

Thirteenth Colonel Pyara Lal Memorial Lecture Cyber Warfare and its Implications for National Security

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Ladies and Gentlemen, it is my privilege to be amongst you today to share some thoughts and exchange views on this relatively new 'Tool of War' that has entered the lexicon. This lecture, you are all aware, is in memory of Late Colonel Pyara Lal who served this fine institution for 30 years from 1957 to 1987 and died in harness. He rendered yeomen service to USI and the library here is named after him as our token of remembrance and gratitude.

Cyber War is supposed to be a new dimension, a new arena. Many of us must have seen numerous Hollywood movies, in which we see lots of things like bringing down dams, shutting down power plants, crippling industry and even diverting and disarming of enemy's nuclear missiles in their flight, just by a click of a mouse. What is hype and what is real? Where and how is this particular warfare waged and what it would mean to our security? Some of these are issues that I would like to touch upon in this distinguished gathering today.

Cyber Space is a term that seems to have been first used by William Gibson in one of his Sci-Fi novels. Many believe that it will be the fifth dimension to land, sea, air and space as a theatre for war, and conflict. This is a man-made construct and there is no concept of physical distances or boundaries here. It changes its configuration, its structure, both micro and macro, with time so often that it is neither consistent nor deterministic. If you, for instance, use Cyber Space to send your command or message you can never predetermine at what time it arrives and what route it takes. It may take different routes and arrive at different times.

If you take Cyber Space as an arena for war, we need to have certain clarity in terms of how it is defined and managed in different ways. But if you go through the available literature and records, there is no clear agreed definition even to this day. William Gibson, whom I had mentioned earlier, had defined it as "a shared virtual environment whose inhabitants, objects and spaces comprise data that is visualised, heard and even touched" but then, this is very abstract and conceptual. But most commonly, you would imagine the internet as a World Wide Web - an information sharing environment between computers - this is what everybody commonly thinks of as Cyber Space.

If we look at the US Joint Doctrine, this word is defined as "the notional environment in which digital information is communicated over networks." On the other hand, the US National military strategy for Cyber Space operations document is more specific and somewhat more different in their approach i.e. "...defined as a domain characterised by the use of electronics and the electromagnetic spectrum to store, modify, and exchange data via networked systems and associated physical infrastructure". It is interesting to observe that as per joint National Military Strategy the entire electromagnetic spectrum also forms part of Cyber Space and also in their view, includes exchange networks like Tactical Digital Information Links (TADIL) between command and control platforms and air, ground and sea weapon systems where some kind of network data links are present. While opinions on the gamut of cyber space may vary, it is important to remember at this stage that it definitely includes some of our critical infrastructure - that part which relies on or is connected to the information infrastructure.

When we begin to consider Cyber Space as a war arena, being a man made construct, it has all the frailties and fickleness of our own creations. We also need to consider the objectives of Cyber Warfare : What objectives would one like to realise, when we launch a cyber attack ?

Now coming to the question : Can Cyber Warfare or attack be a stand-alone activity or has it to be an integral part of a wider operation where other media are also involved like land, air etc ? In the military context, many experts feel that, for the present, it is more a force multiplier, than a force itself. But when it comes to economic warfare, the situation is very different. Then it can be strategic or tactical in its scope, nature and its effectiveness. If Cyber Warfare is considered as a 'War' then the standard norms, definitions and concepts of war should be applicable, such as deterrence. Can it be graded into a high intensity or low intensity conflict? Is the damage assessment on the enemy's assets possible ? After all, ultimately, when we talk of war, war itself has no meaning unless it inflicts some kind of unacceptable damage on the target.

How predictable are the efforts? Because of the randomness of the Cyber Space and its non-deterministic nature, the effects are not predictable as with other weapons. What kind of pre-conflict preparations does it call for? Every warfare calls for lots of planning and logistics et al. How do they manifest in Cyber Warfare? Can sustained strategic sabotage using Cyber attack be considered as an act of war? For instance, what kind of threshold is there to distinguish between an act of war and pranks, or Cyber crime? Is it repeatable in its effectiveness? After the first attack, the affected party may discover and close the vulnerability and afterwards that particular Cyber weapon could be useless.

Are there any rules of engagement? How do we control escalation? This is an important issue because if Cyber War is construed as a war in the kinetic sense then, the people who do not have the cyber capability to retaliate could resort to other forms of warfare including conventional warfare. Then, how do you control escalation? Are

there any international laws or conventions that control the Cyber Warfare? Not specifically. There is no Geneva Convention to control Cyber Warfare. There are also different views on this. Can it be limited to national boundaries and is the issue of sovereignty addressed? When it comes to Cyber Warfare, there are no physical boundaries. If an attack is launched from place X on to place Y, the attack could go through a number of other countries, not necessarily directly from territory of X to territory of Y. As a result, sovereignty issues crop up. Are you violating not just the laws of the target country, but also the laws of other neutral countries through whom you are routing your attack traffic?

Cyber weapons are basically software codes which can be spread across a network. They are most-commonly viruses - Worms, Spyware, Key loggers, Malware, Trojans, Bots and Botnets etc. Cyber weapons are very different from conventional ones and they are very easy to replicate. You can produce a number of copies without spending much money. Here, all your expenditure is in the creation of the first original. They are easy to disperse in large numbers, difficult to trace back. Since, traceability in this case is difficult and so is the deterrence.

Cyber weapons depend upon the targets' vulnerabilities. Cyber War is waged where there are vulnerabilities. If there are no vulnerabilities in the software and hardware of the target systems, you simply cannot break into cyber space. But fortunately or unfortunately, the systems are so complex, it is virtually impossible to have systems which are vulnerability free. As you evolve you correct one vulnerability and in the process you create some more. In addition, certain vulnerabilities are left there deliberately by the people who have the control over them for obvious purposes. Because of this, Cyber weapons are sensitive to time and space in the sense that if they work today, tomorrow these may not work because those flaws have been corrected. And whatever Cyber Weapon you have developed, it is ineffective once that particular flaw is closed. You now have to look for new flaws and new vulnerabilities. You all are aware that Cyber Space software is fast-changing and fast evolving. So your weapons and tools also have to evolve with equal speed and alacrity otherwise they become useless. Also, if you expose your knowledge of a vulnerability, you lose out on that vulnerability. You have to be very secretive. This is also very important.

Some time back mention was made about the critical infrastructure of a nation. If you see critical infrastructure like power, distribution networks, dams, power stations etc. for both economic reasons as well as for the purpose of convenience and efficiency, their operations are getting automated. A standard called Supervisory Control and Data Acquisition (SCADA) is the standard that is used in many of these infrastructure facilities to control their operations. Economics drives the need to make products cheaper and reliable so that customer is satisfied. These are the two most important factors as far as a customer is concerned. As a result, designers and manufacturers try to choose known, well established standards like Internet Protocol Standards, SCADA etc. The advantage is they are already developed. It makes tremendous sense for any utility to use systems based on such existing technologies to cut costs. Secondly, they have been tried and tested thoroughly, and as far as the reliability of operations is concerned, it is the best they can get. This is what drives the industry to go for these standard protocols and the standard practices. But from the purely security point of view, it has a disadvantage. The disadvantage is that they are known to everybody and many people discover vulnerabilities and develop techniques to exploit these vulnerabilities. So this is the negative side of going for this well known and established standard protocols and standards of software and hardware. That is the reason why, some of these systems are increasingly vulnerable to Cyber Warfare and cyber terrorism attacks.

What kinds of threats do you expect from Cyber Warfare?

- (a) For an **intelligence gathering purpose**, a tool for cyber information gathering and espionage. This is much easier to use and with much more potential for damage, compared to any other type of espionage. What makes it different from others is that you achieve results without taking as much risk, without spending as much money as you do in other forms of espionage. Therefore, this is very different from that point of view from other forms of espionage.
- (b) **Information warfare** is very well known concept and need hardly be dwelt upon.
- (c) **Insider threat** of course is the most difficult and most tricky aspect in cyber warfare and cyber security. Insiders have knowledge about your vulnerabilities and your configurations and it is easier for them to launch and to hide behind some anonymous sources.
- (d) **Hacking** attracts press attention activities such as defacing websites etc. Most often they are more of a nuisance value than of any strategic military value, unless some people are careless enough to put sensitive information on their sites. But otherwise, the hacking of websites etc is not considered as major threat of cyber warfare. In fact, the people who want to resort to Cyber Warfare rarely want to be seen or heard.
- (e) Then there are the **Hacktivists** who have some political or social objective or some religious objectives based on which, they do hack into sites and post say their messages. Of course, they also command more of a nuisance value with a difference that they are more organised. So sometimes their potential damage can be much more than the random freelancers.
- (f) There is another breed that one should be very careful about. There are a few people whose **profession is writing 'virus software'**. This is a very standard threat that many of us face without knowing it.
- (g) **Criminal groups indulge in cyber crime** and it is a source of huge economic losses to the industry. Every year billions dollars worth of losses are reported across the world because of criminal attacks in the Cyber Space.

Now coming back to views on cyber warfare, there are two views: James Lewis calls these Cyber Weapons as weapons of mass annoyance. During the Second World War and after that, a survey was conducted on the

effectiveness of strategic bombing on Germany. They felt that such an onslaught will be so disastrous that it would paralyse and cripple their entire military and economic machinery. But, interestingly, what they discovered was that the industrial production actually increased during the two years under the bombing. The reason was the resilience of the system and its ability to adapt. They found ways and means of averting and circumventing the problems created by the bombing. So, his argument is that even if the infrastructure is attacked in the warfare context, ways and means are found to avert and circumvent the problems and the attacks may not be as effective as people are making them out to be. In his view, "Information warfare and information security have become critical elements in successful military operations. But no nation has placed its military forces in a position where they are dependent on computer networks that are vulnerable to outside attack. This greatly limits the effectiveness of cyber weapons." So according to this school of thought, they felt that Cyber attacks are not as much of a catastrophe as projected.

"Cyber attacks however do have a potential for imposing an economic cost far out of proportion to the price of launching the attack" as I was mentioning in the case of espionage. This brings in the other view viz., "The average annual cost from tornadoes, hurricanes and flood damage in the US is estimated to be 11 billion dollars. In contrast, the Love Bug Virus - one of the viruses which were used in attacking a lot of networks in the US and other countries as well, is estimated to have cost computer users around the world between 3 to 15 billion dollars - just one virus." This is pure economic cost in terms of loss of time and information and all kind of outages that might have been created, and customer compensations companies might have had to make. So on this issue, there is total consensus among all the people, that as a tool of economic/ commercial warfare, it is a tremendous asset. Many experts believe that digital pearl harbours are unlikely because infrastructure systems have to be necessarily resilient. They deal with the failures on a routine basis and have mitigating strategies in place and are designed to be more flexible and more responsive. These are the issues which are generally applicable to the industrial society and may be to others to a different extent.

As internet and internet based economy or network based command and control systems and weapons control systems grow, the vulnerability to Cyber attacks increases. as long as Networked Systems exist, vulnerabilities will exist. In theory, every networked system is potentially vulnerable.

Let us see, what are the doctrines or views, expressed in different countries on cyber warfare. It is clarified here that the views brought out here are not necessarily their official line. In some Russian literature very strong views are expressed. "From a military point of view, the use of information warfare against Russia or its armed forces will categorically not be considered a non-military phase of a conflict whether there were casualties or not . . . Considering the possible catastrophic use of strategic information warfare means by an enemy, whether on economic or state command and control systems, or on the combat potential of the armed forces . . . Russia retains the right to use nuclear weapons first against the means and forces of information warfare, and then against the aggressor state itself".

If you look at China, very interesting views are put forth. Cyber warfare is seen as a "transformation from the mechanised warfare of the industrial age, to a war of decisions and control, a war of knowledge and a war of intellect."2 The Chinese concept of Cyber Warfare incorporates the unique Chinese views of warfare based around the peoples' war concept. Much of their emphasis in their approach is on deception, knowledge style war and seeking asymmetrical advantage over an adversary. In my view they have a strategy and they are implementing it in right earnest. Continuing the views from China, Qiao Liang and Wang Xiangsui of PLA, in their book "Unrestricted Warfare", claim that "warfare is no longer strictly a military operation and that the battlefield no longer has boundaries". The authors also assert that "war has not disappeared, but its appearance has changed and its complexity has increased". (Not an officially endorsed policy, but seems to have some degree of acceptance). A statement attributed to Chinese Major General Wang Pufeng in 1995 states, "In the near future, information warfare will control the form and future of war. We recognise this developmental trend of information warfare and see it as a driving force in the modernisation of China's military and combat readiness. This trend will be highly critical to achieving victory in future wars."

The USA is leading from the top because they are more often than not, the technology creators and the technology drivers. Their Joint Vision 2020 states that the continued development and proliferation of information technologies will substantially change the conduct of military operations. And that the changes will make information superiority a key enabler. Recently, they have also created 24th Air Force and US Cyber Commands. Apparently this is the first published establishment of Cyber warfare in the USA and it joins the historic domains of land, sea, air and space.

Supply Chain Control is another very important aspect. When we buy systems, sub-systems, components etc for use in our critical infrastructure that have cyber electronics component, they could sell these with vulnerabilities built into them, without your knowledge of course. And they can exploit them when they need to. The British donation of Enigma cipher machines to other nations after World War II was reportedly with the intent to gather information these nations were passing through. According to some reports, system controller devices brought from black market in the Soviet Gas Network is another case. Apparently during cold war, the Russian company wanted to get the American sub systems, but being a communist country, they were banned for export. They therefore, purchased sub systems and components from the black market which were reportedly incorporated with certain vulnerabilities in them by the supplier, designed to malfunction when required which would lead to pipeline explosions. This is a point that has been made public after the Freedom of Information Act was passed. We do not know whether they were actually operated during Cold War to create any destruction but certainly there existed the potential.

No discussion on Cyber Warfare will be complete unless one mentions about the recent events in Estonia and Georgia. The unprecedented electronic attacks on Estonia in May of 2007 clearly bring out the dangers. When Estonian authorities began removing a bronze statue depicting a World War II-era Soviet soldier in Tallinn

(capital of Estonia), the internal protests were insignificant compared to the external response that far exceeded their wildest expectations. What followed was what some have described as the first war in cyber space, a month-long campaign that has forced Estonian authorities to defend their nation from a data-flood that they claim was initiated on orders from Russia. The Russian government denied any involvement to the attacks that came close to shutting down the country's critical digital infrastructure by clogging the websites of the President, the Prime Minister, Parliament and other government agencies, as well as staggering Estonia's biggest bank and the sites of several daily newspapers. Most of the attacks were of the DDoS type (Distributed Denial of Service) using a giant network of zombies machines or so-called botnets that included perhaps as many as one million computers. These botnets greatly amplify the impact of this type of assault. As a sign of their considerable resources, there is evidence that the attackers rented time on other botnets. According to sources, the 10 largest assaults blasted streams of 90 megabits of data per second at Estonia's networks, lasting up to 10 hours each. That is a data load equivalent to downloading the entire Windows XP operating system every six seconds for 10 hrs. The cyber attacks in the Baltic state of Estonia in early 2007 managed to disrupt that country's financial system for a few weeks; however, it did not destroy it.

International Laws on Cyber Conflict and Rules of Engagement. Mr Hollis, one of the experts in cyber warfare opines that under international law, a country that considers itself the victim of an act has a right to self defence with conventional military (not merely electronic) means. In other words, if you define a particular act in cyber space as cyber war, then you have the right to retaliate even if it means retaliation through conventional war. So, this is the reason why it is felt that there should be a much clearer and a definite set of international rules and conventions. In land, sea and air battles, international boundaries are easily defined. When somebody enters your territory with force, it is a very clear event and can be easily seen. It is not so in Cyber Warfare. In addition, the international community has defined things such as, when an adversary's use of force threatens a nation's territorial integrity and political independence etc. No such concept exists in Cyber War.

There is another view. I think this is a more liberal view. Cyber space relies heavily on other physical domains to operate, and International laws exist that govern the physical domains but when you are sending a malware to another country - via X country to Y country, you are violating the laws of that country as per the existing laws. But the question is how to operate the law in this case. It is not easy. The far reaching nature of cyber space generates jurisdictional challenges and as we have mentioned that it traverses through so many countries. Nobody can easily decide in Cyber Warfare whether it is a civilian violation or military violation.

Now coming to the Indian IT Scenario: There is huge amount of growth in State Wide Area Networks (SWAN's) - internet in other words. 25 mission mode projects are coming up in economic and industrial area. This is in addition to the private industry which is itself having huge operations, and setting up huge networks. If a large Indian IT industry is threatened, it is a national threat. Whether private or public, this entire network is critical from National Security point of view. Unfortunately, security is not high on our priorities in most cases.

In the Indian context, we also have near total reliance on external sources for hardware and software which includes operating systems, application software and most importantly all anti-virus, network protocols, computer and network hardware components et al.

Here again, there is a conflict of interest between economic growth and security and as always, economic growth takes precedence over security. Unfortunately, that's the reality.

Now I have come to the other aspect of cyber war, which not many people talk about. Hardware is as much susceptible to cyber warfare as software. Back-doors and malicious circuitry can be hidden inside counterfeit hardware and software - all the way down to 'Basic Input Output System' and instruction-sets inside of integrated circuit chips. It provides a covert attack vector and can be exploited.

The Israelis reportedly bombed a Syrian radar base in 2007. After this was done, there was a lot of debate amongst the professional bloggers and security experts about the incidence as reported in the Institute of Electrical and Electronic Engineers (IEEE) spectrum. The Syrian radar could not detect the coming of Israeli aircraft. Bloggers have a view on this. What they say is that this Syrian radar has been fitted with a kill switch, a kind of vulnerability in the hardware and at the time of attack, this particular vulnerability was activated and the radar was rendered useless. They have speculated that the 'Commercial Off The Shelf' microprocessors in the Syrian Radar might have been purposely fabricated with a hidden "Backdoor" inside. By sending a pre-programmed code to those chips, an unknown antagonist had disrupted the chips' function and temporarily blocked the radar. There is of course no proof for this. Even the US is concerned about this because a lot of US manufacturing is outsourced to China and other countries. It has become a big issue now for the USA too.

As a result of all these hardware related concerns the US DOD have recently launched a programme called Trust in Integrated Circuits Program. This programme is meant for establishing very large sophisticated and trusted facilities to test critical electronic components for such hidden bugs. If the Americans are doing that and spending so much money, then it surely means something and we must take note of this too.

Of course, countries like us may not be able to spend that kind of money. We should use our ingenuity. We should use our own native talent and do our best to mitigate this problem and act together as a nation. Most essential for any form of resilience is a full understanding and control over the technologies and systems of the infrastructure, cyber security awareness and education. So, lots of effort must be put into analysing and understanding nuances in these areas. At least some of the components and sub-systems which we import must be thoroughly tested. We must ensure that all critical systems use components only from a selected parts list which has gone through this kind of analysis.

Sanitisation techniques and strong cryptography, good security enabled commercial information technology etc.

are very important. This is one simple way of ensuring security of critical information. It must be increased manifold. We simply do not have even a fraction of what we need in India. This must be tackled on a very large scale.

We may not become a super power in hardware, but at least we can take care of many things that are critical if we can get our act together and in time. Security Software engineering and software assurance is still not a very profitable profession in India. The latest IT act amendment addresses this issue. It calls for the establishment of separate nodal agency for critical information infrastructure protection. These things would hopefully alleviate some of the dangers that we face.

As regards, what the future portends? Tools and techniques of Cyber Warfare are presently accessible to non-state actors and other technologically less endowed entities – giving them certain advantage of asymmetry. There are no super powers in Cyber space currently. Anybody who has knowledge and techniques can be a super power as it stands today.

In future however, we can expect a concerted effort to lift this total paradigm to much higher levels of technology and sophistication in order to deny this advantage to the lower-technology level entities. This will happen through the use of new generation hardware and software. There will be a shift in the battle from something that is accessible to everybody to only a select few. This would also ensure continued and much stronger advantage in favour of the technologically advanced countries.

Future Cyber War Scenarios

Scenario 1: Sustained strategic low – intensity economic Cyber Warfare. You will not even know about this. A large numbers of companies are there which are not so well protected on the internet but they deal through internet. So technologically superior countries can clandestinely access and get their business secrets. If it is done strategically for a sustained period of time, most productive companies can go bust and that will be an economic calamity for the affected nation.

Scenario 2: Supply chain controlled disruption / destruction of vital assets in times of crisis - you remain blissfully ignorant and continue to work with otherwise sophisticated components and sub systems, but when the day comes, you may not have the necessary safeguards to protect against a directed attack that exploits the deliberately hidden vulnerabilities.

Scenario 3: Supply chain controlled disabling of C3I and other military systems

Scenario 4: Strategic espionage for economic, military and political objectives.

All this is going on simultaneously. You must have heard what China is doing and there is nothing to stop them unless we keep developing our prowess in Cyber Warfare together with other ingredients of Comprehensive National Power. Integration of communication technologies with the internet would further increase the challenges dramatically.

Thank you.

* Text of the talk delivered at USI on 21 October 2009. Dr VK Singh was in the Chair.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

Bangladesh-India Relations :Looking Ahead*

H. E. Mr Tariq A Karim

First of all, please allow me to thank, the Director of your splendid Institution for inviting me and giving me this opportunity and platform to share my thoughts with you on a subject that is of more than mere passing interest to all of us here. I am really pleased to be with you here today at your reputed Institution which embodies the graduation of the Indian Armed Forces from being beyond merely valorous warriors. I have followed the growth and development of your Institution for several years and am impressed that it has continued to nurture its founding objective which is "the furtherance of interest and knowledge in the art, science and literature of National Security in general and of the Defence Services in particular."

I, therefore, feel privileged to speak before this august gathering about the bilateral relations between Bangladesh and India - their origin, present state, the challenges, and more importantly, the outlook for the future.

If one were to pick a specific time as the starting point of history, then perhaps one could say that the history of Bangladesh - India relations commenced with the Bangladesh War of Liberation in 1971, when the people and the armed forces of our two nations stood by each other shoulder-to-shoulder and fought against the brutality and occupation of Pakistani forces on Bangladesh soil. Together, they embarked on the first leg of journey that embraced pain, blood, sweat and tears and stretched out over nine long months. That journey ended gloriously on 16th December 1971 when the Pakistani forces surrendered to our Joint Command in Dhaka, closing the chapter on twenty four years of misrule, inequality, injustice and ignominy. Without the, political, economic, military, diplomatic and humanitarian support of the government and people of India, our struggle and agony would in all probability, have been prolonged for a much longer period entailing far larger scale of bloodshed and terror. We, the people of Bangladesh recall and acknowledge with deep gratitude this unstinted support and assistance that we received from the government and people of India at that fateful time of our need. We recall with mixed emotions, of sincere gratitude, great pride and deep sorrow, the supreme sacrifice made by the numerous brave soldiers of India who fought together with our valiant freedom fighters to help Bangladesh achieve its Independence. Thus, by helping us as a true and tested friend from the moment we embarked on our fateful journey, India became a partner of Bangladesh and sealed an unwritten charter of friendship with the hallowed blood of its own sons.

