

U.S.I. JOURNAL

INDIA'S OLDEST JOURNAL ON DEFENCE AFFAIRS

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- National Security Reforms : Ten Years After the Kargil Committee Report – Admiral Arun Prakash, PVSM, AVSM, VrC, VSM (Retd)
- Fifty Years After the 1962 Debacle – Lieutenant General S Patabhiraman, PVSM, AVSM, SM, VSM (Retd)
- Kautilya's Arthashastra: The Wonder It Was and The Wonder It Remains – Brigadier Chandra B Khanduri (Retd)
- Bara Shigri Glacier: High Point on a Wonder Adventure Circuit – A USI Sponsored Study cum Adventure Trek – Colonel KS Dhani (Retd)
- Indian Wars – As Seen Through Soldiers' Eyes (*Based on their personal experiences*)

OCTOBER-DECEMBER 2012

USI PUBLICATIONS

SEMINARS

Code	Subjects	Price (Rs)	Year
*S-50	Joint USI-CIISS Seminar - Apr 2008	125	2008
*S-52	Use of Indian Military in Out of Area Contingencies: Strategic Use of Military Power in the Regional Context (Limited Issue)	150	2009
**S-53	Peace and Stability in Afghanistan – The Way Ahead	650	2010
**S-54	Rising China-Opportunity or Strategic Challenge	650	2010
**S-55	The Continued Relevance of International Humanitarian Law in the 21st Century Edited by Maj Gen PJS Sandhu (Retd) & Brig Gen William Bowie.	350	2011
**S-56	Strategies for Countering Non-State Actors in South Asia. Edited by Maj Gen PJS Sandhu (Retd).	750	2010
**S-57	China's Quest for Global Dominance : Reality or Myth Edited by Maj Gen PJS Sandhu (Retd)	850	2011
**S-58	Peace and Stability in Asia-Pacific Region Assessment of Security Architecture	995	2012

National Security Papers

*P-27	National Responses to Terrorism Dr Ajai Sahni	150	2010
*P-28	Non Conventional Threat Perceptions in the Indian Context By Maj Gen YK Gera (Retd)	150	2010

* Available from USI

** Available from Vij Books

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(c) DSSC (Navy)	3 rd Week of Dec 2012	Jun 2013	Rs 700/-	
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- Contact Programmes.** Three contact programmes for DSSC/TSOC Entrance Examination-2013 will be run at USI. Details later. Separate examination papers will be set for each programme.
- Correspondence courses for Special to Corps subjects are not conducted.
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- Prospectus : Available from Course Section and on Website.

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OBITUARIES

With a deep sense of grief we inform you about the passing away of the following Life Members of USI :-

- (a) Commodore SS Chaudhri, expired on 23 August 2012. He was a Life Member since 1997.
- (b) Colonel ML Mahajan, Regiment of Artillery, expired on 10 October 2012. He was a Life Member since 1997.
- (c) Brigadier K Narendra Singh (Retd), Engineers, passed away on 25 November 2012. He was a Life Member since 1961.
- (d) Brigadier VP Singh (Retd), 61 Cav, passed away on 23 Dec 2012. He was a Life Member since 1997.
- (e) Wg Cdr BR Chopra (Retd) passed away on 27 Dec 2012. He was a Life Member since 2001.

FORTHCOMING EVENTS AT USI*

Date	Time	Events	Subjects and Speakers
13-14 Mar 2013 Wednesday	0945-1630	Seminar@	USI Military Records Management Conference – 2013 Keynote Address by Professor Mushirul Hasan, Director General, National Archives of India
Thursday	0930-1650		
15 Mar 2013 Friday	1100	Talk	Dynamics of Preventive Diplomacy Shri RS Kalha, IFS (Retd) Chair : Shri SK Bhutani, IFS (Retd)
21-22 Mar 2013 Thursday	0930-1700	Seminar	Afghanistan Beyond 2014 : Challenges, Perspectives and the Way Ahead.
Friday	0930-1345		
28 Mar 2013 Thursday	1100	Talk	Integrated Maritime Security Dr Prabhakaran Paleri Chair : Admiral RH Tahiliani, PVSM, AVSM (Retd), Former Chief of Naval Staff
03 Apr 2013 Wednesday	1100	Talk	Logistic Support Chain Management of Indian Army and PLA Col Rajiv Chauhan Chair : Lt Gen DB Kalra (Retd)
10 Apr 2013 Wednesday	1100	Eleventh Major General Samir Sinha Memorial Lecture	Cyber Warfare: Road Map for a Comprehensive Strategy for National Security Shri PV Kumar, Chairman, NTRO Chair : To be intimated later
17 Apr 2013 Wednesday	1100	Talk	PLA Modernisation and Likely Force Structure 2035 Col NSP Bisht Chair : Maj Gen BK Sharma, SM and Bar(Retd)

*Please see USI website: www.usiofindia.org, for details and any changes.

@ **Speakers from Australia, France, Russia, the UK, the USA and India are being invited to present papers on the processes by which military records are catalogued, preserved and ultimately transformed into public domain in their respective countries.**

Director's Page

Dear Members,

We have come to the end of another eventful year at USI in which we undertook some new projects to widen the potential of research work to serve the cause of national security by enhancing the effectiveness of our military preparedness and diplomatic initiatives. The President's Report for 2012, available on the USI website, provides a good insight into our activities.

Besides the normal activities of USI, I would like to make a special mention of our path-breaking endeavour in the domain of strategic thought by introducing Net Assessment, Scenario Planning and Strategy Formulation exercises. The following events were conducted :-

- (a) Capsules/workshops on Net Assessment, Scenario Building and Strategy Formulation by an expert team, with 'Hands on Experience' of the subject.
- (b) Strategic Games for NDC course members, and during the Joint Operations Capsule (JOCAP) for Higher Command Courses of the Army, Navy and Air Force.
- (c) Net Assessment studies titled "Strategic Balance in South Asia-2025 and War Waging Potential of China-2025".

Next, I would like to thank those who have shared their personal experiences with us on 'India's Wars Through Soldier's Eyes' during the last one year. A list of the contributions received upto July 2012 was published in the July-September 2012 Issue of USI Journal. Since then some more accounts have been received. We have decided to carry some of these in the USI Journal over a period of time. Accordingly, two such accounts find a place in this Issue of the Journal. I appeal once again for more contributions. Even if a piece does not find a place in the USI Journal, it will be preserved in the USI Archives for posterity.

Naxalism is the most serious internal security threat that the Country is facing today. A joint panel discussion with Amity University on the subject '*Problem of Naxalism in India. Ground*

Realities and Strategic Challenges Towards Conflict Resolution on 26 Jul 2012, received an overwhelming response. A full report on the panel discussion was carried in July-September 2012 issue of the Journal and should be of interest to those concerned with the issue.

Increase in USI's association with foreign institutions and dignitaries, through bilateral and multilateral interactions, has strengthened our relations with many countries. Participation in numerous International Conferences has also helped in promoting mutual interests and understanding each other's views realistically. Our latest initiative has led us to be a Founding Member of an International Civilian Capacity (CIVCAP) Network, which is a research partnership bringing together national institutes with expertise in peacebuilding research. Our other partners in this initiative are the African Centre for the Constructive Resolution of Disputes, South Africa; Centre for Strategic and International Studies, Indonesia; Igarape Institute, Brazil; Institute of Contemporary Studies, Russia; International Institute for Strategic Studies, China; Istanbul Policy Centre, Sabanci University, Turkey and the Norwegian Institute for International Affairs, Norway.

Issues connected with climate change and its effect on the environment have assumed great importance internationally and in the national context. USI's modest effort to study the situation on ground through 'Adventure-cum-Study' treks to monitor/fix 'snout zone' of big glaciers feeding major rivers in north-western Himalayas ended with 'Bara Shigri Glacier' trek undertaken from 03-07 Oct 2012. The observations and findings of these study treks will now form part of the book titled '*Himalayas – Mountains of Our Destiny*'. We also have plans to set up a Remote Glaciers Monitoring Network.

Like the previous years, USI's Course Section is continuing to do excellent work. 3680 students attended our courses, including 1236 officers who took the DSSC/TSOC Correspondence Course. The results speak for themselves. 38 out of the 40 competitive vacancies for the DSSC were secured by the officers who had attended the USI Correspondence Course. In the nominated list 97 per cent officers are those who underwent the USI Course.

Even among those who secured a spot in the 'reserves' list our students did well to secure 25 out of 27 places. In addition, out of the 80 officers nominated for the TSOC, 75 were our students. The Chief Instructor and his team of dedicated serving and retired officers deserve our commendation for the yeoman service being rendered by them to facilitate our distance learning programmes vigorously.

The Research Section (CS3) and the Centre for Armed Forces Historical Research (CAFHR) have also expanded their field of work notably by delving into the past, taking note of rapidly changing international scenario and future developments. There is a significant increase in USI publications – a list is included in each issue of USI journal and website.

I would like to inform our members that USI has undertaken a joint project with the Ministry of External Affairs (MEA), to document all Indian War Memorials in India and overseas. It is being monitored by me personally through CAFHR. We are also acting as the nodal agency for coordinating activities relating to Indian participation in the Centenary Commemoration of the First World War in partnership with the MEA.

USI Centre for UN Peacekeeping (USI-CUNPK) continues to receive worldwide acclaim for training Indian contingents and officers from the Indian Armed Forces and 78 friendly foreign countries, for furthering the cause of UN Peacekeeping missions.

The USI Journal is now recognised as the "Oldest journal of its kind on Defence Affairs in the World". I say this, armed with the fact that I have stated this across the world in my interaction with various defence experts, diplomats and bureaucrats without being challenged by anyone. Much of the credit for this accrues from USI's rich heritage and contribution of its members consistently over a long period of time. Their presence in large numbers has been appreciated by distinguished speakers during Memorial lectures and International seminars. Interestingly, while being our pride, they are a 'source of envy' for other institutions. It is reassuring to note that USI Membership has now grown to over 15,000 members and keeps increasing steadily.

Upgrading the facilities and addition of latest books to USI Library is an ongoing process. Digitisation of rare books has been a notable activity in the last year. Later, they will be put on USI website. Books bequeathed and presented by members thoughtfully are gratefully acknowledged and added to the bookshelves regularly. Besides expressing our gratitude, I request all members to keep this process of enriching the USI library going as a self rewarding gesture.

Lastly, I seek greater participation by our Members, as also serving Armed Forces Officers (even if they are not members of USI, as they are permitted to attend USI events), in various events. The USI fraternity, I reiterate, is the strength of USI. All USI activities, events and information are put on the USI website: www.usiofindia.org. The members should access the same regularly, specially before you come to attend scheduled events at USI.

On behalf of all of us on the staff of United Service Institution of India, I wish our esteemed Members a HAPPY NEW YEAR. As always, we look forward to meet you at the USI.

With regards

Lieutenant General PK Singh (Retd)
Director

USI National Security Seminar 2012



A view of the Audience during the Seminar



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Editorial

The 28th National Security Lecture 2012 on the subject 'National Security Reforms : Ten Years After the Kargil Committee Report' was delivered by Admiral Arun Prakash, PVSM, AVSM, VrC, VSM (Retd), former Chief of Naval Staff on 05 Dec 2012. Text of the same is being carried as the lead article in this Issue of the Journal. Admiral Prakash covered a very wide canvas and identified the main impediments to reforms including the political inaction. India, he said was unique amongst major powers that had not seen it fit to entrust its armed forces with any role in national decision making. After the interactive session, Lieutenant General SK Sinha, PVSM (Retd) former Vice Chief of the Army Staff and former Governor of Assam and J&K, based on his vast experience made substantial comments which also added value to the lecture. One may surmise that the road to tangible security sector reforms in India is likely to be a long and difficult one. At the same time, there is a degree of urgency that requires this process to be taken to its logical conclusion, if India is to achieve a great power status.

