creation of multilateral institutions with the beginning of ARF.

The 1990s economic boom helped China to improve its power and position in the region. China consolidated its economic and political cooperation through multilateral institutions, including ASEAN. Emerging powers tend to go to war in order to impose their will on others or dominate weaker ones.⁴ On the other hand, weaker states tend to ally with other powers to improve deterrence capability⁵ and improve collective security. Multilayered and

multilateral US-centric cooperation architecture in the region is an example. At the same time, regional countries have made efforts to form a multilateral mechanism to maintain strategic balance of power.

Globalisation, since the early 1990s, has helped in opening up economies, leading to economic boom in Asia-Pacific. In addition to China's emergence, Japan, Korea, Taiwan and Singapore are considered 'four economic tigers' of Asia. Their successes have encouraged a number of regional countries to open up their markets and integrate into the world economy, resulting in more interdependence. Economic interdependence promotes cooperation rather than confrontation. The number of free trade agreements (FTAs) has surged bilaterally and multilaterally, leading to explosion of multilateral economic cooperation.

New Challenges

In the 2st Century, security challenges have rapidly evolved. States no longer prioritise their efforts to address traditional challenges, but also respond to non-traditional ones.⁶ In the APR, tension due to land and sea disputes has been increasing. At the same time, non-traditional and non-military challenges such as climate change, natural disaster, smuggling, piracy, drug trafficking, cyber-attacks, transnational crime have emerged. These are non-military in nature; transnational in scope; spread rapidly and cause a lot of destruction. Therefore, no country alone can deal effectively with these challenges. Regional and multilateral cooperation⁷ is required. The role of defence forces has become more important for ensuring defence cooperation in peacetime.

Firstly, defence cooperation is aimed at building collaborative relationships among allies, friends, partners, and even with previous or potential adversaries.⁸ For example, the US and western countries have more recently engaged strategically with both Russia and China through a wide range of military cooperation.⁹ Similarly, US, China and Russia are participants in several regional multilateral cooperation mechanisms such as ARF and ADMM Plus. This new approach is named 'strategic engagement' and seeks to reduce potential conflicts and confrontation.

Secondly, defence forces have been assigned new missions, including countering non-traditional challenges. The consequences

of devastation from non-traditional challenges may be beyond the response capability of civilian agencies and even the total capacity of a single nation. Defence forces can be in charge of not only securing national sovereignty, territorial integrity and countering adversaries, but also to be prepared for emergency response to non-traditional threats. For example, natural disasters can cause severe destruction; hence, it is necessary for a state to cooperate with other states to deal with such challenges.

Multilateral Cooperation Boom: Four Main Trends

There are four trends associated with development of multilateral mechanisms in the region. These are:-

- (a) Expansion of new forums that include all ASEAN memberstates. ASEAN has a pivotal role by extending its norms and practices to multilateral cooperation among all countries in the APR. Accordingly, "ASEAN's Way" was applied to new multilateral cooperation such as ARF, ADMM Plus and EAS. ARF adopted norms and practices including mutual respect for independence, sovereignty, equality, and territorial integrity; non-interference in internal affairs; dispute resolutions through negotiation; and renunciation of threat or use of force.¹⁰ "Plus States" to ASEAN as members have to agree to adhere to "ASEAN Way" and sign the Treaty of Amity and Cooperation (TAC).
- (b) Establishment of new organisations that involve some ASEAN states reflect interest of those states. Lower Mekong Initiative (LMI), Greater Mekong Subregion (GMS) and Asia-Pacific Economic Cooperation (APEC) are examples. These countries have geographic interests. The Comprehensive Progressive Trans-Pacific Partnership (CPTPP) and Federation of Paper Traders' Associations (FPTA) involve states that share mutual interests and security concerns. The relationship between ASEAN and APEC reflects strong ASEAN influence in terms of the normative framework.
- (c) Creation of a small band of organisations without any ASEAN member, such as the South Asian Association for Regional Cooperation (SAARC) and SCO. These organisations may uphold norms of respecting each other's sovereignty and non-interference.

(d) Focus on regional multilateral cooperation on defence and security. The focus of ASEAN on security has facilitated a number of security dialogues in APR, such as Shangri La Dialogue, Tokyo Security Forum, Seoul Security Forum, and Jakarta Dialogue.

Overlap and Duplication

Some new organisations do not have geographic contiguity. For example, the SCO expansion, to include Pakistan and India¹¹ as members, is to include South Asian states who share strategic interests and concerns. FPDA includes two ASEAN members (Singapore and Malaysia), two Oceania countries (Australia and New Zealand), and one European state (Great Britain). These have overlaps and duplications.

Most multilateral mechanisms have security plans that may overlap, differ, and even contradict. APEC, initially a pure economic forum, issued a statement on Counter-terrorism at the 2001 APEC meeting in Shanghai. Just 13 days later, ASEAN issued Declaration on Joint Action to Counter Terrorism. As a result, countries who are participants in both ASEAN and APEC had to align with the APEC statement and the ASEAN declaration. Similarly, both ARF and ADMM Plus have coordination plans for Humanitarian Aid and Disaster Relief (HADR). As an organisation, ASEAN and its sub-committees are responsible for coordination in several areas that overlap with ARF and Shangri-La Dialogue.

ASEAN and Shangri-La Dialogue have a number of overlapping functions. Both mechanisms create opportunities for participating countries to promote bilateral and multilateral cooperation. There are a number of such security forums. Shangri-La Dialogue has overlapping issues with Moscow Security Forum, Tokyo Security Forum, Seoul Security Forum and Jakarta Forum. The trends associated with expansion of multilateral institutions may undermine ASEAN's unity, and the central role it plays in regional cooperation, in different ways.

Challenges have emerged to the traditional ASEAN's role due to competition between the world and the regional powers, particularly the US, Russia, China, Japan and India. The US, Russia, China, Japan and India all desire to leverage their influence and compete for leadership. For instance, there was growing

anxiety in China about Japan, India, and Australia's ties with ASEAN member-states. China considered upgrade of India-ASEAN relationship to a 'strategic partnership' level as a measure by ASEAN to balance China's influence in the region. In addition, some regional organisations are regarded by China as tools for the US to 'institutionalise engagement' to contain an emerging China.

Implications for Vietnam's Foreign Policy

As a developing nation, Vietnam has benefitted from long period of peace and stability experienced in the region since Doimoi Policy was launched in 1986. As a result, Vietnam has advanced its security and economic interests, as well as improved its international standing. After becoming an ASEAN member, Vietnam has actively integrated into the region, politically and economically. During this period, ASEAN has been a 'driving force' in monitoring evolution of regional architecture despite the US-China rivalry in the region. It has contributed to peace, security and stability in the region.¹⁷

ASEAN provides Vietnam a forum to negotiate for peaceful resolution of disputes, conflicts, and differences, including territorial disputes bilaterally and multilaterally. Economically, ASEAN helps Vietnam enlarge its trade and investment markets for national development.

The most noticeable way in which challenge to the ASEAN's centrality, from the rapid growth of multilateral structures, might affect Vietnam is in dilution of ASEAN's influence in international fora. A weaker ASEAN may reduce the profile of Vietnam's stance and position in multilateral forums for it is not being represented or supported by an organisation considered to be a 'driving force'.

The boom of new organisations with participation of a handful of ASEAN members may undermine ASEAN unity because of distraction of members. For national interests, the ASEAN members in new frameworks may compromise on sensitive issues that may jeopardise ASEAN principles and Vietnam's national interests, in particular the ones relating to territorial disputes. Lack of unity in ASEAN may help hegemonic powers to dominate.

It is in Vietnam's strategic interest to consolidate ASEAN's unity and maintain its pivotal role so that the organisation is

respected by big powers.¹⁸ Tension and competition among powers, particularly the US and China, could threaten regional peace and stability that has long been underpinned by ASEAN's 'driving force', while peace and stability are also prerequisites for Vietnam's sustainable development and social stability. Any uncertainty and instability in the region could become a danger to Vietnam, causing it to 'lag further behind' economically.¹⁹

Conclusion

A weaker ASEAN role in coordinating regional cooperation mechanisms may be at odds with Vietnam's national interests concerning peace, security, and stability in the region. It will also exacerbate the current challenges that Vietnam faces, such as the danger of lagging behind economically and encroachment on the country's sovereignty and jurisdiction.

As a member of ASEAN, it is in Vietnam's national interest to pursue a foreign policy to maintain and leverage a robust ASEAN community and to consolidate ASEAN's centrality in regional multilateral cooperation fora. Vietnam should play an active and positive role in consolidating ASEAN unity. It is time to amend some of the principles of the "ASEAN Way" in order to adapt to evolving situations and to the ASEAN community's new status. Vietnam should prioritise its efforts to collaborate with like-minded countries in ASEAN, and with other important regional countries, to consolidate the centrality of the role of ASEAN in the region.

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Seize the Moment and Engage Robustly with Maldives

Major General RPS Bhadauria, VSM (Retd)®

Abstract

The two key tenets of India's grand strategy to emerge as the leading power in 21st century are; firstly, to ensure its primacy in South Asia and the Indian Ocean Region (IOR) and; secondly, the need to maintain its strategic autonomy. India's geopolitical imperatives, however, dictate that before India can extend its reach to distant corners of the world, it must first consolidate its standing in its own neighbourhood. And to do that, it must contend with the mounting challenge posed by its principal strategic competitor: China. Therefore, the 'neighbourhood' has always been an important aspect of India's foreign policy. Within the construct of India's Maritime Strategy, India-Maldives relations assume significance far more than the size or the national strength of the country. While Maldives' relationships with India have generally been stable, this situation changed after the removal of the then President Mohamed Nasheed from power in February 2012 which led to a complex power play in the IOR. For past many years, India has been trying hard to regain stability in its bilateral relations with Maldives but has achieved only mixed results; the rough patch now seems to be behind us after the victory of President Solih.

Introduction

Analysis of the key drivers of foreign policy of Maldives, the roller coaster relationship with India thus far, and study of the economic situation will help in identifying issues which we need to address in our relationship.

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[®]Major General RPS Bhadauria, VSM (Retd) formerly served on the faculty of National Defence College, New Delhi. As a member of the USI team, he conducts strategic gaming exercises for National Defence College, Army War College and Indian Foreign Service Institute. He is a Distinguished Fellow at the USI.

Moreover, the realisation by leaders in the new government, in Maldives, that Chinese investments may lead to a debt trap opens up opportunities for India, if we, by ourselves or along with our strategic partners, present a credible alternative for investments. It is now time to seize the moment and engage robustly on both, security and economic issues with one of our strategically most important neighbour.

Key Drivers of Foreign Policy of Maldives

Strategic location of the country is the key driver of its foreign policy; the other two are - the small size and religious identity. These have remained constant over the years.¹

Maldives is an Archipelagic Nation. Situated in the middle of the Indian Ocean, it is located 300 miles from the southern coast of India and 450 miles southwest of Sri Lanka. It consists of 1,192 islands, of which nearly 200 are inhabited. With a population of about 350,000, it is one of the most dispersed countries in the world. It is a low lying nation and most parts of the country are barely a metre above sea level. This makes Maldives very vulnerable to the phenomenon of climate change and sea level rise.²

The Strategic Location of Maldives. Straddling important Sea Lanes of Communications (SLOCs) and its proximity to Deigo Garcia - where the US has a logistic base - has aroused the interest of important world powers since long. In the past, countries like Iran, Libya, and the former Soviet Union had shown interest in leasing the erstwhile British base in Gan, one of the Islands of the archipelago - perhaps for military purposes. It is, therefore, not surprising that external powers have occasionally aided and abetted political conspiracies, bringing political instability in the country.

In recent times, the rise of China has resulted in heightened strategic competition between India and China in South Asia and IOR. China's strategic interests and logistical limitations in the Indian Ocean have prompted the country to increase its presence in the region. For example, China is using anti-piracy missions to expand regular naval activity. China is also reaching out to the Indian Ocean region through the "One Belt, One Road" project, which is premised on the idea of common development.³ Both, China and India rely on safe trade routes crossing the Indian

Ocean, so both countries aim to boost their clout in the area. Maldives plays a key role in this geopolitical competition.

USA is a key 'extra regional player' in IOR with vital strategic and security interests in Maldives in particular. It was reported that secret move by Obama administration was made, in early 2013, to negotiate with Maldives about a Status of Forces Agreement (SOFA), which would have led to increased military cooperation between the two countries, possibly including US bases there.⁴ But draft of the agreement was leaked to the press, and the US was forced to concede that such talks were indeed going on. The negotiations got derailed when Yameen was elected President in November 2013 by narrowly defeating Nasheed.

If the media reports are to be believed, the real US-Indian game plan is to create a "second island chain" (similar to the one in the Western Pacific) connecting Maldives with Diego Garcia and Seychelles, where India has a base on one of the islands and has concluded an agreement to build an airstrip and a sophisticated "monitoring station" at a cost of US\$45 million to curb the presence of Chinese submarines in the Indian Ocean and to control the SLOCs through which China conducts the bulk of its foreign trade. The US and India closely cooperate in monitoring the presence of Chinese submarines in the Indian Ocean.

It is for these reasons that most leaders of Maldives have concluded that it is imperative for the country to remain friendly with major powers like India, the US and China, as well as to join multilateral forums like the South Asian Association for Regional Cooperation (SAARC).

100 per cent Sunni Muslim Country. Maldives has also been close to the Islamic world, especially the Saudi Arabia. It is, therefore, not surprising that Maldives has been getting increasingly radicalised and coming under the influence of fundamentalist Wahhabi ideology. Islamic State (IS) and Lashkar-e-Taiba are also reported to have established bases in the country. Several hundred young men and women had deserted their homes to fight for the IS in Syria and Iraq. The rapid growth of radical Islam in India's vicinity is a matter of serious concern for India and for regional security.

A Roller Coaster Relationship with India

As close and friendly neighbours, India and Maldives share ethnic, linguistic, cultural, religious and commercial links steeped in antiquity and enjoy cordial and multi-dimensional relations. India was among the first to recognise Maldives after its independence in 1965 and to establish diplomatic relations with the country. India established its mission at Malé in 1972.⁶ The bilateral relations have had a roller coaster ride up to now. A peep into the evolution of the relations suggests that India will have to engage with Maldives on a regular basis at the highest level and not leave it to the officials.

Maldivian foreign policy during the President Maumoon Abdul Gayoom's era was indifferent to India, although Gayoom successfully managed to create the impression that he was friendly with India. India had saved his regime from a coup. However, he still did not give any special privileges to India. Gayoom tried to play China against India, as the democratic movement started to gather momentum. Gayoom probably feared that democratic India may not support him as strongly in the face of a democratic upsurge in his own country. This insecurity prompted him to look for new international partners. In this quest, he started relying increasingly on China - an emerging global power with important strategic interests in the Indian Ocean.⁸

Bilateral relations between India and Maldives saw some improvement with the onset of multi-party democracy, and the coming to power of President Mohamed Nasheed. During his visit to India (before the October 2008 multiparty presidential elections), Nasheed openly accused Gayoom of cosying up to China. During Nasheed's presidency, tourism industry - the mainstay of the Maldivian economy - was going through some difficulty because of global economic recession. The Chinese sensed an opportunity there, and signed some agreements to develop tourism.

Chinese also opened their embassy in Malé on 8 November 2011, during Nasheed's time. However, what surprised everyone was the plan of the Nasheed government to sign two agreements with China, for the supply of military hardware and for military training. These plans were later given up once they became known, and Maldives promised not to do anything that compromised the security environment of the Indian Ocean. In October 2011, Nasheed tried to allay Indian fears by stating that the Maldives

"will always be India's friend", and also added that he trusted "democracy far more than any other system". The government of Nasheed claimed to follow an 'India first' foreign policy. Nasheed defined this policy as not having defence exercises with other countries, not to conduct domestic policy in a way that creates fear in India, not to give a base to the Chinese, or indeed anyone to create strategic infrastructure, like deep-water ports and airports. This meant that the government under him prioritised Indian interests. It also meant that Maldives would not do anything which could jeopardise Indian security interests. He had allowed the installation of radars on 26 atolls. Indian and Maldivian navies were engaged in joint exercises. The Indian navy also provided training to the Maldives National Defence Force (MNDF).

The Maldivian approach to India shifted yet again under the stop-gap regime of President Waheed. The Waheed government started on a clearly anti-India note by, for example, terminating the GMR contract ab-initio. The decision was not just a result of domestic politics; it seems to have been made under external influence, especially of China. The broad trends witnessed during the Waheed regime continued in the initial period of Abdulla Yameen's regime. The foreign policy of Abdulla Yameen was driven by religion and the need to tackle the financial crisis of the Maldives.

The bilateral relationship with China continued to deepen under Yameen. The visit of Chinese President, Xi Jinping, to Maldives in September 2014 was the first visit of any Chinese President to the Maldives. The most important objective of visit was to get Maldivian support for his Belt and Road Initiative (BRI) project. Maldives agreed to participate actively in the initiative.¹⁴

Yameen also took two very controversial decisions, firstly, passing of a law that allows foreigners to own land in the Maldives and; secondly, he introduced amendments to the Tourism Act. It is widely believed that these moves would help China establish a foothold in the IOR. While the engagements with China were on the upswing, the relations with India deteriorated towards the end of his tenure.

Growing Economy with Many Challenges

Since the late 1980s, economic policies have combined a liberal economic and investment regime – focused on tourism, fishing,

and manufacturing sector. The economy has been growing at an impressive rate of 6.5 per cent. This stable growth is supported by tourism and infrastructure projects.

Massive infrastructure and development investments across the tourist islands will contribute significantly to the economic growth. The expansion of the Velana International Airport and the construction of a new passenger terminal will facilitate the accommodation of more than seven million passengers per year, compared to one and a half million currently. The expansion is financed by Chinese, Saudi and Emirate investments. China has committed the biggest investment by far; as part of the Maritime Silk Road (MSR) initiative, US \$ 830 million (20 per cent of the Maldives' GDP) was released for the airport expansion. China has already financed a new airport runway, and a bridge between the airport island and the capital, Malé, both inaugurated in 2018.

The tourism sector (over a third of GDP) will remain a major contributor to growth and will need a secure environment to grow at the present rate. India, with its maritime power and strategic location, is in a position to become a net provider of security; we must jointly ensure a safe and secure environment for tourism and contribute towards the overall development of the State.