But picking a specific point of time in history is always a dangerous thing, because history in a sense has no beginning and no end. It just is, and moves forward inexorably. I could assert with equal certainty, looking back at the sweep of history, that perhaps the seeds of our shared journey were sown as early as March 1940, when Husein Shaheed Suhrawardy, that great leader of Bengal who was Chief Minister of United Bengal at that time, went uninvited to the Conference of the All India Muslim League at Lahore and pleaded passionately for a different vision of Independence from colonial Britain, in which he envisaged Bengal forming a commonwealth of partnership with adjacent regional states or entities. Sadly that did not happen, and India was partitioned, as indeed was Bengal. The Bengalis' speedy disenchantment with the new configuration was sparked by no less a person than the founder of Pakistan, Mr Jinnah, with whom must squarely rest the responsibility for kindling the spark that finally was to result in the Bengalis rejecting the use of religion as the logic for State formation and consolidation, and wresting back for themselves their own space based on nationalism, secularism, pluralist democracy and equality-based societal development, and progress of all its people. The progression of the germination and growth of that seed sown in 1940, to its final blossoming in December 1971 is also the history of a long struggle of the Bengali people of East Pakistan against authoritarianism, military dictatorship, economic deprivation and political disenfranchisement, that was also a relentless struggle for secular, pluralist democracy, economic and political autonomy, and self-determination.

The second leg of our journey commenced immediately following liberation, with the Awami League taking over the reins of government of the new Nation. We progressed fast, particularly under the leadership of our Father of the Nation, Bangabandhu Sheikh Mujibur Rahman. Perhaps we progressed too fast, in a sense, because that progression triggered off forces and events that led to the brutal assassination of Bangabandhu, almost his entire family, close associates and relatives, and abruptly disrupted our relations. But today is not the time to go into that saga in any great detail. Neither is today the time to dwell masochistically on what went awry in our relations after we became Independent, although we could perhaps touch on aspects of that when we come to the interactive session. We are here today specifically to try and peer into what the future holds for our relationship.

Any such exercise in futures must be predicated on the inescapable fact that not only is the post-colonial political history of Bangladesh-India relations born out of blood, but that, there is much more that stretches out over millennia that should bond us together. I refer here to our shared rich legacy of history, cultural forms and values that draw and knit us together, and the reality of geography that glues us together like conjoined Siamese twins who cannot be separated by any surgical procedure. One of the strongest knots that notably binds us is that we both subscribe to democracy - we are two of the notable democracies in South Asia, one the largest in the world, the other the second largest in South Asia. India is the largest democracy in the world where democratic rule and its institutions and systems have developed deep and strong roots nurtured assiduously, consistently and unwaveringly by its peoples since India's Independence from colonial rule. In Bangladesh, democracy had gone through many vicissitudes but the people's trust in it and fixation with its idea and ideals is unshakable and the struggle to consolidate this process continues, even today. Additionally, we both have inclusive societies where we celebrate unity in diversity. And, very importantly, for both our States, secularism is a cornerstone of our Nationhood, regardless of the majoritarian faith.

Apart from these positive shared attributes and beliefs, we also face some common challenges. We both have a common fight against illiteracy, poverty, disease, mistrust and conflict, underdevelopment or uneven development and social conflict, and spotty governance issues that have had mixed reviews from both domestic and international juries. And now, we both face the common challenge of global warming and climate change.

However, it is most unfortunate that we have, for the greater part of the last 38 years, been unable to benefit from our commonalities. For far longer than I care to recall, we have not been able to come together and cooperate in any meaningful manner. This negative pattern in relationship dogged us both for the greater part of our post-colonial history since 1975 - except for a brief interlude between 1996-2001 when the Awami League under the leadership of Sheikh Hasina, daughter of our Nation's father, returned to power after almost two decades in the political wilderness. Our relationships have been marred, more often than not, by wide mood swings related to domestic political changes that served to nurture more mutual distrust between us than fostering mutual trust. This distracted both sides hugely, detracting from forging a common strategy to marginalise common challenges with the objective of overcoming them collectively. The agents of a natural bonding between peoples, that should have transcended all negativities, were too often marred by sharp vicissitudes in attitudes to each other between governments that translated downward across a swathe of people.

But again, I come here not to dwell on the past but to look forward. But in order to look forward, let us first also take stock of where we stand today. Today, once again, our two countries find ourselves standing together at the same cross roads we found ourselves in, in 1971.

You must all be keeping track of what's happening in Bangladesh now. Following an internationally (and domestically) acclaimed free, fair and credible elections in December 2008, once more an Awami League government has taken office in Bangladesh in January 2009. It is an elected Government that in its elected campaign promised change, return to democracy and re-securing Bangladesh's pristine secular and tolerant ideals. Going against the conventional wisdom of the day and defying machinations of some, the Awami League (AL) - led 'mohajote' won a landslide victory securing almost three fourths of the elected seats in Parliament, thus winning a huge mandate. In this coalition government of like-minded partners, the AL is firmly in the driving seat. In fact, it was in a position to form the government on its own, had it so wished.

In India too, a secular government with similar vision and similarly huge mandate was also elected to power not long ago. In the United Progressive Alliance (UPA) government also, the Congress party is firmly in the driving seat, by far the senior partner. The wheel has turned full circle, and once again there is a unique alignment of political stars on the two sides. This has opened up a historical opportunity for both countries now to get their relations right, once and for all. While there was a similar alignment in 1996, it was a relatively weaker and more tenuous; reflecting the relative strength (or rather lack of it) in the overall domestic political landscape then extant. This time, the stellar consonance is strong. There is thus a window of opportunity that we both have to seize and work upon hard, quickly, to now put right all the things that went so wrong in the past.

Just as you and I individually are the products of our respective families and traditions, and our societal neighbourhood and environs, a country, any country, is also shaped by its familial and societal relationship drawn from its history, and its geographical configuration in the region and the larger world. We feel that there are three major aspects of our geographical location that make us Bangladeshis attach tremendous importance to our relationship with India, one way or the other:

- (a) First, proximity matters. The 1947 Partition threw a spanner into that. It was done in a manner which disrupted the interdependence on one another that had pre-existed among the different peoples of our sub-region. For instance, East Bengal used to be the hinterland of Kolkata. There were, and still remain cultural, social, political and emotional linkages between East Bengal (now Bangladesh) and Kolkata which are very natural. These commonalities can never be denied, and therefore, should not be overlooked.
- (b) Second, geography matters. Bangladesh's unique geography imposes certain limitations on our external dealings. We are almost entirely India-bound on three sides, except for a comparatively miniscule stretch of boundary with Myanmar. This makes India inevitably a critical factor in our foreign policy, in terms of our national security and economic interests. Additionally, we have 54 rivers - the main arterial system of our socio-economic body politic - that flow from India through Bangladesh into the Bay of Bengal. The Partition drew political boundaries across waters that in actuality do not respect such political divisions.
- (c) Third, location matters. It is to our advantage that Bangladesh is at the crossroad between South Asia and South East Asia - the two fastest growing regions of the world. But our location also has a downside. Although we have access to the Bay of Bengal, our cone-shaped coastline can make us potentially 'zone-locked', enclosed (or cut off) as we are (or feel) by India and Myanmar's exclusive economic zones. The increasing pinch of resource-constraints as we try to achieve an ambitious developmental agenda has raised the stakes for urgent delimitation of our maritime boundary that we cannot afford to keep pending for too long as domestic pressures start ratcheting up. A major aspect of our foreign policy efforts will be geared towards securing what we perceive as our right to the resources of the continental shelf adjacent to our coast on the basis of equity and fairness.

After having defined the backdrop, or the *mise en scene*, in which we live and breathe, let me now set out the drivers of our complex interwoven relationship. I will touch briefly on six major issues:

International Boundary Issues. We share over 4096 km of land border, of which a paltry 6.1 km still remain

unresolved 38 years after 1971, and 35 years after the Indira-Mujib accord. In a sense, we are still bearing the burdensome legacy of the unnatural division of 1947 and the arbitrary drawing of lines by a foreign stranger on a paper map. One of the main purpose of the Indira-Mujib accord, signed between the two governments on 16 May 1974, was completion of demarcation of land boundary, exchange of enclaves and adversely possessed territories. These issues must no longer be allowed to poison our relations, as they have a bearing on many other facets of our relationship. We must have the goodwill and determination to resolve these issues in one clean move, now.

Security Concerns. From insurgents to extremist militants, India's concerns are that these elements might be getting a safe haven in Bangladesh. Since 1975, successive governments in Bangladesh have consistently denied this. We also have some security concerns regarding India, in respect of criminals from Bangladesh often using India as their hideout. Perhaps the truth is somewhere in between. Instead of continuing to wallow in mutual self-recrimination that serves nobody's interests, we need to have the will to address and resolve these issues once and for all.

Trade and Connectivity Issues. We are aware that uneven trade between Bangladesh and India is inevitable. India is the cheapest and nearest provider of goods for Bangladesh, which are in natural demand. Bangladesh does not have the capacity to equate with India in trade. However, what we expect is that there will be equitable trade between the two countries and fair treatment of our exporters. We also hope that infrastructure would be developed in the border areas and non-tariff barriers would be removed for facilitation of trade and flows from Bangladesh to India.

On the Indian side is the long-standing issue of what we prefer to call connectivity. In this connection I may say that Bangladesh has already granted India connectivity through her waterways under the aegis of the Protocol on Inland Water Transit and Trade. There is also a thriving bus service between Agartala-Dhaka and Dhaka-Kolkata. We have also established rail connectivity through the Maitry Express train with regular - rail service between Dhaka and Kolkata. However, we need to expand this network. Towards this end, we need to restore and re-operationalise the rail links that had been severed in 1965. But in this, we shall need cooperation and assistance of India in upgrading our rail links. The Maitry Express train service also needs to be made faster and more people-friendly than it is now to popularise it. The same applies to the bus routes in operation, or those which may be contemplated in the future. We both need to seriously consider opening of new bus routes between Dhaka-Shillong, Dhaka-Guwahati and linking all these to our major port city, Chittagong. Again, for all this, we shall look to India for supportive gestures.

Dhaka and Kolkata are intensely connected now by air. No less than seven airlines are, providing service on this route. There are daily direct flights between Dhaka and Delhi, and regular direct air link between Dhaka and Mumbai. I am happy to note that the latent potential of further expanding rail, road and riverine connectivity are currently being examined seriously by the two governments.

Energy and Power Sharing. This is yet another area that has not been satisfactorily or seriously explored and represents missed opportunities. Bangladesh, like India, is a power-deficit country. We need to, therefore, seriously think about power sharing and trading. Sub-regional cooperation in this regard, taking a holistic view of the situation and looking farther than the distance of our own noses is urgently needed, and must be proactively pursued by all stakeholders in tandem as well as in concert.

Water Sharing. This is an emotive issue, as indeed Indians already are intensely aware from their own internal water-sharing disputes within India. We have 54 common rivers. We are aware that being a water-deficit country, India needs to harness its water resources to meet ever growing domestic requirements. We do not downplay India's needs. However, while catering to its own requirements, India also needs to ensure a fair flow and share of water for Bangladesh and also assure Bangladeshis that nothing that is done in India will adversely impact or harm Bangladesh. Ironically, although criss-crossed by so many rivers that high floods make Bangladesh appear from the air as numerous islands dotting a vast expanse of water, we are in actuality a water-dependent country. Our entire life style evolved from and revolves around rivers. We may recall here the landmark Ganges Water Treaty of 1996 between Bangladesh and India (signed during Prime Minister Sheikh Hasina's first term). This treaty is an epitome, of goodwill and cooperation that made a win-win situation possible for both the countries when finally resolved in 1996. We hope that it will be possible to arrive at similar win-win arrangements in respect of the other 53 rivers that we share, sooner rather than later. A perception on the part of Bangladeshis that India is unwilling to address these issues could have deleterious consequences for the dynamics of our domestic politics. It is as much in India's interest as ours that this must not be allowed to happen. The stakes are much too high this time.

People to People Contacts. The walls that people erect in their minds are harder than bricks and reinforced concrete, and the prisons in our minds that we create are as impregnable as they are difficult to break out of. Long years of deliberately keeping people across the broad spectrum of society apart from each other have only served to reinforce these self-created prisons, that have remained hostage to what I have described as a tenacious and unrelenting security syndrome. We need to determinedly break ourselves free from this psychological self-incarceration. Without promoting socialising of contacts across the length and breadth of our respective societies, we cannot ever hope to make real progress in rediscovering each other. Only then will our liberation and independence acquire real meaning and substance. Improving connectivity, therefore, not only in the infrastructure for flow of goods and services, but also totally free and unencumbered people-to-people contacts should now be a high priority goal.

People from Bangladesh come to India for numerous purposes such as medical treatment, education, cultural exchanges, visiting relatives, tourism and so on. We hope that India will encourage its people to visit Bangladesh. This contributes to promoting better understanding, and demystification and demythification of each to the other.

We both need to exponentially increase this interactive flow of people between our two countries. In the long run, people to people contacts will form the enduring bedrock that will help, nay indeed drive, the removal of barriers between us.

Future Portends - Looking Ahead

As you are aware, our Foreign Minister Dr Dipu Moni undertook an official visit to India in early September. During the visit, she called on the Prime Minister of India Dr Manmohan Singh, External Affairs Minister Shri SM Krishna, Union Minister of Finance Shri Pranab Mukherjee and Union Minister for Water Resources and Parliamentary Affairs Shri Pawan Kumar Bansal. She held bilateral talks with the External Affairs Minister on a range of issues pertaining to India-Bangladesh relations. The visit demonstrated the commitment of Bangladesh to strengthen bilateral relations. Each side showed a keenness to respond positively to the concerns of the other. The Joint Press Statement that emanated at the conclusion of that visit is by far the boldest and most forward looking document that has emerged from such a meeting, since 1975 (The same is at the Appendix). Both the Governments agreed on many issues including, inter alia, connectivity, water and power sharing, security and trade. The document in a sense is the road map that we intend to pursue, as well as, the skeletal architecture for our future relationship that we both have to labour intensively on, to flesh it out meaningfully and fully.

During Dr Dipu Moni's call on the Prime Minister of India, the Prime Minister mentioned that India attached the highest priority to its relations with Bangladesh. He reiterated his invitation to H.E. Prime Minister Sheikh Hasina to visit India at an early date, as it would write a new chapter in India-Bangladesh relations. We are expecting that our Prime Minister would visit India very soon. Both sides are now engaged in seriously doing the home-work required to ensure that the visit, when it takes place, will be a historic landmark and the harbinger of change, ushering in a new era of meaningful cooperation, friendship, goodwill and amity.

We want to place India at the forefront of our diplomatic relations. We see India as a country that would exert increasing influence regionally and globally. We see India's economic rise as one of the pivotal development of this century. We recognise India's strength as a pluralist democracy which is something that brings Bangladesh close to India. We in Bangladesh too wish to benefit from India's gains. At the same time, it is in India's own interest to co-opt Bangladesh in its own prosperity. May I recall here something that the late Rajiv Gandhi told us in early 1985, soon after he assumed the mantle of leadership of India: "It was, in India's own interest that Bangladesh should develop and become economically prosperous and stable, and that India should help Bangladesh in this endeavour." This prosperity should transform into symbiotic prosperity and development, benefitting people of both countries, the immediate sub-region and indeed, by extension the larger region.

One obvious aspect of our myriad challenges is their inter-connectedness. Rising poverty, illiteracy and the poor state of human development have made this region an ideal place for the growth of regressive and extremist forces with obscurantist and malevolent agenda. Our entire region has suffered from the menace of extremist violence and terrorism for almost two decades. Because of the inability of powerful elements in past dispensations to look upon these forces as inimical to the larger interests of peace and stability, and their propensity to succumb to the temptation of using these elements against each other to weaken or destabilise the perceived enemy, these extremist forces have gained ascendancy in our respective body polities. This has hampered our growth, by diversion of scarce and precious resources for securing ourselves, not merely against these malevolent human forces but also in our struggle to eradicate poverty, illiteracy and overall improvement of the lives of our common people. Much precious time has already been lost. We need to refocus our energies, taking full advantage of the unique point of history we find ourselves in now, when exciting new opportunities intersect age old challenges. Only through concerted cooperative efforts can we meet these challenges.

We must take it upon ourselves to isolate and vanquish the root causes of the malaise plaguing us and address them in a cooperative manner. We have to draw from each other's experiences, participate uninhibitedly in each other's prosperity and come to one another's rescue in times of crisis. It is through regional cooperation, or more specifically, sub-regional cooperation that we can usher in economic prosperity and eradicate with any degree of finality the challenges confronting us.

I have a dream! In Delhi, my primary objective and indeed mandate is to seek to exponentially improve and further build upon the friendly relations already existing between Bangladesh and India, to expand its scope and dimensions, to take it to new heights. I need your support and help to translate this dream into a reality.

We all must remember that we have to act responsibly, if we sincerely want this relationship to be a tool to improve the fate of our peoples. Our founding leaders proved their sincerity through their works and ideals. We must acknowledge that India has always been a friend in need for Bangladesh. I recall here with gratitude and appreciation the assistance and cooperation that India had extended to our flood and cyclone-affected people in 2007. Similarly, I may mention here the fellow-feeling of the people of Bangladesh for the ill-affected people of India. These demonstrate the true feelings of our two peoples for each other and they matter, immensely.

God (whether we address Him (or Her) as Allah, Bhagwan or Ishwar) and geography have placed us, inseparably together, and intertwined our destinies. It is said that people may change their neighbours, but they cannot change their neighbourhood. It is in our mutual interest and also in the interest of regional stability and prosperity that there be close cooperation and interaction between us. Bangladesh seeks to achieve this objective bilaterally and also through regional and sub-regional cooperation. Our common future is also the future of South Asia, so we must look forward with optimism and hope. As two South Asian neighbours, we need to make collective endeavours not only for our individual growth and development, but also for ensuring economic progress for the region as a whole. I can assure you on my part, we shall go the extra mile needed to achieve this goal.

Let us seize this historic opportunity and forge forward together hand in hand, for the best interests of our people, with mutual respect and affection for each other. Let not misperception and distrust detract us from our sallying forth on this exciting voyage ahead. At the same time, let us not sully the new relationship that we seek to build together, either by expectations of fawning obsequiousness on one side or perceptions of patronising attitude on the other.

I thank you all for your commendable patience in bearing with me. Thank you.

Appendix

Joint Press Statement on the visit of Foreign Minister of Bangladesh to India

Dr Dipu Moni, MP, Foreign Minister of the People's Republic of Bangladesh undertook an official visit to India from 7-10 September 2009. During the visit, she held bilateral talks with the External Affairs Minister of the Republic of India Shri SM Krishna on a range of issues pertaining to India-Bangladesh relations. Dr Dipu Moni also called on the Prime Minister of India Dr Manmohan Singh, Union Minister of Finance Shri Pranab Mukherjee and Union Minister for Water Resources and Parliamentary Affairs Shri Pawan Kumar Bansal. She was accompanied during the visit by her spouse Mr Tawfique Nawaz, Foreign Secretary Ambassador Mijarul Quayes, Director General (South Asia) in the Ministry of Foreign Affairs Mr Muhammad Imran and Private Secretary to the Foreign Minister, Mr Jishnu Roy Choudhury.

The visit was marked by warmth and cordiality and a commitment to strengthen bilateral relations. Each side showed a keenness to respond positively to the concerns of the other.

During Dr Dipu Moni's call on the Prime Minister of India, the Prime Minister mentioned that India attached the highest priority to its relations with Bangladesh. He reiterated his invitation to H.E. Prime Minister Sheikh Hasina to visit India at an early date. He expressed his hope that her visit would write a new chapter in India-Bangladesh relations.

During the official talks, the two Ministers noted the multifaceted nature of relations between the two countries and the historical and traditional bonds of friendship. They also noted that recent elections have provided both countries with a historical opportunity to take India-Bangladesh relations to greater heights. It was in this spirit that both Ministers discussed the entire gamut of bilateral relations and agreed on the following:

- Both sides recognised the need to expedite negotiations with a view to finalise an agreement for sharing of the waters of Teesta river. Towards this end, they agreed to mandate their respective Foreign Offices to meet and discuss the technical and other parameters of this issue. They agreed to immediately commence Joint Hydrological Observations on the river. They also agreed to undertake bank protection works, dredging of Ichhamati river and minor irrigation/drinking water schemes on Feni river.

- The Bangladesh side thanked the Indian side for the hospitality and cooperation extended to the Bangladesh Parliamentary delegation during their visit to the proposed Tipaimukh Dam site. In this context, the Bangladesh side welcomed India's reassurance that it would not take steps that would adversely impact Bangladesh.

- Both sides recognised the importance of bilateral and regional connectivity. In this context, both sides discussed designating Ashuganj as a new port of call under Article-23 of the Inland Water Transit and Trade Agreement as well as the use of Chittagong port by India. Bangladesh side agreed to provide access to Ashuganj Port to facilitate the transportation of the Over Dimensional Consignments for the Palatana Power Project in Tripura.

- Indian side agreed to facilitate Nepal-Bangladesh and Bhutan-Bangladesh connectivity.

- Both sides agreed to enhance cooperation in the power sector. India agreed to provide at least 100 MW to Bangladesh on a priority basis. Ahead of this, it will also undertake a feasibility study on power grid inter-connectivity for transmission lines, etc. from India to Bangladesh.

- Both sides agreed on the re-opening Sabroom-Ramgarh trade point as well as opening a land route at Demagiri-Thegamukh on the Mizoram border for bilateral trade.

- India agreed in principle to provide a Line of Credit for railway projects and supply of locomotives, coaches and buses. India offered to take up construction of Akhaura-Agartala railway link under Indian assistance.

- India also agreed to assist Bangladesh in the dredging sector.

- Both sides agreed to start Border Haats at the Bangladesh-Meghalaya border for mutual benefit of the people in these areas.

- Both sides agreed to movement of containerised cargo by rail and water for bilateral trade.

- Both sides welcomed the holding of the Joint Working Group on Trade last month and discussed broad economic issues with a view to fully activate all institutional mechanisms to promote two-way trade, initiate long pending trade facilitation measures and facilitate movement of businessmen and professionals.

Bangladesh specifically raised the issue of duty free access to Bangladeshi commodities, removal of Non Tariff and Para Tariff Barriers and improvement of infrastructures on the Indian side. Indian side expressed its readiness to assist Bangladesh in strengthening the Bangladesh Standards and Testing Institute. It also requested for removal of barriers to Indian investments and port restrictions for specific commodities.

- Both sides agreed to comprehensively address all outstanding land boundary issues. Both sides expressed their intent to resolve outstanding issues relating to Dahagram and Angarpota enclaves and the Tin Bigha Corridor. Both sides also recognised the need for electrification of Dahagram and Angarpota enclaves as a humanitarian gesture.

- The two Ministers reiterated their resolve to strengthen bilateral co-operation to deter the recurrence of

terrorist incidents. Both sides also reiterated their resolve not to allow the use of their territories for activities inimical to each other's security interests.

- Both sides agreed to conclude the following three agreements:

- a. Agreement for mutual legal assistance on criminal matters,
- b. Agreement for transfer of sentenced persons,
- c. Agreement on combating international terrorism, organised crime and illegal drug trafficking.

The two Ministers reiterated their conviction that opportunities for fruitful collaboration between the two countries in furthering mutual interests were enormous and resolved to remain engaged to expeditiously address all bilateral issues.

Bangladesh High Commission, New Delhi, September 10, 2009

*Text of the talk by **H. E. Mr Tariq A Karim**, High Commissioner of Bangladesh to India at USI on 28 October 2009, New Delhi.

****H. E. Mr Tariq A Karim** has also been the Deputy High Commissioner of Bangladesh to India from 1984-88. Apart from being a seasoned diplomat, he is also a distinguished academician who has a number of publications to his credit.

Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

The Talibanisation of Pakistan*

General VN Sharma, PVSM, AVSM (Retd)**

Taliban violence engulfing Pakistan is causing great concern in India and the world. Serious dangers appear to lie ahead if Pakistan should succumb to fundamentalist jihadi Islam with a termination of its pseudo democracy. Pakistan's nuclear assets are also in danger of falling into radical hands of terrorists or a rogue military force. In discussing these aspects we will consider the historical background of the conflict in the northwest frontier regions of Pakistan and the rise of Islamic jihadi fundamentalism. The free education of youth in madrassas will be reviewed and how a Taliban defeated in 2001 was able to rise again in Afghanistan. We need to examine the problems faced by the US in this region and what ails Pakistan which confronts a developing civil war. Finally, we must consider how India can react to safeguard our borders and what future policy appears necessary for USA.

The Northwest Frontier Province (NWFP) and Federally Administered Tribal Areas (FATA) regions of Pakistan, and of erstwhile British India, have a history of unremitting violence for hundreds of years. The restive Afghan Pashtun tribal groups revel in petty conflict and revenge as a way of life as they lack education, basic resources, civic systems and development. They have never accepted the Durand Line, established by the British Raj in the late 1800's as a boundary between undivided India (now Pakistan) and Afghanistan, and continued violent raids into British India despite concerted defence by the Army. How then has Pakistan effectively defended this border since its Independence in August 1947, while still conducting a number of wars and conflicts against a much stronger India?

Since the first attack into J&K State of India by Pakistani "raiders" in October 1947, Pakistan has organised the tribal groups of the northwest and destitute youth groups of the Punjab province, as a clandestine, ruthless 'Islamic-Jihad civilian army', acting as a back-up force to the Pakistan Army. They were well trained, equipped, paid and controlled through the aegis of their secret service, the Inter Services Intelligence (ISI), and the Frontier Corps. They have been used extensively in all Pakistan-India wars and for terrorist operations into Indian territory. They have also been used in the 1980s for the successful terrorist war against the occupying Soviet forces in Afghanistan with huge financial, armaments and advisory support by the USA.

Pakistan was thus able to create an effective 'defence' of their northwest frontier by the reorientation of various tribal lashkars (armed fighting groups) to jihad. This policy has given rise to independent and increasingly powerful fundamentalist terrorist organisations such as the Mujahideen and Taliban in NWFP, FATA and Afghanistan; and Lashkar-e-Taiba and Jaish-e-Mohammad based in Pakistan Occupied Kashmir and Pakistan. All are supported by the Army and ISI, backed by massive US funding, but are increasingly functioning on their own and defying control by the Army or ISI. Pakistan has so far only exploited their tribal regions for their own military advantage and industrial resources, with no governance or any effort to develop the criminal tribal areas or create jobs for poverty-stricken youth.

There has also been the massive increase in free "education" of millions of destitute children in FATA and Pakistan by thousands of 'madrassas', funded mostly by Saudi Arabia. A number of madrassas provide good all-round education besides religious Koranic studies. A large number, however, basically teach fundamentalist Islamic jihad. Pakistan has lost nearly two generations of their youth to Islamic education for jihad and terrorism, especially in FATA and NWFP, with substantial numbers having been converted to suicide bombers. Pakistan will face serious societal conflict in their tribal regions for the next 30 to 60 years, no matter how the present conflict ends.

The Taliban has re-established control in the countryside of Afghanistan after their defeat by coalition forces in 2001. This was nurtured by continued clandestine support of the Pakistan Army and ISI when US attention had shifted to Iraq. Pakistan still dreams of post-conflict control over Afghanistan for their stated aim of "strategic depth" in Afghanistan. This, however, indicates Pakistan's hegemonic designs in Central Asia and is likely to be resisted by the Taliban should they ever come to power in Afghanistan again. The US home population and politics is increasingly questioning whether their country is again getting more deeply involved in a "Vietnam-type" military failure, by backing a lame-duck and corrupt Karzai government. There is political resistance to the demand for further increases in the US troop strength, which are militarily necessary. The situation is unlikely to resolve any time soon, and until more statesmanship is displayed by all leaders involved, including those of neighbouring states.

With the US pressure and the series of recent terrorist attacks in major cities of Pakistan, the Army has finally moved against the Taliban in South Waziristan where fierce fighting is ongoing. For the first time since Independence, the Army appears to have seriously acted against their own jihadi tribals who have been used throughout for the Army's tactical aims against India and Afghanistan. This is an interesting development and perhaps bodes well for the future.

It is apparent that the elected civil government in Pakistan is endeavouring to gain some control over the Army and ISI, but this is contested by the Army Chief. The recent US grant of 7.5 billion dollars over the next five years under the Kerry-Lugar Bill also has stipulations of the US Government certifying that the aid is used for development under the civil government, despite objections by the Army. This indicates that Obama is changing the policies of previous US Administrations by giving increasing support to the elected civil democratic government, rather than backing the Military Chief. The US is also coercing the Pakistan Army into firm action against armed rebels. This too bodes well for future democracy in the region and is a positive sign of the US

policies changing for the better.

So what ails Pakistan? This nation was born and bred in hate for India in the holocaust of Partition. There is abiding envy at India's rapid growth with stability as compared to Pakistan's political and monetary travails, their utter financial dependency on first the UK and then the USA, coupled with poor political and military leadership. Pakistan also faces the frustration of not being able to achieve their aims in Kashmir or avenge their thorough defeat by India in East Pakistan in 1971. The USA and UK still take full advantage of Pakistan's vulnerabilities to proceed with their own perceptions of the required Western strategies to retain power, trade and financial viability of the West with control over resources and energy production of the Gulf and Central Asia. The encouragement of jihadi forces with clandestine funds and the opium trade out of NWFP is now going against the cohesion of the Pakistani State whose actions have raised the 'Frankenstein monster' which has now turned against its own people. There are a fairly large numbers of jihad sympathisers within the Pakistani military; these elements require control and specific defence of nuclear assets arranged with the US assistance.

What is the answer to this situation and can Pakistan survive as a peaceful stable democracy? The situation is rapidly evolving to some sort of solution by the raging armed conflict and large casualties. The US is presently stuck in Afghanistan and Pakistan, with well nigh forty thousand troops and no solution in sight. With the recent major Pakistani offensive against the Taliban in South Waziristan, there are good chances of some control over that region. But tribal hate for their Military and Government will only get worse until some peace deal can also be arranged, with sufficient funds set aside for concerted development and education in FATA, with creation of jobs for the youth. Meanwhile the violence is likely to increase as will terrorist attacks against high-value targets in Pakistani cities.

How then is India to act? At this juncture it will not be of any advantage to organise a military offensive against cross-border Pakistani terrorism. This may only serve to unite Pakistani warring internal factions and their Army, against a common Indian threat. Yet we must continue to adequately defend our borders and line of Control (LoC) and inflict heavy casualties on infiltrators. Adequate defence includes limited hard-hitting cross-border/LoC temporary actions, to limit or destroy infiltration groups and their concentration or support areas.

Our laws need careful change so that captured terrorists do not get easily released by our courts without punishment as at present. Our intelligence services require much more dedicated functioning with reorganisation and effective coordination between themselves, the military and civil administration. Superior modern technologies require to be inducted for all intelligence services, to improve acquisition of information and intelligence and for accurate evaluation with user agencies.

Diplomatically India must remain on the offensive against international crimes being committed by Pakistani terrorists shielded by their government. Our political leadership needs to acquire more 'spine and guts' and speak out against aggressive actions against India and be prepared to retaliate when in a advantageous position. We must continue our support to Afghanistan's people in alleviating their problems in daily living and providing essential needs of communications, transportation, electricity, water and medical succour, despite any resentment in Pakistan. We must also support the Pakistani people's desire for peace, good governance and democracy based on their Constitution.

India is growing more powerful, economically stable and self confident every day. But our inherent weakness of intense political dissention, greed in political office with growing corruption of officials, weakens our international stand and reduces our clout against Pakistan and jihadi terrorism. We need much better governance in every sphere and a determination in every political leader and official to always do right by the masses and the desperately poor, and never to exploit them for personal advantage. We need very severe punishment against all who are found acting to the contrary. If we are able to somewhat develop this internal cohesion and strength, India will be a stable and strong democratic nation which can help create a better world order and face up to the growing threat on our borders.

The USA must be motivated to 'go the distance' in this area and not abandon their aim of destruction of Al Qaeda and Taliban. They must help 'clean up' this region before they abandon it. India and the neighbouring nations of Afghanistan can greatly assist USA to support democracy in Pakistan and the civilian elected government. The problems of Pakistan could be easier dealt with if the Pakistan Army is encouraged or coerced to serve the nation and its government rather than itself. The elected government must be given the unfettered right to rule, without the Army's private agenda for its own political power in defiance of the law, with the excuse of the 'threat' from India.

The ISI must be brought under the firm jurisdiction of the elected government. Pakistan must also be deterred from hegemonic designs in Afghanistan. All funds and financial aid granted to Pakistan by the US and other donor nations must only be dedicated to development and correct job-related education, especially in the lawless tribal areas of FATA and NWFP.

This may take decades but is likely to help in converting Pakistan from a nation rapidly succumbing to terrorism and chaos to a useful member of the international community. Indians desire the status of a great nation; it does not befit us to be antagonistic and just watch the situation, passively awaiting whatever be the result in Pakistan. We need to give active whole-hearted support and sympathy to the people of Pakistan, their desire for democracy, their law, their culture and their very out-spoken, effective media. This may help in bringing a better peace to South Asia.

*Text of the talk delivered to the Cavalry Officers Association at USI, New Delhi on 12 November 2009 in the memory of late Major MAR Sheikh, VrC, of 16th Light Cavalry killed in action during 1965 War with Pakistan. Published in USI Journal "By courtesy of the Cavalry Officers' Association".

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

India's Strategic and Military Doctrines: A Post 1971 Snapshot

Colonel Ali Ahmed (Retd)*

Introduction

A state's strategic doctrine precedes its military doctrine. The political leadership determines the strategic doctrine in accordance with the nation's values and aims; and the military formulates the military doctrine to reflect and enable the strategic doctrine. Strategic doctrine can be defensive, offensive, deterrent or compellent. For instance, Switzerland has a defensive strategic doctrine that accounts for its defensive military doctrine. Hitler's Germany had an offensive strategic doctrine that was reflected in the offensive military doctrine of the Wehrmacht. India has a strategic doctrine of deterrence predicated on punishment. Therefore, it maintains a dissuasive defensive posture on the border, even as it has reserves to deliver a counter offensive. Example of a compellent doctrine is that of the US under President Bush. The military doctrine reflecting this was provisioned under Defence Secretary Rumsfeld through the military's 'transformation initiative' of early decade.

Strategic doctrine has been defined by Henry Kissinger as: "It is the task of strategic doctrine to translate power into policy. Whether the goals of a state are offensive or defensive, whether it seeks to achieve or to prevent a transformation, its strategic doctrine must define what objectives are worth contending for and determine the degree of force appropriate for achieving them."¹ Jasjit Singh concurs stating that, "The central driving force for planning for defence, whether articulated in specific documentation or not, remains the strategic doctrine for defence that the country adopts...The twin goals of credible and affordable defence capability really grow out of the national strategic doctrine."² Military power is a consequential component of grand strategy, since it is the ultimate arbiter. It is the visible manifestation of the state's strategic doctrine. The military reflects the strategic doctrine through its military doctrine. The effectiveness of the military instrument is not only a function of military budgets, sound strategy, leadership etc., but also of appropriate military doctrine. Morris Janowitz, termed military doctrine as the 'operational code' or 'logic' of their professional behaviour.³ Doctrine enables leveraging of military power for ends of policy.

This article traces the relationship between India's strategic doctrine and military doctrinal development since the 1971 War, given that it was a watershed in India's post-Independence military history. India's strategic doctrine has been one of deterrence based on counter offensive capability. But since deterrence was not sufficient to deter the threat from Pakistan in the form of proxy war, the Army moved towards a greater offensive bias in its military doctrine. This has culminated in the proactive doctrine of Cold Start that can be taken to countenance compellence in case of Pakistan's continued provocation.⁴ The article covers this ground by a decade wise look at the relationship between the two. It brings out the manner in which the Army has turned towards a more offensive doctrine by incremental shedding of the 'defensive' and 'reactive' mindset. This has culminated in the offensive content of the 2004 doctrine dubbed 'Cold Start'. It recommends further evolution of the doctrine in the articulation of a Limited War doctrine also, given that nuclearisation has to be contended with into the foreseeable future.

Seventies

In wake of the 1971 War, K Subrahmanyam outlined the national aim as: "India has to be strong enough to deter interventionism and aggression by other nations but at the same time should not adopt a posture which will induce fears in the minds of other nations." To him "India had no ideology to export and no big-power interests to defend." Instead, he required that India keep at "readiness adequate forces to deter China and Pakistan from launching an attack either jointly or individually and in case deterrence fails to repel aggression effectively."⁵ With respect to Pakistan, Subrahmanyam argues that "with a clear margin of superiority both in numbers and firepower, it should be possible to deter Pakistan from contemplating any more aggression against this country or invoking external political or military support to pursue a policy of confrontation against this country." ⁶ Thus India's strategic doctrine can be taken as one of deterrence.

The 1971 War represented a quantum leap in Indian employment of the military instrument, from defensive and restrained military operations to taking the war into the enemy's territory. Post 1971, doctrinally, refinements to the Ditch cum Bund (DCB) concept were undertaken. It was not dispensed with since it had been inspired in part by the experience of the Army at the Ichhogil Canal in the 1965 War ⁷ and was in keeping with military thinking elsewhere, such as the Bar Lev line along the Suez Canal. A writer wrote of the period: "Assuming that in the foreseeable future India's policies will be mainly defence oriented; the purpose of its defence policy would be to prevent war. The best deterrent to conventional war is the capacity to dominate by force any situation involving offensive action by the enemy. This is justification enough for maintaining a highly mobile and adequately powerful standing army (Choudhary 1976: 208)."⁸ Speed in operations was taken as necessary to undercut international pressures for ceasefire. Therefore an offensive capability was required to bring about gains in a short time frame that would be useful on the negotiating table. Carrying the war to the enemy territory required avoiding a frontal assault on his prepared defences. This meant having manoeuvrable forces in order to hit him in depth on his lines of communication, rather than merely inflict casualties. The refrain in service writings was that "In the next war with Pakistan, the deciding factor will be the superior employment of mechanised forces, with emphasis on armour."⁹ These ideas figured in the famous Rao-Sundarji report of mid seventies.

Eighties

To this decade can be traced the strategic dialectic that is ongoing to the present day. The hiatus of the Seventies in Indo-Pak strategic equations was broken by the invasion of Afghanistan by the Soviet Union at the turn of the decade. In the event, Pakistan profited from its 'frontline state' status, with knock-on implications for Indo-Pak security relationship. Of the US \$ 3.2 billion sanctioned in 1981 by the US Senate, US \$ 1.7 billion worth of credit was earmarked for arms sales. These included 40 F 16, AWAC type Hawkeye surveillance aircraft, Harpoon and TOW missiles, M 60 tanks, Vulcan Phalanx air defence systems, 100 sets of airborne and ground communicators, 100 M 45 A 5 tanks, 300 M 113 APCs etc.¹⁰ Pakistan's perception was that as the 'guardian of the Khyber Pass', it required a powerful military capability.

Indian strategists vehemently disagreed with this proposition. Cohen writes: "They saw a strong Pakistan as disruptive: their image of regional stability envisioned a Pakistan as an Afghanistan: a weak not a strong buffer."¹¹ Taking this view as an existential threat to itself, Pakistan even during the Soviet invasion of Afghanistan, did not transfer any forces for the defence of its frontier along the Durand Line. Its threat perception is based on geography since it has its major port, subject to interdiction or blockade close to the border; its population centres in Punjab are also within striking distance; and the bulk of the armed might of the two states is maintained in ideal tank country in the plains along the border. Given its size, location and terrain, it 'evolved a strategic style (italics in original) which may be called a strategic doctrine' of 'offensive defence'.¹² The doctrine envisages that in time of heightening crisis, Pakistan will not hesitate to be the first to employ a heavy use of force to gain an initial advantage. It is thought that a short, sharp, war would achieve Pakistan's military as well as political objectives. Its lack of strategic depth virtually dictates an offensive mindset. It sees war as an opportunity to bring international opinion to focus, though this involves a political risk. The doctrine hopes to achieve deterrence through raising the risk of Indian resort to war.

Pakistan went in for nuclear checkmating of India and fostering of a people's guerrilla war; experience in which it was then speedily accumulating in associating with the Central Intelligence Agency's activities with the mujahedeen. The nuclear capability would help neutralise an assumed Indian capability. The assumptions were that India has several nuclear weapons; that these are Pakistan centric; and that these could be used politically to paralyse Pakistani reaction by holding its population centres hostage in case of Indian action in Kashmir. It could also provide a cover under which the Kashmir issue could be reopened by checkmating a conventional Indian counter. It could be used to cover a bold conventional offensive in Kashmir in case the Indian leadership proved to be weak and indecisive. Of the second, guerrilla war, the idea of training and arming friendly populations in the neighbour's territory would help to 'tie him down in a hundred places'. However, Cohen assessed that resort to this would be unlikely since Pakistanis did not prefer 'Cambodiasation' that could result, as the situation in Afghanistan then clearly presaged.¹³ It is interesting that merely half a decade on, Pakistan was enabled to undertake this risky strategic choice by Indian mishandling in Kashmir and the departure of the Soviets from Afghanistan.

Indian strategic orientation in the period had two prongs – diplomatic and military. Among the many peace initiatives included efforts to bring about better understanding through discussion on drafts of 'No War Pact' proposal by Pakistan and a 'Treaty of Peace and Friendship' proposed by India and setting up of an Indo-Pak Joint Commission. Agreements have been reached on Advance Notification of military exercises and prevention of Airspace Violations by military aircraft. A bilateral agreement on non-attack on nuclear installations proposed by India in December 1985 was signed in December 1988 and finally came into force with the exchange of lists of locations on 01 Jan 1992.

In India, on the military front was a movement away from the defensive posture of the Seventies to an offensive posture. Therefore, the resulting 'carrot and stick' approach can be characterised as a strategic doctrine of deterrence, one inducing self-restraint on the other side. DK Palit opined that "maximum force has for all intents and purposes become outlawed as a value in military strategy. This is a development that we have to adjust to in this nuclear superpower age." These developments gave rise to a fusion between diplomatic policy making and the military conduct of war. Limitations were in setting of the aim, geographical spread and in use of weaponry, resulting in a de-emphasis on decisive battle and concept of maximum force.¹⁴ Palit's thesis of restraint was promptly challenged. Reflecting an offensive spirit, the author wrote: "The strategy of restraint has little meaning when two neighbouring countries with a record of short wars, engage in combat...However, in not being drawn easily into war will remain an option of National Strategy and not an option of Military Strategy."

The Eighties witnessed a pronounced move towards the offensive. In part, this was the result of the pursuit of mechanisation first under Army Chief, General Rao and then with greater vigour, under his successor General Sundarji. Thinking on offensive operations was cast in a more aggressive mode. The usual progress of operations involving breaking the crust of defences, establishing a bridgehead and breakout were seen as operationally unacceptable. The Commandant, College of Combat, required creation of a "viable strike force capable of being speedily launched into enemy territory for the capture of objectives in considerable depth...air mobility...mechanisation of these formations...and the armour content of the division increased and greater flexibility provided by the introduction of at least one more battle group headquarters...to do justice to the requirement to move fast and strike deep." On defensive operations, holding formations were to "introduce and practice with realism the capture of enemy positions across the border on the outbreak of hostilities; such actions would go a long way in ...furthering our offensive aims." He maintained that "unless this is practiced...it will be too much to expect our troops that are secure in pill boxes to get out to tackle the enemy defences...if we were to achieve any positive change in our present defensive approach we must reorientate our thinking and training on a completely offensive basis." ¹⁶ Thus, the force was being suffused with an offensive manoeuvre warfare orientation, with defensive operations seen only as a 'temporary phase'. Thinking along these lines culminated in Exercise Brasstacks, a brainchild of General Sundarji to test his mechanisation initiatives. In Rikhye's expansive, if controversial, take on the exercise the idea was to crash through into Sindh with 13 divisions.

The other aspect introduced in security calculus in the later half of the decade was the nuclear one, revealed in the famous AQ Khan interview with Kuldip Nayar. However, the highlights of the decade were Exercise Brasstacks; Indian pre-emption on the Saltoro ridgeline of Siachen in 1984; intervention in Sri Lanka through the Indian Peace Keeping Force; development of maritime mindedness and air modernisation.

Nineties

Three factors defined the Nineties for the Indian military. One was the proxy war by Pakistan; its continuance in Punjab and being fostered in Kashmir. The second was in declining defence budgets. Last was the effect of nuclearisation that was initially covert, but requiring the military taking cognisance of the emerging security situation. These had a retarding effect on the turn to the offensive seen in the previous decade. Thus, even as the threat heightened in terms of a more aggressive Pakistan, India could not leverage its power. Pakistani acquisition of the nuclear capability rendered India's conventional superiority questionable. Therefore the Sundarji era doctrine of 'deep strike' could not be employed with impunity. This detracted from credibility of India's conventional deterrent. Resulting Pakistani adventurism culminated in the Kargil intrusion in end decade, barely a year after both states had gone nuclear in May 1998.

By end of the previous decade, Pakistan had practiced, in Exercise Zarb e Momin, a doctrine of 'offensive defence'. A pre-emptive launch of its two strike corps' pincers was envisioned.¹⁸ The exercise attempted to incorporate lessons of the Air Land Battle concept and thereby can be seen as an answer to India's preceding Exercise Brasstacks. Under nuclear cover, initially a perception was that Pakistan could make a conventional grab for Kashmir. The conventional option was not in the foreground, though its existence did ensure that Pakistan kept the provocation below Indian tolerance thresholds. Despite constrained circumstance, India's conventional capability did ensure that Pakistan was deterred from escalating its military support to levels where India would feel compelled to allowing its superior military capability to be decisively used. Pakistan therefore persisted with its 'low cost, low risk' operation that had the diplomatic advantage of 'plausible deniability'. India's response was restricted largely to counter insurgency operations, both in Punjab and Kashmir.

Conventional reticence owed in part to declining defence budgets through the period. This was compelled by India embarking of liberalisation in 1991 forced by a financial crisis, brought on in part due to military profligacy of the Eighties. However, this was a period in which Pakistan also faced constraints, primarily the withdrawal of US assistance in October 1990 when President George W Bush was not able to give necessary certification that Pakistan did not possess a nuclear explosive device required under the Pressler Amendment to the Foreign Assistance Act. Its declining financial position reinforced its proxy war policy, in that it increased the need to keep Indian forces tied down since Pakistan was less able to cope.

The implications of liberalisation for the Army were such that a former Vice Chief had to say that the lack of funds for modernisation had automatically led to a delay in the restructuring plans of the Services. The Army's mechanisation had been held up and the overall effect was of the little modernisation undertaken was loss of the technological edge.¹⁹ The strategic option for India during the decade was deemed to be restricted to defence owing to the resource crunch. Of its two variants, dissuasion and deterrence, an analysis had it that declining defence budgets would effect deterrence capability adversely. It was thought possible to visualise even dissuasive capability as being difficult to maintain. A balanced military prefers a mix of both variants, the proportion of each depending on the war objectives sought and operational situation. In this analysis, it was assessed that India had a deterrent capability with respect to Pakistan.