In the very next article 'Fifty Years After the 1962 Debacle', Lieutenant General S Pattabhiraman, PVSM, AVSM, SM, VSM (Retd) has critically examined the current state of Sino-Indian relations from the stand point of a possible deterioration of relations leading to a military confrontation. Again, the archaic higher defence management prevalent in India of those times emerges as the main cause of the debacle. The fact that we have not moved very much further in national security reforms also adds to the sense of urgency that Admiral Arun Prakash highlighted in his lecture. The author has also dwelt on possible flash points, current prognosis and future scenarios which are thought provoking.

Ms Debalina Chatterjee in the next article 'China's Ambiguous Nuclear Doctrine - Concerns for the US ? ' analyses the apprehensions and responses of the USA regarding China's nuclear doctrine and how a degree of stability between the two major powers may come about. In the same context, India's successful test launch of Agni V missile in April 2012 had also caused quite a stir in various capitals of the world, especially in Beijing. Major General YK Gera in his article 'Agni-V Test Launch and its

Implications' puts the same in the correct perspective. He suggests that India and China ought to have a frank dialogue on their respective regional security interests, including nuclear issues and find ways to reduce friction and promote stability in Asia.

Recently, the world has seen two important power transitions, i.e. the American elections and the 18th Congress of the Chinese Communist Party. In the next article 'Strategic Challenges that lie Beyond the Elections and Power Transition in Washington and Beijing', Brigadier AS Cheema, VSM and Bar has examined how these two power transitions are likely to impact global equations and how India could leverage her own position in the emerging world order.

Of late, Kautilya's Arthsastra has evoked a lot of interest in India and abroad. In the next article Brigadier CB Khanduri (Retd) has given a very broad overview of Kautiliya's Arthsastra and its relevance to the present day strategic thought and governance. The author is able to focus on the wealth of wisdom that is contained in this historic Indian treatise on statecraft and it would be of great interest to scholars.

The character of war is constantly undergoing transformation with developments in technology. Lieutenant General Davinder Kumar, PVSM, VSM and Bar (Retd) in his article 'Challenges of a Digitised Battlefield' looks at the battlefield of the future and how information superiority has become a war winning factor. While such capabilities will increasingly come into use in almost all the advance militaries, the side which can enhance its speed of decision making based on real time information and deny the same to the adversary will emerge as the winner. In the Indian Armed Forces, we need to integrate these net centric capabilities, both vertically within each Service and horizontally between the Services, so as to be able to operate seamlessly.

The next article 'Relevance of Territorial Army and Its Future Employment' by Lieutenant Colonel Harish Katoch examines the whole concept of TA in the Indian context. National Security is becoming not only more complex but also very expensive. For India, the challenges are even more daunting as large portions of our land borders are still disputed, undemarcated and unsettled.

The concept of TA for a country like India which has a large population and complex security concerns, holds great promise. There is a case to look at the TA in a more holistic manner and place greater reliance on this citizen's army in times of national emergencies.

As part of the ongoing USI initiative, Colonel KS Dhama (Retd) led another Adventure cum Study Trek to the Bara Shigri Glacier in the Lahaul-Spiti area of Himachal Pradesh from 03 - 07 Oct 2012. A report on the same is being carried as the next article. By all standards, it was a difficult trek which Colonel Dhama and his small team completed in the shortest possible time. With this trek, we have completed the preliminary recording of data of five major glaciers : Gangotri, Siachen, Kolahoi, Baspa and Bara Shigri. By monitoring these periodically, we hope to establish the rate at which these glaciers are receding. Through these treks and studies we hope to contribute to the national effort for study of environment and climate change.

The readers would recollect that the USI had launched a project "Indian Wars – As seen through Soldiers' Eyes". I am happy to inform the readers that the idea has become a reality. In this issue of the Journal we are carrying two such narratives – one by Lieutenant General Pran Pahwa, PVSM (Retd) about his experience at Bomdi La in 1962 and the second one by Captain Shekhar Dutt, SM, IAS (Retd), Governor of Chattisgarh sharing his experiences in the Barmer Sector during 1971 War. I hope some more serving officers and veterans would feel motivated enough to pen their experiences for posterity.

PROCESSING OF MEMBERSHIP
APPLICATIONS RECEIVED BY POST

Officers desirous of membership must obtain prescribed form from USI. Requests for membership will not be entertained on plain paper, letters or mere chits often sent by officers as many required details are missed out. Applications have to be accompanied by serving certificate; retired officers should attach any defence photo identity proof.

National Security Reforms: Ten Years After the Kargil Committee Report*

**Admiral Arun Prakash, PVSM, AVSM, VrC, VSM (Retd),
former Chief of Naval Staff****

Introduction

I start by thanking the Director United Service Institution for having invited me to deliver the 2012 National Security Lecture. It is, indeed, a privilege for me to take the podium at this highly respected institution and address such a distinguished gathering.

When I was invited to deliver this talk, exactly a year ago, I was in the midst of an intense examination of the national security system, as part of the Naresh Chandra Committee. At that point of time, in spite of my earlier experience with the 2001 National Security Task Force, I still retained a degree of optimism; and expected that a year down the line I would be describing to this audience, substantive, if not dramatic, changes in the national security arena.

But here I am, on the 5th of December 2012, to share your disappointment that, but for a few inconsequential changes, India's national security system remains, essentially, what we inherited at Independence, 65 years ago. The question why we, as a sovereign, independent nation, have failed to bring about reform in something as crucial to our existence as national security, has no simple answers. The impediments to change arise from sources within and without the system. These sources have remained steadfast in their opposition to change and have been instrumental in the

*Text of the talk by **Admiral Arun Prakash PVSM, AVSM, VrC, VSM (Retd), former Chief of the Naval Staff** delivered at USI on 05 Dec 2012 with **Lieutenant General NC Marwah, PVSM, AVSM, Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee (CISC) and President USI Council** in the Chair.

****Admiral Arun Prakash PVSM, AVSM, VrC, VSM (Retd)**, was commissioned into the Executive Branch of the Indian Navy on 01 January 1966. He took over as the 20th Chief of Naval Staff on 31 July 2004 and served concurrently as Chairman, Chiefs of Staff Committee from 01 February 2005 until retirement on 31 October 2006. He was a member of the Task Force on Defence Management set up by the Group of Ministers in 2001 to undertake an in-depth analysis of various facets of national security. Recently, he was also a member of the Naresh Chandra committee set up in mid 2011 to review the entire gamut of national security and make recommendations.

maintenance of status quo over the decade since the Kargil Review Committee rendered its report.

Those who favour status quo argue that the present system has worked well, and that there is no need to tinker with it. This is a deeply flawed approach because the system has not worked well, and we are fortunate to have muddled through in crisis after crisis. This approach may have served the purpose as long as national security was not an electoral issue. Today, the urban Indian is acutely aware of his personal vulnerability to violence emanating from various sources. He senses that something must be seriously amiss, if an annual defence expenditure approaching Rupees two lakh crores cannot buy him security. This is likely to become an issue in the next general election, and the politician needs to take note.

It is also obvious that India's strategic environment is steadily deteriorating. Threats to the nation's security, both internal and external, are far more serious than at any time in the past. The impending US withdrawal from Afghanistan and the growing truculence of China is likely to generate a new range of threats to India's security, ranging from resurgent proxy-wars to coercion and intimidation by a Sino-Pak nexus. The reassurance that we derive from our powerful conventional forces, our nuclear deterrent or even a missile shield may be illusory because we have failed to put in place, an effective national security structure for their management.

During the course of the next hour or so, I will explore issues relating to national security reform; but in order to construct a cohesive narrative, I need to delve briefly into history – some of which may be familiar to you. But please bear with me as I progressively approach the crux of the problem.

The Historical Backdrop

We have recently observed the 50th anniversary of the Indian army's disastrous encounter with the People's Liberation Army on the icy Himalayan heights in 1962. This military fiasco was merely one manifestation of independent India's inept approach to national security issues, which has repeatedly jeopardised the nation's safety due to deficit political vision and a lack of coherence in policies.

The most recent example of this ineptitude was the 26/11 terrorist assault on Mumbai, when the nation, gripped by trauma and humiliation, was further confused to hear a senior member of the Cabinet making a public pronouncement: *“War is not an option.”* Nobody wanted war, but the question in everyone’s mind was: *“Are we not responding to such a grave provocation by choice? Or is it that we are incapable of responding?”* This was seven years after India had mobilised over a million men under arms in response to a terrorist attack on Parliament; only to de-mobilise them, eleven months later, with nothing to show for it except 900 soldiers killed or maimed in accidents.

Harking back to the Kargil conflict of 1999; it had brought us face to face with loss of vital territory, nuclear blackmail and possible national dishonour. This grave situation could only be retrieved by the deployment of overwhelming military force, and the selfless gallantry of our young jawans and officers. The degree of alarm created by Kargil was enough for the Government of India (GoI) to constitute an expert committee to undertake an urgent review of measures necessary to safeguard national security. The Kargil Review Committee (KRC) probed deeply into many areas of weakness in our system and was scathing in its indictments. A telling comment is relevant here:

“India is perhaps the only major democracy where the Armed Forces Headquarters are outside the apex governmental structure.what we need is a National Defence HQ. Most opposition to change comes from inadequate knowledge of the national security decision making process elsewhere in the world...and a reluctance to move away from considerations of parochial interest. The status quo is often mistakenly defended as embodying civilian ascendancy over the armed forces, which is not the real issue. In fact, locating the service HQs in the Government will further enhance civilian supremacy.”

I will revert to Kargil in a few moments, but before that let me delve a little deeper into history to identify the roots of this prejudice against the armed forces.

A Prejudiced Polity

Certain mind-sets, from the pre-1947 era, coupled with a misinterpretation of Mahatma Gandhi’s unique vision, led to the

emergence of two false perceptions in the minds of India's political leadership. For one, they were convinced that since a pacifist India would have no enemies, the armed forces would become redundant after independence. Their second conviction was that the Indian army was a mercenary force which had been used as a tool by the British to suppress the freedom movement, and deserved to be sidelined.

The first illusion was shattered just six weeks after Independence, when Pakistani hordes, supported by their army, came pouring into the state of J&K which had recently acceded to India. The Indian armed forces did the best they could, under difficult conditions, and would have, eventually, evicted the invaders from the state; had India not gone to the United Nations and accepted a cease-fire.

The politicians were right that the British Indian army had served the King-Emperor loyally in many wars, in India and abroad. But after the string of early British defeats in WW II, Indian prisoners of war (PWs) in Singapore, Germany and Italy were confronted with a moral dilemma of awesome proportions. They were given a choice between the oath they had sworn to a foreign ruler, and the chance to fight for freedom of their motherland, being offered by Netaji Subhash Bose.