In order to attract investments, former President Yameen had signed Free Trade Agreement (FTA) with China in Dec 2017. According to sources within the Maldives government, there was pressure from China on signing of the FTA, the first by Maldives with any other country. A cursory study of the FTA document will be enough to understand that the FTA is Beijing driven, with little in it for Male. The preamble of the document includes 'strengthening cooperation on jointly building the 21st century Maritime Silk Road (MSR)', one of the key goals of the Chinese government under President Xi Jinping. The FTA is unlikely to boost Maldives exports to China, given its narrow export base, but, at the same time, burden Maldives with loans which it may not be able to repay.

Is Maldives Falling Victim to China's Debt Trap?

The share of Chinese loans for construction investments as part of the MSR is worrisome, as it reaches 70 per cent of total national debt, and annual repayments to China take up around 10 per cent of the government budget. The reality is that Maldives

has borrowed heavily from China to finance infrastructure and other related projects. As a result, the Chinese will continue to exert influence over the archipelago nation.

A section of Indian establishment hopes that the new government in the Maldives will either roll back some of the Chinalinked infrastructure projects or put them in cold storage. Although, Solih has indicated that his government is in the process of revising the FTA with China, it seems unlikely that he will engage in a radical policy shift or seek to push off all Chinese engagement.

The harrowing experience of Sri Lanka, in not too distant past, will loom large on the minds of the new government. Despite his best efforts, President Sirisena was forced to confront the harsh realities of Beijing's debt-trap diplomacy as he was compelled to transfer control of its strategically situated Hambantota port to a Chinese state-owned company under a 99-year lease deal. The absence of other viable development financing options in the Indo Pacific helps explain why China's debt trap strategy has reaped such profitable dividends for Beijing thus far.

These highlights the role India can play, by taking the lead and getting other like-minded countries to generate sources of financing to the Maldives. India, Japan, the US, and the EU in the past have discussed mechanisms aimed at increasing overall investment in the Indo-Pacific, this initiative must fructify before it becomes too late. They will have to convince the countries in the region that more attractive alternatives to Beijing exist. This should be the cornerstone of our long-term strategy in IOR. If New Delhi can help pull Maldives out of its debt trap it will increase India's real influence in future.

Re-setting the Ties Post Elections

Post September 2018 elections in Maldives, where President Ibu Solih was a surprise winner, India seized the opportunity to restore the balance in the bilateral relations. Prime Minister Narendra Modi, who was invited to the Inauguration Ceremony, held talks with the new President. Both leaders agreed on the importance of maintaining peace and security in the Indian Ocean and being mindful of each other's concerns and aspirations for the stability of the region. The two leaders also expressed their unwavering commitment and support for increased cooperation in combating terrorism, both within the region and elsewhere.

Solih also briefed Modi on the economic situation facing the country as he took office. The two leaders discussed ways in which India can provide economic assistance to help the new government in meeting its pledges to the people of the Maldives. ¹⁵ President Solih candidly admitted that Maldivian economy is facing crisis as it has incurred debts following China funded projects. ¹⁶

During his maiden visit to India in December 2018, Solih affirmed his government's "India First Policy". Displaying nimble footed diplomacy, India reciprocated the gesture by announcing an assistance of US \$ 1.4 billion through a credit line and budgetary support to the Maldives. Enhancing cooperation in the IOR, particularly in the maritime security domain through coordinated patrols and aerial surveillance, was also the centrepiece of Modi-Solih discussions. Ibrahim Mohamed Solih has put distance between the Maldives and China and sought to rebuild ties with India instead. Whether this change of fortunes endure, will depend partly on whether New Delhi can assist economic development in the island without saddling it with the crushing financial liabilities that accompanied Chinese investments. NDA 2.0, under Prime Minister Modi, has the mandate to pursue the national interests with much more vigour and energy than ever before.

Conclusion

Having been presented with an opportunity, it must now be ensured that the economic assistance is provided in a time bound manner and India's credibility to fulfil its promises is restored. India should also become provider of net security but needs to remain careful to avoid a Nepal-like situation, where New Delhi's perceived interference in Nepal's internal affairs had turned the Nepali people against India. Having a lighter diplomatic footprint but regular engagements at the highest level, backed by substantial assistance to boost the economy, is the best way forward in the Maldives.

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Indian Ocean Region (IOR): India as a Net Security ProviderThe Way Ahead

Lieutenant Colonel Dhiraj Kumar®

Abstract

The strategic importance of IOR is ever increasing to the world order in general and Indian sub-continent in particular. India's central position in IOR lends it immense advantages but at the same time presents far greater challenges. A secure IOR is key to ensuring security of India's national interests. It is, therefore, essential for her to assume the role of a net security provider in the region.

The threat mosaic of IOR ranges from conventional challenges in the form of growing presence of People's Liberation Army Navy (PLAN) as well as impetus given by Pakistan Navy (PN) towards bolstering their submarine arsenal. Both these challenges have the ability to adversely effect India's existing role in IOR. The challenges are further augmented by shift in the United States (US) policy to 'America First' under its current leadership. To add to the worries are the perennial unconventional challenges like piracy, human trafficking, illegal fishing etc. Having taken cognisance of the threat spectrum, there is a need for a coherent IOR strategy by India if it aims to achieve the status of a net security provider in the region. The backbone of a coherent IOR strategy should include implementation of structural reforms like formulation of a National Defence Policy and appointment of a Chief of Defence Staff (CDS). Further, adequate thrust needs to be provided towards capability enhancement of IOR nations as also to militarily

Lieutenant Colonel Dhiraj Kumar was commissioned in 203 Engr Regt. He has served in Jammu and Kashmir as well as in the North East. He has also served as a Military Observer for one year in MONUSCO (Democratic Republic of Congo). He is also a graduate of Defence Services Staff College, Wellington (Nilgiris).

develop Andaman, Nicobar and Lakshadweep Islands so as to increase India's strategic reach and provide her the capability to enforce a maritime exclusion zone in IOR in the event of a conflict with China. Finally, a fresh stimulus needs to be given to indigenisation in developing military hardware to reduce the existing naval capability asymmetry visàvis PLAN.

India's genuine intent to act as a net security provider in IOR needs to be backed by a clearly spelt out strategy and a well-defined capability development roadmap. This would lend credibility to her aforementioned intent and secure her maritime, and national interests.

"Whoever controls the Indian Ocean dominates Asia. The ocean is key to the seven seas. In the 21st century, the destiny of the world will be decided in these waters."

- Alfred T Mahan

Introduction

he IOR broadly defines areas consisting of littoral states of the Indian Ocean. Marked by a glaring cultural, social, political and economic diversity, IOR comprises a number of sub-regions, such as Australia, South East Asia, South Asia, Horn of Africa and the Southern and Eastern Africa. The IOR littorals house more than one-third of world's population. In addition, more than half of the global seaborne trade and commerce passes through the Indian Ocean out of which, almost 70 per cent goes to countries external to the region. The IOR littoral states are rich in producing various raw materials, primarily oil, which are key to development of major manufacturing industries of developed as well as developing nations. Complementary to this is the enormous seabed resources possessed by IOR comprising oil and natural gas reserves, minerals and abundance of fishes. The presence of major maritime choke points and Sea Lanes of Communications (SLOCs) in the IOR lends it a strategic importance of gigantic magnitude.

Geo-Strategic Importance of IOR to India

India's central position in the IOR gives her an immense advantage and at the same time presents far greater challenges. Looking through the prism of optimism, however, a pragmatic maritime approach could well convert these challenges into opportunities which would help India achieve her quest for becoming a global power.

India has a coastline of over 7500 km, a total of over 1200 Islands and about two million square km of EEZ. Nearly 80 per cent of India's crude oil requirement is imported, which are mostly routed through the sea.2 Taking into account the total oil imports by sea, offshore oil production and petroleum exports, the country's cumulative 'sea dependence' for oil is estimated to be about 93 per cent.3 Today, almost 95 per cent of India's trade by volume and 68 per cent of trade by value are routed via the Indian Ocean.4 Any impediment to flow of commercial traffic would have disastrous ramifications on her economic objectives. Secondly, India depends heavily on Indian Ocean resources with her fishing and aquaculture industries being a major source of export as well as providing employment to more than 14 million people. Militarily, the presence of such long coastline makes India vulnerable to potential threats emerging from the sea. One of the worst terrorist attacks on India in recent memory – the 2008 Mumbai attack – was perpetrated by terrorists arriving by sea. The presence of non-traditional threats like piracy, smuggling, illegal fishing and human trafficking also present major challenges and hence, a secure Indian Ocean is key to securing India's national interests.

Net Security Provider: To Be or Not to Be

The concept of 'Net Security Provider' has hitherto been ambiguous and subjected to varied interpretations. During the Naval Commanders' Conference, held in New Delhi on 26 October 2015, the then Indian Defence Minister Shri Manohar Parikar released India's revised maritime-military strategy titled, 'Ensuring Secure Seas: Indian Maritime Security Strategy' (IMSS-2015). This document defines the concept as, "....the state of actual security available in an area, upon balancing prevailing threats, inherent risks and rising challenges in the maritime environment, against the ability to monitor, contain and counter all of these".

The first instance of the term expressed in an international forum was at 2009 edition of "Shangri La Dialogue", wherein

Mr Robert Gates, who was then the Defence Secretary of United States, expressed, "We look to India to be a partner and net provider of security in the Indian Ocean and beyond...".7 This was repeated in the 2010 edition of the "Quadrennial Defense Review" of the USA, which stated, "...as its military capabilities grow, India will contribute to Asia as a net security provider in the Indian Ocean and beyond".8 However, the intent was unequivocally declared by the erstwhile Indian Prime Minister, Dr Manmohan Singh, on 23 May 2013 while addressing a gathering after laying the foundation stone of the Indian National Defence University (INDU) in Gurgaon. He said, "... We live in a difficult neighbourhood, which holds the full range of conventional, strategic and nontraditional challenges....We have also sought to assume our responsibility for stability in the Indian Ocean Region. We are well positioned, therefore, to become a net provider of security in our immediate region and beyond".9 The acceptance of this role, as net security provider, has now become a strategic obligation rather than a matter of choice. Amidst a turbulent global economic environment marred by industrial recession in European block and a looming threat of trade wars between China and US, India is amongst the very few nations which has been able to register an almost sustained rate of economic growth. India has been acknowledged as the emerging global power in the international arena. This acknowledgement brings with itself, a commensurate level of international responsibility. However, considering the perceptible void in the existing capability, the ongoing internal debate echoes in the remarks made by India's former National Security Advisor, Mr Shiv Shankar Menon, when he said, "There is a demand that India be a net provider of security and we need to take a call on that".10

IOR Threat Mosaic: From Indian Prism

India has been fortunate to have experienced largely peaceful seas for past several decades. The threats were mostly non-traditional like piracy, drug trafficking, IUU (Illegal, Unreported and Unregulated) fishing and human trafficking to name a few. However, the growing realisation of importance of IOR by the littoral states has brought the seas in the epicentre of a strategic churn. As a result, the foundations for bilateral and multilateral relationship between various nations, based exclusively on mutual maritime interest, have been progressively witnessed over the last decade.

A quick scan over the IOR brings forth challenges of varied dimensions from India's perspective. Critical of these are as under:-

- (a) **Growing PLAN Presence.** The stupendous growth in the military might of China over last three decades and her recently acquired penchant for power projection much beyond its territorial boundaries, has emerged as the greatest challenge for the IOR. The ever increasing naval assets of PLAN, mostly indigenous, has a well thought out purpose. As per analysts, PLAN is likely to have six aircraft carriers in the near future. It doesn't require a brilliant mind to guess that these carriers are not being built for stationing them in Chinese ports. Indian Ocean will surely be the destination for a few of these carriers in due course. The strategic relevance of ports like Gwadar, Hambantota, Djibouti to name a few, needs no elaboration. It is a matter of 'when' and not 'if' that these ports would be employed by China for flexing her military muscles in her attempt to negate the unipolar global dominance by US. The complete disregard to International Maritime Laws displayed by China in her handling of South China Sea (SCS) and the inability of the major global powers to coerce China on the issue, doesn't auger well for the IOR in general and India in particular, in the foreseeable future. The hidden military agenda encapsulated in the 'String of Pearls' and '21st century Maritime Silk Route (MSR)', is glaringly apparent and stands out as the biggest strategic challenge facing India.
- (b) Modernisation of Pakistan Navy (PN). PN has embarked upon a rapid modernisation process with thrust on Undersea Warfare. Garnering assistance from Turkey and her all-weather friend China, PN is gradually building up its submarine arsenal. Further, it is also in the process of acquiring Frigates, Missile Fast Attack Crafts and Patrol Vessels of various tonnage and capability from these nations. The activation of Gwadar port, to allow perennial PLAN presence, in the very near future would open up new avenues of threat in India's backyard.
- (c) **Shifting US Policy.** US policies, under Trump administration, have seen stark deviation from her erstwhile policies on Indo-Pacific Region (IPR). Trump's vociferous

support of 'America First Policy' has forced the think-tanks to brainstorm on the possibilities of US downsizing its global footprints of expeditionary forces. The US decision to reconsider the quantum of financing to NATO Forces further strengthens this possibility. If implemented by US, this would leave a vacuum in the IOR, which China would be more than obliged to fill. Consequently, for India, this would greatly increase the scope of maritime conflict with China, singly or collusively with Pakistan.

(d) **Non-traditional Threats.** The challenges from non-state forces to include, piracy, maritime terrorism, drug trafficking, illicit weapons trafficking, illegal migrants, poaching etc. as well as, vagaries of climate change falls within the ambit of non-traditional threat spectrum of conflict. The frequency of resurgence and occurrence of such threats are very high and hence require immediate attention. Response prioritisation and asset allocation shift in favour of such non-traditional challenges, thus necessitating maintenance of a pragmatic balance vis-à-vis conventional threats.

Impediments to India Becoming a Net Security Provider

A thorough analysis of the above threats call for a multidimensional approach to address the existing as well as emerging threats to India's maritime security. Since the time of formally expressing India's intent to be a net security provider in the IOR, number of positive developments have taken us closer to realising that intent. Having said so, a lot remains to be done before India can be branded so, in the global arena. A few prominent impediments towards this end state are as under:-

(a) Resource Availability vs Requirement. The inglorious status of India as the second most populated country in the world puts enormous strain on the finite resources which the nation can muster in the present era of global economic downtrend. Intents cannot be materialised into reality without a robust financial backing. The myriad of tasks envisaged in achieving the status of net security provider calls for manifold increase in existing military hardware. With the shrinking allocation of defence budget as per cent of GDP, it would take more than a few decades before India could offer viable force friction to PLAN in IOR.

- (b) **Existing Civil-Military Relationship.** The ambiguous civil-military relationship existing in India not only manifests itself in serious differences and lack of clarity over strategy formulation but also over undistorted execution of formulated policies. There have been numerous instances of missing out on strategic gains due to differing views of various ministries as well as between civil and military leadership. The growing differences in perception of India's relationship with Seychelles, Maldives and Sri Lanka (to a certain extent), are examples of such mishandling.
- (c) **Nascent Jointmanship.** Turf war between three Services has not helped the vision of jointmanship required for India achieving the status of net security provider. Token gesture of creating Integrated Defence Staff (IDS) might bring sense of false integration to a few, but true jointmanship would not be realised till all the anomalies in the appointment of the Chief of Defense Staff (CDS) at the apex level are dealt with.
- (d) **Non-alignment Policy.** India has ideologically followed the principle of military non-alignment with any super power so as to retain its strategic autonomy. However, considering the humongous capability gap vis-à-vis India's arch rival in IOR, China, it is a matter of time before India decides to either partner militarily with US or accept to be a subservient state of China.
- (e) Past Experience of Overseas Deployment. The recipe of net security provider does encompass 'Overseas Deployment' as a vital ingredient. There have been two major instances of India projecting her military power overseas. The first one, codenamed OP CACTUS, in island nation of Maldives was a resounding success. However, the Indian armed forces involvement in Sri Lanka, as part of the Indian Peace Keeping Force (IPKF), did not achieve the expected results and it put India off from further overseas adventures, except under the United Nation (UN) umbrella. The haunting memory of experiences in Sri Lanka continues to have a dragging effect on any thought process involving overseas deployment.
- (f) Cumbersome Acquisition and Procurement Processes. Though the Indian Navy (IN) has far surpassed

the other two Services in terms of capability development through indigenisation, much more needs to be achieved to balance the supply-demand equilibrium. Defence Procurement Procedure (DPP)-2016 has addressed various lacunas and has streamlined the Capital Acquisition process to a great extent but the technological gap in the indigenous defence industries, coupled with inadequate participation by private industries, has dragged the defence modernisation process. This in turn has impeded capability development commensurate with the requirement for IN to project itself as net security provider.

(g) **Primacy of Land Operations.** India has been persistently focused on dealing with its land boundary with China and Pakistan, and her full-fledged participation in ongoing proxy war. This has lent a myopic vision to the Indian strategists who fail to lay adequate emphasis on dealing with situations arising outside its immediate neighbourhood. Hence, in spite of a clear understanding of the seemingly dormant threats in IOR, a clear laid down strategy on role of India as a net security provider in IOR has not emerged.

Way Forward

The hitherto fore analysis clearly brings out that India has miles to go before it achieves the status of net security provider in the IOR. Having said that, the silver lining is that the first step in terms of showing the strategic intent has been taken and due deliberation is being carried out progressively towards realisation of this intent. Towards this end, the following aspects merit attention:-

(a) **Higher Defence Organisation.** The quest for appointment of a CDS dates back to setting up of HQ IDS and has its roots in recommendations of Kargil Review Committee set up immediately after the 1999 conflict. HQ IDS has been created to enhance jointness and build synergy amongst the armed forces, to include Long Term Perspective Planning (LTPP), capital acquisition, joint doctrine etc. However, even after almost two decades, the appointment of CDS looks a distant probability. Lack of consensus amongst the three Services, coupled with reluctance on part of the bureaucrats to part with power are some of the reasons for the same. The first essential for donning the responsibility of

a net security provider is to have a single point military advice by appointing a CDS. Needless to say, CDS should have full operational power rather than mere advisory role. This would enable coherent application of strategic thoughts vis-à-vis a myopic threat assessment by individual Services, which is the case at present. In addition, it would also facilitate establishing clearly defined priorities of defence acquisitions and an assured budget for the same, which are pre-requisites for strategic planning. This would be a single most important factor towards capability development commensurate with the role of a net security provider.