The third aspect of nuclearisation resulted in doctrinal developments in the form of thinking through 'recessed deterrence'. The impetus was in the emerging threat from the nexus between China and Pakistan in both nuclear and missile spheres. This was referred to by Prime Minister Vajpayee in his letter to the US President justifying Indian tests of 1998. On 11 and 13 May 1998, India successfully completed a planned series of nuclear tests. The aim was to demonstrate a secure and effective deterrent against the use or threat of use of weapons of mass destruction against India. The decade ended with doctrinal innovation on both conventional and nuclear planes brought about by the Shakti tests and the Kargil War. A significant 'first' was the articulating of doctrine by the Army (1998) and the Air Force (1995) in this period.

The Century's First Decade

The decade began with heightened terrorism in Kashmir, a result of inability to control infiltration and momentary diversion of attention from counter insurgency during the Kargil episode. Thereafter, terrorism spread in the rest of India, spurred on by Pakistan but also due to local roots brought about by a worsening communal situation. Overt nuclearisation further cramped India's conventional might, particularly during Operation Parakram. This, along with the earlier Kargil War, served to impel doctrinal thinking through which the military instrument was to be brought back into the reckoning. Of significance to its employability however was the presence and action of the US in the vicinity in the form of the Global War on Terror. Nevertheless, by decade end, the situation has stabilised in Kashmir, even as Mumbai 26/11, the late November 2008 multiple terror attacks in Mumbai, indicated continuing vulnerability to terror.

Under the limitations of the strategic circumstance outlined above, the state is to arrive at a strategic doctrine. The Limited War thinking in the early part of the decade led to acknowledging 'the importance of strategic (politico-military) doctrine is much higher for limited war than those that are full scale, leave alone total wars. "In India's case, as lamented by Jasjit Singh, there has not been a clearly articulated strategic doctrine. The consequence is that, 'In the absence of a well established doctrine, there is a strong tendency to simply keep building on existing force levels and structures in what can only be described as an add-on strategy. Inevitably such an approach tends to be highly reactive...An overall defensive philosophy only tends to reinforce this reactive characteristic. This would be a serious handicap in limited war.'" ²¹ Since lack of articulation of strategic

doctrine operates against the building and sustaining of a national consensus on defence policies, Jasjit Singh attempts to outline a strategic doctrine. He takes India's strategic objective as building of a sustainable peace to ensure socio-economic growth. The pillars in his framework are prevention of war, removal of the threat and risk of war and reduction of the threat perception of potential adversaries. He acknowledges a "fundamental need to move from the classical paradigm of competitive security to cooperative model of interstate security. He requires "necessary precautions" amounting to deterrence to remain, but alongside efforts towards détente and strategic stability are advanced. Broadly, two alternatives emerge: defence through either a strategic defensive or strategic offensive strategy; and second, prevention of war through credible deterrence if at a minimum level. Appropriate strategies would require supporting this strategic doctrine. He tends towards the second alternative, prevention of war with deterrence being central. This would entail quantitative and qualitative superiority but one tempered by affordability. He favours air power as an instrument that furnishes both deterrence by denial and punishment, as against land power that can only deliver the former.

The diplomatic strand of grand strategy took advantage of military self-confidence emerging from an improved counter insurgency situation as also the predicament of Pakistan hemmed in by the war on terror. On the J&K issue this optimistic perspective translated into India being ready to look at options, short of redrawing the boundaries and finding a pragmatic solution to resolve the J&K issue. It was prepared to work out cooperative, consultative mechanisms so as to maximise the gains of cooperation in solving problems of social and economic development of the region. Building on the November 2003 ceasefire along the International Border, Line of Control and Actual Ground Position Line and unconditional commitment given by President Musharraf on 06 Jan 2004 not to permit any territory under Pakistan's control to be used to support terrorism in any manner, a number of initiatives were taken to ease tensions, normalise and improve relations.

At the level of the Government, the Composite Dialogue was initiated with the resumption of Foreign Secretary level talks in June 2004. At the level of Armed Forces, a number of Confidence Building Measures were envisaged. Upgrading the link between Directors General Military Operations, new communication links at division/corps level, annual meetings of Vice Chiefs of Army Staff and exchanges between the Armed Forces related academic institutions.²³ Not all have been progressed as desired; but the pace and direction of progress is itself a pressure point in the overall effort to incentivise and pressurise Pakistan into realigning its strategy of proxy war.

The military strategy in the beginning of the decade has been described as one of dissuasive defence on two legs. One leg is to deploy strong forces to man prepared defences and limit penetration. These are to be supplemented by counter attack reserves to destroy enemy lodgements. The second leg is a reactive one that has counter offensive reserves strike back with its own offensive. The dissuasion aspect is in having strong defences, while deterrence is on the certainty of a strong reply by theatre reserves.²⁴ This articulation of military doctrine was overtaken by the implementation of the lessons from Operation Parakram by 2004. The doctrine that emerges is considerably more offensive.

The military doctrine to complement strategic doctrine exists in the form of the Indian Army Doctrine released in 2004. Presently, the term 'Limited War' occurs but once in this publication and that too, on a graphic on Spectrum of Conflict. This is problematic since the graphic in question seamlessly melds Limited War with the next stage of Total War. Further, it makes a distinction between Total War and the next higher stage of Nuclear War, indicating that wider conventional war is possible in a nuclear environment. Such doctrinal reflection is difficult to concede for two reasons: one, that in the nuclear era keeping war from becoming Total War is imperative; and two, that Nuclear War could yet erupt even during prosecution of what is originally intended as a Limited War. The nuclear overhang virtually negates the conception of Total War. Therefore, Limited War is here to stay and requires deliberateness in thinking through that only a separately articulated doctrine can ensure. While thinking through military dimensions of Limited War is undeniable, more importantly it needs to be done in keeping the nuclear doctrine in mind. Movement in one may entail a corresponding movement in the other. Therefore, the doctrinal exercise cannot be restricted to being one internal to the military. It should instead be 'military led', considering input and cross fertilisation from a wider field, not excluding in particular, the National Security Council.

There is thinking along these lines. Characteristically, it was perceptive General Sundarji who had already by the early nineties discerned that this was the direction of the future, writing, "Indian conventional operations should be modulated in scope and depth of penetration into Pakistani territory so that ingress can stop before Pakistan resorts to the use of nuclear weapons." Since Limited War would unfold under the nuclear backdrop, thinking on the implications for nuclear doctrine and the implications of nuclear doctrine need also be factored in. General Sundarji's formulation is more in line with limitation in war, including one that has for some reason gone nuclear. He wrote: "Terminate nuclear exchange at lowest possible level with a view to negotiating the best peace that is politically acceptable."

With nuclearisation, a more circumspect attitude to the use of force has developed. The predisposition of the military towards maximising employment of force has been tempered by the Limited War concept. Since wars have a dynamic of their own and if uncontrolled have a tendency towards escalation, there has to be a deliberate 'hobbling' (Bernard Brodie) of the effort in the nuclear age. This implies a move away from viewing war as a means to impose one's will, but a 'strategy of conflict' (Thomas Schelling) in which adversaries bargain through graduated military responses towards the attainment of a negotiated settlement. The difference that nuclear weapons bring is that only the latter of the two natures of war as given by Clausewitz - total defeat of the enemy or war intended to bring him to the negotiating table - remains as the only option.²⁸ Developments in the first decade have been along these lines. However, an explicit doctrine on Limited War has not been articulated yet by the military. While the air and naval components of military power lend themselves to easier insertion, moderation and retraction in a conflict situation, the land component lacks the inherent flexibility. There is an advocacy towards building in flexibility in India's strike corps organisation through the concept of Integrated

Battle Groups in the tradition of Soviet Operational Manoeuvre Groups.²⁹ It awaits the next iteration of the Indian Army doctrine or publication of a separate publication covering Limited War as a specialised form of war.

Conclusion

It is well acknowledged that India does not have an explicitly articulated security policy. This is so despite the existence of a National Security Council that could have undertaken the task over the past decade. However, it would be inaccurate to say that India does not have such a policy. Nevertheless, articulating the policy would be useful, such as is done periodically in other democracies and indeed by authoritarian regimes also. This would be useful for those responsible for the individual components of grand strategy, such as diplomatic, military, internal security etc. to formulate respective strategies. The gain in particular would be in the formulation of military doctrine since theory informs that this should be in conformity with strategic doctrine (orientation given by grand strategy to the state); itself dictated by the state's security policy. Absent this, the military is left without appropriate political direction in this vital exercise. Despite this handicap, the Army has, as seen in this article, proved responsive and has moved in its military doctrine towards a more offensive mindset. But further evolution would require more than mere jointness. A 'whole of government' approach is necessary for tackling conflict at any level across the spectrum - be it internal security, Limited War and unthinkable Limited Nuclear War.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

The Enemy Within

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Introduction

It is often said that more nations have crumpled from within than from external aggression. Histories of many an empire are replete with such accounts; and the subjugation of the sub-continent by a handful of mercantile nations in the not too distant a past, bears testimony to this fact. In recent years, dreaded organisations like the LeT, HuJI, Naxals, SIMI, the 'D' Company, etc, have left gaping holes in our security edifice. The attack on the Country's Parliament, the '26/11' and other devastating incidents occur not because we live in a tough neighbourhood, but because of the fact that we acquiesce ever so often. Our responses amount to couple of days of sabre-rattling followed by layers of enquiries, committees, commissions and then blame-games. What is wrong with us that we display such appalling passivity with monotonous regularity with regard to our National Security. Is it something to do with our psyche or lack of sense of history or a sheer absence of 'country first' ethos; or all three?

The First Historic Betrayal

In the book, 'Amongst the Believers',¹ VS Naipaul writes that among the first of betrayals that were to assist Arab conquests of Sind (711-713 AD) and parts of present-day Afghanistan, occurred when Mohammad bin Qasim arrived at the city of Debal. He does not attack the town till eight days, when a Brahmin comes out and informs the Arabs that "The town is guarded by a talisman - the four flags of green silk that fly on the dome of the great temple of Debal. While the flags fly, the people will fight." Bin Qasim had these destroyed with his catapults. The town surrendered. The Arab army took three days to slaughter its people. And so, many a fortified towns of Sindh were captured as a result of betrayals by nobles, Brahmins and Buddhist priests. Arab conquests preceded Muslim invasions of the sub-continent which began 300 years later.

Coming to Muslim invasions, these became common-place once the natural defence of India based on the Hindukush and Indus river were breached. According to Sir Jadunath Sarkar, the noted historian, the Islamic armies that invaded India followed one uniform pattern; based on predictability of response of Indian kings, who never fought unitedly against external aggression. At first, there were raids across the frontiers, next invasion in force where the local king was defeated, humbled into a vassal and his kingdom used as a base for further forays. And finally the vassal State, after one last futile struggle, was annexed to the Muslim empire or sultanate. Perhaps central to this theme of betrayals, greed and lack of cohesion amongst Indian kingdoms are two vital ingredients that have influenced the Indian psyche for centuries.

Impact of Kautilya's Thinking on Indian Psyche

Joel Larus in his book, 'Hindus in Pre-modern India'² tells of the impact of Kautilya's teachings leading to an inflexible stance in our thinking. As propounded by Kautilya, in the circle of 'Neighbouring States', it was axiomatic that States sharing a common geographic boundary were enemies; and natural allies were separated from one another at least by an intermediary kingdom. Thus those who shared a common boundary were natural enemies. Consequently, the Indian kings scorned at policies that would have helped pacify the sub-continent or establish some measure of co-operative relationship amongst kingdoms against external aggression. In fact, there was a collective and basic lack of consciousness of the need for a common defence against an invader before he could cross the Khyber or the Indus river. Perhaps, Kautilya never projected answers for a collective response to an invader or common foe. Such betrayals and jealousies changed the course of our history. In 1192, Mohammad Ghauri defeated Prithvi Raj Chauhan because Jai Chand, the Raja of Kannauj, had held back his support. Then in 1527, at the Battle of Khanwa between Babur and Rana Sanga, the latter's plans were upset at the very outset when Silhadi, a Rajput adventurer, walked off with his contingent of 6000 men to Babur's side from his post in the vanguard.

Role of Foreign Mercenaries in India's History

Brigadier Shelford Bidwell makes another telling point in, "Swords For Hire"³. He questions, as to why it was necessary for so great and gifted people, heir to a brilliant civilization and whose martial qualities are second to none, to rely for their defence on mercenaries officered by foreigners, who, when the hour of decision arrived, so often deserted. The answer to all this perhaps lies in a complex of factors; political, religious and military that reach back into the country's past - that India, its rulers and people alike had long since stagnated. These observations may hurt the sensitivity of many a good Indians but truth cannot be wished away; especially where it concerns the security and well-being of the Country. The Chinese proverb, that the fish starts rotting from the head; aptly describes the guano-heap we are buried under.

Stock Taking - Where do we stand now?

Over the past sixty two years, we as a Nation, barring a few islands of excellence; have become obsolescent. Patriotism is at a premium; so is inspirational leadership and personal example. There is lack of accountability in public life. Seldom have heads rolled for non-performance, treason or where National or public interests have been put to stake. While rules and laws exist, these are seldom followed in letter and spirit. Coupled with all this

is inept governance, where the best of brains are busy 're-inventing wheels', diluting norms or are hankering for plum jobs, chairmanships and extensions. So, where do we go from here?

Future Insight and the Way Ahead

First and foremost, the Country's security is most vital. For this, India must set its house in order by a 'leap forward'; and quickly, so as to safeguard her National interests. For starters; we need to seriously review our form of governance; warts and all, because there are deep chasms between performance and the Country's expectations. The Civil Services, the 'faceless government,' must be held accountable and rules recast, ensuring a merit based mobility. Then, posts above joint secretary level should be tenable through competition, so that the best talent and expertise are available at the conceptual level. Implement long overdue police and judicial reforms. Further, the Centre-State responsibilities need to be re-calibrated; ensuring a rapid and effective response to proxy-wars, terror, subversion-including home-grown insurgencies born out of misgovernance, neglect and corruption. Ban 'bandhs / chakka jaams' for the next ten years. For the good of the Nation, raise a domestic Peace Corps as a National obligation for the youth in undertaking social engineering, rural development programmes and civic action within a district. Secondly, exploit the mosaic of the Territorial Army for providing specified developmental work or services in insurgency-prone areas and remote districts. Thirdly, the para military and police forces (PM & PFs) designed to act as 'trip-wire' along the Country's borders or those earmarked for counter-insurgency operations, seem deficit in combat leadership, motivation and tactics. The officers are good men but they happen to be 'cops in some other clothing', and 'cops are essentially for law and order'. Even during the British Raj, militias/rangers/PMFs etc, who were tasked for border management etc, their officers were drawn from the Army. It is also on record that raising of the BSF was first offered to the Army. Much would be said to counter this proposal; including quoting of the classic turn-around brought about by the Punjab Police in tackling militancy. They did a commendable job; but what is often untold is the deployment of over thirty seven Army brigades in the Punjab at the height of militancy. So in the Nation's interest, the officer cadre of 128 odd police battalions under raising, so also assets of PM & PFs meant for border management and counter-insurgency operations should be drawn in a phased manner from the Services, after such officers have met their minimum obligation there; and inducted on completion of a re-orientation capsule. A new Force, call it the Internal Security Force (ISF), be raised by incorporating assets meant for counter-insurgency operations, rear area security, etc. Later, Persons Below Officers Rank (PBOR) be inducted into this Force and others; bringing in huge savings in the Pensions Bill. Fourthly; resuscitate the old Frontier Administrative Service (FAS) which was scuttled by the 'Bureaucracy' by merging it with the IAS cadre. Fifthly; the Country must accept as credible a two-fronts war along its borders with flash-points spread across its frontiers and be prepared for such an eventuality. The Government should immediately appoint a Chief of Defence Staff and give necessary teeth to this integrated office. The DRDO must focus on a very selective range of cutting edge weapon systems and technologies and deliver against a time based programme leaving the remainder to Indian industry to develop indigenously or through foreign collaboration.

Conclusion

Lastly, it is a myth that India lives in a tough neighbourhood. The truth: India is often found timid, unsure or waspish when dealing with its immediate neighbours. We must engage them pro-actively. Leaving Pakistan aside bolster their economies, extend generous military and financial aid while projecting India's soft power. Address their grievances perceived or otherwise. Start with the achievable first; these, then are not magic mantras but a 'bottom - line' for building a resurgent India. However, the common refrain in all these suggestions is perhaps the lack of a 'Resolute Will' which long fed on, 'status quo', compromises and appeasements, has led to sloth in decision-making. If as a Nation we do not even now wake up to realities, then we are likely to be consigned to the dump heap of history. One recalls from the popular comic-strip where 'Winnie the Poo' exclaims, "I have found the enemy, it's us". But more pertinent is what Babur is reported to have said when cautioned about Delhi Sultanate's formidable Army, "I have studied the Indians; they never learn from their history'. That was in 1526 AD. Not much has changed, or has it ?

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

Chinese Media on Pokhran II Diatribe

Dr Sheo Nandan Pandey*

Introduction

Chinese media joined India's Pokhran II diatribe immediately after Dr K Santhanam and his ilk called May 1998 Operation Shakti as "fizzle" and lent voice to express concern about India's minimum nuclear deterrence potentials against plausible adversaries.¹ As a mouthpiece of the Communist Party China (CPC) and by implication, an instrument of the Chinese government, the media reports reflect the mind, if not the stand and postures of the Chinese leadership. Nonetheless, the tone and tenor of the wordings apart from the form, shape and prominence of reporting, hold clues to China's plausible approach, be it treating an outright adversary or otherwise. While the trail of events in time series could be just few and far between and hence, quite limited in scope to lead to a generalisation, it could very well be an instance, if not a benchmark for reckoning which way the wind of bilateral relations was to blow.

While the Chinese media tinkered as and when there was slightest opportunity in the past; the frequency of Chinese strategic experts, bloggers, retired diplomats, and even official websites and PLA linked think-tank blowing hot and cold, is increasing. Worst, there is a trend to hold on-line poll and show the dark side of India. In late June 2009, Global Times (Huanqiu Ribao) projected 90 per cent of Chinese respondents believing India a threat to China's security. Earlier in July 2008, Pew Global Attitude Project had put 24 per cent Chinese respondents ranking India as enemy. There have been some think-tanks who high ground international propriety and quote here and there Indian authors or Indian agency reports to attack Indian position on the issue.² Notwithstanding the Chinese media, in particular, China Daily has been publishing write ups of Pakistani authors such as Zaheerul Hussein who spits fire against India. In a latest paper (Campaign against Pakistan, <http://bbs.chinadaily.com.cn/viewhrtreat.php?gid=2&tid=652801>), he has charged New Delhi to have colluded with Tel Aviv to hire media to smear black face of its adversaries.

In methodological perspectives, the study of the kind transcends both the boundary of media monitoring and content analyses. It touches upon the frontiers of diplomacy studies with windows on conflict management in the context of the two turning new leaf towards thaw from being adversaries for a long time. This does not obviate the continuum relationship of rivals, competing for political, diplomatic and economic space as a competitor. For covering the hiatus in equating the media perception and wordings to the perception and wordings of the leadership, much less the government, the methodological options weighing statements against the standard policy, the extent of congruence and / or variability of material facts in the reported story, and a broad matrix summary and/ or reasoned acceptance or rejection of the thesis, promise a reasonable framework for getting to the truth. The dynamics of change in Chinese stand normally carry cultural propinquity of its own kind, which included flair to cultivate bond of friendship and manipulate feelings of goodwill, guilt and obligation to its advantage in hours of need.

Notwithstanding, positive disposition, if any, the Chinese response has to be a function of what Zhao Quansheng says change in "micro-macro linkage".³ It can be a little different when there is negative disposition. By micro level, Zhao meant investigating the role of individual or group decision makers, and macro level analysis referred to the influence of the domestic society and institutions as well as the international system and structures in the formulation of China's foreign policy. Akihiko Tanaka credits "domestic development" for Chinese hard lines or otherwise in its disposition to the outside world.⁴ Taking historical perspective, Tanaka says China presented a hardliner face to the outside world when it was caught up in revolutionary campaign and, when the emphasis was upon economic development, Chinese foreign relations stressed the business like advancement of foreign trade. Wang Guangwu and Zheng Yongnian nearly conform to Tanaka's thesis with a difference. They say that the People's Republic of China (PRC) has learnt from the Soviet Union that it cannot afford to try to build a China-centric world order in the era of reforms and open up policy. In order to get to understand and interpret China's positive or otherwise disposition in bilateral relations, Carol Hamlin calls for looking into both "international situation to which China must respond" and the "attitude towards the outside world prevailing within the Chinese leadership".

The paper is aimed at discerning China's disposition in bilateral relations on strategic issues. The study design juxtaposes an array of Chinese media reports against the material facts in the controversy. It looks for congruence. It also looks for the penchant to accept and/ or decry the truth as it is, anyway. It examines changes in stance in time sequel, if any. Reproductions of the Indian media story in the Chinese media constitute independent variable while the elements of interpolations in one form or the other constitute dependent variables. The same literally held good even where the Chinese media story stemmed as independent work of Chinese media. Validity of generalisations stand conditioned to the given time frame and the issue in vogue. This frame work could, of course, acquire a measure of legitimacy when seen against an array of reportage in time series over a period of time. Organised in analytical format, the paper thus focuses on: Pokhran II and the Controversy; Congruence and Variability in Chinese Media Depiction; and, the Media Candour and Misstate

Pokhran II and the Controversy

India's low yield and 'contained' five underground nuclear tests, code named Operation Shakti, in popular

parlance referred as Pokhran II, witnessed unusual flurry of intellectual bashing on the issue of actual as against designed test values after 11 years of the event.⁶ Dr K Santhanam, then Director, Test Site Preparations, kicked off the dust, first, in a statement on 26 August 2009, then in an article, contributed to The Hindu of 17 September 2009 and subsequently in an Indian TV channel appearance.⁷ Dr K Santhanam called the test Shakti - I, a two stage thermonuclear device a failure as the yield was only 25 kilotons, nearly half of what the scientists had then claimed.⁸ He said that a meeting of scientists discussed the failure soon after the test and decided to hide it. He also pointed out that the failure meant that India now did not possess a credible nuclear deterrent, indicating that warheads on India's long-range missile could have far less punch than expected.

Former President of India, Dr APJ Abdul Kalam, who had then led the team in his capacity of Defence Research and Development Organisation (DRDO) Chief and Scientific Adviser to the Prime Minister, disputed his assertion. R Chidambaram, former Chairman of Atomic Energy Commission and the architect of the nuke tests and Anil Kakodkar, then Director of Bhabha Atomic Research Centre, likewise, reasoned out the official position. They held that the device operated according to its design specifications and the yield was 45 kilotons. Dr APJ Abdul Kalam defended India's deterrence capability as well, which assumed centre stage by default.

In the row, three former colleagues of Dr K Santhanam in the Atomic Energy Commission (AEC) Dr Homi Sethna, Dr PK Iyengar and Dr MR Srinivasan and former Director of Bhabha Atomic Research Centre (BARC) Dr AN Prasad questioned the validity of Pokhran II, though with varying emphasis and reasons. Dr Homi Sethna disagreed with Dr APJ Kalam for disputing the veracity of Dr K Santhanam's assertion. He laid charge of political interference in Pokhran-II and imputed political motives on the part of Dr APJ Kalam justifying the official stand on the issue.⁹ Dr PK Iyengar did not lag behind. He alleged that the 1998 tests were carried out in haste at the bidding of the government.¹⁰ Dr MR Srinivasan and Dr AN Prasad called for peer review in the face of the controversy.