After agonising over this quandary, and fully recognising the moral and military consequences of either option, many Indian officers and jawans decided for their motherland. Consequently, 3000 Indian PWs were formed into the Free Indian Legion raised as a unit of the German *Wehrmacht*, and 40,000 PWs in Singapore joined the *Azad Hind Fauj* or Indian National Army (INA) as it was commonly known.

The story of these expatriate Indian warriors is a romantic but forgotten chapter in India's freedom struggle. Suffice to say that the *Arzi Hukumat-e-Azad Hind* (Provisional Government of Free India) formed in Singapore by Bose in 1943, formally, declared war on the British Empire, and INA units fought alongside the Japanese 15th Army in its abortive invasion of India.

In early 1946, politically-conscious, sailors of the Royal Indian Navy mutinied, and the insurrection spread right across the country, with units of the Army's Signal Corps, the EME and Royal Indian Air Force joining their naval comrades in revolt. These events not

only inspired and galvanised the freedom movement in India, but also struck deep fear into British hearts. General Wavell, C-in-C India, admitted in a secret report: *"It is no use shutting one's eye to the fact that any Indian soldier worth his salt is a Nationalist..."*

Disciplined Services never dwell on mutinies, regardless of the cause, and that is why these events rarely find mention in our armed forces. The powerful impact of these acts of great moral courage, on the freedom movement, must not be disparaged or belittled. The phase immediately post-Independence too, was extremely difficult for our fledgling republic. To forget the sterling role played by the armed forces during the violence and turbulence of partition, and in integrating the recalcitrant princely states would be an act of ingratitude.

Over the years, as our glaring strategic naiveté repeatedly led to adventurism by our neighbours in 1947, 1962, 1965, and 1999, it was invariably the gallantry and patriotism of the armed forces which saved the nation from disintegration and dishonour. The victory of Indian arms in the 1971 Bangladesh War will remain a glorious episode in the dismal history of sub-continental conflicts.

This foray into the past was meant to dispel prevailing myths, and to bring home the crucial contribution of the armed forces to India's freedom movement and the post-independence stabilisation phase. Since then, the armed forces have remained the most steadfast and patriotic upholders of India's democracy, secularism and integrity. Let us, then, see how independent India's leadership dealt with the re-organisation of India's higher defence management.

Lord Ismay's Solution

In 1947, it so happened that two of the most experienced Allied military leaders, Lord Mountbatten and his Chief of Staff, Lord Ismay were at hand in India. The Government of India promptly asked them to evolve a system of higher defence management, which would meet the emerging needs of the newly independent nation.

Ismay was deeply conscious of the fact that no radical measures could be contemplated at that delicate juncture, when the sub-continent was about to be partitioned, and the armed forces carved into two. He, therefore, came up with a solution which called for the least amount of turbulence and readjustment, and

would serve admirably for the interim, till a proper system could be devised to suit Indian conditions.

He recommended a pragmatic option, based on a C-in-C for the operational management and administration of each Service, and a Chiefs of Staff Committee (COSC) for central coordination. The COSC was to be supported by a series of other committees to address details of coordination between the Services, and between the Services and the Ministry of Defence (MoD), and, above all, to provide for quick decision-making with a minimum of red tape. The incorporation of civil servants as members of each of these committees was meant to eliminate the need for detailed scrutiny of their decisions by the MoD. It was also meant to sow the seeds of civil-military integration.

This interim system recommended by Lord Ismay was a simple and workable one, meant to evolve and change as per the needs of the young nation. His vision was that the three Service Headquarters (SHQ) would, with time and further experience, become individual Departments of the MoD, each under the charge of a junior minister, or merge completely with the Department of Defence (DoD) within the MoD.

Bureaucratic Intervention

However, not only did this not happen, but within a short period of its implementation, the senior civil servants of that period intervened to completely distort the concept of "civilian supremacy" to give it their own interpretation of "bureaucratic control" over the armed forces. This was done by the simple expedient of designating the three SHQ as "Attached Offices" of the DoD.

The relatively inexperienced military leaders of that era were probably well out of its depth when pitted against the veteran ICS officers in South Block, and it is difficult to blame them for not opposing this development. The SHQ, in keeping with their status of Attached Offices, found that they were reduced to adjuncts of MoD, and also placed completely outside the Ministry, which they could approach only through the medium of files.

The Indian system of higher defence management has remained trapped in a time-warp since independence, and thus become outdated and dysfunctional. While the armed forces grew

in strength and capabilities, neither the military nor the political systems found the time or inclination to consider changes, or bring about systemic reforms. Till the Kargil episode brought us to the brink of a military disaster.

Attempts at Defence Reform

As I mentioned earlier, the findings of the Kargil Review Committee contained a severe critique of the national security system, and pointed out glaring deficiencies in our intelligence services, border management and higher defence organisation. It led to the formation of a Group of Ministers (GoM) to examine reforms in the national security system, which in turn, commissioned four Task Forces in April 2000, for the examination of different components of the system.

The Task Force (TF) on Management of Defence, headed by former Minister of State for Defence, Arun Singh, was charged with a critical examination of existing structures for management of defence. The dialogue and discussion within the TF was free and frank, but it soon became obvious that on many significant issues the members would take up entrenched positions which reflected organisational viewpoints.

After five months of deliberations, all four TFs submitted their reports to the GoM which, after quick processing, issued their consolidated recommendations on Reforming the National Security System in February 2001. In the context of Defence Management the report made the following salient recommendations :-

- (a) To remove the impression that they did not participate in policy formation and were outside the Government apex structure, SHQ be designated as "Integrated Headquarters" instead of Attached Offices.
- (b) To expedite decision making and enhance efficiency, financial and administrative powers be delegated to Service HQs and lower formations.
- (c) Since the COSC has not been effective in fulfilling its mandate, it should be strengthened by the addition of a CDS and a Vice Chief of Defence Staff (VCDS).
- (d) The CDS would be a four-star officer from one of the three Services in rotation, and would function as the

permanent Chairman of the COSC. He would fulfill the following functions:-

- (i) Provide single point military advice to the Government.
- (ii) Administer the Strategic Forces.
- (iii) Enhance the efficiency and effectiveness of the planning process through intra and inter-Services prioritisation.
- (iv) Ensure the required "Jointness" in the armed forces.

The details relating to the precise role and function of the CDS and his relationship with the other key actors in the defence set-up, particularly the Service Chiefs would need to be worked out.

(a) Two joint formations; the Strategic Forces Command and the Andaman & Nicobar Command were to be established, with their Commanders reporting to the CDS.

In addition to the above the GoM made numerous other recommendations in respect of restructuring of MoD, planning and budgeting, procurement procedures, DRDO and National Defence University etc.

Aftermath of the GoM Report

There was a great deal of optimism in the Service HQs in mid-2001 because it seemed that the national security system was, about to be updated to cope with 21st century conflicts. Unfortunately, narrow parochial agendas prevailed over larger national interests and the Government decided not to implement a majority of the big-ticket reforms. The appointment of a CDS was scuttled at the last moment and this, actually, ripped the heart out of the GoM recommendations. A golden opportunity was thus wasted!

However, many of the less important GoM recommendations were cleared for implementation, and by the end of 2001, some changes had been wrought in the realm of higher defence organisation. These included the creation of an Integrated Defence Staff (IDS), two new Integrated Commands, and devolution of financial and administrative powers to the SHQ and Commands. The IDS, under a VCDS, had originally been visualised to provide support to the CDS, and to function as his HQ. However since

there was neither a CDS nor a VCDS, the complicated title of “Chief of Integrated Defence Staff to the Chiefs of Staff Committee”, or CISC, was created for a 3-star officer to run the IDS.

At this juncture, the bureaucracy managed to persuade the political establishment that the recommendations of the GoM had been substantively implemented, and nothing more needed to be done. In fact, without the implementation of critical recommendations such as reform to the COSC system and genuine integration of SHQ with MoD, the labours of the GoM had, actually, been wasted.

Let me, now, touch upon a few of the serious flaws that the Government has consistently failed to address and which continue to afflict the national security system.

The Locus Standi of Service Chiefs

This exclusion of the Service HQs from the apex structure of the GoI, and the reduction of their status to a subaltern entity has had many damaging repercussions. Consequently, the armed forces have accumulated a set of grievances, of which I will take up just two prominent ones here. First; that the status of the Service Chiefs, in the Warrant of Precedence (WoP), has seen a slow but steady decline, and secondly; the fact that every proposal from the SHQ, even at the Chiefs’ level, is subjected to scrutiny and remarks at the lowest echelon of the MoD. Some might, rightly, point out that the WoP is merely an issue of ceremonial significance, but I mention it here as the symptom of a problem whose crux lies elsewhere.

We need to face the fact that in the current dispensation, the Service Chiefs, for all their pomp and circumstance, are actually non-entities. They are seen but rarely heard in corridors of South Block, because they have not been accorded a status nor granted any powers in the edifice of the Government. Most Service officers are unaware that conduct of business by the GoI is governed by two documents; the “GoI Allocation of Business Rules” (AoB Rules), and the “GoI Transaction of Business Rules” (ToB Rules). There is also a “Manual of Office Procedures” which provides necessary elaboration and explanations.

According to these documents, a Department is responsible for the formulation of policies of the Government, as well as their

execution, monitoring and review. A Department is normally under the charge of a Secretary who acts as the administrative head of the department and principal adviser of the Minister on all matters of policy within the Department. Where required, a Department may have under it executive agencies called 'Attached' and 'Subordinate Offices'. The three SHQ, originally designated "Attached Offices of the DoD", were recently re-designated as "Integrated HQs of MoD", but their status remains unchanged; and they are still placed in a position subordinate to the DoD.

Let me, now come to the 2nd Schedule of the Allocation of Business Rules. Since the Service Chiefs find no mention, anywhere, in these rules, the following responsibilities of the DoD are, obviously, assigned to the Defence Secretary:

(a) Defence of India and every part thereof including preparation for defence and all such acts as may be conducive in times of war to its prosecution and after its termination to effective Demobilisation.

(b) The Armed Forces of the Union, namely, Army, Navy and Air Force.

(c) Integrated Headquarters of the Ministry of Defence comprising of Army Headquarters, Naval Headquarters, Air Headquarters and Defence Staff Headquarters.

From this, it becomes clear that the professional heads of the three Services, charged with the command of the armed forces, and who actually plan and conduct operations in war and peace, are not recognised by these rules. There is no piece of legislation, today, in which their responsibilities and authority, other than disciplinary powers, finds mention.

The politician's attitude towards the Service Chiefs is, obviously, based on the fact that as per current rules they have no locus standii in the structure of the GoI. It is for this reason that even the Prime Minister has been heard to say that the Secretary DoD is the right person to represent the three Services in most forums. Should it, then, surprise anyone that the Raksha Mantri places total reliance for advice, decision-making and problem resolution, on MoD civil servants, who are designated functionaries as per the Business Rules, rather than on Chiefs, Vice-Chiefs or Principal Staff Officers who are not listed therein.

This anomalous arrangement also raises some interesting questions. For example; since the Service Chiefs find no mention in the Business Rules, what is their status and standing *vis-a-vis* the Secretary DoD who has been made responsible for the "*Defence of India and every part thereof?*" What is the standing of the Chiefs in relation to Secretaries who head the other three Departments of the MoD and take decisions which have a lasting impact on national security? Is there an incongruity in the fact that the Service Chiefs are in the Cabinet Secretary's pay-grade, but the organisations that they head are the responsibility of the Defence Secretary?