- (b) Formulation of a National Defence Policy. It is a miraculous paradox that India, a growing regional power and an aspirant global power, doesn't have a National Defence Policy. The present mechanism of dealing with national security threats on a case-to-case' basis is an ad-hocism of bewildering magnitude. A well-articulated national defence policy, encompassing existing and future threats and India's stated response to it, would add a key dimension to her strategic deterrence. It would also help streamline various defence priorities which are foggy, at best, in the present form. An assertive defence policy would inspire confidence, not only within India but also amongst the small littoral nations of IOR who would then acknowledge her intent, desire and capability to become a net security provider in the region.
- (c) Coherent IOR Strategy. India needs to formulate and adhere to a coherent IOR strategy involving complementary intents and actions in dealing with IOR nations rather than piecemeal strategy on stand-alone basis with each IOR nation. This would help her in exerting positive influence over these nations and help the smaller nations overcome any potential inhibition towards gauging India through the prism of 'Big Brother' syndrome. The policy so far, with specific reference to relationship with Sri Lanka, Maldives and Mauritius, has been at times ambiguous. Lack of clear coherent policy has led to perceptible tilt of these nations towards China. The erstwhile 'String of Pearls' and ongoing 'Belt and Road Initiative' of China has identified some nations as its key elements. Towards this, the Chinese strategists have succeeded, to a great extent, in gaining upper hand by

entangling them in their 'Soft Loan' policy. A further tilt of these nations towards China would vitally threaten the Indian interests in IOR. Hence, it is imperative for India to engage these nations so as to favourably shape relationship. Indian Ocean Rim Association (IORA), Indian Ocean Naval Symposium (IONS) and naval exercise MILAN have been a few welcome steps by India in manifesting a coherent strategic intent. This has been further augmented by initiatives like Security and Growth for All in the Region (SAGAR), project MAUSAM and the proposed Asia-Africa Growth Corridor, as well as increased participation of Indian Navy in bilateral / multilateral naval exercises and CORPAT (Coordinated Patrol) with Indonesia, Thailand, Myanmar and Bangladesh. However, much still remains to be done by India in assuming the role of a net security provider. In view of her reluctance to enter into a direct military alliance with any nation, India should take the lead in non-traditional challenges in the IOR, to include combating the menace of piracy, smuggling, human trafficking, illegal fishing and the likes. This, in addition to positively shaping the maritime environment of the IOR, would also bolster her image as a potent net security provider of the Region.

(d) Development of Andaman, Nicobar and Lakshadweep Islands. The world miraculously watched the Chinese expertise in dredging and creating small islets. These islets fit into the strategic plan of PLAN as static aircraft carriers and have greatly enhanced her reach and capability and, to a great extent, its ability to alter the balance of power in IOR in the near future. However, in the Indian context, the policy makers have failed to capitalise on similar advantage provided on platter to us by geography itself. The Andaman, Nicobar and the Lakshadweep Islands strategic importance which does not need deliberation, more so, in case of the former, because of its location close to the entrance of the strategic Malacca Strait. Though, the importance has been realised, the existing capability remains suited for constabulary role, at best. It is imperative for India to develop these capabilities by bolstering defence infrastructure in these islands. It has the potential to counter PLAN naval assets entry into IOR and enforce a maritime exclusion zone in the event of a conflict with China. These islands can tilt the strategic advantage in India's favour

if suitably upgraded with anti-access and area-denial (A2AD) weapons. Developing such infrastructure would also send a strong message to China as well as IOR nations regarding India's seriousness in asserting its maritime role in IOR. The Lakshadweep Islands have similar importance in the Arabian Sea region, besides their economic advantages accrued out of EEZ extracts. Thus, infrastructure up gradation in these islands and their development as a potent military base would be amongst the first steps needed for an assertive Indian Ocean policy.

- (e) Capability Enhancement of IOR Nations. The Indian Peace Keeping Force (IPKF) episode in Sri Lanka has put off the military alliance option by India, at least for the time being. Notwithstanding that, a thrust on capability enhancement of IOR nations, particularly their respective navies, would accrue immense benefit for the entire IOR. India is already involved in training of naval personnel from various IOR nations as part of exchange programmes. Further, India has also been supplying naval assets to countries like Mauritius, Myanmar, Sri Lanka, Maldives and Seychelles. These steps need to be actively pursued with an incremental thrust to make these nations self-sufficient in terms of security. This, in turn, would surely shape the maritime environment of IOR to India's strategic advantage.
- Capability Development and Technical Upgradation. When it comes to indigenisation, the IN has gone way ahead vis-à-vis other two Services i.e. army and air force. However, the acquisition process has not been free of bureaucratic red tapism and this has resulted in delayed, and in some cases, failure to fructify key acquisitions. A LTPP encompassing a holistic threat assessment and commensurate capability development is the first step towards a clear roadmap of capability development. The 'Make in India' initiative, coupled with a revised DPP- 2016, has breathed fresh air to otherwise gloomy acquisition process. Further, the enhancement of foreign direct investment (FDI) limits in defence has opened up yet another avenue to bolster the indigenisation by facilitating foreign participation in defence manufacturing. These optimistic steps need to be supplemented by incentivising the participation of industries and other Small and Medium-sized Enterprises (SMEs). In addition, matching

technology upgradation needs to be carried out in all military dimensions, including cyber and space domains. The role of Indian Space Research Organisation (ISRO) in development of Rukmini, the first military communication satellite for the Indian defence forces, with the Indian Navy being the primary user, and Independent Regional Navigation Satellite System (IRNSS) is nothing short of an outstanding achievement. These have greatly enhanced the maritime domain awareness necessary for exerting a substantial influence over the IOR. While much has been achieved by the Indian Navy in its pursuit of indigenisation, it is time that a new thrust on technology upgradation be embarked upon to achieve the goal of self-reliance. The first step towards this has already been taken by Indian Navy when it released Indian Naval Indigenisation Plan: 2015-2030, a guideline document to enunciate the need for developing various advanced systems for its platforms. This would provide an unambiguous indigenisation roadmap to the industry. This step needs to be augmented by achieving Transfer of Technology (ToT) agreements with other advanced navies to progress the capability development. India should leverage its strategic partnership, primarily with countries like US and Japan, to achieve these ToT.

Conclusion

Indian core values of mutual respect and peaceful co-existence generate immense goodwill and inspire confidence in the entire IOR. The smaller nations of the IOR have recognised the genuine intent of Indian Navy in ensuring freedom of navigation and use of global waters as per existing International Laws. However, this intent needs to be firmly backed by a matching capability and a clearly spelt out strategy. In the absence of the same, it would be a matter of 'when' and not 'if' India would find itself struggling to secure its own maritime (and in turn, national) interests. Thus, India needs to make a choice of aiming to become a net security provider of the IOR, as the developments on the PLAN front have made it a strategic imperative rather than a military choice.

Endnotes

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Raring to Go- Recent Military Developments in China

Professor Srikanth Kondapalli®

Abstract

Ever since the 19th Communist Party of China (CPC) National Congress resolved, in October 2017, to raise a "world class military force" by 2050, developments in this direction have been swift and concrete in transforming structure, strategy, military equipment, professional military education, training and exercises. There is reflection of communist party's "absolute control over the military". Ranking third in the world after the United States (US) and Russia and first in the Asian region, the Chinese People's Liberation Army (PLA) forces are going through reorganisation of joint commands by 2020 and are projected to be "world-class" by 2025. The emphasis is on power projection through naval, air, and rocket forces. The focus of military preparedness is on Taiwan, Senkaku Islands, South China Sea, India-China border areas, and deterring the US and its allies. After the first aircraft carrier Liaoning made voyages in Taiwan Straits twice and operated as a trainer in the South China Sea. China is now constructing second and third carriers. Also, stealth destroyers and submarine development are being pursued. Focus is also on J-20 fighters, Yun 2 transport aircraft, UAVs and H-6 bombers even though China lags in turbo-fan technology. Among the long and medium range missiles, China is emphasising on DF-41 intercontinental ballistic missile (ICBM), DF-26 "Guam killer", DF-21D "aircraft carrier killer" and ballistic missile defence (BMD) systems. This article examines the recent military developments in China and highlights the challenges to the Indian security in coming years.

^{*}Srikanth Kondapalli is Professor in Chinese Studies at the Jawaharlal Nehru University (JNU). He has been a visiting professor at a number of Chinese universities. He is a prolific writer on China. He is a recipient of K Subramanyam Award, for Excellence in Research in Strategic and Security Studies.

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Strategic Guidelines

The 19th Communist Party Congress (CCP) held in 2017 has placed substantial demands on People's Liberation Army (PLA), a trend that began with the previous Congress in 2012.¹ The Congress brought in Xu Qiliang and Zhang Youxia as two Politburo members from the military as has been the practice in recent decades – with no one from the military in the apex Politburo Standing Committee.² They were named Vice Chairmen, with President Xi Jinping as Chairman of the Central Military Commission (CMC).

According to a resolution approved by the 19th Party Congress, the party shall uphold absolute leadership over the PLA and other armed forces and implement Xi Jinping's thinking on strengthening the military, as part of the amendments to the party's fundamental document for its over 89 million members. The development of the PLA shall be strengthened by enhancing its political loyalty, strengthening it through reforms and technology, and running it in accordance with the law. The report of the Party Congress emphasised that a "modern warfare system with Chinese characteristics" should be constructed in order to assume the mission of the "new era" entrusted by the party. Specific mention was made of the airborne force — given its pan-theatre outreach.

Thus, one of the topics touched on by Xi Jinping in his report at the 19th Party Congress was China's ambition to develop its military into a "world-leading force". In order to achieve that goal, the absolute loyalty of military was demanded to the Party. Party military delegates attending the Party Congress voiced their approval. The Party's 'absolute leadership' was the constant catchphrase during the meetings. Such extensive coverage in the media suggests to a few things – that the party's appeal is still not percolated down to the unit levels in the PLA, that there is some resistance from some quarters, specifically those who may have been affected by the demobilisation process or anti-corruption drive or even to their "praetorian" demands of maximising the PLA's perspectives on issues of national importance and hold over the nation.

President Xi Jinping began another five-year term since the 18th Party Congress in 2012, having succeeded in staffing the military top command with his loyalists. The members of the CMC were selected at the first plenary session of the CCP's 19th Central Committee. The military body also was shrunk from 11 to 7 members including Xi, as its chairman. The remaining six posts were filled by military officials who were handpicked by the President himself.

Of the two Vice Chairmen, General Zhang Youxia, 67, was promoted to second ranked Vice Chairman of CMC at the first plenum of the CCP's new Central Committee. The former director of the CMC's Equipment Development Department is widely considered one of the men Xi trusts most. Both Xi and Zhang are Shaanxi province natives and the children of revolutionaries – the "princelings". Zhang replaced Fan Chanlong, who retired during the 19th Party Congress but soon became the defence minister.

President Xi Jinping said at the opening of the Party Congress that China intends to upgrade its armed forces by 2035 in order to fully meet the challenges of modernity and the demands of the new era.³ By the year 2020, mechanisation will be achieved, with IT application and strategic capability seeing big improvement. Xi added that China should build a powerful and modernised army, navy, air force, rocket force, and strategic support force, developing strong and efficient joint operational command institution for theatre commands, and create a modern combat system with distinctive Chinese characteristics.⁴ Xi Jinping inspected the Joint Operations Command Centre of the CMC. On 03 November 2017, Xi led a group of the CMC to inspect the Centre, emphasising that the CMC should start with strengthening the readiness of war preparations and leading the PLA troops to fight, win and assume mission of the new era entrusted by the party and the people.

Major Changes

One of the major campaigns in the country is the anti-corruption drive. A number of senior military officers were "investigated" and confined – a euphemism for arrest and disgrace. These include Gen Guo Boxiong, Xu Caihou, who was Vice Chairman of the CMC earlier, besides other senior military leaders. For Xi, support of the rank and file of the PLA is necessary for success of reforms and for his personal hold over the armed forces. Zhang Shengmin, the top anti-corruption official in China's armed forces, was promoted to the rank of General on 02 November 2017.

Another point President Xi made at the Party Congress was assurance to neighbours to resolve disputes through dialogue but not at the expense of Beijing's strategic interests. This has been his constant theme. He mentioned that the Asian countries should fend for themselves, suggesting delinking from the US.

The Global Firepower Military Strength Index has ranked China's armed forces 3rd out of 133 countries based on their capabilities on land, sea and air, as well as their financial dexterity and diversity of weapon systems. China's armed forces lead in the Asian region and are preceded by Russia and the USA globally.

China has graduated from low to medium technologies and has launched the Fourth Industrial Revolution. Also, it has emerged as the second largest economy. China is trying to weld together the civil and defence economies through "civil-military fusion" (CMF). On 02 March 2018, Xi Jinping chaired the third meeting of the Central Commission for Integrated Military and Civil Development (CCIMCD), where he emphasised strategic importance of unifying national power through reducing barriers between the commercial economy and defence industrial base. Days later, speaking at the 13th National People's Congress Xi called CMF a prerequisite for realising goal of building a strong military. CMF is a prominent component of a number of key government initiatives, including the Next Generation Artificial Intelligence Development Plan (2017), Made in China (2015), and Promotion of a National Integrated Circuit Industry Development Guidelines (2014). A documentary aired on state media revealed that President Xi Jinping has ordered Chinese defence firms to speed up weapons development and aim to do better than the world's most powerful militaries. His list of areas to work on includes supercomputing, ballistic missile defence and satellite navigation system.

As per Beijing Dalin Investment Management, a defence focused institute, the next five to 10 years will turn out to be golden age in the annals of the Chinese defence-related industry as more finances and technology resources will flow from the civilian side. In recent years, the central government has put forward a series of policies to promote civil-military integration. By 2020, a collaborative innovation system is expected to be established with open and shared basic resources and scientific achievements between military groups and civilian companies in multiple fields. The defence industries have also been reoriented to cater for exports and commerce. China's defence exports have gained

importance after the US, Russia, and European countries exports, although in value terms and geographical spread such exports are miniscule. Most exports are destined for Asian and African countries, specifically Pakistan, Myanmar, Thailand, Bangladesh, Egypt, and Sudan.

According to the CMC, Chinese military academies plan to limit the enrolment of postgraduates and doctoral students, in order to increase the in-service cadres to apply for post-graduate studies. A total of 6,800 postgraduates will be enrolled annually said the training management department of the CMC.⁵ The military academies have decreased enrolment of graduates from 2,200 in 2017 to 1,800 in 2018. The postgraduate education will focus on practical training such as joint battle command and network security. In the meantime, enrolment of postgraduates for doctoral study is scheduled to drop by more than 64 per cent to 338 annually. Also, China has revised a regulation on civilian persons in the military in a bid to attract more talented people to work for the country's armed forces. These measures are necessary to enhance the quality of troops.

China's military has conducted more than 4,000 realistic combat exercises since President Xi Jinping launched the annual training programme on 03 January 2018.⁶ While exercises were going on, all five theatre commands of the PLA were on duty and closely monitored training in their regions.⁷

PLA

Reflecting the PLA's outward orientation as mentioned by the PLA White Paper of May 2015, China's approach to protect its overseas interests will include all military, paramilitary assets, in addition to other forces. These include China's investments abroad (over \$1.75 trillion), relocation of hundreds of industrial parks globally, more than 36,000 of the country's enterprises located overseas and more than 140 million of its citizens who travel abroad annually. China is gearing to protect overseas interests to counter terrorist or piracy incidents. Killing of Chinese citizens in Africa, Pakistan and Afghanistan has come as a wake-up call for China. This also provides an opportunity to deploy forces abroad.8

In 2018, focusing on improving the Army's ability, focus was on the following aspects:-

(a) To deepen study of combat issues and train and develop advanced military theories.

- (b) To ensure that security threats are dealt with resolutely and emergencies handled expeditiously.
- (c) Strictly follow the law and maintain proper discipline during training.
- (d) Adapt to changes in national defence and military reforms.
- (e) Firmly lay foundation for combat effectiveness in the armed forces.
- (f) China should strengthen cooperation and joint military training with the armed forces of cooperating countries.
- (g) Efforts should be made to improve training conditions for troops and shared use of training resources throughout the PLA to enhance information and standardisation of training support.⁹

The PLA has published guidelines on how and when barracks of some units can be opened to the public, to boost awareness pertaining to the national defence. The idea is to strengthen public's passion for the military and their respect toward service members and encourage officers and soldiers to dedicate themselves to building a strong military. This is the first time the Chinese military has issued specific rules for interaction with the public.

The reorganisation of the PLA affected mainly the ground forces and specifically the infantry as a "lean and mean" force. 24 Group Armies have been reduced to 13 – a drastic reduction indeed. Brigadisation for special operations and faster mobility is being attempted. Of specific interest to India is the reorganisation in the Western Theatre Command at Chengdu. 76th and 77th Group Armies in this theatre are undergoing reorganisation.

PLA Navy (PLAN)

China is developing a navy with 550 warships by 2030; double the size of the US navy and working to replace the US as number one. "Expect China to push US out of the region. Expect to lose more allies," James Fanell, a former Navy intelligence officer at the Geneva Centre for Security Policy told the House Intelligence Committee on 17 May, 2018. China's naval forces witnessed the fastest development among the armed forces of the country. For outward projection, China requires naval bases and replenishment facilities. In 2015, China opened a naval base at Djibouti and has also begun port construction across the world, including

Hambantota and others. China may soon have a military base in the South Pacific island nation of Vanuatu. According to a report China is keen to have a permanent military presence in the South Pacific. The report says the governments of China and Vanuatu have had preliminary discussions on this issue, though a formal proposal is yet to be made. China is planning for alternatives as well. With the acceleration of the development of China's military industry, military bases on the land cannot meet the needs of the Chinese Navy. Therefore, the concept of a "mobile land" has gradually emerged. China's ultra-large floating island offshore platform has been developed by Jidong Development Group. China's floating island truss area is approximately 120 metres by 900 metres. It is powered by small nuclear reactors. Therefore, the platform also possesses certain military capability and can provide short-range landing.