Interestingly, these Indian nuclear scientists held centre stage, in vehemently opposing the Indo-US civil nuclear power deal.¹¹ There is thus an ideological angle in their diatribes. The nuclear scientists were expected to discuss merits of various on site and off site yield estimation methods.¹² They got instead engaged in vituperations, which smacked of immature peer group grievances and tussles.

Congruence and Variability in Chinese Media Depictions

The Chinese print media lent its ears to the wrangle in Indian electronic and print media in a measured way. Chinese language People's Daily led the hype, where it picked up a story from the Indian media and stated what an adversary could say while remaining neutral in public posture. It was just a day after the Indian Scientist Dr K Santhanam sought to spill the beans for reasons best known to him. Of several stories then making headlines in the Indian media, the People's Daily (Renmin Ribao) picked up the riposte of the Indian Navy Chief Admiral Sureesh Mehta (Box-1).¹³

In this Chinese media story, the narratives carry incontrovertible facts as they have appeared in the Indian media. It says what the Indian Navy Chief did say. It also says why the Indian Navy Chief chooses to say so. The contents in the Chinese media story, thus do not betray an iota of extrapolation. It does extol. It does not beacon aversion either. In such a backdrop, the Chinese media story as such can be classed 'disposition neutral' in form. However, there is subtle but reckonable problem with the spirit. The narrative squarely qualifies the veracity of the refutation by the Indian Navy Chief Admiral Sureesh Mehta as it adds an aura to the assertion of the Indian nuclear scientist Dr K Santhanam for having stemmed from the mouth of 'one of the country's top atomic scientists'. It then scoffs at Indian achievements and quotes past debate over the success of the Indian nuclear tests, in particular foreign media. The Chinese media story thus, transcends the fair limit of 'disposition neutral' stand.

Just three days later on 30 August 2009, the People's Daily carried riposte of Indian Prime Minister Dr Manmohan Singh on the issue (Box-2).¹⁴

This piece of the Chinese media story is again aging 'disposition neutral'. It is well scribed to depict the two sides of the coin. It tells what the Indian Prime Minister said. It also tells why the Indian Prime minister chose to say so. Even the sequencing of argument is faultless. The scribe has shown inscrutable skill in managing the slant, too. However, though in a stride, it conveys doubts about Indian nuclear weapon capabilities. As the Chinese print media is far short of autonomous, it goes to suggest a considered official decision to stay clear from getting unduly engaged in India bashing.

China Daily (Zhongguo Ribao) subsequently carried an analytical piece under the caption, "Indian Armed Forces Confident about Nuclear Arsenal" (Box 3).¹⁵ This story has purportedly been authored by a junior member of the CPC. In its composition, whether it is headline or posers such as 'second strike' capabilities, in particular as India's nuclear policy breathed commitment to 'no first use' (NFU), or Pakistan factor, in particular the rationale for keeping its first strike option open, and the like, the Chinese media acquits well to the tests of "disposition neutral". This is despite an oblique stance on India's real as against perceived capabilities in the context of Dr K Santhanam's doubts.

However, as the headline does not fully correspond, much less corroborate the central piece of the argument, this Chinese media story qualifies the test of "disposition critical". It has skilfully projected Chinese superiority over India, both in straight and surrogate comparisons, such as with Pakistan. The Chinese media story thus touches the fringe of "disposition sinister". Disinformation is an effective weapon in the armoury of Information Warfare in which the Chinese are adept for quite some time.

China Daily thereafter published a paper by a Pakistan think-tank Maulana Zaheer ul Hassan, which carries a full critique of the Indian nuclear programme, and its outlook (Box-4).

This is a classic case of media exploit, where the Chinese Information Warfare mandarins stand to get mileage without expending an iota of energy. It uses the author as an agent provocateur and puts a damning question mark on Indian capability for safe nuclear programme. Nonetheless, it goes to sound and petition all stakeholders against India's credibility as responsible nuclear power. When all said and done, the Chinese media story of the kind thus fares adequate as "disposition sinister"

Media Candour and Misstate

As an instrument of the Chinese state craft, the Chinese media was not expected to act any better.¹⁷ The Chinese media reports focussed on the point of controversy as it stemmed from the counter view of Dr K Santhanam. They sought to contrast the Indian official stand with a caveat, where the standing of Dr K Santhanam as a scientist in the field stood as a touch point of authenticity and validity. The Chinese media has been candid in carrying riposte. They can not be faulted for not invoking rational and logical counter points to Dr K Santhanam's thesis. This was yet a need to depict a correct view. The Chinese media story missed the bus in the case of two analytical stories, one by the party functionary and the other by a friendly foreign patron. None of the two papers dwelt, much less reflect upon different onsite and offsite methods of estimation of nuclear test yield and their respective estimate errors to add objectivity in the stories.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

India and Indo-China : A Strategic Engagement

Brigadier Satish Dua, SM*

Historical Perspective

The Indo-China region, comprising of Vietnam, Cambodia and Laos, lies at the geographical centre of ASEAN group of countries. While these countries may form part of the CLMV countries and are poor cousins in the ASEAN fraternity, their cultural traditions are as ancient as anywhere else in this region. The rich history of this region can boast of mighty kingdoms like the Khmer Empire (present day Cambodia), Champa kingdom and Dai Viet kings (present day Vietnam) and the Fa Nguyen Dynasty (present day Laos, correct name - Lao PDR). The Indo-China peninsula used to be a link between India and China in olden days. When traders set sail from India for China, they had to halt in this region for a couple of months for winds to change direction, so that they could set sail further Northwards towards China. Thus, a number of trading settlements had sprung up since First Century AD in the Southern part of Vietnam, which was also known as Cochinchina. While the dominant cultural historical influence in Cambodia is from India, Vietnam was influenced more by China and Laos.

In the late 19th Century, the French made inroads into Indo-China and took over all territory East of Mekong river from Siamese control. To the French, the importance of Laos and Cambodia was more as a buffer between the UK, Burma and Thailand and the economically important Annam and Tonkin (Vietnam). Subsequently, Indo-Chinese resistance against the colonial power of Imperial France gave way to a prolonged war against the USA, in which Laos was inextricably drawn in. Later, the play for influence by China and Vietnam over Laos and Cambodia led to Vietnam ousting the Chinese backed Khmer Rouge from power in Cambodia. This gave rise to a web of regional linkages and power play, with the Chinese shadow looming large as an extra regional player. Realising the strategic importance of the region and the economic potential, the USA too has started taking keen interest in the region in recent years.

Contemporary Dynamics

Vietnam

Having been subjugated for over 900 years by China, which also left an indelible impression on its culture, Vietnam has been attempting to maintain its independent existence and even fought a border war with China in 1979. Both countries also have disputed claims over island territories in South China Sea (called East Sea in Vietnam). Although, relations are on an upswing now with land boundary settled and a rapid expansion in trade and economic cooperation between the two taking place with China assisting Vietnam actively, yet Vietnam is also wary and cautious while accepting the assistance and investment from its Northern neighbour. After being re-elected in April 2006, the General Secretary Nong Duc Manh made his first overseas visit to China. This may be seen as part of steps Vietnam has been taking to reassure the Chinese over growing 'closeness' with the USA, which has made significant strides during recent years. While the last four years have seen an annual exchange of visits by Head of State/Head of Government between the two countries, including that of President George Bush in Nov 2006, yet, relations with the USA can be described as tentative, at best.

Laos

Forever the buffer zone, the French had no interest in developing this land locked country. It still continues to hold similar importance for China and Vietnam. For the present, it is more under Vietnamese influence. After being elected in April 2006, the present President and General Secretary, Mr Choummaly Sayasone visited Vietnam before visiting China, as if to put things in correct perspective. However, it accepts all possible aid from China and Vietnam. Estrangement, in military to military relations, between the USA and Laos ended last year and both countries have recently exchanged Defence Attaches. China is biding its time and hopes to gain more influence in Laos once the present generation of leaders (who, alongwith Vietnam participated in the war against imperialist powers) is replaced by the younger generation. The once turbulent border with Thailand is completely peaceful now. As to its Southern neighbour, there is neither discord nor significant trade with Cambodia.

Cambodia

One of the poorest countries in the world with a tenuous political dynamics, presently Vietnam wields great influence with the Government, despite not being very popular amongst large sections of population. China is assisting and investing heavily in Cambodia, which is likely to only get enhanced consequent to the recent discovery of offshore oil in the South. This has also brought American oil giants like Chevron (they are even funding expansion of Sihanoukville Port), and neighbours like Vietnam and Thailand have agreed for joint exploration in disputed waters, pending agreements on the issue.

China

While Indo-China does not include China, any study on the former would be incomplete without the latter, such is the strength of 'presence' and influence that it wields in the region. Forever the big brother, China is pumping money in all three countries and is also seeking to find outlets for its products through the ports of Vietnam and Cambodia into ASEAN markets by assisting in development of road infrastructure leading from its border points through Vietnam and Laos. Today, with China widely perceived as a rising power that could eventually gain a decisive political, economic and military position throughout the region, there are many Asian and ASEAN nations

hastening to accommodate Chinese power, countries of Indo-China region being no exception.

India and Indo-china

India's cultural influence over the region since ancient times is undeniable. Buddhism is the pre-dominant religion in all three countries. Commonality of a colonial past, our support to their struggle for independence and our leaning towards the Soviet Bloc during cold war has only brought us closer. The only two countries to have fought border wars with China are India and Vietnam. India and Vietnam are natural allies with no conflict of interest, whatsoever. India was the Chairman of International Commission for Supervision and Control (ICSC) and oversaw the transition of power in Indo-China pursuant to the Geneva Accord in 1954. Genuine trust and rapport between peoples and leaders dates back to our support during Vietnamese struggle for independence and later during Cambodian imbroglio, when they were totally isolated. Vietnam was one of the first countries to recognise Bangladesh and also supported India after first Pokhran experiment. Owing to our continuous support to each other in various international fora, India enjoys tremendous goodwill in the region.

Vietnam

Within Indo-China region, there can be no two views on primacy of Vietnam from the standpoint of influence it wields in the region, strategic location, as also the economic growth potential. It may be prudent therefore, to focus more on Vietnam, before turning our attention towards its other two neighbours. Enumerated in succeeding paras are the significant reasons that dictate why it makes strategic sense to engage with Vietnam more than others.

Vietnam is slowly emerging as a key player in the South East Asian security landscape. Vietnam's membership of UN Security Council, NAM, APEC, ASEAN and the ASEAN Regional Forum (ARF) has provided it with access to key multilateral institutions in the Asia Pacific, and the connected leverages.

On the economic front, Vietnam has, for the past decade, consistently posted a GDP growth rate of over eight per cent (except in 2008, it was 6.23 per cent, in keeping with the global economic recession). Yet, a darling of foreign investors, Vietnam had netted FDI of US \$ 64 billion in 2008, despite the economic slowdown.

Vietnam has a 3200 km long coastline, the whole length of which has to be coasted along by the South China Fleet, based in the island of Hainan that lies off the Gulf of Tonkin, in the South China Sea. Can India afford to have such a coastline as inimical or even indifferent? The corollary should be obvious. As the Chinese Navy moves towards acquiring a blue water capability, our engagement with Vietnam on this front can be nothing short of strategic. With an ageing fleet, Vietnam Peoples Navy (VPN) is rather modest today. They are looking to modernise its Navy and Air Force on higher priority, as threats loom more in the maritime dimension and the island territories. The stakes have been raised with the discovery of oil in the disputed sea bed. VPN is looking towards its trusted friend India for advice and assistance, and we must not disappoint, lest the space is filled up by others.

There is another very significant reason why India must engage with Vietnam with due urgency and depth (i.e at all levels). China shares its land borders with 14 countries, and has managed to resolve its boundary disputes with almost all of them, the only exceptions being India and Bhutan. of course, China continues to have maritime boundary disputes with a number of countries on its Eastern flank. We have unresolved land borders issues with China in Ladakh, Himachal Pradesh & Arunachal Pradesh, in addition to territory ceded by Pakistan to China. Vietnam and China have a dispute in maritime boundaries in Hoang Sa (Spratly islands) and Truong Sa (Paracel Islands). Although the island territories have four other claimants - Philippines, Malaysia, Brunei and Taiwan - but China and Vietnam remain the major players with biggest claims and maximum possessions. Hence, information sharing with a common aim between India and Vietnam may be a matter of prudence, more so as recent and historical trends show that China is in no hurry to resolve these issues with both countries - for obvious reasons.

Vietnam has the largest standing army in South-East Asia. While the army has a formidable reputation, it is equipped with outdated armament and equipment, which needs upgradation. Vietnam is very soon acquiring economic muscle to modernise its Armed Forces. While budgetary allocations for defence in Vietnam remain shrouded in mystery, there is a definite potential for our defence industry, a field where trust between both countries is a significant factor.

If the extra interest being evinced by the USA, in Vietnam and the region, can be read as an indicator of the American desire to involve Vietnam in its strategic equation with China, there will only be a convergence of interests there.

Cambodia and Laos

Cambodia and Laos, have historical and cultural ties with India that are stronger and longer than with Vietnam. There are strong cultural and religious influences from India since the days when Hinduism and Buddhism spread to the region. Any cultural show in both these countries is incomplete without an episode of Ramayana. In present times, our involvement in overseeing implementation of the Geneva Accord of 1954 by heading ICSC, by deploying an infantry battalion in Cambodia upto 1970, and mutual support in various international fora have earned India much goodwill and trust. Bilateral relations with both these countries, including defence cooperation, have witnessed a quantum jump in the recent years. They are also our potential strategic allies, more or less on similar lines as Vietnam. Laos is a land-locked country, strategically located between China, Myanmar, Thailand, Cambodia and Vietnam. Cambodian shores are an extension of the Vietnamese coast line, the strategic importance of which has already been highlighted.

The Way Ahead

Look East Policy

India is predicted (Goldman Sachs, and others) to be in the top three economies of the world by 2050. We need to accept the reality of expectations that smaller countries have of India, in playing a role in regional affairs. Only after an overt acceptance of this fact, can we think of articulating a vision of our role. Our 'Look East Policy' is a pragmatic policy decision to help us retain the rightful balance of power in Asia. Under this, however, it will be prudent to accord more focus to Indo-China region as a distinct sub set of ASEAN region. The paradigm of Indo-China and other ASEAN countries is somewhat different. Not only are the three countries of the Indo-China region our natural allies, they also have potential of becoming our strategic partners. This may call for a long term investment without hoping for immediate returns.

Strategic Partnership

In July 2007, an Agreement on Strategic Partnership was signed in Delhi between the Prime Ministers of India and Vietnam. Defence cooperation agreement was signed with Laos in 2002 and with Cambodia in 2007. These and other such agreements can be the enabling instruments to enhance engagement with these three countries. Since the Armed Forces play a pre-eminent role in the polity and governance of all three countries, it will be prudent to use military-diplomacy as a tool to enhance our engagement. Creating favourable conditions on a long strategic coastline, of mainly Vietnam and partly Cambodia, should be a natural priority. Information sharing with common interests between India and Vietnam has a potential dynamics of its own. Goodwill and trust that India enjoys in the region should also be translated into something more tangible. Although we are engaging the region already, but there is still a huge potential waiting to be tapped.

Trade

Such engagement cannot be on one plane alone. On the economic front, our bilateral trade with all three countries has grown manifold in the recent years, touching US \$ 3 billion in 2008 with Vietnam alone. (India has concluded a Free Trade Agreement with the ten members ASEAN on 13 Aug 2009). This opportunity should be seized with both hands to increase trade and hence, linkages and influence in the region.

Conclusion

Countries that aspire to play a role in regional affairs must articulate a firm policy. Although a 'String of Pearls' works for China and the USA continues with its involvement in the Middle East, and both countries invest in a 'frontline' Pakistan; yet, it may still be presumptuous for India to articulate a policy at that level. However, formulating a role for itself in the regional architecture would be prudent, in which multiple engagement should be the new mantra. However, a pragmatic underscoring of engagement with closer allies and strategic partners should be considered a viable option. Indo-China is one such region, as a potential strategic ally. On a pragmatic note, a convergence of interests with the USA should only help us move in the right direction - eastwards. Recent border developments with China should only serve to re-inforce such a course of action.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

Space and National Security*

Dr Prem Shankar Goel**

Introduction

India's National Security is under unprecedented stress today, even 62 years after attaining Independence. While the Country is making good economic progress, next only to China; and with a billion plus population, it is seen as an emerging economic power. It is also being given much credit for quick recovery from the worldwide recession. This has generated a sense of insecurity or jealousy amongst our neighbours - hardening their outlook; rather than seeking partnership in the upliftment of impoverished masses, who are amongst the poorest in the world.

The terrorist groups in Pakistan are growing stronger. the only way for the Government in Pakistan to prevent their ascendance in Pakistan, is to intensify the hate India campaign by engineering events similar to the 26 November 2008 terrorist attack in Mumbai. Our overtures for peace and development have not been incorporated into State policy, and the US policy of buying peace at \$ 1.5 billion per year has not shown any significant change in Pakistan's policy towards terrorism. In fact, this US money probably would also be used for equipping Pakistani Armed Forces with more sophisticated equipment - to be used against India eventually. The stated AF-PAK policy has not yielded any positive results of action against Taliban.

China, an emerging world power in all respects i.e. economy, military, international influence, is guided by the goal of dominating this part of the world at least, and perhaps challenging the USA for first place in the world. China supports other neighbouring countries with long term perspective - of not letting them fall into the US fold. The post LTTE scenario in Srilanka is quite perplexing and the autonomy for minorities may not materialise. India is being projected in bad light to both sides, Government as well as minority Tamils. Its short term and long term consequences could be of serious concern at the State and National levels.

Our Internal Security has taken serious beating in recent past with alarming re-grouping of Naxals in many States, separatists regrouping and large influx of Bangladeshis up to Delhi. India's existence as a sovereign state is at great risk. The danger is however not very obvious to a common man, who is either too busy earning his daily bread or blinded by the spectacle of economic growth and market economy. Policy planners hesitate to talk about it for fears of creating panic amongst the public. It is perhaps for the 'security set-up' to take note of the grave situation and pool all their resources, and plan coordinated action to enable our Armed Forces and law enforcing machinery to secure an edge over our adversaries across the country.

Role of Technology in National Security

Will to safeguard the Nation's honour, National security and willingness to sacrifice are important assets of any country - but not enough. Access to superior technology can also play an important role to safeguard national security. India has been neglecting timely technological advancements in armed warfare for thousands of years, through to the recent times of 1962 and 1965 wars. The role of technology was demonstrated by the use of Nuclear bomb by the USA in Aug 1945 to terminate the Second World War decisively in one stroke. Ever since, technological superiority has been the most important priority goal of all countries. Pokharan I (1974) and Pokharan II (1998) were India's efforts in the same direction. However, 'No First Use' (NFU) principle, though high on morals and effective as a foreign policy instrument, does expose the Country to security risks, unless an effective deterrent mechanism for survival against enemy's nuclear assault is in place.

Future wars will be fought by advancements in technology; and role of men during war would be significantly reduced. Role of men will be very important during the peace time, for preparing and keeping the war machine in absolute state of readiness at a very short time. This is the mantra of current time military powers and nations who look for technological superiority to give themselves an edge over their adversaries. The United States with its engagement in Iraq and Afghanistan has been a pioneer in testing new technologies during these conflicts, partly out of necessity and partly for sharpening their arsenal.

The recent developments by DRDO like acceptance of MBT Arjun, plan to adopt Tejas by Navy, trials of Nishant and induction of Electronic Warfare Systems into the Armed Forces have been very encouraging. The successful testing of the missile interceptor (three out of three successes) makes the missile defence a technological reality. The nuclear deterrent and the partnership approach to deployment is another successful thrust in this direction. A proactive approach to test indigenous technology, and development of partnership approach to refine and bring it upto world standards, would take the Indian Armed Forces to an advantageous position.

The expertise developed for using Satellite Communication in Network Centric Warfare, started in the First Gulf War, has reached a level of maturity. The use of hyper spectral images for detecting Improvised Explosive Devices (IEDs) buried for weeks, use of Unmanned Air Vehicles (UAVs) of various types for imaging, tracking, information gathering and attacking the adversaries locations with precision are developments that highlight the role of technology.

Space Technology in India

Driven by the vision of Professor Vikram A Sarabhai and nurtured by Professor Dhawan's thrust on perfect systems, ISRO has made significance progress in all frontiers of space. PSLV and GSLV II have emerged as

flexible, multipurpose and reliable launch vehicles in 1 ton and 2 ton class Geostationary Transfer Orbit (GTO) capability respectively. The new GSLV III under development would take this capability to 4 ton in a couple of years. The communication satellites in INSAT - 4 class are state of the art satellites with upto 3.5 ton GTO and 6 KW power. Development of high powered satellites in C, S and Ku band has been achieved and developments in Ka band are being pursued. The developments in scientific satellites and exploring outer space with Chandrayan - I and ASTROSAT have brought world wide recognition from scientific community. The remote sensing and its applications into agriculture, planning water management, flood mapping etc., have brought India into No 1 slot in using Space for National development. Indian capabilities in optical and microwave imaging from the Space match with the best in the world. The civilian Space programme of India, led by ISRO has brought us to the forefront in this area.

The capability of Space Technology, however, has not been fully exploited for National Security / Defence. This is partly due to the fact that ISRO is mandated for civilian applications, societal programmes and National development and partly due to lack of institutional mechanism to think that security is an all integrated approach. Our external security has been Armed Forces Centric. There is no mechanism in the Country to connect the internal security agencies like NSG to the security linked technology available in the Country or abroad. It is in this context that National Security Advisory Board (NSAB) has suggested creation of a National Security Technology Directorate under the NSA.

Role of Space Technology - Some Thoughts

Space is a great enabler. Harnessing Space Technology towards National defence would certainly strengthen our Armed Forces. In other areas, both China and Pakistan have better access to superior technology. So far, the technologists outside DRDO and Department of Atomic Energy have not been involved in thinking of National defence, and private companies have been kept out of Defence Production. This has kept a valuable resource of technologists in Council of Scientific and Industrial Research, National Laboratories and Space etc., generally away from National Security. However, in the context of a larger role of technology, it is time that we enmesh technology in our National Security policies. A few examples of how Space Technology can be very useful in National Security, are briefly described in the succeeding paragraphs.

Early Detection of Enemy Missiles Using Geo Satellites. Missile Defence is an essential element of 'No First Use' (NFU) policy, to be able to survive against the first use by the enemy. Ground based Radar Systems have limitations of reaching enemy territory beyond a few hundred kilometers, and a missile arriving at 2.5 km/sec velocity gives very little time to react. The developments in space imaging capability in near infrared spectrum allow tracking of any missile or even aircraft with 100 m resolution in the image plane. Two such geosynchronous satellites deployed at farthest end of coverage (for example at 480E and 93.50E locations) would provide an overall accuracy of about 200 meters within a few minutes of launch. This capability alongwith appropriate database and processing can provide early detection and trajectory prediction of incoming missiles, making the missile defence shield really possible. Other elements of the missile defence have reasonable good maturity and can be integrated in 4 to 5 years.