While the Chiefs may "propose" it is the Defence Secretary who is the designated principle adviser to the Minister and will "dispose" of all important matters. As we just saw, the SHQ are excluded from the apex structure and are to be only "associated" with the policy-formulation process. There is no better example of the harmful impact of this arrangement, on the management of defence, than the trivialisation of the Chiefs of Staff Committee, and the reduction of its Chairman to a mere symbol.

Functioning of the Chiefs of Staff Committee

Under the current rules; on retirement of the incumbent Chairman, the senior-most Chief is nominated to the post of Chairman Chiefs of Staff Committee, and he presides over this body till his own retirement. This system has resulted in tenures of Chairmen varying between 30 days to twenty months, with hardly any incumbent approaching the two year mark.

The Chairman COSC happens to be a key functionary in the nuclear command chain, and his role will assume further criticality with the induction of weapon systems like the nuclear-powered submarine INS *Arihant* (which will go on patrol with nuclear-tipped missiles) and the Agni-V ICBM. Given the gravity and magnitude of his responsibilities, and the time required to familiarise with them, tenure less than two years for a Chairman COSC makes little sense.

Such are the demands of being the operational and administrative head of an armed force, that no Service Chief can devote more than a small fraction of his time to the responsibilities of Chairman COSC without neglecting his own Service. A prime

function of the Chairman COSC is to inculcate and implement the spirit of "Jointness" which comes through integration of doctrine, logistics and operations of the three armed forces. However, being merely "one amongst equals" in the COSC the Chairman's authority to enforce any decision of a substantive nature within the Committee remains severely circumscribed.

Experience of the past 65 years has demonstrated that a part-time, rotational Chairman, devoid of any authority over fellow members of the Chiefs of Staff Committee, is ineffective, and remains a symbolic entity.

Some Other Shortcomings

It is as a consequence of these basic flaws in our defence management system that we suffer from a number of other debilities which continue to have a serious impact on national security.

Foremost amongst these is our reliance on imported weapon systems due to the dismal failure of the DRDO to attain any degree of self-reliance. This is attributable to the fact that the armed forces are neither adequately consulted nor permitted a say in DRDO programmes. This organisation is free to spend its budget on technologies, which often do not have a bearing on the capabilities urgently needed by today's armed forces.

The second damaging consequence of isolating the armed forces from the MoD is the interminable delays that bedevil the processing of cases; whether they relate to acquisition of hardware and ammunition or to infrastructure, force planning and manpower accretions. Each case emanating from the SHQ is required to be steered through multiple layers of bureaucracy, that exist in three departments of the MoD as well as its Finance Wing, and finally in the Ministry of Finance. Adherence to these processes has not only thwarted force modernisation, in spite of recent reforms, but also affected combat readiness

Finally, with budgets likely to dwindle, there is dire need for prioritising the requirements of weapon systems projected by the three Services, based on an objective evaluation of their relevance vis-à-vis the strategic scenario. In the current system, the generalist MoD civil-servants are neither qualified nor inclined to undertake studies regarding threat evaluation, net assessment or force-

planning; nor do they like to seek expert advice. As a consequence, we see one of the two approaches being adopted. Either, the wish-lists are cleared blindly or, the proposals are stalled indefinitely; more often the latter.

The Naresh Chandra Committee

Let us, now, jump to mid-2011 when, out of the blue, without any crisis or emergency, the Cabinet decided to convene another committee, under the chairmanship of senior bureaucrat, Shri Naresh Chandra, to undertake a review of challenges to national security, and recommend measures that will improve our ability to deal with them. Coincidentally, I happened to be the only survivor of the 2001 task force who was also on this body. The work of the committee was farmed out to different sub-groups which undertook a detailed examination of specific areas and fed it into the main report which was submitted in end May 2012.

For obvious reasons I am not going to speak about the proceedings and recommendations of this committee. However, there has been considerable speculation in the media, and one topic that has been the subject of much ill-informed discussion is that of a Chief of Defence Staff (CDS) and Theatre Commands. I will try to shed some light on this issue.

CDS and Theatre Commands

Much of the media commentary espouses, not just the immediate installation of a CDS but also, a simultaneous switch to the system of "theatre commands" for conduct of military operations. The line of argument, adopted even by senior veterans, seems to be that if we cannot have a CDS, nothing else is worth having.

Given the prevailing political disinterest in security matters, such suggestions have the potential to create confusion, and could even frighten the Government into paralysis. It is obvious that these suggestions, though well-meant, are based on inadequate knowledge of the theatre command system in its authentic format. They also grossly under-estimate the distance that the Indian armed forces will need to traverse from their current WW II organisations and mind-sets, to attainment of the level of integration required to deploy a joint theatre command in combat.

A brief reference to the scheme followed by the USA - the

main practitioner of this system – may bring some clarity. The US legislators have ensured that the roles, missions, duties and organisation of the armed forces are unambiguously stipulated in the Code of Federal Laws. According to Title 10 of this Code, the DoD is headed by a cabinet minister designated Secretary of Defence, who is assisted by three junior ministers, one for each Service, and the Chairman of the Joint Chiefs of Staff (CJCS); the rough equivalent of CDS. The CJCS is the designated principal military adviser to the President and the Secretary of Defence.

Theatre commands, known in the US as Unified Combatant Commands, are organised either on a geographical or a functional basis, and headed by a general or an admiral, whose operational chain of command runs through the Secretary of Defence to the President of the USA. They have a parallel linkage to the JCS. The Chief of Staff of a Service, on the other hand, is an administrative position, held by the senior-most uniformed officer in the Service, who bears no operational responsibility and reports to the minister in-charge of his Service.

Now compare this with the system followed by India. The three Service Chiefs have, since Independence, continued to wear two hats; a “staff hat” as the Chief of Staff and an “operational hat” as the Commander-in-Chief of his force. One of them also functions, part-time, as rotational Chairman COSC. Such anachronisms do not exist in any other modern military.

The US system covers the whole world with just nine Unified Combatant commands, manned by joint staffs, with integral components of the army, navy and air force at the disposal of the Commander. By way of contrast; the Indian system has, mindlessly, created 19 commands; of which 14 are geographic, three functional and only two are joint. Apart from the challenges that the Indian armed forces will face in converting 17 single Service commands, no two of which are headquartered in the same location, into three, four or five theatre commands, we must bear in mind two other important hurdles to theatre-command functioning. These are as under :-

- (a) Firstly; the scarcity of officers, especially at 2 or 3-star rank, with adequate background and experience to operationally command and deploy joint-forces. We have deluded ourselves that training together in the NDA or undergoing the tri-Service Staff Course is enough to inculcate

“jointness”. In the USA it took two Acts of Congress (the 1947 National Security Act and the 1986 Nichols-Goldwater Act) and 50 years of experience to enforce jointness.

(b) Secondly; an equally difficult and challenging transition will be divestment of the Service Chiefs’ operational functions and handing over control of army, navy and IAF combat formations to the 3-star theatre commanders, who may be from any of the three Services.

To summarise: both a CDS and theatre-commands are vital for the enforcement of “jointness” and synergistic operational deployment of India’s 21st century armed forces. However, a change-over to this system will demand a drastic transformation, including rapid integration of the three Services, which cannot happen overnight and must be a calibrated process.

A practical half-way house would be the institution of a full-time or permanent 4-star Chairman COSC with a fixed tenure of two years, who would have no Service distractions. He would be empowered to exercise Veto over the three other members of the Committee. Supported by the CISC and IDS HQ, he could be tasked to prepare a 5-10 year roadmap for implementation of change-over to a CDS and theatre command system. For this measure to succeed, it must be accompanied by creation of joint-Service staffs at every level, and professionalisation of the MoD through the substantive induction of uniformed personnel.

At this stage let me pre-empt some of your questions, by explaining the impediments to change or reform of the national security structure, because it is quite likely that they may appear once again.

Impediments to Reform

The deliberations of the Task Forces in 1999 had revealed that objections and impediments to changes or reform in the national security arena emerged, essentially, from three or four sources. From my vantage point as a member of both the bodies constituted for national security reform, I was struck by the consistency of mind-sets over a decade.

The main root of contention within the armed forces has been the strong opposition, to change, from the IAF leadership. This is,

possibly, engendered by the fear that many of its roles and assets are coveted by the army and the navy. The air force has always viewed, with deep suspicion, any proposal which would subject its force-accretion process to scrutiny, or place any of its forces under the command of the other two Services. It has thus stood firmly against all proposals related to inter-Service integration as well as the creation of a CDS and theatre commands.

Historically, the IAF apprehensions are well-founded; because the navy wrested control of Maritime Reconnaissance in 1976 and the army carved out Army Aviation, from the IAF, a decade later. Recently, a MoD caveat has assigned some proportion of combat helicopter aviation to army control. The Service is now, probably wondering if the tactical air-lift role is under threat. In all fairness, it must be acknowledged that the IAF has been repeatedly seeking a definition of aviation roles, missions and core-competencies; but somehow neither the COSC, nor the MoD has found the inclination to undertake such a discussion.

The IAF has also taken the stand that a CDS and theatre commands are pertinent only for nations contemplating expeditionary operations. This argument says that since the Indian armed forces are mandated only to defend national territory, these issues are irrelevant for India. It has also been the air force view that adequate inter-Service cooperation exists, and any attempts at enhancing Jointness should only follow the integration of the SHQ with the MoD.

This particular stance is difficult to reconcile with the IAF's newly acquired reach and punch, and its projection of itself as a "trans-oceanic" force which exercises regularly with counterparts across four continents. With a growing strength of long-range strike aircraft such as Su-30s, in-flight refueling capability and AWACS support, it counts amongst the most capable air forces world-wide. Its large C-17 and C-130 fleet will give it a strategic lift capability, which few countries can boast of. The IAF ambivalence about expeditionary operations is, therefore, difficult to understand.

The second source of resistance to change comes from the civil services. They feel seriously threatened by any thought of further autonomy for the SHQ, and by the creation of a CDS, since it would erode their influence and authority in the MoD. They have firmly maintained that the current status of the SHQ is quite

appropriate, because "civilian control" of the armed forces demands that decision-making must remain in the hands of civil-servants and not soldiers. Therefore, recognition of the Service Chiefs/Vice Chiefs by the Rules of business as GoI functionaries, or any further integration is considered neither necessary nor desirable.

Cross-posting of officers between the MoD and SHQ does not find favour with the bureaucracy because they are quite clear that no IAS officer should ever have to serve under a uniformed superior. A similar logic is used to argue that the Service officers deputed to MoD would either be sub-standard or not serve their civilian superiors "loyally". The creation of a specialised IAS cadre, to serve in appointments related to national security, does not find favour since it would limit the utility and career prospects of bright IAS officers. The consensus is clearly in favour of *status quo*.

A third and unexpected source of impediment has, lately, emerged from within the higher levels of the Services hierarchy for two reasons.

Firstly; since no Chief would like to preside over the divestment of his operational authority, and be reduced to the status of a planner, recruiter and supporter of theatre commanders, there have been second thoughts on the issue of CDS. Secondly; the army's attitude seems to have become lukewarm; and the reason offered is, that low intensity conflict and internal security commitments do not permit space for such concepts. All this has led to an overall dilution in the earlier enthusiasm for Jointness, and a clear manifestation is the visible erosion of support for the Andaman & Nicobar Command.

This brings me to the last and most significant factor relevant to reform in India's national security structure; the political establishment.