China launched naval vessels with large tonnage, stronger firepower, different classes and complete combat functions. They cover a wide range of aircraft carriers, large comprehensive supply ships, destroyers, frigates, surveillance ships, electronic reconnaissance ships, training ships, far sea rescue tugboats and other ships. The Chinese Navy's 055 destroyer and domestic aircraft carrier are the highlights.

On 26 April 2017, China launched its indigenously built Type 001A aircraft carrier. It underwent sea trials in 2018 and by early 2019, it had conducted five such sea trials. According to a naval expert, China is likely to adopt the electromagnetic catapult technology in its second home-made aircraft carrier, which would help launch fighter jets more efficiently in less time. The experts said that China has acquired the electromagnetic catapult technology and has conducted several tests. The third 003 aircraft carrier has been under construction in Shanghai for three years. China intends to possess four aircraft carriers by 2030 with major implications for the Indo-Pacific security.

China has increased the number of submarines, warships, amphibious ships, and auxiliary ships. Since 2014, it has launched 28 ships. ¹³ China boasts of building submarines with nearly one being churned out at its shipyards every year. 094A submarine is the most advanced nuclear submarine of the Chinese Navy. The new generation of conventional Air-Independent Propulsion (AIP) submarine has made great progress in quiet performance and

weapon power. China's 041-class AIP submarine is under construction. Admiral Zhao Dengping revealed programme for construction of a new medium size nuclear attack submarine; a small nuclear auxiliary engine for conventional submarines; ship-based use of anti-ship ballistic missile (ASBMs); next-generation destroyer capability and goals for PLAN Air Force (PLAN AF) modernisation.¹⁴

PLAN went through amphibious warfare against Taiwan in the 1950s and is now adapting to the modern conditions. China North Vehicle Research Institute in Beijing is developing a four-wheeled amphibious multi-role vehicle, of 5.5 metric tonnes and speed of 50 kmph, which can be used during training at sea as well as for special warfare. Another experiment is on AG600, an amphibious aircraft of 53 tonnes that can be used for rescue and fire-fighting. China's Norinco Group said that it is developing VN18 as the world fastest amphibious assault vehicle.

Other developments include Type 071 landing ship (Longhushan) of 29,000 tonnes, 210 metre long, 28 metre wide, the largest domestically designed amphibious warfare ship in China. It has helicopters that can land on islands. China owns five amphibious warfare ships. An electromagnetic railgun to launch projectiles at distance of over 100 nautical miles at speed exceeding Mach 6 is under development.

For maritime scientific research, China is developing a new deep-sea research vessel Dong Fang Hong 3 which is 103-metres long, 18-metres wide and can accommodate 110 people. A seventh intelligence collection vessel Type 815A was launched at the Hudong-Zhonghua Shipyard in Shanghai.

For naval aviation, four KJ-500s each are in service with the PLAAF and PLANAF. These are deployed at Lingshui in Hainan and at Lhasa-Gonggar airport in Tibet.

The PLAN had conducted exercises in Miyako Straits and Bashi Channel- indicating its readiness to graduate into the Pacific Ocean in the coming years. The training ship, 10,000 tonne Qi Jiguang of the Chinese PLAN visited Sri Lanka on 10 November 2017 on a four-day goodwill visit suggesting that the Indian Ocean is also on the radar screen of China. Till now, the PLAN has conducted 28 missions to the Gulf of Aden.

PLA Air Force (PLAAF)

PLAAF is developing an expeditionary capability. PLAAF has recently released pictures of flying four fourth generation J-20 stealth jets. Wu Qian, a spokesman for the Chinese Ministry of National Defence, announced that the PLAAF has started transition from the national air defence to both offensive and defensive operations. The J-20 was officially commissioned into military service in September 2017. China Aircraft Industry Corporation has launched a carrier-based version of the J-20 project. However, J-20's manoeuvrability, fuel efficiency, and "stealthiness" at supersonic speeds are suspect. The third-generation J-20 and Y-20 have begun training together. At least five Y-20 transport aircraft - with maximum take-off weight of 200 tonnes, went into service in the Western Theatre Command. 15 China's new multi-role fighter jet J-10C has begun combat duty. Equipped with an advanced avionics system and various airborne weapons, it is capable of precisely striking land and maritime targets within medium and close ranges. The medium-sized military transport aircraft Yun-9 is also ready for combat missions and will boost China's effort in safeguarding maritime rights. H6N bombers have entered production phase recently. China is planning to build two giant 6engine Antonov An-225 aircraft in Chengdu and Shaanxi as a part of an agreement with Ukraine. Measuring 84 metres in length with an 88.4 metres wingspan, this plane can carry 640 tonnes.

The Black Hawk helicopters, procured from the US prior to the Tiananmen Square incident, are being replaced with 10-tonne Zhi-20 helicopters. There is also the AV500 unmanned helicopter project that China is involved in.

China has undertaken a variety of UAV programmes given its diverse applications. China's heaviest cargo UAV, AT200 drone, completed its maiden flight on 26 October 2017. It can fly for more than 1,300 miles in one go, with speeds up to 194 miles per hour while carrying a 1.5-ton payload. Another project is Wing Loong II which reportedly hit five targets in succession with five different types of missiles in a single sortie. The Wing Loong II is likely to be deployed in China's future military actions, especially in antiterrorism, peace keeping and border patrol operations. China Aerospace Science and Technology Corporation developed Caihong 4 (CH-4) capable of both, extensive bombing and precise targeting.

PLA Rocket Force (PLARF)

The PLARF was reorganised in December 2015. As the service in charge of "counter-nuclear strikes", it has been acquiring new and effective platforms recently. Solid propellants, multiple independently launched re-entry vehicles, and reducing circular error probability are the areas of focus in this field. China is estimated to possess above 300 nuclear warheads. While China has substantial nuclear fissile material to leapfrog into higher deterrence capabilities, the current focus has been on a range of ballistic and cruise missiles and hypersonic glide vehicles (HGVs).

The modernisation drive of rocket force is focused on consolidating and improving strategic deterrence and combat capability, although the official propaganda suggests that this is necessary for safeguarding national security and is not aimed at any country or specific target. The missiles of the rocket force were, over a period of time, hidden in the mountains, lack mobility, and are vulnerable to attack. To overcome this, the rocket force is now equipped with electromechanical launch transformation vehicle.

Information released by the China Academy of Engineering Physics in early 2018 revealed that between September 2014 and December 2017, China carried out around 200 laboratory experiments to simulate the physics of a nuclear blast. In comparison, the US carried out 50 such tests between 2012 and 2017, which average about 10 per year.¹⁶

One major activity in the recent times is the development of hypersonic missiles. These are new class of vehicles designed to evade missile defence system. Russia (Zircon), China (DF-ZF) and the US (Ground Based Interceptor Facilities) are all developing their own versions of technology. According to reports, China's new hypersonic ballistic missiles will not only challenge the defences of the US but also be able to more accurately hit military targets in Japan and India. PLARF conducted two tests of a new HGV, known as the DF-ZF or DF-17 in late 2017. Over seven such tests were reportedly conducted by China. The HGV systems can be used with various kinds of ballistic missiles, including ICBMs with a range of at least 5,500 km.

China is also developing a new version of ICBM. When

President-elect Trump received the phone call from Taiwanese President Tsai Ing-wen, China launched DF-41 from Russian borders that could hit any target in the US. Two days before President Trump visited Beijing in November 2017, China tested one more ICBM. By 2018 eight tests were reported. As the latest generation of nuclear missile developed by the Chinese rocket force, the DF-41 has a range of 14,000 km and can cover most of the world. This type of intercontinental missile can carry 6 to 10 guided nuclear warheads. In some areas, the missile can be equipped with 10 sub-guided nuclear warheads, with the ability to break any anti-missile system in service. China's hypersonic combat systems can be integrated with the DF41 and China is likely to be the first in the world by 2020 to deploy hypersonic weapons.

Another important version is the short to medium range missile to deter the US alliances in East Asia. Newer versions of DF-11 and DF-16 are under development. Unveiled during a military parade in 2015, the DF-16 is capable of carrying up to three nuclear warheads. DF-16 can target Taiwan, the US Marine Corps Base in Okinawa, Japanese islands and the Philippines.

The Dong Feng-26 Intermediate Range Ballistic Missile (IRBM) can strike medium to large targets on land and at sea. Manufactured by the China Aerospace Science and Technology Corporation, it has a range of 1,900 to 2,500 miles. It is capable of reaching US military bases in Guam, prompting its nickname as "Guam Killer", with nuclear weapons.

Dongfeng-21D is China's first anti-ship ballistic missile. It has a range of 1,500 km. It can carry out attacks on large-scale enemy ships and is hailed as the aircraft carrier killer. The missile has reentry capability and can reach over Mach 10 at the end of the flight.

China conducted its first mid-course ballistic missile defence experiment on 08 February 2018. It is also developing and equipping a variety of advanced anti-missile systems like the Hai Hong Qi-9 anti-aircraft missiles, acquiring the Russian S-400 systems etc.

PLA Strategic Support Forces (PLASSF)

China's Strategic Support forces are emerging in the PLA, although information about their structure, functions and equipment is sketchy

at present. However, this force has capability in cyber, space warfare, and military intelligence fields. It has nearly 45 military departments to give it the same status as the Army, Air Force, and Navy. The emphasis is on non-kinetic form of war. The global attention has been on cyber capabilities of China. After maritime challenges, the United States considers China's cyber capabilities posing considerable threat. From January to October 2017, China was hit by 17.5 million cyber attacks, most of them from overseas, according to the National Computer Network Emergency Response Technology Team and Coordination Centre.

Conclusion

China's leadership made concerted effort recently to make the PLA forces global in nature in terms of re-aligning their orientation towards pan-theatre warfare techniques, agile combat structures, providing modern technologies, increased training time for the joint integrated operations and the like, though the progress is at best incremental in nature. Given changing outlook of leadership towards more exuberant outward orientation, the PLA is also tasked to intervene in regional and global theatres – a change compared to the pervious eras.

As far as India is concerned, while it is not the primary target area for the PLA, the latter is making efforts at strategic domination specifically in the light of recent border standoffs at Depsang, Chumar, and Dokhlam. After 2015 reorganisation of the PLA, Chengdu Military Region (which has operational jurisdiction over most borders with India) and the Lanzhou Military Region (which has jurisdiction over Aksai Chin) were merged into Western Theatre Command. All provincial military commands were integrated with National Defence Mobilisation Department of the CMC, except for Tibet Military Command which was brought under the jurisdiction of the PLA. Instead of focusing on militia, reserves and conscription work, this elevation in rank for Tibet-based forces meant acquiring combat roles and preparing for conflict with India. More resources are being made available to Tibet Military Command.

New military equipment is being deployed in Tibet. These include 50 km range laser-guided and satellite guided PLC-181 vehicle mounted howitzers; 32 tonne 105 millimetre gun; T-15 light tank; new LW-30 laser defence weapon system; GJ-2 medium-to-

high altitude armed unmanned reconnaissance aerial vehicle; synthetic aperture radar and an electro-optical pod carrying 12 small missiles; 10-tonne Z-20 medium lift helicopter; Y-20 strategic transport aircraft; Y-9 transports are deployed to the frontier areas for early warning, surveillance and transport duties. These highlight the challenges for the Indian security in the coming years.

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- ¹³ Zachery Keck, "China Has Just Launched a New Guided-Missile Destroyer. Here's Why the Navy Should Worry" August 7, 2018 at https://nationalinterest.org/blog/buzz/china-has-just-launched-new-guided-missile-destroyer-heres-why-navy-should-worry-28152>
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- ¹⁶ Stephen Chen, "China steps up pace in new nuclear arms race with US and Russia as experts warn of rising risk of conflict" **South China Morning Post** May 28, 2018 at https://www.scmp.com/news/china/society/article/2147304/china-steps-pace-new-nuclear-arms-race-us-and-russia-experts-warn

Search, Rescue and Evacuation: Present Status and Future Needs in Indian Armed Forces

Colonel Bhasker Gupta®

Abstract

This article attempts to analyse disaster preparedness, how the mandated agencies of the Government (both at Central and State levels) mainly the National Disaster Response Force (NDRF), Armed Forces, including the Coast Guard, and other specialised forces, some Nongovernmental Organisations (NGOs), Humanitarian and UN Agencies, Public Sector Undertakings (PSUs) etc., work towards this specialised response. It tries to study their specific modes of disaster planning, to make their tasks efficient, responsive, participatory and transparent. It tries to understand the mechanics of the complex operations of Search And Rescue (SAR), as practised in India and also globally. It also looks at evacuation; disaster technologies in voque and worldwide organisations involved. It specifically looks those in India and, finally recommends measures, to make this task effective.

Introduction

The Indian sub-continent is increasingly becoming prone to disasters, which repeatedly cause heavy loss of life and property. We need to deploy Disaster Response teams round the year. We need to analyse the issue of SAR as part of Disaster Response. SAR is the search for and provision of aid to people who are in distress or imminent danger.

Types of Search and Rescue

(a) Ground (Lowland) SAR - Ground SAR is the search

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Colonel Bhasker Gupta is a serving artillery officer. He is double Masters in Defence Studies and Business Administration, and is pursuing a PhD in International Relations from Jawaharlal Nehru University, New Delhi. He has co-authored two books *'Military Humour'* and *'Footprints-Indian Army's Landmark Achievements'*. He has also authored a professional book on 'How to Clear SSB Interviews'.

for persons who are lost or in distress on land or inland waterways. People may go missing for a variety of reasons. Some may disappear voluntarily, due to issues like domestic abuse. Others disappear for involuntary reasons such as mental illness, getting lost, an accident, death in a location where they cannot be found or, due to abduction. Such missions that occur in urban areas should not be confused with "urban search and rescue", which in many jurisdictions refers to location and extraction of people from collapsed buildings and other entrapments. In most countries, Police is the primary agency for carrying out searches for missing persons on land. Some places have voluntary SAR teams that can be called out to assist in these searches.

- (b) **Mountain Rescue** Mountain Rescue relates to SAR operations specifically in rugged and mountainous terrain. Qualified and experienced trekkers/mountaineers do this type of search, aided by ground navigation and air support. These are among the most challenging of SAR operation.
- (c) **Cave Rescue** Its a highly specialized form of rescue for rescuing injured, trapped or lost cave explorer, and requires, perseverance and expertise.
- (d) **Urban Search And Rescue (USAR)** USAR also referred to as Heavy Urban Search and Rescue (HUSAR), is the location and rescue of persons from collapsed buildings or other urban and industrial entrapments. Due to the specialized nature of work, most teams are multi-disciplinary and include personnel from police, fire and emergency medical services. Unlike traditional ground search and rescue workers, most USAR responders also have basic training in structural collapse and the dangers associated with live electrical wires, broken natural gas lines and other hazards.
- (e) Combat Search And Rescue (CSAR) CSAR is search and rescue operation that is carried out during war within or near combat zones. Again it is challenging, as it may have to be carried out from under the nose of enemy and under hostile fire.
- (f) Maritime Search And Rescue Maritime Search And Rescue is carried out at sea to save sailors and passengers

in distress, or the survivors of downed aircraft. The type of agency which carries out maritime search and rescue varies; it may be the coast guard, navy or voluntary organisations. When a distressed vessel is located, these organizations deploy lifeboats to return to land. In some cases, the agencies may carry out an air-sea rescue (ASR). This refers to the combined use of aircraft (such as flying boats, floatplanes, amphibious helicopters and non-amphibious helicopters equipped with hoists) and surface vessels.

SAR in the World Today²

Canada has the world's biggest SAR component, with the duties shared between the Canadian Coast Guard and the Defence Forces. It has assigned five aircraft squadrons plus three combat support squadrons with SAR roles. Some municipalities and provinces have their own SAR units, plus some volunteer non-profit associations that conduct SAR in the country. USA was the first to develop the expertise and technology of SAR. Presently, countries like Israel, Germany, Russia, UK, Turkey etc. also have a well developed SAR network.

SAR in India

The Indian Air Force (IAF) provides regular relief operation for food and medical facilities using its cargo aircraft most notably the Ilyushin (IL-76). Major SAR operations undertaken in recent times¹:-

- (a) **During the 2010 Ladakh floods**, two IL 76 and four Antonov-32 aircraft of the IAF carried 30 tonnes of load, including 125 rescue and relief personnel, medicines, generators, tents, portable X-ray machines and emergency rescue kits. MI-17 and Cheetah helicopters were extensively employed to increase the effectiveness of rescue operations.
- (b) **During the 2013 Uttrakhand floods**, Indian armed forces took part in rescue operations. By 21 June 2013, the Army had deployed 10,000 soldiers and 11 helicopters, the Navy had sent 45 naval divers, and IAF had deployed 43 aircraft including 36 helicopters. From 17 to 30 June 2013, IAF airlifted a total of 18,424 people-flying a total of 2,137 sorties and dropping/landing a total of 3,36,930 kg of relief material and equipment.

- (c) **Nepal Earthquake, 2015 Operation Maitri** (Amity) IAF mobilised 1xIL 76, 2xC-130J Hercules, 4xC-17 Globemaster transporters, 2 x Advanced Light Helicopters and 8xMi-17 helicopters starting 25th April.
- (d) Jammu and Kashmir Floods: 2014 Starting 06 September 2014, 23 aircraft of IAF and 26 helicopters were deployed, along with 6 teams of NDRF and 200 Marcos commandos of Indian Navy. Additional resources were deployed subsequently,
- (e) **Kerala Flash Flood: 2018** HADR Operations by IAF Nearly 1000 plus Ladies, children, elderly people and residents were winched from the rooftops of submerged houses to safety. Helicopters also dropped food and water packets to the stranded people.

Evacuation

This operation involves removing people from zones at risk of an imminent disaster to safe locations. Though common to cyclonic storms, evacuation is also a frequent requirement with technological/industrial disasters. For it to be effective, there must be a timely and accurate warning system, clear identification of escape routes, provision of transport, an established policy that requires everyone to evacuate when ordered; an education programme to make the community aware of the plan. Most evacuation operation are dovetailed with and generally follow the SAR operation.