Border Surveillance. Border Security Force and the Army keep a watch on the 12000 km long Indian border through advance posts on 24x365 basis, a task that is humanly impossible, even if whole of the Army is deployed along the border. Does technology provide a solution? Push broom imaging technique developed by ISRO for imaging payload can be extended for infrared imaging. A 2k x 2k detector assisted by 1.6 μ laser can be used in an equivalent Time Division Integration mode to image 5 km of border from a single pole mounted camera. This camera is powered by solar power, has automatic motion detection, algorithms to differentiate humans from animals and connectivity to local and central command through VHF and satellite link. A few thousand such cameras can be effectively deployed for border surveillance. In fact, it is not the space technology but a spin off.

Supporting Soldiers in Advanced Areas. India has developed the capability of terrain mapping the whole world with stereoscopic pictures of 2.5 metre resolution and four metre digital elevation accuracy. The location accuracy may suffer for unknown / unreachable territories where there are no ground truth points, however, relative terrain maps remain valid. Also one metre resolution image from TES and CARTO - 2A satellites further augment the region of interest.

A soldier in the forward areas is unaware of the terrain and what is behind a particular hillock. However, it is within India's capability to design a Ku - band satellite that can communicate with a seven inch display (total weight about 1 kg with battery) to communicate with database and have an automatically downloaded image of his neighbourhood, as his own position is available to the database through a GPS receiver. It also makes individual soldier monitoring possible in Network Centric Warfare. Authentication procedures would make it possible to render it unusable if it falls into enemy hands - revealing his position to the database.

Locating IEDs and Insurgents using Hyper Spectral Imaging. The US forces suffered a lot in the early years (upto about 2006-07) due to rebel groups using IEDs in Iraq. Hyper Spectral imaging using 240 channels, in six times the visible spectrum, has been effectively used to detect any recent ground digging, inspite of best camouflage. The USA is now developing an intelligent satellite with on board processing for detecting IEDs. The same payload will also monitor environment to trace gases, Green House Gases (GHG) and soil characterisation against the backdrop of global warming. The usage, however, requires a lot of scientific effort in developing algorithms and years of systematic observations.

These are some of the unique applications of Space Technology that are important for National Security. Once, the defence scientific community is involved in conceptual thinking, many more applications would come to be known. It is reiterated that Space Technology is one unique capability which would give an edge to our Armed

Forces. However, right policy framework needs to be put in place.

The USA's Space Policy

The operationally responsive Space Policy Directive by President Bush on 06 January 2005 states, "Demonstrate an initial capability for operationally responsive access to use of Space, providing capacity to respond to unexpected loss or degradation of selected capabilities, and / or to provide timely availability of tailored or new capabilities to support National Security requirements". Responsive space is an affordable, rapid reaction combination of Responsive Payload, Responsive Spacecraft, Responsive Launch Traffic Control which is optimised to provide on demand theatre support, surge reconstitution, augmentation and prompt global strike. Further, the USA declared new 'US National Space Policy' on 31 August 2006 and under the chapter on National Security Space Guidelines not only asked Space to "Support and enable defence and intelligence requirements and operations during times of peace crisis and through all levels of conflicts but use it in whatever way in the National Security interest."

The context of the US Space Policy is just to emphasise that every country formulates it's policies keeping it's own National interest in mind. We have to also look at our own policy framework to check if the present policy, in any way, comes in as an obstacle to our National interest.

Conclusion

National Security today is under great stress. The role of technology is going to be very important in the future wars. The role of man during the war and in the war theatre will reduce further and further as time passes. The role of man in planning during peace time is going to be decisive. Today, National Security is not the responsibility of the Armed Forces alone. All leading technologists have to be harnessed in this business. Space is a great enabler and has the potential to provide an edge to our Armed Forces, which would bring a historical change in the National Security policy of India. By integrating Space Technology, the Indian Armed Forces can get into an advantageous position vis-à-vis its adversaries. If our existing National Policy on Space is coming in the way, then, this is the right time to change it immediately, to strengthen our overall security set-up. Our Space Policy should be made responsive to the National Security needs.

*Text of the Talk delivered at USI on 01 Oct 2009.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

The Art of Perception Management in Information Warfare Today

Brigadier B M Kapoor*

Introduction

According to Alvin Toffler, "The full implications of what we termed 'Third wave knowledge warfare' have not yet been digested. The wars of the future will increasingly be prevented, won or lost based on information superiority and dominance. Cyber-war involves everything from strategic deception and perception management down to tactical disruption of an adversary's information systems."

In the Iraq War 2003 journalists were 'embedded' in the American Forces as combat cameramen. The purpose was not to give the world a ringside view of the war but to give it the 'American' view. As the Washington Post of 24 March, 2003 put it, "Almost by definition...a war waged on live television is a war in which political and public relations considerations become inextricably bound up with military tactics and strategy...How victory is won is almost as important as victory itself."

Another significant event, the toppling of Saddam's Statue in Baghdad, made great news with extensive TV coverage. However, as Sheldon Rampton and John Stauber wrote in In These Times on 8 April 2003, "As US tanks stormed into Baghdad on April 9, television viewers in the United States got their first feel-good moment of the war - a chance to witness the toppling of a giant statue of Iraqi dictator Saddam Hussein. The problem is that the images of toppling statues and exulting Iraqis, to which American audiences were repeatedly exposed, obscured a larger reality. A Reuters long-shot photo of Firdous Square showed that it was nearly empty, ringed by the US tanks and marines who had moved in to seal off the square before admitting the Iraqis." 2

These instances were a very powerful demonstration of the use of Perception Management in international affairs. Simply defined : Perception Management is 'Information' operations that aim to affect perception of others to influence their emotions, reasoning, decisions, or actions.

Information Warfare

Nations, corporations, and individuals seek to increase and protect their information while trying to limit and penetrate the adversary's. Since early Seventies, there have been extraordinary improvements in the technical means of collecting, storing, analysing and transmitting information. Information-related technologies concentrate data, vastly increase the rate at which we process and transmit data, and penetrate the results into every aspect of our lives. Modern means of handling information give it much added vulnerability through direct access and manipulation. Modern technology now permits an adversary to change or create information without relying on observation and interpretation. Some of the system characteristics creating this vulnerability are: concentrated storage, access speed, widespread information transmission, and the increased capacity for information systems to direct actions autonomously.

Intelligent security measures can reduce, but not eliminate, this vulnerability; but their absence makes it glaring. Traditional means of conducting information warfare include psychological operations, electronic warfare, military deception, physical destruction, and security measures. Some others are information manipulation, information disturbance, degradation and denial.

Information Warfare and Perception Management

Talking of 'Information Warfare and Global War on Terrorism', Professor Phil Taylor of University of Leeds says, "The lesson of 'victory' in the cold war and the information explosion have shown that power can no longer speak for itself in the global perceptual environment; it needs to be explained." He denotes the major national policy objectives of any nation as economic, political, diplomatic and military; military objectives encompass psychological operations and civil-military affairs. Professor Taylor's vision of the 21st Century environment shows this to be an era of Weapons of Mass Destruction, Terrorism, Asymmetric Warfare, and Information Warfare.

Information Warfare is : 'information operations conducted during a time of crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries', whereas, Information operations are, 'Actions taken to affect adversary's information and information systems while defending one's own information and information systems.' Information operations are integral to the successful execution of military operations. Information operations consist of Influencing operations and Cyber operations; Influencing operations and Cyber operations include Psychological operations and Deception.'

Perception Management

'Perception Management' is a term originated by the US military. The US Department of Defence defines it as : 'Actions to convey and/or deny selected information and indicators to foreign audiences to influence their emotions, motives and objective reasoning, as well as to intelligence systems and leaders at all levels, to influence

official estimates, ultimately resulting in foreign behaviours and official actions favourable to the originator's objectives. In various ways, perception management combines truth projection, operations' security, cover and deception, and psychological operations.'

Although perception management operations are typically carried out within the international arena, use of perception management techniques have become part of mainstream information management systems. As Stan Moore has written, "Just because truth has been omitted, does not mean that truth is not true. Just because reality has not been perceived, does not mean that it is not real." In their book *War and Anti-War*, Alvin and Heidi Toffler list the following as tools for perception management:-

- (a) Atrocity accusations
- (b) Hyperbolic inflations
- (c) Demonisation and/or dehumanisation
- (d) Polarisation
- (e) Claim of divine sanction
- (f) Meta-propaganda

The History of Perception Management in USA

Although perception management is specifically aimed at foreign audiences, there are many instances of the USA engaging in domestic perception management. A recent example is the prohibition of viewing or photographing the flag draped caskets of dead military as they are unloaded in bulk upon arrival in the US. During the Vietnam War, the Pentagon exaggerated communist threats to the US in order to gain more public support for an increasingly bloody war. More recently, the US government has used perception management techniques to promote the belief that weapons of mass destruction were indeed being manufactured in Iraq, and that Iraq had aided and assisted the Al Qaeda terrorists responsible for the September 11, 2001 attacks upon the World Trade Centre. These "facts" were, in part, the government's justification for invading Iraq and beginning the war.

The US military has demonstrated use of perception management multiple times in modern warfare, even though it has proven to take a hit to its credibility among the American people. The Los Angeles Times reported in an article that the Pentagon had secretly paid Iraqi journalists to publish stories written by the US soldiers. The report said that the one-sided stories were falsely presented as unbiased accounts produced by independent journalists.⁵ During the conduct of military campaign, novel measures of 'embedding' reporters with military units were adopted. The reporters who wanted to be embedded were forced to undergo a mandatory camp, which gave many their first appreciation of the challenges faced by an average soldier. This also created an inevitable bond between 'reporters' and the 'units' they covered.

A Case Study in Perception Management: The Rendon Group

James Bamford's profile of John Rendon ("The Man Who Sold the War, Bush's General in the Propaganda War")⁶ illustrates the genesis and development of the perception management strategy in the Iraq War. On 17 December 2001, in a room in Thailand, strapped to a polygraph machine was Adnan Ihsan Saeed al-Haideri, a forty-three-year-old Iraqi. Answering a series of questions, he insisted repeatedly that he was a civil engineer who had helped Saddam's men to secretly bury tons of biological, chemical and nuclear weapons in subterranean wells, hidden in private villas, even stashed beneath the Saddam Hussein Hospital in Baghdad. After a review of the polygraph chart, the intelligence officer concluded that al-Haideri had made up the entire story.

Al-Haideri was the product of a clandestine operation that had been set-up and funded by the CIA and the Pentagon for the purpose of selling the world a war. The man in charge of its marketing was John Rendon. Two months before al-Haideri took the lie-detector test, the Pentagon had secretly awarded him a \$16 million contract to target Iraq and other adversaries with propaganda. Rendon is a leader in the strategic field of perception management. Working under this extraordinary secret authority, Rendon assembled a group of anti-Saddam militants, the Iraqi National Congress (INC) and served as their media guru and 'senior adviser' as they set out to engineer an uprising against Saddam. The INC routinely coached defectors on their stories, prepping them for polygraph exams. According to Francis Brooke, the INC's man in Washington and himself a former Rendon employee, the goal of the al-Haideri operation was to pressure the US to attack Iraq and overthrow Saddam Hussein.

For the worldwide broadcast rights, they got Paul Moran, a former INC employee. Moran had also been on Rendon's payroll for years. The INC's choice for the worldwide print exclusive was Judith Miller of The New York Times. Her front-page story on 20 December 2001 was exactly the kind of exposure Rendon had been hired to provide. 'AN IRAQI DEFECTOR TELLS OF WORK ON AT LEAST 20 HIDDEN WEAPONS SITES', declared the headline. It was the first in a long line of hyped and fraudulent stories that would eventually propel the US into a war with Iraq - the first war based almost entirely on a covert propaganda campaign targeting the media.

A recent US Congressional report suggests that the Pentagon may be relying on "covert psychological operations affecting audiences within friendly nations." The report also concludes that military planners are shifting away from the Cold War view that power comes from superior weapons systems. Instead, the Pentagon now believes: 'combat power can be enhanced by communications networks and technologies that control access to and directly manipulate information.' As a result, information itself is now both a tool and a target of warfare. It is a belief John Rendon encapsulated in a speech to cadets at the US Air Force Academy in 1996. "I am not a national-security strategist or a military tactician," he declared. "I am a politician, a person who uses communication to meet public-policy or corporate-policy objectives. In fact, I am an information warrior and a perception manager."

In the opinion of global media, especially in the Arab world, the overt 2003 policy was actually about regime change in Iraq. It was an Anglo-USA invasion or conquest rather than liberation. This time there was total integration of perception management in the operations all the way and from top to bottom.

The media performance in the operations was though quite off the mark. Some examples are; Umm Qsar being reported having fallen eight times in the first week; the toppling of Saddam's statue; and the classic case of Private Jessica's rescue. "In the 14 days after her rescue, Private Jessica Lynch drew 919 references in major US papers, according to a Nexis search. OK... it was the first successful rescue of a US PW behind enemy lines since World War II ... BUT.. How awkward to have to tell them she was a truck crash victim saved by the enemy and not actually rescued by the same commando unit that did not actually find those elusive weapons of mass destruction."

Some conclusions that Professor Phil Taylor 8 draws from his incisive study are :-

- (a) Pro-war coverage in the US made the US media 'cheerleaders' in the eyes of a watching, more skeptical global media.
- (b) Issues about war's justness were debated more in nations not affected by '9/11'.
- (c) Non-US media simply didn't get the link between the 'war on terror' and the 'axis of evil'.
- (d) The US media became part of the Information Operations campaign but global media did not, and this damaged the US cause outside the US.

The Indian Context

Today, conflicts cannot remain localised but rapidly become internationalised. Every nation has to keep the global ramifications of any action against another nation in mind. With the global and instant reach of the media, and thanks to the all-pervasive technology, information warfare assumes great importance. Today, wars are not just fought on the battlefields but as much in the minds of the stakeholders. Wars are now increasingly network-centric

The Indian Armed Forces have attained sufficient capability in this regard. With its increasing influence as an emerging superpower, India would do well to learn and practice the art of perception management not only in the diplomatic sphere but also in its doctrines of handling of information warfare.

Conclusion

Disinformation has been a part of war since at least the days of Alexander the Great, who planted large breastplates of armour in the wake of his retreating troops to convince the enemy that his soldiers were giants. Perception management is now an accepted part of wielding international strategic influence. In affecting the perception of a foreign government, the goal is to change the foreign government's policy to support your political interest. The goal could also be to influence the foreign government's perceptions of elements of the foreign society.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

Tibet's Golden Age of Sovereignty

Lieutenant General Baljit Singh, AVSM, VSM (Retd)*

Introduction

Eleventh November 1950 marks the watershed in collective political awakening of the Comity of Nations to Tibet, as a sovereign country in the spirit of the Charter of the United Nations Organisation 1 (UNO). For, His Holiness the Dalai Lama of Tibet made the first of his several appeals to arouse the conscience of the world, through the Secretary General of the UNO, in the hope that "aggression will not go unchecked and freedom unprotected in any part of the world".

The People's Liberation Army (PLA) of China had invaded and entrenched its presence over considerable territory in Eastern Tibet. The Dalai Lama's appeal of 1950 was a factually profound historical synopsis of Tibet's past and present. The poignancy of that text resurfaces in the mind every time the Tibetans in Lhasa, or elsewhere, protest the loss of sovereignty of their country.

The constraints of geography had made Tibet inaccessible, almost up to the last decades of the 19th Century. This had to a large measure also moulded their national psyche of living in 'splendid' isolation. The earliest outsiders ever received, and in fact invited by the Tibetans themselves, were the 'gurus' of Buddhism from India, more than 1000 years ago. Of course a few Jesuit priests had also succeeded in reaching Lhasa in the 18th Century but they failed in proselytising the Tibetans, and their narratives of the adventure are disappointingly superficial.

So to this day, the world hardly knows that before the first Dalai Lama assumed the role of a King - cum - spiritual authority over Tibet in 1642 AD,² there had been forty generations of Kings of Tibet. This dynastic line of indigenous rulers presided over Tibet for more than one thousand years.

The peak of consolidation of Tibet as a sovereign State can be said to have occurred in 629 AD, when the 33rd King felt self assured to demand and solemnise marriage with a Chinese prince. In the prevalent manner of royalty consolidating regional power status in those days he also took the daughter of the king of Nepal as yet another wife!

During the reign of the 36th King, Tibet's sovereignty was militarily challenged by China for the first time. But this aggression was met and defeated promptly and followed up by capturing sizable adjacent Chinese territory to create a buffer! And as a mark of sagacity to prevent any future misadventure, the 40th Tibetan King erected a stone pillar on the Tibet-China boundary in 829 AD.

On the pillar was chiselled its purpose and date of installation, both in the Chinese and Tibetan official scripts. Two more identical pillars, one of which was got installed on the grounds of the Peking palace and the third at Lhasa. This whole episode speaks volumes for the unassailable sovereignty of Tibet vis-à-vis the Chinese empire.

Unfortunately, a few decades later, this robust and perhaps the world's largest lived dynastic line of Kings ended with the 41st King for possibly want of a natural, male heir. So, the next about 500 years witnessed Kingship change hands between two leading houses of Tibetan nobility. For the first time, foundations of Tibetan sovereignty were strained by internal dissension.

Perhaps this is the time when Tibet came to have three distinct administrative entities: Amdo in the North, Kham in the East and Lhasa encompassing the rest of territory down to its Southern frontiers with India, Nepal and Bhutan. But, there was no internal challenge to the writ of the King at Lhasa over Amdo and Kham or any external machinations to splinter the country.

This was the stage when the first Dalai Lama was by popular consent, handed the reins of the King - cum - reincarnating divinity of Tibet. Over a period of time the Dalai Lamas came to command the unqualified allegiance of the entire citizenry of Tibet, perhaps more comprehensively than any Pope has from its Christian congregation.

Under the circumstances there was little hope for China to subjugate Tibet. So, they conceived a clever subterfuge. Soon after the first Manchu emperor of China consolidated his position, he invited his Tibetan counterpart, the fifth Dalai Lama as his religious mentor. Throughout his journey to and lengthy stay at Peking, the Dalai Lama was accorded the protocol of a sovereign King.

At the time of leave - taking, the Manchu emperor assigned two of his senior officials called Ambans to accompany the Dalai Lama to oversee his comforts during the journey. Why or how the Tibetan officialdom accepted the Ambans pleas to be allowed to remain at Lhasa as their Emperor's plenipotentiaries is a mystery. And that was the beginning of the end of Tibet's sovereignty and the first diabolical stratagem to absorb Tibet in the 'mother-land'.

Tibet's self imposed 'isolation' was now to prove even more grievous to its sovereignty. They could not perceive the advantage of allying with the British in India as partners in the 'Great Game' against China. For that would have neutralised the presence of the noxious Chinese Ambans in Lhasa and perhaps changed the course of Tibet's present history for all times. But then Tibet simply had to flow with her ordained 'Karma'.

But, the British too were past masters at diplomatic intrigue. They cultivated the Chinese and through a bilateral

convention in 1893 they obtained trading rights in South Tibet as also to jointly survey and fix boundary pillars on the Indo-Tibet frontier in Sikkim.

The Dalai Lama was quick to assert his sovereignty. No sooner had the Chinese and British left after erecting boundary pillars, the Tibetans removed and erased all evidence! The British political agent in Gangtok, Claude White, was equally quick to counter - react. He went and camped at the site of the northern-most pillar at Kongka La (lately in the news as the 'Little Finger Area'). The Tibetan outpost at Khamba Dzong, some fifty miles north, mobilised their detachment and surrounded Claude White and his escort by night. At day break, they bodily lifted Claude White, sat him down astride a pony and led him upto the western slopes of Guru - Dongmar mountain, some 10 km due south, where they considered was the traditional boundary!

But Tibet's 'Karma' was indeed blighted. When Colonel Sir Francis Younghusband led the Expeditionary Force to Lhasa in 1904, Claude White would witness the hoisting of the Union Jack in the shadow of the Pota La.³ Far more catastrophic effect was that the ill matched Tibetan troops were so thoroughly mauled and demoralised that soon thereafter the Chinese Army troops once again intruded and reached the outskirts of Lhasa in 1910. The thirteenth Dalai Lama fled to India, to negotiate from there with the Chinese. Later, the Fourteenth Dalai Lama too met the same fate in 1959.

Individuals may be driven to exile but for a better part of a sovereign nation to be deprived of its home and hearth is an unforgivable high treason.⁴ Or should be. In the manner that the world had acquiesced with the Jews to carve out Israel, there is little hope that the UNO and the world at large will ever aid the Dalai Lama and his faithfuls to return to Tibet in dignity.

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Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.

Bhutan's March to Democracy: Challenges Ahead

Ms Madhuri Sukhija*

Introduction

The pocket sized kingdom of Bhutan is a country better known for its fiercely protected environment that is why it is referred to as the 'The Last Shangri-La'. By a strange medley of choice and historic accident, Bhutan accomplished what no other society in Southern Asia was able to do during the colonial period, that is, to isolate itself from a wide variety of influences from the West and the frenetic pace of modernisation. Seemingly, it was this virgin character that made it a popular destination for tourists. But behind the tourist temptation, Bhutan is being catapulted into the 21st Century. A new Penal Code will for the first time 'define': what is and is not a crime? If the traditional masked dance is pride of the Buddhist culture, as is the fresh yak meat in the market stall; so has the stylish cappuccino and the western discotheque found a place in the heart of Bhutan.

The year 2008 may go down in the history of South Asia as the year of democratic institutionalisation and electoral process.² After Pakistan and Nepal, Bhutan is a case in sight. But what makes Bhutan's case so distinct was the fact that the elections were not triggered by any grass-root upsurge for political change and representative governance. The Bhutanese people were to be governed by traditional monarchy, whose criteria for development was defined by the unique concept of Gross National Happiness (GNH), in contrast with Gross National Product (GNP) - felt and enjoyed not only materially but also spiritually by its people. Bhutan's call for democracy was a top-down gift to people by the king Jigme Singhye Wangchuk, much to the amazement of domestic and international onlookers.

In 2005, the king of Bhutan decided to open up his traditional monarchy to political liberalisation. He set about the process of drafting a new constitution that would make the king a constitutional head and transfer executive power to the elected representatives. The new written constitution was drafted by a committee of 39 members headed by the Chief Justice of Supreme Court of Bhutan.

The Constitution

The Preamble declares "The people of Bhutan do hereby ordain and adopt this Constitution for the kingdom of Bhutan". The Constitution provides for separation of legislative, executive and judiciary. Article 7 carries a long list of Fundamental Rights for the people of Bhutan that include the right to life, liberty and security of a person, and the right to freedom of thought, conscience, religion among others. The new Parliament is bicameral with elected National Council and National Assembly. Most significantly, political parties are legalised for the first time in Bhutanese history. The other notable provisions are political neutrality of the civil services, local governance and decentralisation.

Although the institution of monarchy remains central, many changes have been introduced. Some are quite unusual. For instance the monarch can be a woman, which is new in Bhutan. He / she shall step down and hand over the throne to his/her successor upon reaching the age of 65 years. This is a unique constitutional concept. Provision is also included for the monarch to abdicate, for wilful violation of the Constitution. King would remain as the head of state but the Parliament will have power to impeach him by two-third vote, if necessary.

Much like India and other democracies, there is separation of the executive from the legislature and the judiciary.³ The three branches of the government work in their respective spheres but with suitable checks and balances.

Branches of Government

Executive Branch

The Executive branch comprises of the Cabinet or the Council of Ministers (Lhengue Zhuengtsho). In 1998, the king devolved full executive powers to an elected Cabinet. Bhutan ministers (Lyonpos) are no more appointed by the king. They had to be voted in by the National Assembly. Candidates for the Council of Ministers are elected by the National Assembly for a fixed five year term, and must be a part of the Legislative Assembly. The Cabinet is headed by the Prime Minister, who is the head of the Government. The post of the Prime Minister rotates each year between the five candidates who secured the highest number of votes.