The Political Outlook

The lack of adequate political involvement in national security issues, peculiar to India, is attributable to the high political stakes and sustained intensity of electoral politics of its evolving democracy. In spite of a deep-rooted urge to emphasise the principle of civil control over the armed forces, the Indian politician has never found the time or capacity to define national aims and objectives, issue strategic guidance or initiate defence white papers.

Due to this attention-deficit, many national security issues of vital importance have remained in limbo for decades; national security reform being one of them.

In order to create the time and capacity to devote to activities relating to constituency, party, Parliament and, of course, political survival, the politician has found it expedient to let the bureaucracy handle, what they see as, complex, tedious and time-consuming matters relating to national security. Not only is the politician's comfort-level with the civilian bureaucracy higher, he is also relying on functionaries clearly allotted responsibility by the Rules of Business. Notwithstanding these factors, the delegation of "civilian control" to the bureaucracy, while excluding the armed forces from defence policy and decision-making, goes against universal norms and reflects an unwarranted lack of faith in the military leadership.

As far as national security reforms are concerned, there is no doubt that it is only the political establishment which has the influence and clout to push through an agenda for change. However, it is also obvious that two sets of factors tend to play on the politician's mind.

On one hand, he is intuitively aware that there are serious flaws in the national security structure, and these apprehensions have been substantiated by successive reports of Parliamentary Standing Committees on Defence. He must be also aware that the best means of exercising civil authority over the armed forces is to subsume them within the edifice of the Gol.

At the same time, his worst fears about the threat from praetorian armed forces are being continuously kept alive by various interested parties. It is a sad commentary on the brittleness of India's democracy that, 65 years after independence, a trust-deficit, bordering on suspicion, appears to persist between the political elite and the armed forces; in spite of every evidence to the contrary. The unsavoury and unprincipled ambush of the armed forces by a sensational front-page report in the Indian Express of 4th April 2012 was an example of this. But such journalistic absurdity could not have found traction in the political establishment without support from the bureaucracy and the intelligence community.

It is for these reasons that politicians have, conveniently, used the contrarian arguments and alarmist apprehensions

emerging from various quarters to postpone reforms that seek to enhance the cohesion, jointness or unity of command of the armed forces - or indeed free them from bureaucratic strangleholds. Apart from the negative contribution of various external entities, we must not forget that the conflicts and contradictions from within the armed forces have been used by the politician to justify inaction.

Conclusion

India's political establishment has chosen to follow an unusual paradigm in which policy-making is assigned to the bureaucracy, while strategy is crafted by diplomats, and matters impinging on grand strategy, like nuclear deterrence or ballistic missile defence, remain in the hands of scientists and technocrats. Uniquely amongst major powers, India has not seen it fit to entrust its armed forces with any role in national security decision-making. To quote the American analyst George Tanham in this context: *"India has pursued the policy of civilian control to a point where the military have almost no input at all in the formulation of higher defence policy and national strategy."*

Persisting with such a policy conveys an ostrich-like approach, and the hope that if we maintain status quo, all our problems and adversaries will just melt away. Quite the contrary, India's bitter experience of the past has demonstrated that lack of resolve in security matters has only tempted others to repeatedly infringe our sovereignty. The fact is, that national security reforms are vital, not just because they are long overdue, but because our security environment is steadily worsening. Urgent steps are needed to enhance the efficiency and combat effectiveness of the armed forces; only then would our huge defence expenditure have proved cost-effective.

Fierce opposition to reforms, both from the armed forces as well as the bureaucracy is a known phenomenon world-wide, mainly because each sees itself as being a loser in some manner or the other. It is for this reason that, historically, defence reforms in all major democracies have had to be imposed by the political establishment. In a democracy like the USA, Representatives and Senators, deeply concerned about national security, have gone to great lengths to ensure that systemic reforms are legislated as laws through Acts of Congress.

This may, perhaps, be our last chance to “fix” a national security system that is archaic and borders on the dysfunctional, before it is too late. The Naresh Chandra Committee report, submitted six months ago, could be a good starting point for change, but past experience has demonstrated the ease with which it is possible for reports of this nature to be shelved and cast into limbo. Of all the issues that seem to engage the time and attention of our Parliamentarians, none can be as critical as national security, simply because it impinges on the nation’s very existence. It is, therefore, time for our law-makers to shed their indifference and to intervene strongly to ensure that long overdue reforms in this arena are implemented.

Fifty Years After the 1962 Debacle

Lieutenant General S Patabhraman,
PVSM, AVSM, SM, VSM (Retd)*

Introduction

There has recently been, a debate in informed circles of how five decades after the humiliating defeat in the 1962 War with China, the Indian state and particularly the Indian Armed Forces stand with regard to facing upto China again, particularly the PLA(Army), should a confrontation be thrust upon India; given the growing asymmetry between a resurgent China and PLA on the one hand and the niggardly progress on modernisation of the Indian Armed Forces and poor state of infrastructure on our northern borders. I shall put forth for consideration certain pointers towards a rational understanding of the current state of India-China relations from the stand point of a possible worsening of relations leading to a military confrontation.

Past Legacy and the Unresolved Border Problem

For most of us, the underlying causes that led to the unpreparedness of the Indian Army to adequately defend its northern borders against China, the latter's full scale attacks against Kameng Sub-division and Walong in the eastern sector of the India-Tibet border and against Chushul / Ladakh in the western sector and the resultant humiliation suffered in the month long war are well known. The plethora of articles in the print media including in premier English magazines such as *India Today*, *The Week* and the *Outlook* commemorating the 50 years after, have once again brought the focus on late Pandit Nehru's ill advised (by Mr Krishna Menon, the then Defence Minister) order to the Army to establish forward posts and throw out the Chinese from the unilaterally declared border, as having been responsible for the debacle that followed. The failure of the higher military leadership of the time in not being able to firmly advise the Government of

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executing such an order against sound military judgement is also well known. Amongst numerous articles that have been written recently on the subject, the ones by Mr BG Verghese¹ and Lieutenant General Sinha² provide great insight into how the infamous trio of Mr Menon, Mr GB Mullick and Lieutenant General Kaul helped Pandit Nehru in precipitating the crisis leading to the debacle.

This time around a redeeming feature has been the official recognition granted to nearly 3000 officers and men who laid down their lives in the war, doing their duty against impossible odds. The most telling example of course was the laying down the lives, after fighting to the last man and last round, by 114 men of "C" Company of 13 KUMAON at Rezang-La in the Chushul / Ladakh sector.

Another example of redoubtable courage of launching perhaps the only recorded attack on Chinese positions was at Walong in the eastern most sector of the Indo-Tibet border. Details of gallant actions on part of the Indian Army at places where we stood our ground as also the background to the 1962 battle have been revisited in a detailed manner by Mr Shekhar Gupta in the Indian Express³ Newspaper and by Major General Raj Mehta, AVSM (Retd) in the Sentinel magazine.⁴ What then is the legacy?

Very briefly, the formation of Peoples Republic of China in 1949, was followed up by Mao Tse Tung in annexing Tibet in 1951. India under Nehru accepted Tibet to be a part of China in return for cementing everlasting friendship with the new Chinese republic and coined the phraseology of *Hindi-Chini Bhai-Bhai* as the foundation of friendly relations between the two new post World War II neighbouring Asian republics. Dalai Lama fled Tibet in 1959, was granted asylum in India and many generations of Tibetans have since been assimilated in India without official nationality status. Pandit Nehru's penchant for grandstanding on the international stage on the platform of non-aligned grouping of nations and disdain for what he considered a fledgeling Communist state of China made him overnight issue orders to unilaterally firm up India's border with China and Tibet along inherited but not demarcated lines. In the Western Sector also known as the Ladakh Sector, it ran along the watershed of the Kunlun mountains and in the Eastern Sector it followed the McMahon line. The Chinese, on grounds of their representative not being a signatory to the 1913-14 Shimla Convention presided by Sir Henry McMahon, never

agreed to the then British proposal. On the other hand, in the Western Sector China put forth its own claim line to substantiate its de-facto occupation of areas running south and east from the Karakoram pass including vast tracts of the Aksai Chin plateau, strategically important to them as their western highway to Tibet runs through Aksai Chin. Aggressive diplomatic efforts by Nehru in having frequent meetings with Chinese premier Chou-in Lai did not have any effect and the Chinese in fact warned India in 1960 that India must not territorially alter the status quo on ground. But, a young Indian Nation perhaps buoyed up by the growing confidence in the post Independence Indian Army by its actions in the war with Pakistan in Kashmir in 1947-48, police type actions in Hyderabad in 1948 and Goa in 1960, performance in Congo in 1960 as part of the UN mandated force and having successfully formed a part of the international armistice and truce arrangements after the Korean War in 1953, unwisely asked the unprepared Army to move forward and establish posts without tactical consideration and defend them against all cannons of military wisdom.

The Army under General PN Thapar and a politically favoured Lieutenant General Kaul obeyed these orders and the Chinese with their warnings unheeded, launched offensives in three sectors, initially, against Kameng and Walong in the East on 20 October 1962 and thereafter against Chushul in the West. After conducting a month long campaign, the Chinese unilaterally announced ceasefire and withdrawal back to its starting positions, except in Ladakh, on 21 November 1962. The politically and emotionally charged atmosphere was such that India failed to consider using the Indian Air Force offensively despite having numerous airfields and landing grounds close to the border as disused ones since World War II. The Chinese had little infrastructure to support air operations in Tibet. Notwithstanding the humiliating defeat, the boundary question remains unresolved till today. China has solved its land boundary disputes with all its neighbours except, India and Bhutan. Even though India lost the war, the patriotic fervour generated in the generation of young men of the late 1950s and early 60s has been of great benefit to the Armed Forces particularly, in the officer cadre resulting in commissioning of a large number of officers in the Emergency Commission (EC) and Short Service (SS) streams, apart from Regulars who did the Nation proud in the successful wars of 1965 and 1971 against Pakistan.

Five Decades After Border Management and Military Confidence Building Measures (CBMs)

China took advantage of India's situation resulting from the military defeat and negotiated a treaty with Pakistan in 1963 for the latter to cede to China a 5180 sq kms⁵ swath of territory of Pakistan Occupied Kashmir (POK) in Shaksgam valley adjacent to Sinkiang province. India could only lodge a protest. This was followed up by China building the Karakoram highway over Kunjerab pass to connect Kashgar in Xingiang to Gilgit region in POK. The Indian Army which ordered an internal inquiry into its worst defeat, very quickly ordered massive reorganisation and training. New mountain divisions were raised and equipped rapidly with Soviet military hardware. The war in fact set the stage for modernisation of all three wings of the Armed Forces that helped us fight the next war creditably in 1965 and the next one in 1971 with greater finesse. With China we did well in a stand-off in Nathu-La in Sikkim in 1967, weathered the Chinese protests over grant of statehood to Sikkim; and in 1986, in the Tawang Sector, matched a Chinese attempt at establishment of a new camp at a place called Wangdung with rapid build-up of own troops on the heights surrounding the camp. This was followed up by the Army adopting a well planned defensive strategy in strengthening of our defences all along the (Line of Actual Control) LAC.