Disaster Technologies

For SAR and evacuation to be effective, certain essentials are required -shelter, food and drinking water, communication, power supply, clearance and access, public information and security, health and sanitation, temporary subsistence supplies. Technologies, such as interactive maps, open databases, text bots, apps, tele-health services or drones have great potential to help people stranded in life-threatening situations and make first response teams more effective during disasters. Remote sensing, satellite imagery and computer based GIS systems are also of great help.

Disaster Organisations

As per CRED², 337 catastrophes related to natural hazards were

reported worldwide in 2014. They affected 94 countries. While this might seem huge, the number of natural catastrophes was the lowest. Floods were the most frequent, followed by earthquakes and then storms. These events call for coordinated reaction at short notice. That's where disaster relief organizations come into focus, aiding the SAR efforts. They often operate together with other organisations. Some major organisations listed below³:-

- (a) International Search and Rescue Advisory Group (INSARAG) A UN organisation, for Coordination of Humanitarian Affairs (OCHA). This is a network of disaster-prone and disaster-responding countries and organizations, dedicated to urban SAR and operational field coordination. The duty to render assistance is covered by Article 98 of the UNCLOS. It aims to establish standards and classification for international USAR teams as well as methodology for international response coordination in the aftermath of earthquakes and collapsed structure disasters.
- (b) United Nations High Commissioner for Refugees (UNHCR) It was created in 1950, to help millions of Europeans who had fled or lost their homes. The start of the 21st century has witnessed UNHCR helping refugee crises in Africa, Middle East and Asia. During its lifetime, UNCHR helped over 50 million refugees to successfully restart their lives.
- (c) United Nations Disaster Assistance and Coordination (UNDAC) Created in 1993, it is designed to help the UN and governments of disaster affected countries. UNDAC also assists in coordination of incoming international relief at national level and/or at the site of the emergency. Its teams can deploy at short notice. Assessment, coordination and information management are UNDAC's core mandates.

Recommendations and Suggested Policy Changes⁴ Recommendations

(a) Training of SAR Teams: Towards an Improved and Effective SAR. SAR involves location, extrication and initial medical stabilisation of victims trapped in confined spaces. It is considered a "multi-hazard" discipline, as it may be needed for a variety of emergencies including earthquakes, cyclones,

floods, dam failures, technological accidents, terrorist activities, avalanches and hazardous material releases. The training needs to be institutionalised. Besides, same could also be outsourced to private enterprises, like Rescue Training Associates (RTA) of USA. Established in 1998, to improve disaster management and technical rescue training within USA. There is a need to encourage such ventures to come up in India. We have a repository of experience in handling varied nature of catastrophes in all kinds of terrain. Efforts need to be synergised.

- (b) Cater For Emergency Support Functions Besides SAR, there would be many other support departments and ministries in States/Centre, keeping in view their roles in the realm of managing disasters. These roles must be made explicit and should not be left ambiguous. Once responsibilities are assigned, suitable organisational changes should be effected and adequate resources must be allocated.
- (c) **Build Local Capacities** The focus should be to enhance capacities at international, regional, national state / province levels and at local levels. Efforts to build local capacities at the village, block and local community levels is more important especially after setting up of NDMA / NIDM and raising of NDRF. This would contribute not only towards improving resilience of the community but also provide a fillip to self-confidence and self-esteem of locals, in the long run. It would help bring in positive changes in the behaviour pattern of the community towards responding to disasters.
- (d) Improve Readiness State of Stakeholders. Preparedness aspects should lead to improving readiness state of all the stakeholders to include individuals, organizations and the vulnerable communities. Three important aspects which would contribute towards better preparedness and readiness are:-
 - (i) Training and Knowledge.
 - (ii) Mock up drills and rehearsals.
 - (iii) Integration of stakeholders.

(e) **Build a Coordination Mechanism** - There would be a need to allocate areas of operation, areas for establishing bases, relief camps, medical camps and for other such activities. It would require well thought out SOPs. This is an area where NDMA and NIDM need to work further and chalk out a strategy to streamline procedures.

(f) Suggested Policy Changes

- (i) Keep adequate funds for these tasks, which are unforeseen and give very little reaction time. This money has to be in-built as a contingency fund,
- (ii) Concept of placement of Disaster Bricks as enunciated by Armed Forces to be practised and provisioned with the NDRF / State Disaster Forces.
- (iii) Delineation of responsibilities of NDMA, MHA/other Ministries to be clearly spelt out and known to all concerned, to facilitate smooth/prompt response.
- (iv) Best practices pertaining to disaster mitigation be documented and disseminated in vernacular language/pictorial format to the community at large.
- (v) Coordination and knowledge net-working among stakeholders, researchers, academicians and NGOs periodically by a nodal agency.
- (vi) Integration of disaster mitigation in universities resulting in research outputs ,with a positive impact.
- (vii) Uniformity in bye-laws would result in several advantages such as updation, cost effectiveness, training, development of software for checking conformity.
- (viii) Involvement of private sector is imperative. Similarly, creating conditions for development of insurance markets, and use of risk reduction financial instruments.
- (ix) Towards long term socio-economic and psychocultural rehabilitation, political and administrative support is essential. Support of community at large is very important.

Conclusion

Search, rescue and evacuation, are among the most challenging tasks, more so in a post-disaster situation. Hence utmost skill, training and expertise is needed for those responsible for the onerous task. This is not the responsibility of the Government alone, and requires community effort.. NDMA has made a beginning, and together, with the help of Armed Forces / NGOs / Private Sector, it is hoped the task will be accomplished. It will lead to more lives saved ,while facing future disasters. In this regard, we should be willing to take help of UN agencies and adopt models and good practises from Canada and USA, who are the pioneers of SAR and evacuation techniques in the world today.

Endnotes

- ¹ Summarised from HQ IDS and Directorate Gen of Military Operations media briefings and After Operation Reports with respect to HADR operations accessed through personal interactions by the author.
- ² CRED- the Centre for Research on Epidemiology of Disasters is the worlds largest research body in this field.
- ³ Accessed from websites of INSARAG, UNDAC and UNHCR.
- ⁴ Extracted from the thesis 'Disaster Management and Role of Armed Forces in India'- by the author.

75th Anniversary of the Battle of Kohima

Major General PK Goswami, VSM (Retd)®



"A nation that forgets its past has no future"

These words of Winston Churchill could not be more apt to Commemorate 75th Anniversary of the Battle of Kohima.

Abstract

Perched on top of a mountain ridge, some 5,000 feet up in the remote hilly terrain of northeast India, is located the town of Kohima, in the state of Nagaland. During the Second World War (WW-II), one of the most decisive battles on the Burma front took place here - the one that thwarted the Japanese invasion of India and helped turn the tide of the war in the Far East. Like most battles that took place in the South-East Asian Theatre, the Battle of Kohima remains relatively unknown because the world was too preoccupied with Nazi Germany in Europe. The Allied invasion of Europe also steered the spotlight away from the Battle of Kohima which was still being

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[®]Major General PK Goswami, VSM (Retd) is Deputy Director (Administration) at the USI of India, New Delhi.

fought when D-Day started. Though off late in April 2013, the Battle of Kohima, along with the Battle of Imphal, was voted as Britain's greatest battles by the British National Army Museum.

The Battle of Kohima

Cohima, a hill town in the middle of the Naga Hills, was the site of one of the most bitterly fought battles of the Second World War (WW-II) from 04 April to 22 June 1944. The battle ended on 22 June when British and Indian troops from Kohima and Imphal met at Milestone 109, ending the Siege of Imphal. The battle is often referred to as the "Stalingrad of the East". Kohima was important since it lay astride the only road that led from the major British / Indian supply depot at Dimapur to Imphal. It was approximately 40 miles East of Dimapur, and 80 miles North of Imphal. The Allied Fourteenth Army, under command of General William Slim, had been building logistical bases at Dimapur and Imphal for an eventual offensive into Burma. The Japanese Fifteenth Army, under command of Lt General Renya Mutagachi, received orders in early 1944 to put a stop to the British preparations in Assam. The fighting in and around Kohima in the spring of 1944 was part of a larger Japanese offensive, known as 'U-Go', in which three Japanese divisions, the 15th, 31st and 33rd, attempted to destroy the British / Indian forces in Imphal, Naga Hills and Kohima. The Japanese, however, were unaware that the British and Indian troops based in Assam in 1944, unlike their predecessors in 1942, were properly trained for the coming battles.

General Slim understood that a major Japanese offensive was under way. With most of IV Corps tied up in Imphal and the Imphal-Kohima road block, he knew that Kohima would need to be reinforced. British military intelligence did not initially realise the threat to Kohima, and it was assumed that not more than a few battalions would be able to traverse the high ridge system that existed between Chindwin River and Kohima. Before long, however, reports confirmed that an entire Japanese division was on the move to Kohima, in fact British forces learned about Japanese advance only on 18 March 1944 from fleeing refugees. Such was the state of general confusion that British forces were not even aware of the strength of advancing Japanese forces and a garrison commander for Kohima was only appointed on 22 March

- four days after Japanese advance was known. When Colonel Hugh Richards (who had earlier served with the Chindits), the Garrison Commander, arrived at Kohima, no one could brief him on prevailing tactical or operational situation. Far worse, no one could even tell him just how many men he had under his command – while the Japanese were just 60 miles away.

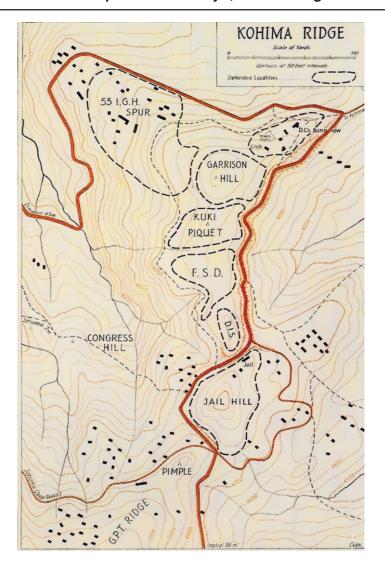
Realising the state of affairs, Slim moved the 7th Indian Division by air to reinforce both Imphal and Kohima. This formation had just completed an excellent defence and counter-offensive campaign in the Arakan region of Burma against the Japanese Operation 'Ha-Go'. Slim also activated XXXIII Corps; the 2nd British Division, 268 Indian Brigade and the 23 Infantry Brigade (Chindits) were all earmarked to relieve the garrison at Kohima and open the road to Imphal. However, getting together all units of the 2nd British Division took time as they were dispersed all over India.

In mid-March, the only troops stationed in Kohima area were a few units of Assam Rifles, 1st Assam Regiment and Line of Communication troops. The 1st Assam Regiment formed a defensive zone, some 35 miles to the east of Kohima, at Jessami and Kharasom. They came in contact with Japanese forces at Jessami on 28 March 1944 and were forced to withdraw to Kohima by 01 April 1944, after heavy fighting (though were ordered to fight to last man but this order was later withdrawn). While Kharasom never received the withdrawal order, some made it to Kohima, many did not including the commander, Captain Young. With Jessami and Kharasom taken, the road to Kohima was open to the Japanese.

The battle-hardened and well-trained 161st Indian Brigade, 5th Indian Division was flown into Dimapur area in late March. The brigade moved towards Kohima and by early April was creating defensive positions in and around the village. Defending the area presented significant problems; the key feature, Garrison Hill and a long wooded spur on a high ridge west of the village (Kohima Ridge) were the scene of perhaps the bitterest fighting of the whole Burma campaign. The small area of terrain provided by this ridge and the surrounding area permitted deployment of only one battalion, the 4th Royal West Kent Regiment. The rest of the 161st

"Young and inexperienced sepoys were fighting like veterans; red-hot machine gun barrels would be ripped off, regardless of burns suffered in the process; Japanese grenades and cracker-bombs were picked up and thrown clear of the trenches with all the calmness in the world and there did not seem to be a man in the garrison afraid to carry out any task given to him"

Captain Peter Steyn, Assam Regiment.



Indian Brigade - the 1/1st Punjab Regiment, the 4/7th Rajput Regiment and the brigade's artillery were placed two miles west of Kohima, in Jotsoma. It was this artillery that played a vital role in supporting the Kohima Garrison. The Japanese 31st Division's plan was to split into three columns that would cut the Kohima -Imphal Road and envelop the village from three different angles. The Japanese operation, 'U-Go', began in mid-March 1944; and by 22 March elements of the British IV Corps (17th, 20th and 23rd Indian Divisions), based in and around Imphal, were engaging the first of the Japanese troops. Japanese started their attack on Kohima at 0400 hours on 04 April 1944. At that time Kohima had about 1500 men against 12000 Japanese troops. They attacked outlying defensive positions along Kohima Ridge, nicknamed Jail Hill, Detail Issue Hill (DIS), Field Supply Depot (FSD), Kuki Piquet, Garrison Hill and the most famous Tennis Court and Deputy Commissioner's (DC's) bungalow; where the bitterest fighting took place. The Japanese took Jail Hill and FSD but suffered very heavy casualties over the course of the battle. Troops from Jotsoma were sent forward to reinforce areas covered by the 4th Royal West Kent.

The 4th Royal West Kent Regiment recognising their numerical inferiority, withdrew from the more isolated positions on the ridge after the first major assault. The Japanese had made significant inroads into the ridge and were preparing their own positions for defence. By 07 April 1944, reinforcements from the 4/7th Rajput Regiment arrived from Jotsoma, providing a boost for morale. The Japanese launched a series of attacks into the north-east region of the defences on 08 April and by the 09 April, the British and Indian forces there had been pushed back to the Tennis Court. At this juncture, the Japanese cut the tracks between Jotsoma and Kohima and the road between Jotsoma and Dimapur. The Japanese forced the garrison at Kohima to withdraw further into their lines on 10 and 11 April with attacks on DIS and FSD.

On 13 April 1944, the Japanese pressed their advantage against the British and Indian positions on the ridge. The troops defending near the DC's bungalow and the Tennis Court came under increasingly heavy artillery and mortar fire, and had to repel frequent infantry assaults. This area was the scene of some of the hardest, closest and grimmest fighting, with grenades being hurled across the Tennis Court at point-blank range. The extract from the

War Diary of the 4^{th} Royal West Kent Regiment describes the scene as below:-

13/14 April Kohima	Night 13/14 Apr also saw bitter fighting. At the FSD the Rajputs were forced from their trenches by the direct hits from the 75 mm guns opposite, so that A Coy at Kuki p. had to send one pl forward to save the front position. Assam Regt pl took their position at Kuki. The Japs made a very heavy rush attack at B Coy from the DC Bungalow, and succeeded in penetrating into a shed on a small but important hillock when a Bren jammed. The Pl Cdr, Lt King, restored the situation by driving them out with grenades, but not before the Bren gunner himself picked up a shovel and cracked at his assailants with it.		
14 April Kohima	Early morning brought a further attack on B Coy, supported by grenade discharge bombs, but it was repulsed with many casualties to the enemy. Air supply drop of water very successful. Enemy mortar activities continued throughout the day, interspersed with smoke bombs which was taken to mean that his stock of captured ammunition was running low. This assumption was correct.		
Index of Abbreviations			
	Bren	-	Brengun
	Cdr	-	Commander
	Coy	-	Company.
	Japs	-	Japanese
	Lt	-	Lieutenant
	р	-	Piquet.
	Pl	-	Platoon.

In the end, the attacks were beaten off with the help of remarkably accurate fire from the Royal Artillery positioned at Jotsoma ridge. This fact did not escape the Japanese commanders, and they turned much of their attention against the positions of the 161st Indian Brigade at Jotsoma. The British and Indian troops were able to successfully repel these attacks.

14 April 1944 was to mark a turning point in the siege. While the Japanese continued to shell and fire upon the Kohima and Jotsoma garrisons, they did not launch any infantry attacks. The 2nd British Division, newly arrived (by air and land after 1500-mile transportation) and the 161st Indian Brigade had broken the Japanese roadblock on the Dimapur–Kohima road. The garrison in Kohima received word of this on the 15 April and their morale soared. They were bolstered by the knowledge that the lifting of the siege was inevitable and fast approaching.

Knowing that reinforcements were on the way, the Japanese launched a last deadly and desperate attack against the positions at FSD on 16/17 April evening. Each side took the positions more than once, only to be thrown out by their opponents. The heavy fighting and the casualties sustained forced the British and Indian troops to withdraw from FSD to the Garrison Hill positions. This action left the defenders hemmed in from the south, north and east. At 0800 hours on 18 April, a major artillery assault targeted Japanese positions as men from the 1/1st Punjab Regiment marched on Kohima. These reinforcements meant that the Japanese could not take Kohima and the relief was completed when the Royal Berkshire Regiment arrived on 20 April 1944.

The Japanese restarted their attempt to capture Kohima on 22/23 April 1944. However, this attack at night backfired. The attack started with a major Japanese mortar attack on Kohima. Men in weapons pits were safe but an ammunition dump was hit. The explosion set fire to nearby trees and as the Japanese infantry attacked up Kohima Hill, they were clearly silhouetted against the night sky. Men from the Royal Berkshire's and the Durham Light Infantry raked the advancing Japanese with accurate small arms fire, and the attempted Japanese attack was a dismal failure. On the morning of 23rd April, British forces counter-attacked and removed the Japanese from Kohima Hill. The commander of the Japanese forces there, Sato, told his Intelligence Officer, Colonel

Yamaki, "We're losing so many troops this way that before long we'll be too thin on the ground to achieve anything". Sato faced another major problem - a chronic shortage of food. Only 1,000 out of the 5,000 oxen had reached Sato's headquarters. The local population had done what they could to remove any food that might have been available locally. The defenders of the Kohima area, the 161st Indian Brigade, Assam Rifles and 1st Assam Regiment contained the Japanese advance in the region and forced them into a battle of attrition. The battle included fierce hand-to-hand combat, especially in the garden of the DC's bungalow and around the Tennis Court. The defenders were cut off from Dimapur and had to rely upon daily air re-supply. Despite these obstacles, they withstood 13 days of siege and heavy fighting without backing down.

The battle for Kohima can be divided into two phases: the siege, which lasted for 13 days and the clearance of the Japanese 31st Division from the area, followed by the opening of the Kohima-Imphal road, from mid-April until 22 June 1944. This second stage occurred over the course of two months and caused more casualties for both armies. This battle was ultimately to prove to be the turning point of the Burma Campaign. Earl Mountbatten described it as, "probably one of the greatest battles in history....in effect the Battle of Burma...naked unparalleled heroism....the British / Indian Thermopylae".