Legislative Branch (The Parliament)

Under the new democratic system there will be a bicameral legislature consisting of the Upper and Lower House, the latter based on political party affiliations. Elections for the Upper House, 20 seat (National Council) were held on 31 December 2007, while elections for the Lower House, 47 seat (National Assembly) were held on 24 March 2008. The two political parties - the People's Democratic Party (PDP) headed by Sanjay Ngedup and the Druk Phuensum Tshogpa (DPT) headed by the Jigmi Thinley, competed in the National Assembly election. The DPT won a landslide victory taking 45 out of 47 seats in the Parliament. The elections were monitored by more than 40 international observers including the UN and praised by the USA as a "positive step in Bhutan's transition to a Democratic Constitutional Monarchy"

Apart from election scenario in the Parliament, what becomes noteworthy is that the Tshogdu or the Parliament

has gradually evolved from being a rubber-stamp institution, at the beginning of the 1970s to a more active and representative institution today. Besides, on various occasions, members of the National Assembly have expressed views that differed significantly from those defended by the king. Where debates have been more open to criticism, discussions on the annual budget have become more incisive.

Judicial Branch

In Bhutan's judicial system, the king is the final court of appeal. The High Court of Thimpu is known as the Royal Court of Justice which is the Supreme Court of the Country. It was set up in 1968 to review appeals from the District Courts. Until then the District Courts administered the law. The Judges of the District Court and High Court are appointed by the king. Over the years one notices an improvement in the judicial process through the enactment of decisive acts, the development of standard civil and criminal court procedure, which all amount to modernisation of the overall system which has been enriched by the principles of western origin.

Democracy at the Grassroots

As mentioned earlier Bhutan's call for democracy was a top-down sermon by the king himself. Keeping in tune with this principle, a constitutional mandate provides the framework for decentralised institutions at the local level to be recognised as an important tier of the government. Bhutan is divided into 20 districts or DZONGKHAGS each headed by a district officer (DZONGDA) who must be elected. Larger districts are further subdivided into sub-districts called DUNGKHAGS. Between 1976 to 1981 District Development Committees (DYT) were established as a first step. Today there are 20 DYT's with more than 560 elected members.⁵ A group of villages are grouped into a constituency called GEWOG, administered by a locally elected leader called a GUP. There are 201 elected GUPS, elections for which were held on the basis of universal suffrage from September to December 2002. For better functioning of the GEWOGS, Gewog development committees were created at the block level in 1991. Each local area is responsible for creating and implementing its own developmental plan in consideration with the district.

Elections with a Difference: The Bhutan elections were unique not only because they were ordered by the king but also because, unlike other South Asian countries, educational qualifications were made an important factor. The king introduced a stipulation making it mandatory for the candidates to the Parliament to have a university degree of western education format. A large section of the population, endowed with experience and patriotism were thus denied their inalienable democratic right to participate in politics and become MPs on the ground that they were not graduates. Here it becomes imperative to mention that Bhutan has a small graduate community of just 3000 persons. This is also indicative of the fact that in a Country where the rate of literacy is still around 42 per cent, the graduate community may mostly come from the upper and elite sections of the society. In that case the Bhutanese Parliament may just turn out to be a forte of the elite.

So far personalities have been more significant than ideological differences in the emerging political debate as shown by results of the Parliamentary elections. Elections were also constrained as the contesting parties were screened before they were given permission to participate. The Druk People's Unity Party (DPUP) was disqualified after scrutiny for what was described as lack of credible leadership.

Another notable feature was that certain sections of the Bhutanese population were denied access to elections. The parents of the contestants have to be Bhutan born. The relatives of rebels were banned from participating in the current democratic elections. The democratic voting rights of monks were denied too so that the electoral process could be kept free from the religious issues. One wonders - Are they not Bhutanese citizens? Another bone of contention has been the exiled Nepali origin Bhutanese who are 100,000 in number and reside in refugee camps. They were not included in the voter's list and were not allowed to participate in the elections.

Ushering in all this change was Bhutan's brand new Election Commission which successfully held one round of mock elections as a preview to the final elections in March 2008. The wooden ballot finally gave way to the Electronic voting machine which was funded by India. As many as 74.4 per cent of more than 318,000 registered voters cast their votes. The Election Commission gave one lakh Bhutanese rupees, in addition to essential election material, to each candidate towards poll expenses. A television debate between the leaders of the contending parties was also organised by the Election Commission.

Good Governance and Modernisation. Over the years, good governance and modernisation have become an intrinsic part of Bhutan's efforts towards democratic reforms. The television finally arrived in early 1990s although the rural areas still depend on radio for their information. Internet access followed in 2001 and a cellular phone service in November 2003. The draft constitution categorically points out that there would be freedom of press, radio and television. Last December Bhutan became the first country to impose a complete ban on the sale of tobacco products. In fact, this lead is without a parallel. As defined by the Royal Civil Service Commission, good governance is guided by the principles of promoting efficiency, transparency, accountability, justice, equality and empowerment in order to meet the goals of peace, progress, security and people's welfare. New administrative bodies like the Employment Agency have been created in as much as the establishment of a career line for civil servants. Enhancing the private sector development has long been part of the good governance efforts.

Challenges Facing the Bhutanese Democracy

The question that comes to everyone's mind is: will the democratic experiment in Bhutan survive or give way to chaos?

First, the transition to democracy in Bhutan has been an uphill task. The transition to democracy has been more an act of grafting than a process of growth.⁷ It has been implanted on a soil accustomed to some hundred years of benevolent monarchy. The success of democracy requires change in the mindset of the people of Bhutan to accept the virtues of democracy. It is however the case that while the people of Bhutan want democracy, they want monarchy more. The outcome of two rounds of mock elections held in April and May 2007 was in favour of traditional values and traditional system.

Second, most observers have been surprised by the results of recent Parliamentary elections where the DPT routed the PDP and won 45 out of the 47 seats of the first new National Assembly. These elections may have emphasised the importance of consensus politics but they have also spelt the insignificance of the smallest opposition anywhere in the world amounting to three only. The absence of real opposition will be a challenge for the incoming government that will have to prevent consensus from being seen as a denial of democracy.

Third, right to criticise the political elite may not come naturally to the conformist people of Bhutan. This mindset may actually stand in the way of free flow of opinion.

Fourth, in a Country where 60 per cent of the population is illiterate, making education (graduation) a necessary qualification for contesting elections to the Parliament, it seems, would not actually represent the interests of the common people but rather the interests of the educated sections who come from the rich upper strata of society.

Fifth, another thorn in Bhutan's quest for democracy is that the Constitution has not addressed the plight of the Bhutanese people of Nepal origin who have not been given due right and representation.⁸ Migration by Nepalis into southern Bhutan began in the early 19th Century. Currently these and other ethnic Nepalis referred to as Lhotsampas, comprise 35 per cent of Bhutan's population. In 1988, the Government census led to the branding of many ethnic Nepalis as illegal immigrants. Local Lhotsampa leaders responded with anti-government rallies demanding citizenship and attacks against government institutions. Between 1988-93, thousands of ethnic Nepalis fled to refugee camps in Nepal alleging ethnic and political repression. Bhutan and Nepal have been working for over seven years to resolve the problem and repatriate certain refugees living in Nepal. However, officials from both the political parties DPT and PDP have said resolving the grievances of ethnic Nepalis' is a priority.

Lastly, a major obstacle to the growth of democracy is that the Bhutanese territory is being used by Indian insurgent outfits like the ULFA, Maoists and so on.

Conclusion

Whatever be the challenges in Bhutan's march to democracy - it is heartening to note that the kingdom has taken the first bold step on the democratic journey. The fact remains that Bhutan's much worshipped Monarchy today co-exists with a newly elected Parliament and an accountable Government. Democracy holds the key to addressing several issues of non-conventional security. It promotes an opportunity to ensure domestic security through dialogue and people's participation in the process of governance.

Struggling democracies, be it in Bhutan or elsewhere, must be consolidated so that all levels of society come to terms with democracy as the best form of government and to the country's constitutional norms and restraints. Even if the democratic reforms had not been thrust upon, I think Bhutan's transition to democracy would have come anyway. It was only a matter of time. In the present era of democracy - absolute Monarchy is an anachronism. Bhutan for all the advantages of benevolent dictatorship could never have taken up its place in the world until it became a full fledged democracy.

Contrary to Huntington's general predicament that "The struggle between a pro-status quo-traditional elite and a pro-change modernising elite is likely to be fatal to any monarchical system lacking the Western political-cultural background",¹¹ the process of political modernisation has not been fatal to the monarchical system in Bhutan. On the contrary, the Monarchy has been the main agent of democratic reform as demonstrated during the reign of the Fourth King. In fact, the coming in of modernisation in Bhutan has not necessarily meant replacement of tradition. Both co-exist. Far from conservatism; change in continuity has been a reality in Bhutan and a credible alternative to revolution.¹² It may also have lessons for other countries in the region. King Wangchuk was right in saying in his abdication speech. "Why wait for a revolution"?

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Integrated Development Model for Army Cantonments

Lieutenant Colonel Yogesh Nair*

Introduction

The primary role of Indian Armed Forces is to safeguard sovereignty and maintain territorial integrity of the country. Although organised and structured to perform its assigned tasks; it also plays an important role in 'Nation Building'. Nation building encompasses wide range of issues from macro to micro, and is a multifaceted, multi dimensional developmental process. Infrastructure expansion is one of the principal factors contributing towards Nation building, which not only supports the State's positioning for development but also caters for growing population and economic demands.

Indian Army with its mammoth 1.2 million work force has acres of land under its possession as cantonments / military stations and various other establishments. At the first glance the Army cantonments with their picturesque locations, layouts, parks, play grounds, environmental training areas and scenic beauty stand out from rest of the places. However, a closer look at the cantonments has a different tale to narrate; by and large poor and disoriented layout, portraying lack of foresight and planning. Most of the constructions are undertaken piecemeal without any concrete futuristic plan. Majority of these are developed on need basis and based on the personality of the Commanders. Although, of late sufficient ground has been covered in terms of planning process, much more is desirable for all round improvement; indeed a right time to formulate a uniform policy for all developmental projects.

Army's unique, non-violent and productive role in well-being of the environment, creating social and security patterns founded on cooperation and non confrontational approach has always been acknowledged and recognised. It has been a leader in true sense and has many firsts to its credit; in fact in several fields it has served as a role model for others to imbibe. This write up is a modest attempt to suggest a model for integrated development in Army cantonments and other military establishments.

Objectives

In the present context, the need is to develop cantonments into self sustaining military stations, in tune with the changing social needs of the society. This can be accomplished by planning cantonments more comprehensively based on integrated development model by integrating mankind and technology with nature, with the aim of restoring life's harmony, completeness and fulfillment in the living process². The integrated development model has been suggested to achieve following objectives:-

- (a) It should reflect a holistic and integrated vision of the planet 'earth', in its most natural form.
- (b) As a part of an integrated urban whole, they should contribute in solving larger urban and environmental problems.
- (c) The integrated model should use sustainable design, construction, and management practices to reduce resource inputs and waste outputs. The use of recycled materials can be suitably incorporated for enhanced effect.
- (d) Environment integration should no longer depend on picturesque aesthetics to communicate the idea of nature. Rather, they should form part of expanded fields of the landscape available.
- (e) Integrated development should serve as a vehicle for reconnection. Eco friendly buildings, parks and environmental training should provide opportunity for passive contacts with nature, as also generate deeper understanding on issues of environmental protection and conservation.

The Concept

Today when we speak about integrated development, it is important to start at the beginning, with the idea of nature. It should be designed with the aim of providing an aesthetic experience of nature as an antidote to urban life. In consonance with its vision, the first step is to create a clean pollution-free environment, where life can co-exist with nature in complete harmony. To achieve this, the canvass has to be broad with a goal to create infrastructures which are 'friendly' to the population at large and in harmony with the environment. Today, life being an ordeal of long distances, cantonments need to be evolved with a rationale of developing all the vital amenities and institutions that the residents need as close as possible.

They need to be a model of all inclusive and holistic growth. This can be achieved by integrated development, with a walk to work-home-recreation lifestyle, futuristic residential models, contemporary commercial zones, and basic educational institutions. With its immaculate construction practices it should also be known for its uniqueness and novelty furthering eco-friendly vision.

Green Architecture

Green architecture is a sustainable method of design and construction with environment as the backdrop. Green architects generally work with the concept of creating energy efficient and environment friendly structures. The

natural ecology of the planet is taken as the macro sculpt to be used as a model for designing green infrastructure. The architecture is centred on the planetary system as the theme to create natural environment, in terms of materials used, space to be occupied and incorporation of energy efficiency utilities, including use of solar technology

Green architecture is a perfect tool and a wonderful example of the possibility of humans living harmoniously within the environment. The existing opportunities need to be exploited to design aesthetic, energy efficient and environmentally friendly living and workplaces that can demonstrate human ability to adapt to peaceful living, within the ecology of the natural world.

The Integrated Model

Army's environmental focus needs to be oriented towards providing eco-friendly infrastructure with state-of-the-art facilities contributing towards creating model projects for the future. The cost-effective integrated building concepts can be adapted to everyday home living, with modifications to suit the requirement of the area, topography and the weather conditions. The construction model needs to be a platform for sustainable green development with all the elements designed to have minimal impact on the environment. The issues that need to be factored for development of the desired model are described in the succeeding paragraphs.

Organisational Orientation. First and foremost requirement is to have an organisation committed and oriented towards nature conservation and environmental issues. The key is to get familiarised with the vocabulary associated with green infrastructure and design initiatives. Equally important is to understand the concepts of sustainable landscapes and high-performance energy efficient building designs. Besides the basic frame work, the organisation needs to draw on the local knowledge and global expertise involving the following;

- (a) Incorporating the concept of 'think globally - act locally'.
- (b) Accountability for 'global warming' is of utmost importance. Adoption of new methods, to reduce greenhouse gas emissions, carbon dioxide production, ozone depletion, environment destruction and soil erosion will have to be meticulously planned.
- (c) Another important parameter is adoption of green building management techniques. Environment friendly technologies and sustainable solutions need to be incorporated into all designs.
- (d) Adoption of the principle of 'reduce, reuse and recycle' for implementation of green solutions and to maximise output.

Sustainable Development Concept. Concept of sustainability signifies foresight to achieve long-term viability of projects based on comprehensive design initiatives and integrated approach. Land, water, energy, air and management of wastes have been identified as the focus area for tackling various sustainability related issues⁵. This has to be complimented with quality in construction, innovation in design, immaculate planning and focussed vision satisfying various social, economic and environmental parameters. Management of space, for different uses viz offices, training areas, educational facilities, residential complex, hospitals and commercial zone, needs orientation in such a way that they do not interfere with each other's functioning but at the same time present a integrated look, meeting all requirements and aspirations of the inhabitants.

Energy Efficiency Systems. Army cantonments practice numerous techniques for conservation and betterment of the environment. However, for enhanced effect and meaningful contribution towards reducing 'Global Warming', sustainable energy systems need to be adopted on a large scale. Some of the measures that can be incorporated are as follows:-

- (a) Constructing energy efficient buildings including use of energy efficient appliances, solar panels and heat pump technology. Cantonments have the potential of becoming one of the largest residential Solar Water Heating users in the country. This will not only save power and money but also contribute towards environment-friendly practices.
- (b) Designing passive solar energy facilities for homes using concrete floor thermal mass and pumice under floor insulation.
- (c) Use of centralised plumbing, insulated hot water cylinders and 'lag' hot water piping.
- (d) Use of green materials, including wood, stone, earth and recycled waste materials. Reducing this mounting level of waste is critical if we are to avoid having to build additional landfills and marring our landscape and water systems.
- (e) Biogas plant can be installed wherein biodegradable waste can be put through a process to produce non-polluting biogas which can be used to generate power to operate a major percentage of garden pumps. This will lead to saving of power which indirectly translates to power generation.
- (f) Use of appropriate and innovative technologies including fitting of low power consumption lights for lighting up streets and common areas.
- (g) Commissioning of electric and battery operated vehicle for administrative and security duties wherever feasible.

Water Conservation. Army cantonments can be made self sustaining in terms of water by efficient water management practices. Fresh water should be used only for drinking, cooking, washing, bathing and various toiletry requirements. The balance should be met out of recycled and use of waste water. Some of the methods for conserving water are as follows:-

- (a) Rainwater harvesting system to canalise water from terraces needs to be planned for, over natural wells, for recharging bores and artificial lake as also raising ground water levels. Rainwater collected can also be utilised for external use like watering of gardens, cleaning vehicles etc.
- (b) Waste water recycled with sewage treatment plants can be used for gardening purpose via the

- conserving drip irrigation and sprinkler distribution system.
- (c) Reducing irrigation and surface water run-off. The same can be harvested by 'zero run off' layouts restricting outflow of water.
 - (d) Inter-locking paving blocks and cutout grass concrete pavers assist in raising groundwater levels.
 - (e) Use water conserving appliances including toilets, showers, taps, washing machines and dish washers.

Use of Building Materials. Fly ash, which is an environmental hazardous waste produced by thermal power plants, can be used as a part replacement of cement and fine aggregates. Further, usage of fly ash bricks in construction will help in reduction of greenhouse gases, which are depleting the ozone layer. These bricks are superior to traditional bricks because of various reasons, viz good compressive strength, lesser breakage and wastages, better evenness and finish etc. As fly ash bricks are produced mechanically they are economical, good for all type of masonry work and absorb very less water. For every ton of fly ash used in construction, approximately one ton of carbon dioxide emission in environment is reduced, thus contributing towards pollution control. Some of the other building materials that are recommended for use are as follows:-

- (a) Sustainable, certified toxic treatment solid timber rather than processed composite sheet materials.
- (b) Low volatile organic compounds (VOC) and toxic-free paints, finishes and adhesives.
- (c) Natural floor surfaces such as tiles and linoleum.
- (d) Inert gypsum-based wall and ceiling linings.

Health and Wellbeing. Construction of 'eco-friendly buildings' will add to the overall excellence. The vision stems from a growing awareness that the homes in which we live, and the buildings in which we work, are not always as 'healthy' as we would like them to be. Sick building syndrome has been linked to respiratory problems, headaches, sore-eyes etc. Some of the measures to ensure general wellbeing of the inhabitants are as follows:-

- (a) Design a safe and user-friendly home meeting the basic physical, emotional and spiritual needs of the residents.
- (b) Consider healthy lighting, colour and sound, controlled temperature and humidity and good indoor air quality to enhance the living environment.
- (c) Reduce formaldehyde emissions and use pollution fighting indoor plants.
- (d) Create asthma aware homes i.e. not fitted with carpets, reduced ledges, low-allergen gardens etc.
- (e) Use integrated wiring system for lighting, power, security, fire alarm and audio facilities.

Garbage Management. The military stations/cantonments need to be designed on 'Zero Garbage Concept'. Eco-friendly practice of segregating tonnes of household and commercial garbage, every month needs to be done at the source. Every block should have three types of bins placed for organic waste, paper and recycled materials. Garbage collection for all the three types should be done separately. Further, every nursery should have bio-composte pits for generation of manure from garbage segregated at source in the cantonment. The composted manure can be used for nourishing saplings and shrubs. Thus, organic and biodegradable waste can be used as manure in nurseries after composting and the recyclable materials can be contracted for generation of cantonment fund. The non-biodegradable waste can be recycled in a way not hazardous to nature and disposed off safely. Similarly, solid waste and sewage disposal should be carried out in an orderly and eco-friendly manner. Use of sewage treatment plants can be suitably incorporated.

Conclusion

In the modern world, infrastructures are largely responsible for the sense of stability of life. Hence the infrastructure of the cantonments and military stations power packed with amenities needs to be modelled with an objective of integrating mankind and technology with nature to create a complete living place. The immense stretches of land in the Army cantonments need to be designed with 'nature' as the theme, encompassing commercial zones, residential complex, schools, hospitals, shopping malls, and recreation places; complemented by verdant greens and pollution free ambience to achieve supreme settings for lively meaningful life with remarkable realities. The concept of integrated development, with nature as the background in the cantonment, will not only preserve the floral heritage of the area but it would also facilitate conservation - replicating architectural representation of the planet earth.

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India and Landmine Ban Treaty

Major General Nilendra Kumar, AVSM, VSM (Retd)*

Anti personnel mines are munitions designed to explode from the contact, presence or proximity of a person. They are indiscriminate weapons capable of inflicting grave injuries. They do not distinguish between civilian and military targets. Landmines have been labelled as silent killers. Public activists have raised voice against their use calling them as silent killers. It has been highlighted that they cannot differentiate between a friend and foe. Injuries caused by them have disastrous long term consequences.

Mine Ban Treaty¹ commonly known as Ottawa process calls for a total ban on use of anti personnel landmines. States who are signatory to the process are bound to stop their use, declare their existing stock pile and to destroy their total holdings within ten years of their joining the process. Each state party that becomes a signatory to the treaty is obliged to ensure all its stockpiles are destroyed within four years of its joining the convention. All anti personnel landmines already laid are to be destroyed as soon as possible but not later than ten years of their signing the instrument. The treaty does not include anti tank mines, cluster bombs or claymore type mines.

Ten years of coming into force of landmine treaty has seen public activists stepping up demand for India to join the anti personnel landmine ban. Worldwide 158 countries have signed the mine ban so far. The treaty bans the use, production, stockpile and trade of landmines. The group of 39 countries, including India, have not signed the treaty. India has participated in the discussions and meetings leading upto the Ottawa Treaty. However, it has remained a non-signatory to the mine ban process. It abstained from voting on every pro-ban UN General Assembly resolution since 1997. Explaining its abstention, India tersely pointed out, "availability of military effective alternative technologies that can perform cost effectively the legitimate defensive role of anti personnel landmines" specially along with land borders would enable it to facilitate the goal of complete elimination of anti personnel mines. However, no detailed justification was brought in public domain to indicate Indian view point.

Use of the mines is deprecated by the activists on the ground of grievous injuries caused to the victims who are mostly civilians. Men in uniform are also exposed to its enormous damage. There is no data available to bring out injuries exclusively by the anti personnel land mines. According to the information submitted in the Parliament, Army's demining forces suffered 1776 casualties due to mines, unexploded remnants of war and IEDs between Dec 2001 and Apr 2005. Landmine Report 2008 has brought out that out of 170 casualties identified in 2007, 81 were military and 89 civilians. It is also pleaded that the population is rendered incapable to utilise the land assets for fear of stepping on landmines which have been planted in the areas that carry no danger markings prohibiting entry.

India remains one of the few countries still producing anti personnel mines. Its stockpile is estimated to be between four and five million, the fifth largest in the world. Five of the Mine Ban Treaty Party states have reported Indian made mines in their stockpiles. The countries are Bangladesh, Bhutan, Mauritius, Sudan and Tanzania. On the other hand, India states that no transfer of landmines to these countries took place.