The Chinese took notice of the strong and effective Indian responses and this set the stage for thawing of tensions on the border helped by a pathbreaking visit by Mr Rajiv Gandhi as the Prime Minister. Subsequently, in the time of Mr Narasimha Rao and later Mr Vajpayee, diplomatic efforts further yielded to a decision to appoint special emissaries in the form of National Security Adviser (NSA) and a high ranking Chinese counterpart to discuss and resolve the boundary issue. Pending that, the militaries were given freedom of action to put in place a slew of CBMs to include regular border meetings, exchange of greetings on national days, exchange of high level delegations and joint training at lower level of troops. The CBMs are working well and help in diffusing tension in awkward face-off situations. Both India and China try and avoid occurrence of any awkward situation. However, the LAC being subject to each other's perceptions, a potential for a conflagration is always there.

Bilateral Engagement in Trade, Education and Multifarious Areas

Bilateral trade between India and China is likely to touch US \$ 100 billion by 2015. Exchange of people to people and travel is to the tune of five lakhs Indians and one lakh Chinese in a year. Common ground in multinational forums, such as Brazil, Russia, India, China, South Africa (BRICS) and otherwise competition for resources and investments in Africa, and elsewhere provide for constructive engagement between the two countries. The recent visit by former President Kalam at the invitation of China Forum, a State Institution, is an example of growing exchanges in science and technology. All this precludes any sudden worsening of relations.

Growing Asymmetry

As part of its assertiveness in the last decade, Chinese official military spending increased from US \$ 30 billion in 2000 to US \$180 billion in 2012. India on the other hand, is to spend only US \$ 41 billion in 2012. China has undertaken phenomenal accretion in force levels in the military districts in Tibet and neighbouring province of Sichuan, and in capacity building of all weather airfields and logistics installations in Tibet. Railway line to Lhasa, itself an incredible feat is being extended to Shigatse, North of Sikkim. All weather four lane roads connect the highways in Tibet to their Border Regiment camps and have been extended by all weather motorable roads to the Indian border in all the sectors. As against this, Indian Armed Forces (particularly the Army), suffer from lack of modernisation and prognosis for future looks bleak. Infrastructure development towards border is also delayed on account of environmental concerns and lack of seriousness on the part of the Central Government to coordinate efforts of concerned departments and ministries.

Doctrine and Force Restructuring

The official Chinese white paper on National Defence issued by China in 2004 had stated that the objective of the PLA was to win local wars under conditions of informationalisation.⁶ Development of weaponry and equipment, building joint operational capabilities and making full preparation in battlefield effectiveness were priority areas. Holding of exercises in the Tibetan plateau at altitudes of 5000 m involving tanks, mechanised infantry, paratroopers,

helicopters and fighter aircraft have been reported since 2008. Adoption of a War Zone concept to synergise command of troops in more than one Military Region (having two or more Group Armies which are equivalent to our Corps) and committal of three tiers of troops to deal with an escalatory situation on the borders has been publicised to great effect. Rapid reaction units (regiment size) are permanently stationed in Tibet and rapid reaction formations (RRFs), either of a brigade or a division size are available to be moved from elsewhere.

Sino-Pak Collusion

Despite frequent attacks on Chinese personnel in restive Baluchistan province of Pakistan the all-weather friendship between China and Pakistan continues to flourish. Gwadar-Pasni naval base stands completed, Karakoram highway is being widened to four-lane specifications and survey work on a parallel railway line is underway. Presence of PLA troops in POK for guarding Chinese or Chinese assisted infrastructure projects is no longer a secret. Supply of military hardware by China to Pakistan at friendship rates continues unabated and programmes related to joint development of aircraft, tanks, missiles and transfer of nuclear technology are being systematically upgraded. The Uighur/East Turkmenistan militant movements in the restive Xinjiang province are being put down ruthlessly by the Chinese Interior ministry troops, dismissing Pakistan based militant support as a mere irritant. Deceitful occupation of a portion of J&K (as mentioned earlier in the text) with Pakistan's complicity in 1963 by way of an illegal treaty has been systematically buttressed by China in its policy of building-up Pakistan as a potential threat to India. On our part, we will have to factor in the dimensions of this collusive support depending on prevalent geo-political and geo-strategic situation at the time of any worsening of relations with China.

Does China have any Intention to Go to War?

There is no reason for China to go to war with India. Given the close engagement at multifarious levels between the two countries there is little likelihood of a *casus belli*. They already have what they want in Aksai Chin and in POK (Shaksgam). The question then arises; as to why is it that China, with little intention to go to war with India, is enhancing multifold PLA's high altitude specific

force levels in Tibet and is engaged in capacity building of infrastructure in terms of airfields, logistics areas and communications, in both Lanzhou and Chengdu military regions bordering India? Answer perhaps lies in the stated aim of fighting a modern war with high technology. This would mean capacity building to prepare for all possible contingencies from handling a minor stand-off involving border patrols or an accidental shooting in the high seas or in the air or to a border skirmish or an escalating diplomatic row. Teaching a lesson at an appropriate time could be referred to as waging war by other means. Geopolitical and strategic posturing may call for being able to calibrate responses to emerging situations. In order to be able to ratchet up the response, true deterrence lies in a credible 'threat in being' which is what China is building-up in Tibet and we can no longer adopt an ostrich like mentality and ignore this reality.

Possible Flash Points or Conflict Triggers?

Attempts by Indian oil companies to explore oil and gas, at the bidding of Vietnam in South China Sea, wherein the maritime boundaries between littoral states remain contentious are being objected to already by China which is extremely sensitive to any possible loss of influence in the numerous islands in the South China Sea and the East China Sea. Given the friendly ties between Vietnam and India, this issue has the potential for escalation in the future.

An adverse border incident resulting from a face-off going wrong between border patrols of the ITBP / Indian Army and PLA border guarding troops, once again has scope for spiraling out of control, particularly since there is no mutual agreement on the LAC on ground.

Current Prognosis and Future Scenarios

Presently, we are at a disadvantage to confront China on level terms since our force levels including modernisation and infrastructure development are way behind schedule and unlikely to be made up even till 2022. We have, therefore, no other choice but to accelerate modernisation taking recourse to extraordinary political initiative and forging a consensus at national level to fast-track capacity building, overriding bureaucratic hurdles on a war footing.

Till such time we are in a position to effect our planned accretion in force levels and build-up the network of roads, railways, airfields and communications, we would have to rely on the following measures to deal with any emerging crisis situation;-

- (a) Carefully calibrate diplomatic response including placing reliance on the growing scope for military diplomacy, to any sign of rupture in the normal friendly relations with China.
- (b) Have a credible dissuasive policy and incrementally upgrade the same depending on emerging geo-strategic situation in our neighbourhood, particularly on our western borders and the Pakistan-Afghan border.
- (c) In the event of having to effect mobilisation take advantage of interior lines of communication for speeding up own deployment and deny logistics build-up to the Chinese operating on exterior lines of communication.

Finally, what about the boundary question? A recent comment attributed to official Chinese media saying that the border issue does not define the whole of the bilateral relationship and should not, therefore, affect the development of Sino-Indian relations is significant. Is this pacific statement meant to lower our guard against what has been perceived to be a hardening of the Chinese position on Arunachal Pradesh and Tawang as has appeared in the media in recent times and as demonstrated by China in its policy of denial of visa to Indians from the state of Arunachal Pradesh? More importantly, Chinese military capabilities in Tibet need to be watched carefully as intentions can change based on geo-strategic imperatives.

Conclusion

Irrespective of the progress or non-progress in the boundary talks and increased bilateral engagements between China and India, the Indian Armed Forces, particularly the Army can no longer ignore the growing asymmetry in the capacity to conduct operations between the PLA and the Indian military on our northern borders. The Government will have to be pushed into taking extraordinary steps to clear hurdles both in modernisation of all three wings of the military and in the build-up of planned infrastructure in our border areas neighbouring China. In any case, a robust military

capacity is the best insurance against sudden threats to national security or when national interests are endangered.

Endnotes

1. Book, *'50 Years After 1962 : A Personal Memoir'* by Mr BG Verghese (Then Assistant Editor and War Correspondent, the Times of India).
2. Two parts article titled *'The Himalayan Blunder'* by Lieutenant General SK Sinha, PVSM (Retd), former VCOAS and Governor, J&K as part of his regular feature articles as appeared in the Asian Age group of daily papers in Oct-Nov 2012.
3. Article titled *'1962, a Different Story'* by Shekhar Gupta, Editor-in-Chief, on 20 Oct 2012, Indian Express.
4. In the October 2012 issue of the Sentinel monthly magazine published from New Delhi.
5. Article titled *'India's North West, The New Great Game'* by Lieutenant General Kamaleshwar Davar, PVSM, AVSM, (Retd) appearing in USI Journal, Jul-Sep 2012.
6. *"China's National Defense in 2004"*, White Paper, at <http://english.people.com.cn/whitepaper/defense2004/defense2004.html>. See Chapter III, Revolution in Military Affairs with Chinese Characteristics.

China's Ambiguous Nuclear Doctrine – Concerns for the US ?

Ms Debalina Chatterjee*

"We must have what others have, and anyone who wants to destroy us will be subject to retaliation."

- Deng Xiaoping

Introduction

China's no first use doctrine is based not only on the concept of "superpower parity but on the doctrine of mutual assured destruction".¹ Over the years, the Chinese military doctrines have remained '*neibu*' (restricted). Chinese political leaders, diplomats and security and strategic thinkers announced that China would adhere to a 'no first use' of nuclear weapons which has continued to be an integral part of Beijing's foreign policy. However, there was no authentic military information available on how China would use its nuclear weapons in case of real time of war. China's nuclear doctrine had been based on the principles of *youxiaoxing* (effectiveness), *zugou* (sufficiency) and *fanweishe* (counter deterrence). This paper aims to analyse the complexities and apprehensions of the United States concerning China's nuclear doctrine and also analyses the reason as to why China is likely to adhere to a no first use policy.

A Transitional Change?

There have been three stages of development in China's Nuclear Strategy and Forces. The first stage relied on existential deterrence or *cunzaixing* *weishe*, where China possessed nuclear weapons but lacked effective delivery systems, the second stage was minimal deterrence or *zuidi* *weishe* where China can cause unacceptable damage to adversaries assuming that a humble number of arsenal would survive the first strike. The present stage of development is credible minimum deterrence or *zuidi kexin weishe* to confuse adversary on exact location of missile forces.

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A Change in Doctrine?

Many Chinese analysts have felt that China should make its nuclear doctrine more flexible, that is shift from a defensive oriented nuclear doctrine to a more offensive oriented nuclear doctrine. It has been said that the fluid nature of high tech wars often “blurs” the distinction between offence and defence. The National Defence University in China is led to believe that only *jiji de gongshi* (active offensive) can “seize and maintain initiative on battlefield”. It claims that defence is only important to save important strategic points during an offensive. Hence, ‘no first use doctrine’ should be conditional and that the use of nuclear weapons in the first strike by Beijing should be a justified action when its national interests would be at stake.

Weaponisation

It is a known fact that nuclear weapons need to be operationalised, which can only be done by fitting them into effective delivery systems. For the purpose of achieving “limited deterrence”, China’s Second Artillery Corps which the Chinese call as ‘Strategic Rocket Forces’ became the backbone of dragon’s nuclear forces. According to Bulletin of Atomic Scientists report on “China’s Nuclear Forces, 2010”, it was estimated that China possessed approximately 175 active nuclear warheads and 65 warheads which waited to be dismantled bringing the total stockpile to 240 warheads. It has been estimated that by 2020, the warhead numbers would become “more than double”.