In a message for issue 'to all ranks on the Manipur road', Earl Mountbatten wrote, after the battle of Kohima, that "only those who have seen the geographical nature of the country under these conditions will be able to appreciate your achievements". This sums up a great truth about the battle of Kohima and emphasises the magnitude of the victory brought at great cost by the combined British and Indian force of the 2nd British Division, the 161st Indian Brigade (which included the 4th Royal West Kents), and the 33rd Indian Brigade. Though its importance was not fully realised at that time, Kohima was a turning point in the war against Japan.

The Commemoration 75th Anniversary of the Battle of Kohima

The Commemoration Ceremony, on 04 April 2019, was organised at the Regional Centre of Excellence for Music & Performing Arts (RCEMPA), Jotsoma, Kohima. The theme of commemoration was

"Remembrance, Reconciliation and Rebirth". The commemorations were intended to honour the memory of all the soldiers who fought and died in the conflict irrespective of nationality. The Commemoration Ceremony was inaugurated by Shri Neiphiu Rio, Chief Minister of Nagaland; in presence of HE Sir Dominic Asquith, KCMG, High Commissioner of UK; HE Mr Kenji Hiramatsu, Ambassador of Japan; Lt General Rajiv Sirohi, AVSM, VSM, GOC 3 Corps; Richard Dey, a 92-year-old British World War II veteran who fought at Kohima; Ms Salvia May, CEO, Kohima Education Trust, UK; Mrs Akiko MacDonald (daughter of Lt Taiji Urayama, served in 15th Imperial Japanese Army) Chairperson, Burma Campaign Society; Mrs Celia Grover (daughter in law of Major General M L Grover, GOC 2 British Division, commander of British forces in the Battle of Kohima) and large number of Indian veterans. The United Service Institution (USI) was represented by Major General PK Goswami, VSM (Retd). The USI and the British High Commission produced a commemorative brochure, which was distributed to all participants.

Nagaland Chief Secretary, Shri Temjen Toy, welcomed all and remarked that he was delighted that 75 years later, all principal players of the Second World War – Japan, Britain, India and Nagas – congregated on the soil of Kohima where the bloody battle was fought.

"Let bygones be bygones. Today is a time for forgiveness, remembrance, reconciliation and rebirth. I pray for all the people here to forgive, forget and look forward for brighter days to come. Let peace prevail", Medo Keretsü, Head Gaon Burha (GB) of Kohima Village Council said while pronouncing traditional blessing at the programme on this occasion.

In a moving message on the occasion, Japanese Ambassador to India, HE Mr Kenji Hiramatsu said, "We all should never forget that the peace we enjoy today has been built over tremendous sacrifices of the past. Squarely facing the history of the past, Japan renews its commitment to never repeat the devastation of World War-II. We look back in order to look towards the future". He reasserted that genuine reconciliation was only possible through dedicated efforts and also acknowledged those who had dedicated themselves to the tireless efforts for reconciliation over the long years.

Paying rich tribute to the soldiers who had laid down their lives, British High Commissioner to India, HE Sir Dominic Anthony Gerard Asquith, KCMG said that their courage and sacrifice helped change the course of history. He said, "Today India, Japan and the UK stand together as three great democracies. We work with each other for peace and prosperity globally, and are committed to facing today's challenges in partnership". He reiterated that this occasion is to remember the sacrifice of soldiers and the Naga non-combatants who died valiantly supporting the successful defence of the Kohima Ridge against a numerically superior force.

Nagaland Chief Minister Shri Neiphiu Rio said that the Battle of Kohima was one of the most critical battles of WW-II which proved decisive. He paid rich tribute to all the fallen soldiers who "answered the call of duty and sacrificed their today for our tomorrow". While remembering all the brave soldiers Chief Minister informed the gathering that Nagaland was going to organise a yearlong commemoration programme of the Battle of Kohima with the theme "Remembrance, Reconciliation and Rebirth", He appealed for reconciliation with history and to look forward to a future based on the firm foundation of peace and brotherhood. Chief Minister also acknowledged the efforts of Kohima Education Trust, setup by British Veterans of the Battle of Kohima, for preserving the legacy in true spirit of remembrance, reconciliation and rebirth. He also said that Nagaland was working with Japan not only on technologically challenging projects, but also partnering with Japan International Cooperation Agency (JICA) for various development projects. At the end, he remarked, "Your war ended here in our land whilst ours began", while pointing to many years of hardship and suffering. He sought everyone's support for the ceasefire as the peace talks had begun. He also sought everyone's support in quest of realising genuine peace for a "shared and harmonious future".

Lieutenant General Rajeev Sirohi, GOC 3 Corps; Mrs Akiko Macdonald, Chairperson, Burma Campaign Society; and Ms Sylvia May, CEO, Kohima Educational Trust (KET) also spoke on the occasion.

Richard Dey, a 92-year-old World War II veteran, returned to the scene of what some consider the bloodiest and fiercest battle of the Second World War, the Battle of Kohima, after seven decades. He was part of the Royal Welch Fusiliers assigned to the Second Division. Dey said that back then, "We were part of the relief force from the Second Division which came to assist the men under siege". He now lives in London and remembers the bloody battle between the Allies and the Japanese Army on the Naga Hills, but doesn't want to talk about it.

Kohima War Cemetery

The Kohima War Cemetery was established in 1946, in the erstwhile area of Kohima Ridge, and inaugurated by Field Marshal Sir William Slim, Commander 14th Army. The war cemetery is divided into seven steps. This is the final resting place of 1421, (including 330 members of the Indian units), commonwealth servicemen of WW - II, most of whom fell during the siege of Kohima and the fighting which followed its relief. Erstwhile, this location housed DC Bungalow and Tennis Court and it was here that the famous Battle of Tennis Court was fought which is also known as one of the bloodiest battles in the history of warfare.

Wreath laying at **Kohima Cemetery** was organised by Inspector General Assam Rifles (IGAR) (North) on 05 April 2019. Vice Admiral Sir Timothy Laurence, KCVO, CB, ADC (P), Vice Chairman, Commonwealth War Graves Commission (CWGC); HE Sir Dominic Asquith, KCMG, High Commissioner of UK; HE Mr Kenji Hiramatsu, Ambassador of Japan; Mr Richard Day, British Veteran of the Battle of Kohima; Ms Sylvia May, CEO, Kohima Education Trust, UK; Mrs Akiko MacDonald, Chaiperson, Burma Campaign Society; Mrs Celia Grover (daughter in law of Major General M L Grover, GOC 2 British Division, commander of British forces in the Battle of Kohima) and large number of Indian serving soldiers and veterans attended the event.

"It was a very lump in the throat kind of a morning", Richard Dey said when he laid a wreath at the Kohima War Cemetery. "Have you seen animals being run over? The sight of humans dying in war is no better. We soldiers don't like to recount it". "I wonder how we did it," he added, of the battle. "How did we climb these hills even as we were being shot at all the time?" Dey is grateful to the Nagas, some of whom helped the Allied forces. "Had it not been for them picking up the rifles, I would not have been here".



2nd British Division Memorial HE Sir Dominic Asquith, Lt Col Nick Wood, HE Kenji Hiramatsu, Maj Gen PK Goswami, VSM (Retd)



Maj Gen PK Goswami, VSM (Retd), Mrs Akiko MacDonald and Vice Admiral Sir Timothy Laurence

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The Karmapa Story

Colonel Shailender Arya®

Abstract

The Karmapa heads the 900 years old Karma Kagyu sect, popularly called the Black Hat sect of the Tibetan Buddhism. He has significant following in India, particularly in Sikkim, as also in Bhutan, China and the West. He is the only high-ranking Tibetan Lama formally recognised both by Dalai Lama and the Chinese. The article outlines the importance of Karmapa in the current political and spiritual hierarchy of Tibetans, the recent controversies surrounding him, and the causes for his reluctance to return to India. This needs to be viewed in light of the recent changes in Chinese policy under Xi Jinping wherein China is making substantial efforts to become the new benefactor of Buddhism, manipulating affiliations and successions all along the Sino-Indian border. China now terms Buddhism an 'ancient Chinese religion'. Beijing has spent billions to revive the birthplace of Buddha, besides holding World Buddhist Forums since 2006. The role of Karmapa in countering the 'Sinification' of Buddhism cannot be overstated. Karmapa is an essential figure in the smooth succession of Dalai Lama and a very strong contender for a political successor of Dalai Lama, with implications on the Tibetan movement. Under these circumstances, it is imperative to get Karmapa back to India from United States (US) and seek his assistance in promoting Tibetan unity and be the next leader of Tibetan movement until the next incarnation of Dalai Lama attains adulthood. The article concludes that a Karmapa seat in exile in US shall be India's loss,

Colonel Shailender Arya is an alumnus of the National Defence Academy (NDA) Khadakwasla. He was commissioned in 44 Medium Regiment in December 1998. He has been a Directing Staff at the Defence Services Staff College, Wellington. He contributes regularly to various defence journals, magazines and books.

besides exposing him to Chinese stratagems. India, with its soft-power credentials, cannot lose the spiritual plot over the Himalayas to China.

Introduction

1019 is a special year for the Tibetans. It was 60 years back, Lama fled Lhasa following that in March 1959, the 14th Dalai Lama fled Lhasa following the Tibetan uprising and crossed over into India. He was only 24 years old, enabling him to undertake this long and harsh journey over the Tibetan plateau. His Holiness Tenzin Gyatso, the current Dalai Lama, shall turn 84 in July 2019 and the Tibetan community is actively looking for a spiritual and temporal successor. A probable successor is the Karmapa who shares many things common with the Dalai Lama, including the fact that he also fled from Tibet at a young age of 14 to India. In 1999, the 17th Karmapa, Ogyen Trinley Dorje escaped from the Chinese supervision in eastern Tibet to India and was welcomed at the Tibetan guarters at McLeod Gani in Himachal Pradesh on January 5, 2000 along with his sister. The Karmapa has another unique distinction. In this era of the Dalai Lama labelled as "splittist in a monk's robes" by the Chinese, and a fake Panchen Lama propped up by Beijing while the real Panchen Lama remains a political prisoner, the Karmapa is the only highranking Tibetan official recognised by China. Thus, his role and future is deeply linked to the future of the Tibetan movement and the way the succession of Dalai Lama shall pan out on both sides of the Himalayas.

The Chinese Rethink

While the Tibetan movement is seeking a way ahead in the face of growing Chinese economic and military clout, under Xi Jinping there has been a quiet rethink on Buddhism. From the days of destruction of Buddhist monasteries during the Cultural Revolution, China is now making substantial efforts to become the new benefactor of Buddhism. Xi has an old Tibet connect. As Secretary General of the State Council, Xi's father, Xi Zhongxun, had overseen the last visits of the 19-year-old Dalai Lama and of the Panchen Lama to Beijing, and reportedly wore the watch the Tibetan spiritual leader had given him into his old age. For Beijing, the aim of promoting Buddhism is to harness the religion for soft power across Asia. Another unstated aim is to promote Buddhist leaders who are aligned to the Chinese policies. China now calls Buddhism an

'ancient Chinese religion' and has spent US \$ 3 billion to revive the birthplace of the Buddha, the Nepalese town of Lumbini. It has been holding World Buddhist Forums since 2006 with monks from all over the world. China is pouring in money to revive the Gandhara trail of Buddhist sites in Pakistan, linking heritage revival to its Belt and Road Initiative (BRI).² The Chinese government is refurbishing selected monasteries in Tibet and providing money for their upkeep, including the Karmapa's original seat at the Tsurphu Monastery, located 70 km from Lhasa.

The China watchers are calling this development as the 'Sinification' of Buddhism. In 2016, the Chinese Religious Affairs Bureau launched what Xinhua called 'an online system to check the authenticity of living Buddhas of Tibetan Buddhism', to control the succession of the lamas.³ The Chinese claim on being patrons of Buddhism ring hollow due to their suppression of the Tibetans and the massive environmental degradation of Tibet. However, few voices can resist the massive doles that the Chinese are offering, and in few years, China may indeed be perceived as a leading benefactor of Buddhism, with anybody opposing portrayed as a divisive figure. Within China, the Sinification threat is real. In January 2019, China announced a five-year plan to 'Sinicize' Buddhism for practitioners inside its borders.⁴

The Importance of Karmapa

The Chinese ingress in all matters Tibetan brings us back to the pivotal role of Karmapa. The Karmapa, now 34 year old, heads the 900 years old Karma Kagyu sect, popularly called the Black Hat sect, of the Vajrayana Buddhism. Kagyu means transmitted command, and it is a powerful sect. It is also the second largest Tibetan sect after the largest Gelukpa or the Yellow Hat sect, headed by the Dalai Lama. Therefore, Karmapa cannot as such succeed Dalai Lama as they are from different sects. The Karmapa has, however, the potential to become a political successor and the global representative of the Tibetan Buddhism. His reincarnation as Karmapa has been recognised by China, the first time since 1959 that a reincarnated high lama has been formally acknowledged.5 He is possibly the only high-ranking Tibetan Lama recognised both, by the Dalai Lama and by the Chinese. While Karmapa is considered to be second only to the Dalai Lama in the religious hierarchy, his position is unique in the context of Bhutan

because he happens to be the spiritual patron of Bhutan, especially that of the Bhutanese royal family. Besides Bhutan, the Karmapa also holds great influence along the entire 4,000 kilometres long Himalayan border belt of India, from Ladakh to Arunachal Pradesh, especially in Sikkim.⁶ The Karmapa also has a following among the Chinese Buddhists.

While Tibetan Buddhism has four sects and many sub-sects, there is enormous significance of the Karmapa-led Karma Kagyu lineage. It is the most ancient tulku (a reincarnated lama) lineage predating the Dalai Lama lineage by more than two centuries. The Kagyu lineage had begun the selection of its head through reincarnation, much before other sects adopted it. The Kagyus have thrived in France, and have more centres (over 100) in the West than any of the other schools.7 After recognition by the Dalai Lama in July 1992, Ogyen Trinley Dorje has been recognised as Karmapa by nearly 95 per cent of the Karma Kagyu lineage. The key teachers of the lineage, mainly the 7th Dzogchen Ponlop Rinpoche, the 9th Thrangu Rinpoche, the 7th Mingyur Rinpoche, and the 9th Traleg Kyabgon Rinpoche have recognised him. The Central Tibetan Administration in Dharamshala also recognises him as the Karmapa. He has made common cause with the Tibetan struggle against Chinese occupation and professed his loyalty to the Dalai Lama.8

The importance of Karmapa was evident when the organisers, the Dharamshala-based Department of Religion and Culture, 'indefinitely' postponed an important meeting scheduled to discuss the future of the Dalai Lama's institution. The reason given for the 'indefinite' postponement of the 13th Religious Conference of the Schools of Tibetan Buddhism and Bon Tradition, which was to be held from November 29 to December 1, 2018, was the sudden demise of the head of the Nyingma School, Kathok Getse Rinpoche in Nepal. However, many, including the Tibetologist Claude Arpi, believe that the absence of the Karmapa was the real reason, as he was unable to get an Indian visa.

The Karmapa Controversies

The Karmapa has been weakened by controversies. The first controversy is about a counter-claimant. Post the demise of the 16th Karmapa Rangjung Rigpe Dorje, who had taken refuge in Sikkim after the 1959 Tibet uprising, there was a split over his

succession. While two regents, Situ Rinpoche and Gyaltsab Rinpoche recognised the Tibet-born Ogyen Trinley Dorje, the fourth regent, Shamar Rinpoche, opposed their choice and selected his own reincarnation, Thaye Trinley Dorje. The Chinese sided with the Tibet-born Ogyen Trinley and in September 1992, he was enthroned in Tsurphu, the main Karma Kagyu monastery in Tibet by Ren Wuzhi, Head of the Religious Affairs Bureau of China's State Council and the two regents supporting him.9 In India, the main Karma Kagyu monastery is the Rumtek monastery in Sikkim. It was the seat of the 16th Karmapa in exile, However, the counter claim has prevented the enthroning of the Karmapa at Rumtek monastery. This led to the young Karmapa, post his arrival from Tibet, to live in Gyuto monastery near Dharamshala and not occupy the exile seat at Rumtek due to fears of a dispute. Meanwhile the other claimant, Thaye Trinley Dorje has married in March 2017 and lost support among the Tibetans, leaving the field open for Ogyen Trinley as the undisputed Karmapa. They also had a reconciliation meeting in rural France in October 2018.

Notwithstanding Ogyen Trinley's great escape from Tibet, the Karmapa was in another controversy in February 2011 with the Himachal government wherein nearly one million US \$ was found in his monastery, some of it in Chinese Yuan. This issue was later cleared as being legitimate donations. The third controversy is about his rather longish stay outside India. It was only after 15 years after his escape to India in 2000 that he was allowed to travel abroad in 2015, mainly because it was considered too easy an escape, hinting at a larger Chinese plot. Karmapa is currently in the US, in New Jersey's Wharton State Forest area, where he had gone via Europe on a three-month visa in May 2017 on the strength of his Indian Identity-Certificate (IC). The IC works as a Tibetan refugee's Indian passport and travel document including for the Dalai Lama who travels around the globe on a similar Indian IC.

The Karmapa has since obtained a passport of Commonwealth of Dominica, a tiny island in Caribbean Sea, which has not gone down well in India. The people around the Karmapa were reported to have said that he was unhappy because of being kept under constant watch of the security agencies and being made to seek permission whenever he wanted to travel outside Dharamshala. The Karmapa was also not happy in the Gyuto

monastery which is a monastery of the Gelugpa sect wherein he cannot perform his religious ceremonies according to the traditions of his Karma Kagyu sect. Meanwhile the Chinese have been careful not to criticise him, in spite of his flight to India. The Chinese were unfazed by his flight and claimed that had gone to India just to collect the 'sacred black hat' from Rumtek, which was left by his predecessor. Resultantly, in 2000, many in the Indian media had termed him as a Chinese spy.