There are many reasons due to which India may not be inclined to sign the Treaty at this stage or in its present form. This treaty as a legal instrument permits no reservations or deviations.² It has no limitation clause and thus allows no scope for any concession. It is this rigid policy of 'take it or leave' which appears problematic. The security needs coupled with domestic compulsions of a state party may require it a longer period to fall in line with the regime by destruction of their landmine arsenal. Or a state sharing borders with many countries may be, due to security considerations, willing to dismantle mines on certain borders but not in all. However, non derogatory stance of the landmine treaty does not permit such a deviation. Suppose India were to indicate that it would ratify the instrument but requires minefields to stay on its western borders for a few years more. The treaty would not allow it. Or if India wants, due to practical reasons, to take more than 10 years to demine the existing minefields, it would also go beyond the text of landmine treaty. A provision catering for a request for time extension for such a purpose beyond the laid down time frame of ten years is to traverse a complex route. It is to be decided by a meeting of the state parties or by the review conference whose decision shall be final.³ Such lack of flexibility and tolerance is clearly an inhibiting factor in its total acceptance. Thus, absence of a reservation or a limitation option may leave little option with such countries but to keep away.

Anti personnel landmine constitute a crucial component of military arsenal required to promote the defence warfare. No substitute has been found so far. It is a weapon designed to delay the advancing opposing forces and give early warning of their approach. It is an essential plan of the defence perimeter in any sector or theatre of military operations. It is used to create tactical barrier and to act as area denial weapon. It is also employed as a practical weapon to deceive the enemy to divert him to the killing ground and as a surprise ploy. Thus, infiltration of Kashmiri militants is the main rationale for mines laid along the line of control between Pakistani and Indian administered regions of Kashmir as well as along the international border. Defence Research and Development Organisation (DRDO) or the corporate sector have not come up either with an alternate substitute or a mine system technology having a definite shelf life. In this view of the matter, continued reliance on landmines, is a military imperative.

Acquisition of landmines in the Army's arsenal is relatively inexpensive. No reliable estimates are available to indicate budgetary load anticipated in shifting to alternate weapon system and discard use of land mines. Further, huge financial implications impede and discourage development and adoption of a substitute weapon system.

It is also felt that the worldwide campaign to decry use of land mines was mainly led and joined by European countries and others who in any case have no unsettled borders. They were not using land mines in any significant numbers. Therefore, they did not face any risk in discarding their mine stocks. On the other side are United States, Russia, China, Israel, Pakistan, Bangladesh, both Koreas and a few other South Asian States who have not joined the mine ban treaty so far. While the reasons for others to keep away from the treaty may differ in each case, India has actual issues of security concern which appear overriding. Certain portion of its borders have remained unsettled. Last 50 years have seen India dragged into a number of border wars. There is evidence that other states in the sub continent continue to deploy land mines. As such, there is little hope that security considerations in India would easily allow discarding of land mines as a weapon system. In this manner, political compulsions do not favour adoption of the Treaty at the present juncture.

Public society in India is yet to generate adequate pressure in its campaign to discard landmines. Indian Parliament has had no occasion to deal with this matter. There have been no discussions, debates, calling up motions or questions in the Parliament on the issue of land mine ban. There is no evidence of a public agitation or movement to induce the authorities to scout for other options. Media, too, has remained indifferent in this direction.

Indian Armed Forces have an elaborate and well planned drill for laying and marking of land mines. Troops are extensively taught and trained in Mine Warfare. Detailed plans of the minefields laid in their areas of responsibility are kept by the military units and formations to facilitate subsequent demining. All minefields are clearly marked. Placing minefields without marking and recording them for later removal is illegal under international conventions. Resultantly, the cases of minefield accidents are relatively uncommon. The injuries sustained by the mine victims are generally non-fatal in nature. Figures pertaining to accidental injuries caused due to land mines do not show any cause for unusual alarm. In fact, there are many other areas calling for greater concern in adoption of safety and security norms. To illustrate, India accounts for six per cent of the world's total road accidents and 10 per cent of the world's road deaths. Around 300,000 road accidents take place every year resulting in 90,000 deaths.⁴ It is nobody's case to discourage use of roads or vehicles. Take another example, according to one study in Northern India of 11,196 burn patients admitted to a tertiary burn centre over an eight year period, 29 per cent were due to malfunctioning kerosene stoves. Would that justify a ban on use of stoves? Moving to another item, each year, fire fighters battle thousands of fire across India during Deepawali festival to douse flames caused by fire crackers. Is there any move to totally eradicate fire crackers? The figures relating to accidental deaths due to fire arms, train accidents, air mishaps or boats drowning are a matter of public record. There is no agitation to put a total stop to their use. As such, the casualties from anti personnel landmines have to be appropriately viewed in the context of mines being integral part of military weapon system. There is therefore, hardly any cause for haste on the part of the Government to move towards acceptance of mine ban treaty in its present form.

According to its declared stance, India does use mines for counter insurgency or counter terrorist operations or for internal security situations. Thus, use of anti personnel is justified as being limited to military use for the sole purpose of defence. Yet another reason for the government not to seriously consider adoption of landmine ban is the tight control on their production, storage, and use. India claims that all production is vested with government agencies. Three different types of landmines (AP NM-14, AP NM-16 and APER 1B) are manufactured by the Ordnance Factories under the strict control of Ministry of Defence. No other agency is authorised to produce, stock or issue landmines. As such, the landmine stocks and their use are easily not open to misuse.

Above factors have contributed to absence of any pressure on the Government to seriously think of alternatives. There are different agencies like military operations staff and the officials of the Infantry Directorate, Corps of Engineers, Ordnance Corps, Army Medical Corps and the Judge Advocate General Department who are all concerned with different aspects of mine warfare. DRDO and Ordnance Factories have a significant role to play in the design, development and production of land mines. All these segments are under the control of Ministry of Defence. Apart from them, the matter comes within the domain of Border Security Force, Indo-Tibetan Border Police, Central Reserve Police Force and Coast Guard etc. who have their own areas of responsibility and needs of mine use. There is thus no single agency to articulate Indian security stance. A wholesome view on shifting to an alternate weapon system or mechanism would require consultation with all the stake holders.

Landmines are not the only instrument relating to international humanitarian law which have found dissenters in South Asia. There are other treaties like Additional Protocols to the Geneva Conventions and International Criminal Court etc. which have not been ratified by China, India, Pakistan, Sri Lanka and Bangladesh etc. India is also not a signatory to the convention on Cluster Munitions and had abstained from voting in favour of UNGA Resolution for an Arms Trade Treaty.

What then is to be done? Regional or bilateral process between the states could be initiated on a dialogue to do away with landmines in certain areas. Such an approach may gradually and eventually culminate in discarding use of landmines. A proposal for a joint moratorium by India and Pakistan could be brought on a fast track. The two countries produce 11 million landmines for use on their common border. The ban has been discussed as part of their confidence building measures. Defence scientists should be nudged to develop a time bound programme to produce a proto-type of landmines with a definite life span or a category of self destructive mines.

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Lieutenant General Sinha Remembers*

The Army's contribution to India's Independence and its role during the Partition of the Sub-Continent, have not received much attention. As one who served in the Army before and after Independence, and also witnessed the Partition holocaust, I would like to place on record my recollections of that period. My views on these two aspects of our Nation's history are based on my personal experience and not on any erudite research.

I joined the British Indian Army during the Second World War (The Jat Regiment) and continued serving in the Army of Independent India. Having served in Burma (now Myanmar) and Netherlands East Indies (now Indonesia), I returned home to India and landed in Calcutta (now Kolkata). I was in an army transit camp on 16 August 1946 when Jinnah launched his Direct Action Day. The Muslim League Premier of Bengal, Suhrawardy faithfully carried out the genocide in which thousands got killed in Kolkata, followed by killings and abductions in Noakhali. The calling out of the Army in Kolkata was deliberately delayed by Suhrawardy to allow the hoodlums to carry out their mayhem. I witnessed the streets of Kolkata strewn with mutilated dead bodies. Violence in the city abated after the Army was deployed to restore order.

A couple of weeks later, I was posted to the Military Operations Directorate of General Headquarters (now Army Headquarters) at Delhi. This Directorate had hitherto been an exclusive British preserve. All the officers and clerks were British. I joined the Directorate in September 1946 along with two other Indian officers, Lieutenant Colonel (later Field Marshal) Manekshaw and Major Yahya Khan, later President of Pakistan. We were allocated to three different sections of the Directorate, Manekshaw to Planning, Yahya to Frontier Defence and I to Internal Security (IS). At that time as part of IS duties, the Army was fully preoccupied in combating unprecedented communal violence. Never had the Army been used so extensively in this role. From my perch at Delhi I got a grandstand view of the cycle of communal violence taking place in the country. Kolkata - Noakhali killings were followed by mass killings of Muslims in Bihar and Garhmukteshwar.

The Unionist Ministry then in power in Punjab and the Congress Ministry in North West Frontier Province (NWFP) had managed to keep their provinces free of large scale communal violence. In March 1947 a Muslim League Ministry came to power in Punjab and a little later also in NWFP. The floodgates of communal violence of the worst type now raged all over North India from Delhi and beyond. Muslims and non-Muslims (Sikhs and Hindus) were matched evenly in Punjab. Both sides perpetrated the worst type of savagery. The entire population of the region appeared to have gone berserk. Towards the end of July, it was decided to have a Punjab Boundary Force of 50,000 soldiers comprising equal number of units earmarked for India and Pakistan. Major General TW Pete Rees took over as the Commander of this Force. Two Indian Brigadiers, one Hindu remaining in India and the other Muslim going to Pakistan, were appointed his deputies. This experiment did not succeed. Within a month, the Punjab Boundary Force had to be disbanded. The two Dominions took over responsibility for maintaining order in their respective territories.

On our side, a new skeleton Command Headquarters, called Delhi and East Punjab Command, was set up with Lieutenant General Sir Dudley Russell as the Army Commander. There were some twelve officers on his staff, all of them British except me. I was then a Major dealing with operations. There were three subordinate formations under the Command - Delhi Area under Major General Rajendra Sinhji who later became Army Chief, East Punjab Area under Major General KS Thimayya who also later became Army Chief and Military Evacuation Organisation at Lahore under Major General SBS Chimni. No passenger or goods train was running anywhere in Punjab. All the railway rolling stock had been mobilised for carrying refugees. Lakhs of Muslims from all over the country had concentrated in Delhi at three major locations, Purana Qila, Nizamuddin and the open space around the Red Fort. They were being evacuated in refugee trains, escorted by the Army, to Pakistan. Hindu and Sikh refugees coming from Pakistan were initially accommodated in a tented refugee camp at Kurukshetra, before being dispersed to other locations. At one time this camp held 5 lakh refugees. There were also long refugee foot columns, several miles long, moving from either side. It was impossible to provide adequate protection to these columns, extending several miles. Air drops of food packages were organised for these columns. The civil administration had collapsed in Punjab and our Command was assigned the duty of restoring order and evacuation of refugees. Mountbatten had made the luxurious Viceroy's train available to our Command. Russell established his mobile headquarters in that train. We were completely self-contained in the corridor train with accommodation for officers, clerical staff, security personnel, and our offices. Our messes and kitchen functioned in the train. We had line and wireless communications on the train as also our motor transport. I operated from this train for nearly two months travelling between Delhi and Lahore. I have in all humility recorded all these details so that some credence may be given to my views on the events of that time based on my personal experience.

To assess the Army's contribution towards the Independence of India, one has to go back to the Great Uprising of 1857. The British call it the Sepoy Mutiny or the Great Mutiny and the Indian nationalists refer to it as the First War of Indian Independence. Call it what one may, it was primarily an uprising of the Indian soldier against foreign rule. It lit the spark of nationalism in the Country and was a source of great inspiration for succeeding generations during our freedom struggle. The gallantry of the Indian soldier in battles, during the First World War won world wide acclaim. This was a source of national pride for the Indian people giving them increased self confidence. The emergence of the Indian National Army under Netaji Subhas Chandra Bose during the Second World War, added a new dimension to our freedom struggle. The INA comprised soldiers of the Indian Army taken prisoners by the Japanese in Malaya. The INA trials generated a patriotic surge all over the Country and was a big shot in the arm for our freedom struggle. This was followed by the Naval Mutiny in Mumbai and Karachi, Army mutiny in Jabalpur and Air Force mutiny in Karachi. This violently shook the foundations of the British Empire in India.

It was at this stage and soon after the Great Kolkata killings that I had joined the Military Operations Directorate in Delhi. There were three things that I found both interesting and revealing. First, a plan for the evacuation of all British civilians in India to the UK called Plan Gondola. Second, the operational map that I was required to maintain in the Operations Room. Third, a paper on the reliability of the Indian Army prepared by the Director of Military Intelligence.

The British feared an uprising on the lines of what had happened in 1857. Many British civilians were scattered in different parts of the Country. Plan Gondola catered for their initial evacuation to temporary camps in the provinces, at provincial capitals and some selected convenient locations. These were called 'Keeps'. Armed protection with necessary logistic support was to be provided at the Keeps. In the subsequent phase, they were to be evacuated to 'Safes' near the port towns of Kolkata, Vishakapatnam, Chennai, Cochin, Mumbai and Karachi, awaiting repatriation to the UK. The troops guarding the Safes and Keeps were to be a mix of British and Indian soldiers. In the event, as communal violence escalated there was no need to implement Plan Gondola. There was now much bitterness and violence between Hindus and Muslims and none against the British. It was a great irony that at the height of the communal carnage in Punjab, British officers could move around unarmed in Delhi and Punjab while Indian officers, whether Muslims or non-Muslims, had to carry arms and in remote areas move with an escort.

I had to maintain a large map of India with pins of different colours showing locations of all combat units in the Country. Red was for British units, Green for Gorkha units and Brown for Indian units. A distinction was made between Indian and Gorkha units. At that time the Gorkhas were officered exclusively by the British with no Indian officers in those units. The Indian units had a mix of British and Indian officers with Commanding Officers and senior officers mostly British. The "mutiny syndrome" prevailed among the British. It was ensured that no location had only brown pins without some red and green pins in situation. Field Marshal Auchinleck, the then Commander-in-Chief frequently visited the Operations Room and would study the map maintained by me.

The paper written by the Director Military Intelligence had a novel security classification - 'Top Secret, Not For Indian Eyes'. My predecessor a British officer in a hurry to go back home to the UK on demobilisation, had handed over the key of the almirah containing classified documents to me without checking the documents. This paper was written in the wake of the INA trials. It stated that the Indian officers of the Army could be divided into three categories - those commissioned before 1933 from Sandhurst, the pre-war officers commissioned between 1933 and 1939, and the wartime Emergency Commissioned Officers (ECO's). The Sandhurst officers were considered more reliable. They were now middle aged with family commitments and did not nurture much grievance as they had been treated well. They were very few, their total number being about thirty. The Pre-War, 1933 to 1939 officers had a grievance because their emoluments were not at par with their British counterparts. This disparity was removed during the War but its memory and of some other discriminations still rankled with them. The War time officers numbering about 12,000 against a total of 500 of the two previous categories, were considered most unreliable. While in their schools and colleges, they had been exposed to subversive political influence culminating in the Quit India movement. They faced an uncertain future because they were all emergency commissioned officers and only very few were likely to be accommodated in the permanent post-war cadre of the Army. They were working at the company and platoon level interacting directly with the soldiers.

As for the soldiers, the position regarding them had also changed radically. Prior to the War, strength of the Army was 1.37 lakh and recruitment was confined to the martial classes. A large number of soldiers came from traditional military families. During the war, floodgates had been opened for recruitment. The Army had been expanded from 1.37 lakh to 2.2 million. The INA had created a psychological impact on the officers and men of the Army.

Further, the bulk of the Army overseas had served in South East Asia, where they had seen how the prestige of the colonial powers had suffered at the hands of the Japanese in the early years of the war. Towards the end of the war, national movements for freedom had erupted in Asian countries ruled by colonial powers like the British, the French, the Dutch and the Portugese. The paper also took into account that an economically exhausted Britain after a long drawn out war, was not in a position to maintain a strong British military presence in India. In the circumstance, the paper recommended early British withdrawal from India. I was much impressed by this very analytical study.

The fact that the Indian Army had an impact on our movement for Independence and hastened the dawn of freedom is indisputable. Earl Atlee the British Prime Minister, who had presided over the liquidation of the British Empire in 1947, confirmed this during his visit to India in 1956. He told Mr Chakravarty, the then Governor of Bengal, that the decision to quit quickly in 1947 had been taken because the British could no longer rely on the loyalty of the Indian Army.

The role of the Army during Partition has not so far been factored into discussions about Partition. The fact that the Army also affected the decision on Partition needs to be taken into account. After their experience with Cromwell's military dictatorship, the British ardently nurtured the concept of an apolitical army. It suited them to transplant that concept in the Indian Army that they raised. While this concept continues to hold good in India, it got thrown overboard in Pakistan for reasons which we may not discuss here. After 1857, the British decided not to have 'one class regiments' except for Gorkhas and Garhwalis. All other combat units of the Indian Army had the composition of 50 per cent Muslims and 50 per cent non-Muslims (Hindus and Sikhs). This was in line with their policy of 'Divide and Rule'. Different communities living together in war and peace and encouraged to remain apolitical, developed a regimental ethos which held them together. I was commissioned in the Jat Regiment which had two companies of Jat Hindus and two companies of Muslims. I served with a Punjabi Muslim company. I found that the regimental spirit among the men was strong and there was no communal divide. This

continued in the Army as a whole till the end of 1946 but started cracking in 1947, reaching a breaking point by August 1947. Yet I saw that when the Muslim companies of the Jat Regiment were going to Pakistan, tears were shed on both sides. This happened in other regiments as well.

In keeping with the Army's apolitical traditions, Indian officers during the British days, hardly ever discussed political matters among themselves. I recall that in Rangoon soon after the end of the war, one junior British officer referred to the INA as traitors and also used vulgar epithets for it. There was no senior officer present in the Mess. This led to a heated discussion between the British and Indian officers, both Hindus and Muslims. Although politics in India had got much communalised in the Forties, Netaji promoted complete communal harmony in the Azad Hind Government and the Indian National Army. Vande Mataram as an Anthem had been a source of discord between the two communities in India. Netaji had coined the slogan Jai Hind which could not raise any communal hackles.

The Indian Army got involved in a strange war in Indonesia. It had been sent to that country primarily to take the surrender of the Japanese. The Dutch had been driven out from those islands. They accompanied the Indian Army to re-establish their colonial rule. The Indonesians had declared their Independence and had raised an army of their own. The Indian Army got involved in fighting the Indonesians. It was a strange situation for us. The Indonesians would tell us that we were ourselves not free and yet we were fighting against their becoming Independent. During my service in Indonesia, I used to feel very embarrassed on this account. However, what surprised me was that when the Indonesians raised the banner of Islam in their appeal to Indian soldiers, a number of soldiers of the Indian Army deserted and joined them. I was told that about a thousand or more of our soldiers had deserted. They got left behind when we came out from Indonesia. I am mentioning this because this was for the first time that I saw the communal virus affecting the Army.

Notwithstanding the early signs in Indonesia, it is remarkable that during the outbreak of unprecedented communal violence in August 1946 and till well after 1947 had set in, the Indian soldier, both Hindu and Muslim, showed remarkable impartiality when called upon to deal with communal violence. This was so in Kolkata in August 1946, in Bihar in October 1946 and in Garhmukteshwar (United Provinces) in November 1946. Two or three battalions of the Bihar Regiment which had Hindus and Muslims in equal number, had operated in Bihar during the communal riots and had remained completely impartial. The Bihar riots were horrendous. For the first time communal riots had spread so extensively to rural areas. Hitherto communal riots had remained an urban phenomenon. Several thousand Muslims got massacred in Bihar as a revenge for thousands of Hindus killed in Kolkata and Noakhali. At the time of Bihar riots, I was in Delhi getting daily reports of what was happening in my home province.

Colonel Naser Ali Khan, who later went to Pakistan Army, and I were serving at General Headquarters and were living in the officers mess on Wellesley Road (now Zakir Hussain Road). He was many years senior to me and was always very kind to me. One morning at breakfast after having read of a news report about Bihar riots in the newspaper, he told me excitedly that his blood boiled when he remembered that I was a Bihari. I told him that I condemned what was happening in Bihar more than him. He was not the only Muslim officer I interacted with in Delhi who felt so worked up over the most unfortunate happenings in Bihar.

I am mentioning these incidents to bring out how circumstances were forcing communal virus to spread in the Army. Till March 1947 things appeared to be well under control. Local communal riots were taking place in different places and the Army deployed to maintain order remained very disciplined and impartial. Wavell during his farewell address on 21 March 1947 said, "I believe that the stability of the Indian Army may perhaps be the deciding factor in the future of India." Pakistan had not emerged as a sovereign State till then and hardly anyone could imagine that it would become a reality in the next four months.

With Muslim League Ministries coming to power both in Punjab and NWFP, communal passions were sought to be aroused in a planned manner. Pictures of atrocities on Muslims in Bihar and Garhmukteshwar started being shown in mosques alongwith fiery speeches by Muslim clerics on Fridays. Widespread communal riots erupted in Peshawar and Rawalpindi. Soon the whole of North India was on fire. The strain on the soldiers started showing. Most of the soldiers, both Muslims and non-Muslims, were from the North. Their homeland was getting ravaged and in several cases their families had been victims of communal frenzy. It was becoming increasingly difficult for the soldiers to retain their impartiality. The downslide in this regard became more perceptible after Partition was announced. The day after that announcement I met two officers in their uniforms in Delhi wearing strange shoulder titles - RPE (Royal Pakistan Engineers) and RPASC (Royal Pakistan ASC). In those days officers from Engineers and Army Service Corps wore shoulder titles, RIE for Royal Indian Engineers and RIASC for Royal Indian Army Service Corps. Some officers had begun to wear Pakistan shoulder titles within hours of the Partition announcement and much before Pakistan came into being. There were reports of senior Muslim officers going to meet Jinnah who then lived in his house, 10 Aurangzeb Road. On the morrow of Independence in August 1947, the Gilgit Scouts staged a coup arresting Brigadier Ghansara Singh of the Kashmir Army who had been sent there as Governor by the Maharaja.

As mentioned earlier, the Punjab Boundary Force comprising in equal measure, units earmarked for Indian and Pakistan Army, was set up under a British Commander in late July 1947. It was hoped that it would help in maintaining order on both sides of the border, at a time when communal violence and migration was reaching a crescendo. However, the experiment had failed. Large scale violence again erupted in Kolkata and Mahatma Gandhi had gone there to restore sanity among the people. He undertook a fast which had a dramatic effect. It was then that Mountbatten made his famous remark that a one man boundary force had succeeded in Kolkata while the 50,000 strong Punjab Boundary Force had failed in the North. The Punjab Boundary Force was disbanded within a month of its raising and the two Dominions assumed responsibility for maintaining order on their side of the border. As a tailpiece, I may add that after a couple of months, Indian and Pakistan Armies were locked in fighting a war against each other in Kashmir.

The Indian Army made a significant contribution towards ushering the Independence of India. Its role during the Partition holocaust was also of great significance. I conclude with a quote from Stephen Cohen's book on the Indian Army. "India has virtually ignored the military as a factor in Nation building. This is surprising, for the Military had a profound impact on the course of nationalist politics and also upon policies after 1947."

***Lieutenant General SK Sinha, PVSM (Retd)** was commissioned into JAT Regiment in 1944. During World War II, he saw combat in Burma and Indonesia. After Independence he was transferred to 5 Gorkha Rifles (FF) and was associated with the Kashmir War from Day One i.e. 27 Oct 1947. He retired as Vice Chief of the Army Staff in 1983. After retirement, he was appointed India's Ambassador to Nepal in 1990, Governor of Assam in 1997 and was the Governor of Jammu and Kashmir from Jun 2003 to Jun 2008.

Journal of the United Service Institution of India, Vol. CXXXIX, No. 578, October-December 2009.