According to Bulletin of Atomic Scientists, China’s land based nuclear capable ballistic missiles are DF-3A, DF-4, DF-5A, DF-21, DF-31, DF-31A. Only DF-5A is silo based while the rest of them are all mobile. Out of these, the DF-3A is already in its phase out stage and hence, China is replacing them with the DF-21As. Even the DF-4 missiles are being replaced by DF-21 and DF-31. China’s sea based nuclear deterrent would include the Julang class submarine launch ballistic missiles to be fitted with the Jin class SSBN. However, the Julang class missiles are not yet operational and would be restricted by its ranges while the SSBNs are yet to prove their credibility in any deterrent patrol. China’s cruise missile arsenal include the DH-10 is suspected to be either conventional or nuclear.

Apart from missiles, PLA Air Force (PLAAF) also possesses the capability to deliver nuclear weapons. China's H-6 bombers, though old, are capable of carrying nuclear weapons. A limited number of Q-5As updated versions of MiG 19 have been modified to carry nuclear weapons.

China's Apprehensions about the United States

China strictly perceives America as a viable threat to its security due to Washington's growing relations with other Asian countries by increasing its influence in the Asia-Pacific region and also through unwanted interference in its 'one China' policy.

China has not forgotten its apprehensions during the Korean War of a nuclear blackmail by the Americans. China has been building-up on strategic missile forces in order to achieve a "credible survivable nuclear deterrent" and counter strike capability. Over the years, China has been keenly studying Operation Iraqi Freedom which has led into a belief amongst the Chinese that future wars would be 'local wars under high tech conditions'. Hence, China's military modernisation has laid a lot of stress on *zhengti zouzhan* (integrated operations), *zhongdian daiji* (to launch crucial point strikes) against the opponent's key vulnerabilities.

China has been worrisome of an attack on China's Second Artillery Corps by the US; in particular, about destruction of its strategic nuclear forces. This had resulted in several Chinese military leaders and strategic thinkers to review its policy of 'no first use'. This has left the world especially the US befuddled over Chinese intentions of first strike options. China also fears a nuclear first strike from the US which could result in decapitation and hence, consistently tries to make the Americans agree to a 'no first use' policy too. Some of the Chinese analysts worry about an attack, even a conventional one, on China's command and control centres.

USA's Concerns

In a remark, General Zhu Chenghu mentioned that if the USA targetted their missiles towards China, they would have to face the consequences of nuclear retaliation. China has been apprehensive of missile deployments by the US in East Asia and had been strongly opposing the US National Missile Defence and Theatre Missile Defence as a threat to their nuclear deterrence.

China has also vehemently opposed the US policy of extended deterrence.

Doctrines are susceptible to changes, and in case of a real time war, it is feared that the Chinese might renounce their 'no first use' policy even against conventional attacks.

Chinese are developing counter measures through their ballistic missiles to evade the US ballistic missile defence system. These include multiple independently targeted re-entry vehicles, manoeuvrable re-entry vehicles, decoys, chaffs. Chinese aircrafts are being made stealthy in order to escape any air defence system. These could negate USA's defensive postures. The US could be worried that since Chinese are developing counter measures to negate their ballistic missile defence, they could use their ballistic missiles for a first strike and destroy some of the US arsenal, even though such things are unlikely to happen.

While China mentions it would not go against its nuclear doctrine to attack foreign territories, the question of Taiwan still remains uncertain since China considers Taiwan as a part of its own territory and could thereby justify the use of nuclear weapons in its own territory. Unification of Taiwan has been one of the major agendas in China's national security objectives. If not unification, China at least would make an attempt to prevent Taiwan from achieving "*de jure*" independence.

China's Actions to Strengthen its Stand on Nuclear No First Use

China has not only been committed to adhering to a "no first use policy" for itself, but also believe that nuclear weapon states across the world should be giving up nuclear deterrent which is based on first use policy.² There have been reports which confirmed that the Chinese would be committed to a "no first use", which is being proved by the way they have been enhancing their nuclear arsenal for retaliatory strikes. Characterised as "anti nuclear blackmail", China follows a counter value second strike deterrence strategy. Nuclear weapons would be used for strategic retaliation and conventional weapons would be used for precision counter strikes. Chinese leaders have followed – what may be termed as limited nuclear deterrence. Liu Huaqiu mentions that if China launches a

first strike, the adversaries would retaliate with “many more nuclear weapons” which would be destructive for China’s national interest.

China’s apprehension of a US pre-emptive strike on the liquid fuelled missiles was further reduced when China started to develop solid propelled ballistic missiles and slowly replacing the liquid fuelled ones with the solid fuelled ones. China’s move from silo based missiles to road mobile missiles strengthens the fact that China has long term plans of adhering to its “no first use” of nuclear weapons. This is because road mobile missiles are developed to enhance survivability of the missiles for a counter strike. It must also be taken into account that road mobile missiles are usually the choice for counter strike or second strike while silo based missiles are generally the choice for first strike as their chances of being destroyed are high. Hence, China plans to strengthen its stand on “no first use” of nuclear weapons by developing road mobile missiles which are more suited for counter strike.³

China’s SLBMs like the Julang 1 and 2 is expected to enhance China’s counter strike and second strike capability further. Submarine launched ballistic missiles are also used for counter strike or second strike capability rather than for first strike capability. Hence, SLBMs on SSBNs could further strengthen China’s stand on “no first use” of nuclear weapons.

China’s perseverance towards building a capable ballistic missile defence is to deter the US from attacking China with nuclear capable ballistic missiles. Given China’s claims that the nuclear weapons are solely for defensive purposes, China is likely to use its ballistic missile defence to intercept any incoming ballistic missile, and then use its own arsenal to counter attack.

Chinese leaders and strategic thinkers have always viewed nuclear weapons as *guoji diwei* (increase nation’s status in international politics) and contribute towards the *zonghe guoli* (national power) and are *yizhong zhengzhi wuqi* (political weapons). China is believed to not only take interest in increasing counter strike retaliatory capabilities but also that the strategic missile forces should be able to operate for a prolonged period of time. China’s attempts at building “hardened and deep” tunnels near the Hebei Mountains further strengthens China’s stand on a “no first use” policy. Hard and deeply buried targets would require several bunker

busting weapons to destroy them, thereby; enhancing China's counter strike capability. This would also prevent an adversary from striking first, since he would know that China would have some retaliatory capabilities. An advantage of having these hard and deeply buried targets is that even if the ballistic missile defence is unable to save the counter force targets, China would still have the tunnels to do so.⁴

China's efforts in developing capabilities for information warfare would include cyber warfare, anti-access area denial strategies and development of directed energy weapons in their effort to deter the Americans through means other than nuclear weapons. Hence, if the Chinese successfully develop information warfare capabilities, they could rely less on nuclear weapons and thereby adhere to its "no first use policy" – hence, they would use them only when they are attacked with the same.

There are apprehensions that in case the US developed a Conventional Prompt Global Strike capability, it could become a destabilising factor as the Chinese could misconstrue the missiles to be nuclear armed and launch a nuclear first strike. However, such apprehensions of a nuclear first use could only be attributed towards countries which have 'first use policy', not with a country which has no first use policy.⁵

Another reason, why China is likely to adhere to its "no first use policy" is that it would prevent a nuclear attack from the US. Despite the apprehensions, China's strict adherence to a no first use does give the US a reason to breathe a sigh of relief. In case China used nuclear weapons first, it would have to destroy all the counter force targets of the USA which are widely dispersed not only inside their homeland but also in forward bases. This could be an impossible task. China is developing multiple independently targetable re-entry vehicles (MIRVs). However, such MIRVs face technical limitations since miniaturisation of these nuclear weapons have not yet been mastered by the Chinese.

China follows a counter-value counter-strike strategy. This means China would hold the US counter value targets at risk in case it is coerced to launch a nuclear attack. To hit a counter value target even when the US has not hit the Chinese, either with nuclear weapons or with conventional weapons, the Chinese could do that with conventional weapons itself.

The fear of a nuclear first strike against the US could be viewed as credible threat by Washington because of their conventional power superiority which could tempt the Chinese to launch a first nuclear strike to weaken the conventional advantage of the US, in case of a conflict over the Taiwan issue. However, that would not happen since China's no first use "gives a great deal of political capital within the international capitals".⁶ Moreover, China has been threatening to use nuclear weapons to solve the issue of Taiwan only, if the US resorts to use of force. To counter the US threats, China is befriending the US adversaries like Russia, Iran, Turkey and many more. In case China adopts a "first use policy" it could make the US adversaries, whom China is trying to befriend, suspicious of the Dragon's motives.

Conclusion

There could be positive outcomes from crisis situations. The tussle between offensive capabilities of the Chinese and defensive capabilities of the US could escalate into such crisis situations that both countries could be coerced to rethink on arms control dialogues or treaties for both countries' national interests. Nevertheless, amidst the growing threat perceptions, the nuclear weapons might be able to act as the best weapons of peace between the US and China and enable them to move towards enhanced strategic stability. At the same time, China's "no first use" policy has allowed Beijing to be accepted as a "non-threatening international player, even as it builds-up its conventional forces and modernises its military".⁷

Endnotes

1. Kim R Holmes, "U.S.- SOVIET-CHINA RELATIONS AND STRATEGIC DEFENSE", *International Conference on The SDI: Implications for the Asian Community*, July-29,31, 1986.
2. "China sticks to no-first-use of nuclear weapons: white paper", *Xinhua News*, March 3, 2011
3. Note: Road mobile missile could also be used for first strike. However, given a choice between silo based missiles and road mobile missiles to be used for first strike, it is advisable to use silo based missiles first for first strike since they are likely to be more prone to destruction.

4. Debalina Chatterjee, "The Mystery Behind China's Hebei Mountains", *South Asia Analysis Group*, June, 2012, Also republished in *The Srilankan Guardian*.
5. The clarification was given by Air Commodore Jasjit Singh (Retd) in a discussion on conventional and nuclear warheads on missiles and their impact at the Centre for air Power studies, New Delhi.
6. Joanne Tompkins, "How U.S. Strategic Policy is Changing China's Nuclear Plans"?, *Arms Control Association*, 2003.
7. Stephanie Lieggi, "Going Beyond the Stir: The Strategic Realities of China's No-First-Use Policy", *NTI*, January 1, 1995.

Agni-V Test Launch and Its Implications

Major General YK Gera (Retd)*

Introduction

India launched Agni-V missile on 19 April 2012. It has a range of 5000 km and can deliver multiple warheads. It was test fired from Wheeler Island approximately 2000 kms South East of Delhi. A 17.5 metres long missile which has the capacity to carry 1 to 1.5 tons of conventional or nuclear warheads, is likely to be a formidable missile in India's strategic military arsenal. Scientists claim that there has been a "giant leap" in the missile development programme from a single stage liquid propelled surface to surface Prithvi Missile, with a range of 150 kms or so first launched in 1988; to three stage solid propelled Agni-V.