The Succession Methods

The larger question facing the Tibetan community is the usefulness of the reincarnation model in the 21st century. This model leaves a large gap, ranging between 10-20 years, without a head lama. Historically, the instability of the system has often been demonstrated wherein it was used by incompetent stewards, regents or by the Chinese Ambans, the representative of the Manchu emperor, to influence the Tibetan politics.¹¹ The manipulation rewards were massive as the political and the spiritual powers were merged in the hands of one person, the Dalai Lama. This reincarnation model can no longer function effectively and there is a need to make clear distinction in successions.

Whether it is the Dalai Lama or the Karmapa, it shall be prudent to elect or nominate a successor in the lifetime of the previous head lama. If the Tibetans wish to adopt a democratic succession process, the other person who can become the political successor is the democratically elected Prime Minister of the Central Tibetan Administration, Lobsang Sangay. In case of the Dalai Lama, either the 17th Karmapa or an elected representative like Lobsang Sangay can be nominated as the political successor. As regards a spiritual successor, it shall be apt to adopt an emanation in an already-born boy or adolescent, thus preventing any sectarian disputes or China taking advantage of the situation by 'discovering' their own indoctrinated Dalai Lama who shall then be a Tibetan poster boy of the virtues of Communist Party of China.

Way Ahead

The popularity of the Karmapa can be seen at the Kagyu Monlam Chemno, a major prayer gathering held in Bodhgaya every year-end. The sect is spread over the globe, resulting in major influence

among the Tibetan diaspora. They have regional monastic seats at Karma Triyana Dharmachakra in New York and Dhagpo Kagyu Ling in Dordogne, France. The Karmapa holds high chances to be the next leader of the Tibetan movement until the next incarnation of Dalai Lama attains adulthood. India's support to the Karmapa is crucial for preventing the Chinese playing reincarnation games all along the Tibetan border. In the post-Dalai Lama phase, Tibetans from across the world will be looking to the Karmapa for guidance and leadership, being the only undisputed leader. India should encourage him to come back, provide access to the Rumtek monastery, and must not do anything that could deepen the Karmapa's apprehensions about his treatment in India. He should be allowed greater movement and international spiritual tours.

The Karma Kagyu sect may be given land on payment near Dwarka in Delhi to set up a monastery as proposed by them. Like his predecessor, who established the Rumtek monastery, the Karmapa is keen to build a replica of the Tsurphu monastery in India. It shall be a loss for India if the Karmapa becomes a USbased entity, far from Tibet, which shall reduce him to a minor media celebrity, with reduced influence in the Sino-Indian border areas. The US option may be attractive to him in view of restrictions in India. He already has an estate in Woodstock in New York State - Karma Triyana Dharmachakra Inc - that alone is worth millions of dollars. 12 He is being courted by the House of Representatives who have recently invited him to a function at the Capitol Visitor Centre by Democratic leader Nancy Pelosi and other Congresswomen. The farm estate of his current US stay is gifted to him by a Chinese-Taiwanese couple.¹³ The American dream is indeed attractive.

Checkmating Chinese

If India does not take ownership of the Karmapa issue, the Chinese will. They are already promoting China-friendly Tibetan sects and downplaying the Dalai Lama led Gelugpa sect and the Drukpa lineage (Red Hat sect), a key branch of the Kagyu school of Tibetan Buddhism. The Chinese continue to deal with the heads of various Tibetan lineages in India and even facilitate the reincarnation of their successors in Tibet. In the event of the sad demise of the Dalai Lama, the Chinese shall prop up a fake Dalai Lama somewhere in Tibet, possibly the son of a party loyalist. To

complicate matters, this fake Dalai Lama shall be approved by the fake Panchen Lama Gyaincain Norbu as the real Panchen Lama Gedhun Choekyi Nyima is in Chinese custody since the age of six, thus eternally confusing the Tibetans. In such an event, having an authentic Karmapa in India shall be a strong bet to counter the Chinese propaganda, and reduce credibility of the fake Dalai Lama appointed by them. The Karmapa hopes to return to India quickly, as stated in a recent video message. He should be allowed to return to Rumtek, legal case notwithstanding, as he is now recognised as Karmapa by overwhelming numbers of followers. His return to India shall enable the conduct of the postponed 13th Religious Conference which is crucial in bringing together various streams of Tibetan Buddhism and their leaders. There can be no Tibetan unity without Karmapa.

With infrastructure build-up complete, Tibet is likely to witness a demographic inversion wherein a large population of Han Chinese, currently only restricted to larger cities in Tibet, shall move to smaller towns and villages encouraged by various incentives and tax-breaks. The Tibetans shall become minority in their own ancient land, and a minority everywhere, like the Jewish diaspora before the establishment of Israel. However, the diaspora shall remain connected. It is critical for India to ensure a clear succession to the Dalai Lama by Karmapa or any other consensus candidate, for it is the faith that unites the Tibetans in Tibet, the Tibetan refugees in India and the Tibetan diaspora across the globe. Towards that the continuity and stability of the Karmapa is important. While India may not have the spare capital to bankroll BRI like massive infrastructure projects across Asia and Africa, it can take lead in promoting constancy in Tibetan Buddhism. With 244 million Buddhists in China and Xi Jinping's wife, Peng Liyuan being a follower of Tibetan Buddhism, India, with its soft-power credentials, cannot lose the spiritual plot over the Himalayas to China. A Green Card and a Karmapa seat in exile in the US shall be India's loss. A return of Karmapa to the Land of Snow (Tibet) under the Chinese shall be simply devastating.

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USI Strategic Yearbook 2019*

Major General YK Gera (Retd)®

The United Service Institution of India 'Strategic Yearbook 2019' is the fourth of the series which was started in 2016. The publication of the "Strategic Year Book" is a key endeavour to articulate India's national interests and the tenets of national security strategy, iterating the ends, ways and means. Its focus is on strategic issues and formulation of long term strategic view.

The Book has a collection of 30 well researched articles, grouped under five sections. The sections are: National Security Overview; Internal Security Environment; Pakistan — China Strategic Challenge; India's Strategic Neighbourhood; and National Security Capacity Building. The articles have been authored by experts in their respective fields. It is a boon to find so much of wisdom, logic and analysis clubbed in a single book. For review, it is not proposed to comment on each article, only a few general comments are being offered to give the reader an idea of what to expect from the Book.

Section I. National Security Overview. To secure India's integrity, citizens, values and assets, emphasis should be on national development and transformation into a strong, prosperous and modern nation. Pragmatic guidelines for enhancing development and national security have been spelt out. Despite substantial investment in defence, India is perceived as an under – performer as far as upholding vital national security interests are concerned. Civil-military dissonance and lack of indigenous military hardware are perceived as India's critical vulnerabilities.

Section II. Internal Security Environment. Jammu and Kashmir imbroglio has been persisting for a long time. Pakistan's inimical designs and China's strategic interests have aggravated the problem. Political expediency and inconsistent policy for Jammu and Kashmir has also exacerbated the scenario. Key areas need to be addressed for ensuring peace and reconciliation in the State. In the North East, Manipur is an area of concern. Good governance is needed to address alienation and aspirations of the people; implementation of national register of citizens in Assam has internal

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and external challenges. Hybrid nature of security threats, emanating from the ensuing issue have to be faced with ingenuity. Emerging challenge to financial system is crypto currency. It violates established financial norms and can be misused for funding terror activities and other international crimes. It needs massive mitigation efforts.

Section III. Pakistan - China Strategic Challenge. The lead article "Evolving Geopolitical Developments in China: Implications for India" sets the trajectory for this section. The author comments on internal dynamics of China; developments in Tibet and implications for India. Chinese look at strategic issues through the prism of their core national interests. India needs to build credible deterrence and deft diplomacy. The article on "Doctrinal Shift Decoding China's Way of War Fighting" is based on analysis of China's White Papers. Salient features of China's military modernisation and force restructuring have been well covered. China seems to be facing internal security challenges in Tibet and Xinjiang. The issues are terrorism, separatism and extremism. China's strategic forays in the Indian Ocean are well known. In China's calculations, Indian Ocean Region (IOR) is important to ensure balance of power and uninterrupted supply of oil from West Asia. Pakistan harbours chronic animosity against India. Pakistan Prime Minister Imran Khan has articulated 'Naya Pakistan' and spelt out his desire to achieve new goals and make an attempt to reset India policy. Reality check reveals that goals are not likely to be achieved.

Section IV. 'India's Strategic Neighbourhood'. The lead article "India's Neighbourhood First Initiative: Hits, Misses and the Way Ahead" sets the pace. "Neighbourhood First Policy" has inspired new hope and optimism in neighbouring states. There have been some major achievements in re-invigorating bilateral and multilateral initiatives steered by India. Also some shortcomings in its implementation due to tardy response to complex geo-political developments in Maldives, Sri Lanka and Nepal have come to light. The author has focused on nuances of India's China Challenge in South Asia and suggested guidelines for making policy more effective. Central Asia is part of India's extended neighborhood. Article titled "An Appraisal of India's Connect Central Asia Policy and Need for Recalibration" is very relevant. The author suggests measures to provide traction to India's Connect Central

Asia Policy (CCAP) in sync with India's 'Look North Policy', developing Central Asia – South Asia connectivity and undertaking of economic projects. Iran is strategic gateway to Afghanistan, Central Asia and West Asia. Chabahar – Zaranj – Delaram corridor passes through Iran. Article titled "India – Iran: Way Forward after the US Sanctions" analyses dynamics of bilateral relations, impact of US economic sanctions and Pakistan, China factor on the Indo-Iran relations. Other articles in this section deal with "Maldives", "India- Japan Strategic Convergence" and "India's Engagement with the Great Powers: Emerging Paradigms".

Section V. National Security Capacity Building. For India's rise, building Comprehensive National Power (CNP) and credible deterrence capability are inescapable imperatives. The lead article titled "Developments in India's National Security Architecture and Way Ahead" brings out how China is configuring its CNP for creating China Centric Asian Order. There are inadequacies in India's security framework. Urgent policy and strategic reforms need to be undertaken. Article titled "India's Strategic Culture and Use of Force in Furtherance of National Interests" suggests measures for developing better understanding of strategic culture and nuances of use of force in furtherance of national interests. The author has commented that in comparison to China, India's infrastructure along its northern borders is abysmally inadequate. Other articles cover the following aspects:-

- (a) Optimising India's Military through Transformation: Intelligence Driven Effectiveness in the Changing Security Environment.
- (b) Towards Enhancing India's Aerospace Capability.
- (c) Transformation of India as a Maritime Power.
- (d) Agni I to VI Not Just a Number Game.
- (e) Emerging Niche Technologies in the Nuclear Domain.
- (f) Indigenisation of Defence Manufacturing in India: Participation of Private Sector,
- (g) Reforming the Police: A Necessary Condition for Robust National Security.
- (h) Information Strategy India: A Conceptual Approach.

- (j) Use of Technology to Counter Modern Terrorism.
- (k) Mending India's Civil Military Relations.

In the beginning of the Book, abstract of contents has been titled "The Yearbook 2019 – At a Glance". It contains major takeaways from each section and indeed, from most of the articles. This is a value addition which facilitates better assimilation by the reader.

Overall, the Book is a treasure house of knowledge and will provide vital inputs for a strategic dialogue and preparation of a national security policy framework. Approach is systematic, with inbuilt logic and rational and balanced views. The Book would be very useful for researchers and policy makers. It is bound to create general awareness on strategic issues facing the country. The Book would be of great help for professional education of armed forces officers and those concerned with national security.

Short Reviews of Recent Books

Sino - Indian Equation Competition + Cooperation - Confrontation. By Brigadier (Dr) Rajeev Bhutani (New Delhi : Pentagon Press LLP, 2019), Page 270, Price : Rs 995.00, ISBN : 978-93-86618-75-7

'Sino Indian Equation: Competition plus Cooperation minus Confrontation', authored by Brig (Dr) Rajeev Bhutani, is the second book by the author on Sino India dynamics. The authors understanding of the subject and clarity of thought is evident while going through the book. He has been able to put the historical perspective succintly, link it to the present and then share his view point very effectively on the issue that he wants to highlight. It is encyclopedic in content on the issue of inter and intra State relations in India' s'near' and 'extended' neighbourhood. The book other than the Introduction and Conclusion has been divided into three major Chapters. Chapter 2 looks at the 'Sources of Conflict' that have and are afflicting Sino - India Relations, Chapter 3 looks at the 'Areas of Cooperation vs Competition' and Chapter 4 looks at India's Strategic Initiatives.

In my view the title of the book, and initial deliberations in the first chapter, has raised the larger question with respect to the long term road map of Sino Indian relations. The approach will vary based on how the two countries view each other. Do we consider ourselves as 'adversaries' or 'enemy'. The tenor in the case of India is the former, but does China view it in a similar manner? The author has quoted the remarks of Mr Michael Ignatieff, a former leader of the Liberal Party of Canada and that of the India's former Foreign Secretary, to highlight the dicotomy between the two. Mrs Nirupama Rao opined, that "India and China have essentially attempted to build a partnership on the foundations of what is an adversarial relationship". But presently indications of China's approach under the leadership of Xi Jinping, seems to indicate that he is playing to win and thereafter rewrite the rules of international and bilateral engagements, from China's perspective. This vexing question could have been deliberated upon in greater depth.

In Chapter 2, the author has addressed the concern of India's strategic encirclement, by highlighting Chinese interests and penetration in not only the neighbouring countries but as far as Maldives and Seychelles. It has looked at the impact of China's ongoing initiatives to exploit infrastructure as a tool for strategic

power, its concerns with respect to Tibet, water concerns in India as a 'lower riparian state' and that of trade imbalance. It has thereafter recommended a few corrective modulations.

The next chapter identifies the areas of cooperation which includes initiatives to tackle 'non traditional threats', climate isues, measures to tackle the imbalance in the policies of WTO - especially the agriculture sector, which is an area of common concern to the two countries and furthering aspirational agendas in selected multlateral / regional groupings. The author has in depth looked al these areas and identified the positive aspects, as well as identified the key 'pain points' with critical precision. In the competitive space are the areas of energy, space, trade and conflicting interests in a few regional groupings. The author has discussed the nuances of 'soft power' and the field of aid/ financial support by the two countries highlighting some very interesting facets.

The last major chapter deals with India's strategic Initiatives and India's aspirations, its changing perception of 'strategic autonomy' and looks at the specifics with respect to growing importance of Indo Pacific. It analyses the logic for Indian effort to promote 'North South corridor', 'Asia Africa Growth Corridor' and various initiatives in the Indian Ocean like IORA, etc. Thereafter, the author analyses India's recent actions, to gain 'strategic leverages' in not only the neighbouring countries, but in the countries in proximity to China be it Mongolia, Vietnam or in the Indian Ocean, as far as Seychelles. The majot recommendation made by the author is to accelerate implementation of the various policy commitments that have been made internationally, while enhancing its armed forces capabilities for greater advantages of its policy initiatives.

A recommended addition to the reading list of the strategic ommunity and for the military libraries.

Lt Gen Arun K Sahni, PVSM,UYSM,SM,VSM (Retd)

Essence of Hinduism, India's Military Experience and Future Perspectives. By Brigadier CB Khanduri, FICHR, FABI (Dehradun, Greenfields Publishers), Page 404, Rs.1095/- ISBN: 978-93-81089-35-4

This is a unique book, quite possibly without any parallel where an Author has attempted to explain and cover the essentials of the

world's most ancient religion together with the nation's military experience juxtaposed with a kaleidoscopic view of the distant future! At first sight the title of this voluminous treatise by Brigadier CB Khanduri appears somewhat disconcerting and even pretentious. However, delving deeply in the text and linking the edicts, aphorisms, thoughts, explanations, of Hindu scriptures so painstakingly compiled by the author one begins to appreciate the core issues the author wishes to underscore. It is but obvious that the author is deeply patriotic and proud of our ancient Hindu heritage of brave thoughts and deeds. A greater portion of the book is proof positive of his deep study of Hinduism. While the nirakar upasana of the Vedas & Upanishads has been explained at length, the sakar form of worship derived from the puranas has been mentioned in passing. The author, in Part-I and over 242 pages extols at length the Vedas, Upnishads, Manusrimiti, Mahabharata, Gita and Ramayana. The author also expands on Yoga Patanjali, Ved Vyas, Shankaracharya, Swami Dayanand Saraswati and Dr S. Radhakrisnan who revitalised Hindu religion and the Hindu Samskara. In Part-II of the book, India's military experience, Pakistan, CPEC, Doklam and China's looming presence over Nepal, Sikkim and Bhutan and future perspectives are covered in great detail.

Though the author claims that ancient Indians had developed a credible art of war, this is, however, belied by the fact that Alexander and later Muslim invaders were successful in vanquishing successive Indian rulers. The author makes a signal point when he rightly rues the lack of a strategic culture and the abysmal thinking by successive political leaders to the point of insanity that have led to strategic blunders and festering fistulas like Kashmir, Sino-Indian boundary issue, Nagaland, Manipur and Left wing Extremism. To buttress his point the author quotes at length various writers, thinkers, leaders and research papers. The author deserves to be congratulated for successfully completing a herculean task of rekindling pride in our ancient heritage, identifying weaknesses in our national psyche and action needed to obliterate them.

Maj Gen Ashok Joshi, VSM (Retd)

Azure Blue and Canary Yellow (62 Years of 62 Cavalry). By Arun Prakash, (Manjeera Chimes Publishers, New Delhi), Page 251, Price not indicated, ISBN 978-81-927995-6-8.

In six parts (ten chapters) spread over 250 pages, the author has covered the 62 years history of free India's first Armoured Regiment raised after Independence .

Raised by Lt Col R S Butalia (4 Horse) by disbanding of 80 Armoured Delivery Regiment and taking new intakes from other older WW II regiments of the Indian Army, 62 CAVALRY was raised at Ambala on 1 July 1956. Besides holdings of the Delivery Regiment, initially elements also came from 3 Cavalry, 17 Poona Horse and 18 Cavalry. The track vehicles consisted of T 16 Carriers, Sherman Mk iii tanks and Humber armoured cars. Later, Churchill Mk VI/X tanks were also received. The class composition of the Regiment was (and still remains) a sabre squadron each of Sikh, Jat and Dogra troops.

In first three parts covering the first V chapters, the author has briefly covered historical evolution and developments in mechanised warfare and armoured vehicles, and **their** employment in WW I and WW II. Chapters VI to VIII cover developments in India, the Indian Army and Armoured Corps, and their employment in J&K (Zojila) and Liberation of Goa.

The problems faced by Col Butalia in raising 62 CAV by amalgamating elements from different units, creating regimental ethos and pride, are very well covered. Leading from the front, he set high standards in all spheres, and trained them as a cohesive fighting fit unit, in a short period. Contributions made by officers and JCOs have been covered, in adequate details. The pride in excelling in gunnery, navigation, maintenance of equipment, physical fitness and spirit-de-corps developed by all ranks, has been very well narrated.

In Part IV, Chapter IX, the operations fought by the **Regiment** in 1965 Indo-Pak War has been covered, in detail. While **Regiment** less a Squadron launched offensive operations under 6 Mountain Division in Jammu Sector, one Squadron operated alongside 1 Armoured Division, for flank protection role. The author describes in details the tank-to-tank engagements and highlights that though equipped with old Sherman tanks, the Regiment faced Patton tanks of Pak Army, admirably.

Chapters X – XV cover the events between 1966 and 1971 War, Ex Brasstacks, Operation PRAKRAM 2001-2002 and, Operation RAKSHAK. Though fully geared for operations, unfortunately the **Regiment** did not get an opportunity to fight in the 1971 War, being part of a reserve formation. However, it was due to its excellent training and leadership that it moved to various sectors, often covering distances of 150 km in a night. A small detachment of the Regiment did participate in the Battle of Longewala . A total of 12 all ranks (including RMO, a JCO and 3 NCOs) of the Regiment laid down their lives , in this War.

The acclaims earned by the Regiment during Ex BRASSTACKS and Operation PRAKRAM have been very well supported by congratulatory messages received from higher commanders, especially for night navigation.

Part V covers the period from 1981 to 2016 –the Jubilee Years. The proud moments of Silver Jubilee Guidon Presentation by the Hon'ble President of India, the Golden Jubilee in 2006 where the COAS presented the Standard , and the Diamond Jubilee events of 2016, are narrated in detail.

In the last Part VI, the author shares his views on the future wars. He opines that 62 CAV is very well trained, led and motivated to full-fill any role in them.

The book has a number of photographs (covering regimental events, equipment and training events), Appendixes (of all important orders, award winners & other **appointment** holders), sketches and maps. It is very well edited, written in simple language and printed on glossy paper.

The author needs to be complimented for having researched and inter-acted with a large number of sources, especially of 62 CAV.

The book gives an insight on how a group of dedicated officers can weld their men and machine, and create a unit full of pride and battle worthiness, in a short period. It will inspire military and non-military readers, alike.

It is recommended for all libraries.

Lt Gen Y M Bammi, PhD (Retd)

The Complexity Called Manipur: Roots, Perceptions and Reality. By Brigadier Sushil Kumar Sharma, YSM (New Delhi: Viva Books Pvt Ltd, 2019), Page 372, Price Rs. 1295/-, ISBN: 978-93-88653-00-8.

Manipur has been an intractable conflict zone in India's North-eastern region for as long as the Jammu and Kashmir (J&K) conflict. The genesis of the conflict is also almost similar. A king with subjects of three main ethnicities (Dogra, Kashmiri, Ladakhi in J&K and Meitei, Naga and Kuki in Manipur) and an instrument of accession perceived to have been signed under duress and thereafter resented by a section of the people. But the difference between the two conflicts is the far greater focus on J&K on account of the Pakistan factor and the relative neglect of the problem in Manipur. The book "The Complexity Called Manipur–Roots, Perceptions & Reality" by Brigadier (Dr) SK Sharma is a welcome addition to the limited studies done on this neglected subject.

The author is presently serving as DIGP, Range Imphal, in Manipur. It is based on his extensive research, for his doctorate thesis, coupled with long years of service in the North-east, particularly in Manipur. Because of this, the author has a deep understanding of the conditions affecting the complex situations in Manipur. This has enabled him to analyse the roots, perceptions and reality of the problem in Manipur delving into the social and economic dimensions of the State. The book helps in understanding Manipur dynamics, raising most relevant issues and offering practical solutions to the insurgency in Manipur which, as on date, is the only difficult insurgency in the North-east.

The book, in eleven chapters, has covered multifarious and complex issues that seize this picturesque state and proposes 'way forward' for the stakeholders. The focus of this book is Manipur, a beautiful state in Northeast India sharing international border with Myanmar. She is described as 'The Land of Jewels'. She boasts of an ancient civilisation and a recorded history dating from 33 AD. There are different indigenous community groups inhabiting the state, who lived in peaceful harmony for hundreds of years. However, today there are myriad problems to be resolved in Manipur - the most important being the necessity to immediately bridge the divide, by and large along ethnic lines, between people settled in the hills and those settled in the valley of Manipur. The book

covers complex issues of Manipur like socio-economic roots and their linkages with history, factors sustaining the ethnic divide and areas of potential intervention for harmonisation, development disparities, complex land rights, illegal taxation and extortion by the militants, the Naga Peace Accord and its connection with Manipur and some other contemporary issues. Although there is no easy solution, various strategies have been suggested by the author to enable Manipur to achieve harmonious coexistence which will lead to its speedy development.

Though there are several books written on individual issues confronting Manipur today, this book makes an endeavour for overarching analysis of the ground realities affecting the lives of the people living in this state through an extensive survey conducted among the people of the state which adds to its value by providing objective and empirical data. The survey also helps the reader to glean the core feelings, emotions, and aspirations of the people.

On the basis of the author's research, an attempt has been made to suggest certain remedial measures which may help in resolving the issues plaguing the state. The ultimate wish is for this gem in the Northeast to slowly yet surely evolve into a calm and settled zone of tranquillity.

The author uses to illustrate his points takes the reader gently along the path to understanding the Manipur problem. He goes into the historical and geographical reasons even as he uses each chapter to illustrate his points on the issues ranging from extortion, blockades, illegal taxation and land issues. His research is detailed with adequate footnotes, bibliography and index and his style is layman-friendly though somewhat repetitive. At 272 pages less the appendices, the book is a little stretched on some aspects which could have been reduced, however overall the book adds to our awareness and knowledge of Manipur which is a sine quo non for any attempts to find a solution to this intractable conflict.

Shri Gaurav Kumar

First Line of Defence: Glorious 50 years of the Border Security Force. Edited by Anirudh Deshpande, (Delhi: Shipra Publications, 2015), Page 288, Price not indicated, ISBN 978-81-75418-41-7 The Border Security Force (BSF) has been playing a significant role in securing the borders of India. Though the BSF has been

involved in the border defence since last fifty years, it has not attracted the requisite attention in the academic scholarship. In early 2015, when celebrating Golden Jubilee of its existence, the BSF initiated the task of compiling history and appointed Anirudh Deshpande, a military historian to head this task. Assisted by a team of BSF officers and research scholars, Deshpande presents an authentic historical account of the Force.

The book details the history of the BSF since its inception. Prior to the creation of the BSF in December 1965, the Police of the Indian States bordering with Pakistan guarded the borders. But during the conflict in Rann of Kutch in early 1965, the police could not counter the Pakistan offensive and Indian Army had to be eventually deployed. This prompted the Government of India to raise an effective force to secure the borders. The BSF was thus raised on 1 December 1965 to serve as 'front line of defence against infiltration, smuggling and military assault' (p. 2). Distinguished Police Officer KF Rustamji was appointed as the Director General to monitor the raising of the BSF. The BSF works under the Army during conditions of hostilities.

Initially the BSF was built with the border police battalions and the reserves available with the State police. Some competent officers from State police services were also handpicked. In addition, officer cadres also included many emergency commissioned officers released from the Indian Army after 1962 and 1965 wars. Men of extraordinary physical fitness from rural areas were selected in particular to build up the Force. The BSF soon justified its raising. Within six years, it had matured into an effective instrument of border defence and played a significant role in 1971 War, earning 360 decorations/awards including one Mahavir Chakra, 11 Vir Chakra and 46 Sena Medal.

As a significant addition to the military history of India, this book sets the tone with a foreword by DK Pathak, the Director General of the BSF. The book is divided in five chapters with a select bibliography and list of interviewees at the end. The coloured photographs related to the life and deeds of the Force add to the value of the book. In early part of the book, the editor defines the concept of the border, its making, unmaking and shifting through the history. He analyses the historical and political context underpinning the formation and the purpose of the BSF and also

traces back the disputes on the Indian borders in the colonial regime. The existing confrontation on the borders is argued as related to Pakistan's desire to re-draw its border with India.

In the volume, the editor perceives threat perception at Indian borders mainly from Pakistan and China and to lesser extent from Bangladesh and Burma. The BSF, however guards the borders with Pakistan and Bangladesh. It operates in varied terrain on borders, including salt waste land, marshy stretches, sandy deserts, high hills, swampy and creeky Sundarbans, and densely forested hilly regions. Most of these border areas are highly deficient in basic amenities like electricity, water, accommodation, roads, etc., and some are even prone to smuggling. These add to the challenges on the way the BSF deals with the border issues. In addition, the book also discusses the measures like creation of fence and analyse their effectiveness in better border management.

Occasionally, the BSF personnel are also deployed in counter insurgency operations. They have played a major role in containing insurgencies in North East, terrorism in Punjab, militancy in Kashmir and left-wing extremism in central parts of India. The BSF also fought along with the Indian Army during military engagements. During the 1971 War and Operation Vijay (Kargil War) in 1999, the BSF played a significant role. Many a times, BSF personnel have also served in peace keeping missions of United Nations Organisation in countries like Namibia, Cambodia, Angola, Bosnia, etc. At times, the BSF has been tasked to control strikes, riots, etc. to maintain law and order in different parts of India. During national calamities, such as earthquake in Bhuj (2001), Tsunami (2004), Kosi flood (2008), etc., the BSF personnel carried out rescue operations and provided medical care and succour to the victims.

The book presents the multi-faceted role and moulding characteristics of the BSF, which has kept on adjusting itself according to the tasks and type of problems. The BSF has proved to be an important instrument in the hands of the constitutional authorities to deal with various national and international issues besides its primary role of securing the borders. The book is an engaging narrative and makes a fascinating reading. It is hoped that it would prove inspiring to the officers and men of the Force.

Dr Narender Yadav

The Forward Looking Manager in the VUCA World. By Vikram Bakshi, (Sage Publications India, New Delhi), Page 284, Price- Rs-450/-, ISBN: 978-93-866-0231-2(PB)

VUCA is an acronym to describe or to reflect on the volatility, uncertainty, complexity and ambiguity of general conditions and situations. It is drawn from the study of military leadership theories using management concepts. The author, Lt Col Vikram Bakshi retired after 21 years in the army and joined the corporate world. Based upon his experiences in both the worlds, he has written a book that provides guidance using the VUCA framework to meet the challenges of managing and executing projects. In the book he has embellished each concept with real-life examples from the military world. The end result is a book which is of utility to a civilian manager, a military veteran attempting to understand the situations in the corporate world and serving military personnel who could find aids to military situations through management concepts.

The book is laid out in 12 chapters. The author, after initially covering character and leadership concepts, enlightens the reader on countering VUCA situations with disruption of those methods which breed lethargy and resistance to change and also with advance information. The latter in military terminology is intelligence on what is to be done, how it was done earlier, and the practices of competitors. He follows this up with an orientation to avoid VUCA situations. He then goes on to tactical, operational and strategic planning for VUCA futures and how to execute projects in VUCA conditions. His concluding chapters deal with monitoring and control which involve feedback and quality control; the hybrid leader who can do both planning and execution; closing of the project which requires the same intensity as planning and beginning it; lastly, the technology to help countering VUCA situations.

The language of the book is simple and the real life situations or excerpts of military situations are interestingly woven into the narrative. The book is neatly printed with hardly any printer's devils. This book helps managers master the art of dealing with VUCA by providing relatable experiences from the armed forces and advocating the use of Reach-Act-Convert-Engage (RACE) methodology. This methodology requires contingency planning, daily or real-time monitoring, maintenance of quality and finally doing a cost-benefit analysis. The book advises managers on the leadership traits needed for successfully completing projects by

cutting losses and preventing chaos. Reasonably priced, the book is a useful read for all managers involved in operations, supply chain logistics, and production and manufacturing portfolios. Military veterans who are starting a second career in the corporate/private sector will greatly benefit from reading this book as it will reinforce the management knowledge they had gained in uniform and help them apply it to the corporate world's VUCA challenges.

Lt Gen Ghanshyam Singh Katoch, PVSM, AVSM, VSM (Retd)

Tibet: When the Gods Spoke, India Tibet Relations 1947-1962, Part – 3, July 1954 – February 1957, by Claude Arpi, (Vij Publications, New Delhi, 2019), Page 583, Price Rs 1650, ISBN: 978-93-8661-56-5.

This volume provides a dispassionate account of the consequences of Chinese presence on the Tibetan Plateau, as it led to the intrusions into Barahoti, Uttarakhand (Central Sector) and the construction of the highway across the Aksai Chin linking Sinkiang with Tibet. It also highlights that coloured by the tinge of socialism, India-China Friendship and China's use of deception, despite numerous reports to the contrary the decision makers of the period refused to accept these. The price of these follies is evident today, in hindsight.

On the diplomatic front it covers Zhou en Lai's visit to India in June 1954 and culminates with the Dalai Lama and Panchen Lama's visit to India for the 2500th anniversary of the birth of Lord Buddha. It also covers the intense diplomatic lobbying by the Chinese to ensure that both Dalai Lama and Panchen Lama return to Tibet post the celebrations.

The book comprises 25 chapters that flow easily from one to the other. The main theme is that the decision makers did not read the signs and reports correctly, laid more faith on India-China friendship, and failed to assess the impact on India's security by having an aggressive China across its Northern Borders, in Tibet. The language is clear, crisp and easy to read and there are no factual errors in the book.

Very well researched book, it contains a wealth of knowledge for the avid student with the official reports, decisions by the policy makers and a brief analysis. It adds depth to the existing knowledge on the subject and provides fresh light. It has extensive citations and a good collection of maps (not to scale).

Maj Gen Rajiv Narayanan, AVSM, VSM (Retd)

100 Ideas to Improve Governance in India. By Shri JK Dadoo (New Delhi: The Write Place, 2018), Pages 250, Price Rs 299, ISBN: 978-9-38728-279-7.

The author of this book recently retired from the Indian Administrative Service after serving for nearly 35 years in various capacities, in five Union Territories and two central ministries (Defence and Commerce). He has distilled his experience and wide reading into exactly 100 nugget-sized ideas, each spelt out in less than two pages. They span a very wide range of activities in which the government can make a difference by doing things differently. These include the domains of finance, foreign trade, infrastructure, retail, ease of doing business, tourism, science and technology, civil aviation, conservation of both - monuments and the environment, rural development, agriculture, railways, telecom, women, education, sports, health, power, housing, food, media and entertainment, and arbitration. Curiously, although the author served in the Ministry of Defence for seven years, none of his 100 ideas pertains to this domain. This omission might disappoint most readers of this journal. Or perhaps, given the supposedly fraught relationship between the armed forces and the civilian defence bureaucracy, they might be relieved that he has not intruded into their territory!

Nonetheless, there is a wealth of ideas in this book. In the course of a short review. I can summarize only a few of them. The author's favourite idea (frequently mentioned in his various promotional talks) is installation of rooftop solar generation facilities in all ports, railway stations, bus depots, government buildings, educational institutions and even army bunkers. A very different idea, which impressed me as an economist, is his suggestion to encourage aggregators for air charters in order to match supply and demand (as Ola and Uber do for taxis). This will bring down chartering costs because operators will not have to load round-trip costs onto a one-way trip if they are likely to get a return booking. Another interesting idea is to replicate the business model of a pair of institutions in Odisha that charge market-based fees for professional courses in one branch in order to cross-subsidize free higher education for students from deprived backgrounds in another branch.

However, I didn't much care for another idea relating to higher education, viz. how to raise the profile of Indian institutions in the World University Rankings. Dadoo identifies the main problem as insufficient foreign students and faculty, and lack of collaboration with the world's top universities. But the real problem that is pulling down our rankings is high and rising student / teacher ratios. The capacity of classrooms, libraries, labs and hostels has also fallen far behind the rising enrolments dictated by the government. Bringing in more foreign students or faculty will only exacerbate this problem, and create a bad impression abroad. No Harvard professor (or exchange student) would want to be part of a postgraduate class of 300 students!

For most of the other ideas in the book, the author seems better informed about ground realities. He is familiar with prototypes, small-scale pilot projects, schemes and start-ups, both public and private, across an incredible range of sectors. He also has a sense of the magnitudes, problems, and cutting-edge technologies involved in scaling them up. Motivating the bureaucracy to implement these ideas, however, is likely to be a Herculean task.

Professor Aditya Bhattacharjea

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CAFHR-35*	"India in Flanders Fields" (Coffee Table Book) By Sgn Ldr RTS Chhina,MBE (Retd) and Mr Dominiek Dendoov	2000 en	2017
CAFHR-36*	"India in Flanders Fields" (Booklet) By Sqn Ldr RTS Chhina,MBE (Retd) and Mr Dominiek Dendoox	200	2017
CAFHR-37	The Iconic Battle Of Saragarhi – Echoes of The Frontier" by Brig Kanwaljit Singh (Retd) M/s Pentagon Press	995	2018
CAFHR-38	For The Honour of My House: The Contribution of the Indian Princely States to the First World War' (War and Military Culture in South Asia, 1757-1947 No-10) By Tony McClenaghan Publisher: Helion & Company; Publication City/Country: Solihull		2019
CAFHR-39	United Kingdom. "The Indian Army in World World I – 1914-1918" By Maj Gen Ian Cardozo, AVSM, SM (Retd)	1595	2019
CAFHR-40	M/s Manohar Publishers & Distributors "Riding the Wind – The Story of One of India's Greatest Test Pilots" By Wg Cdr P Ashoka (Retd) M/s Vij Books of India	850	2019

USI

(Estd. 1870) 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 peace-keepers, 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

very 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.

MEMBERSHIP

The following are eligible to become members of the Institution:

- Officers of the Armed Forces
- 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.

For further particulars, please write to Director, USI of India, Rao Tula Ram Marg, (Opposite Signals Enclave) Post Bag No. 8, Vasant Vihar PO, New Delhi - 110 057