The launch of Agni-V is India's third consecutive strategic missile launch in three years. In February 2010, India test fired Agni III with a range of 3,000 to 3,500 kms; followed by Agni IV with range of 3,200 to 3,700 kms. Agni II has a range of 2,000 to 2,500 kms. It has strengthened Indian defence capability and put India in the list of small club of nations who possess ICBM capabilities, namely; the US, France, Britain, Russia and China. Some experts point out that it is not quite an Intercontinental Ballistic Missile (ICBM) as is being claimed by the media. Going by the accepted classification, an ICBM must have a minimum range of 5,500 km. China puts this figure at 8,000 kms. The Chinese Dong Feng-5 (CSS-4) missile has a range of 13,000 kms and can hit a target anywhere on the planet. Technically, therefore, Agni-V is a Medium Range Ballistic Missile (MRBM). However, it is only a matter of time when this range is further enhanced. Analysts say, given India's skills in launching heavy satellites and planetary probes, it could soon field a powerful missile to send warheads over intercontinental ranges. Comparative table pertaining to Ballistic

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Missiles with China, India and Pakistan is given below:-

COMPARATIVE TABLE

Ballistic Missiles

Name	CHINA		Name	INDIA		Name	PAKISTAN	
	Range (km)	Warhead (tons)		Range (km)	Warhead (tons)		Range (km)	Warhead (tons)
DF-3A (CSS-2)	3,100	2	Agni I	700–1,200	1	Ghaznavi	320	1
DF-4 (CSS-3)	5,400	2	Agni II	2,000–2,500	1	Gauri	950	1
DF-5 (CSS-4)	13,000	2	Agni III	3,000–5,000	1.5	Shaheen 1	735	1
DF-21 (CSS-5)	2,150 to 3,000	0.70	Agni	3,200–	0.7	Shaheen 2	>1200	1
DF-31 (CSS-10)	7,200	1	IV	3,700	1 to 1.5	Shaheen1A (Hatf IV)	2000	1
DF-31A (CSS-10 Mods1 and 2)	11,200	1.8	Agni V	5,000				

Source: Arms Control Association, "Worldwide Ballistic Missile Inventories". Updated upto January 2012.

Strategic Implications

India's Nuclear Doctrine

India's nuclear doctrine has a declared 'No First Use' (NFU) policy. It also states that it will respond with punitive retaliation should deterrence fail. For 'No First Use', Agni-V may be a deterrent, but for a punitive retaliation, accurate nuclear weapons to inflict damage unacceptable to the aggressor are required. To survive the first kill, operationally prepared and survivable silos, and well trained nuclear forces are essential. Agni-V with its three stage solid propellant is being talked about as a "Game Changer". It is bound to be a great asset in developing ICBM with Multiple Independently Targetable Re-entry Vehicle (MIRV). Agni-V is just a delivery system. Triad system and its operational feasibility are yet to be tested and so is the terminal phase accuracy on land and air to be assessed. Thus a lot more needs to be done. During his speech at International Institute of Strategic Studies, London, the Indian Naval Chief Admiral Nirmal Verma said, "A retaliatory strike capability that is credible and invulnerable is an imperative. The

Navy is poised to complete the triad, and our maritime and nuclear doctrines would then be aligned to ensure that our nuclear insurance will come from the sea.”¹ This statement encompasses synergy of technology, infrastructure and training of nuclear forces.

Deterrent Capability

The success of the launch has to be seen as providing the country a deterrent capability with the aim of dissuading a hostile adversary from indulging in adventurism. A section of media has attempted to link success of the launch to targeting of specific countries. This needs to be curbed. In our euphoria, we should not lose sight of pragmatism. The successful launch has enhanced Indian capability to safeguard our legitimate interests and defend them if required. While it strengthens our defensive posture, it is by no means a challenge to anyone else, nor an attempt to initiate an arms race in the region. Additional range of Agni-V does not radically alter strategic stability in Asia. On the other hand Agni-V may even enhance stability in Asia. India has always stood for peace and it covets no one's territory. Survivability, range, mobility and flexibility are part of minimum nuclear deterrence that is credible. A lot more needs to be done by India. Just as capabilities play a role, so do perceptions for deterrence to be credible and effective, whose sole purpose is prevention of Nuclear War. Further in order to retain our strategic autonomy, India needs to guard against – coercion, compellance, arm-twisting and nuclear blackmail. Considering that our current geo-political environment is fraught with hazards, Agni-V should bring reassurance to our Security Planners.

Ballistic Missile Defence

India has been pursuing BMD programme since 2006. India and Pakistan have fought wars since 1947 periodically. The two countries are neighbours but not friends. Pakistan possesses nuclear weapons and missiles. Pakistan's nuclear arsenal is India-centric. She has not adopted NFU policy. Pakistan has a number of terrorist groups and pursues terrorism as a matter of state policy. The security situation in Pakistan is not encouraging and there is possibility of nuclear weapons falling in the hands of non-state actors. To offset a possible first strike and guard against the “loose nuke” situation from Pakistan, India needs BMD. Geographic proximity gives the BMD system limited reaction time

to respond. An arms race between defence and offence is destabilising in itself, and the effect could be magnified by possible false alarms and the demand for fast decision making.

Apart from Pakistan, China is also a factor for BMD programme. Both India and China have declared NFU doctrine. China and India have unsettled and disputed land borders. China illegally claims 90,000 sq km approximately of Indian territory in Arunachal Pradesh and is in illegal occupation of approximately 38,000 sq km in Aksai Chin. NFU policy is not explicit regarding use of nuclear arsenal in claimed territory. India has to be cautious about exploitation of such ambiguity in the event of hostile environment emerging on the borders.

Following China's ASAT test in 2007, India announced that its BMD programme would be expanded to include ASAT Programme. An Indian reaction to the Chinese test is likely to touch off a response in Pakistan. Given the history of Beijing's assistance to Islamabad in nuclear and missile technology, India views growing China-Pakistan ties with concern. Outer space is the next domain. China launched Pakistan's advanced communications satellite, PAKSAT-IR, on board China's Satellite Launch Vehicle from the Xichang Satellite Launch Centre in Sichuan Province on 11 August 2011. Outer space capabilities serve as another reason to pursue BMD. To develop an integrated BMD system, ground-based long-range radar installations must be supplemented with space-based early warning capabilities.

Neutralising adversary's satellites and protecting own is the key to space research. India has been doing endo and exo-atmospheric missile defence intercept tests. Agni III has the capability to hit a satellite. Agni-V will enable us to intercept target missiles at longer ranges thus giving India the ability to intercept ICBMs. India is working on an Advanced Air Defence (AAD) system. A full multi layered defence against Ballistic Missiles requires both terrestrial as well as space based surveillance and kill systems. A lot more needs to be done in this field.

Security Dynamics and Ground Realities

Role of the USA

Unlike in the past when the USA went in for embargoes and financial cuts, this time the response was generally muted. The

mutated American response despite Washington's concern over missile programmes of Iran and North Korea, is indicative of improvement in the Indo-US bilateral relations over the last 15 years or so. Although the US urged for restraint, she still praised India for her impeccable nonproliferation track record. This is indicative of its mature understanding of India's security concerns. The reasons for this change can be economic and strategic. Economically, the US recognises India's stable economic growth and sees India as a potential market for its companies. Indo-US bilateral trade agreements are getting stronger. Strategically, emergence of economically, militarily strong and assertive China is a cause for concern for the world community, particularly the USA. China's aggressive posture in the South China Sea, against Taiwan and in the Indian Ocean etc is worrisome. The Obama administration, while trying to extract itself from Afghanistan, is now cultivating alliances with Asian nations and redirecting its strategic and military focus towards Asia to manage China's new and increasing military clout. The US supports India's rise. President Obama has also endorsed India's claim to a permanent seat at the UN Security Council. The US Defence Secretary Leon Panetta visited Delhi in the month of June 2012 and declared India the "*lynchpin*"² of the new American military strategy in Asia. While both India and the US have declared that their expanding defence cooperation is not directed at third parties, Beijing is concerned about the potential Indian role in the unfolding US military pivot towards Asia-Pacific.

As far as US non-proliferation policy is concerned, some analysts are of the view that it should not be a one way street, where potentially aggressive, non status quo power like China build up their nuclear and ballistic missile forces and the US responds by criticising its friends and allies for responding to emerging threat. A good option for confronting proliferation is to prepare to respond in kind. Consequently, the US hailed India narrowing the missile gap with China.

Response of Pakistan

Within days after India launched Agni-V, Pakistan test-fired Hatf IV Shaheen-1A, nuclear-capable Intermediate Range Ballistic Missile (IRBM) with range of 2000 kms. Lt Gen Khalid Ahmad Kidwai, Commander Pakistan Nuclear Command claimed ³ : '*The*

improved version of Shaheen 1A will further consolidate and strengthen Pakistan's deterrence abilities'.

Mansoor Ahmed, a Defence Analyst based in Islamabad said,⁴ *"Agni-V added to India's growing second strike capabilities, particularly if India can construct a naval version of the Agni-V to deploy on its nuclear-powered submarines. A submarine-based missile can be deployed beyond the reach of a Pakistani first strike, thus ensuring survivability of its nuclear force".*

Response of China

Chinese experts have described Agni-V test as an event of great geo-strategic portent. There is more to India's successful long-range nuclear capable missile Agni-V, than what was being admitted by India. In response to India's improved ability to deter China's nuclear arsenal, a Foreign Ministry spokesman in Beijing said,⁵ *"India and China are not rivals but cooperative partners. We believe the two countries should cherish the hard-won momentum of sound bilateral relations".* However, CCTV, China's state TV Network, questioned the accuracy of the Agni-V Guidance System and said the missile's 50 ton weight would force it to be launched from a fixed location, making it an easy target. ⁶

Conclusion

Agni-V deployed in modest numbers is not likely to ring alarm bells. It, however, would signify maturity of India's nuclear forces and effort to achieve credible minimum deterrence. This is not about India adopting a nuclear posture of counterforce and nuclear war-fighting.

At a time when China's relations with the USA and many Asian neighbours have become tense, Delhi is deepening its engagement with Washington, Tokyo, Hanoi and the ASEAN region in general. What Delhi and Beijing should do is to have a frank dialogue on their respective regional security interests, find ways to reduce friction and explore prospects for joint promotion of stability and security in Asia and its environs.

Endnotes

1. Saurav Jha, Towards a Nuclear Insurance, Geopolitics, Vol III, Issue III August 2012, PP 16.

2. The Indian Express. "US says India 'lynchpin' of rebalancing strategy". 07 June 2012.
3. The Express Tribune, "Missile deterrence : Pakistan tests nuclear capable ballistic missile". 26 April 2012.
4. Heather Timmons and Jim Yardley, "Signs of an Asian Arms Build up in India's Missile Test".
5. *ibid.*
6. *ibid.*

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The Strategic Challenges that Lie Beyond the Elections and Power Transition in Washington and Beijing

Brigadier AS Cheema, VSM*

Introduction

Recent events in the USA and China have been politically momentous. In the west, defying all predictions, President Barack Obama stormed his way back to the White House riding on electoral jingoism, revealing the new but fractured face of America. On the other side of the globe, there was an equally momentous change, though predictable and orderly, it had its share of undercurrents. The Eighteenth Congress of the Chinese Communist Party easing in their 'nominated' Fifth Generation leadership to lead resurgent China in the coming decade. Both events have major ramifications and the aim is to highlight the strategic challenges that need to be addressed as they impact global equations and the established balance of power, and how India could leverage her unique position and bridge perceptual gaps.

Post-Election American Challenges

President Obama has been given a mandate to redouble his efforts to salvage the economy and restore faith in the American dream. Beyond the din of the elections, the challenge of a precipitous fiscal cliff and raising of the 'debt ceiling' looms large and requires the collective will of both political parties to ensure that the USA does not falter on the path of economic recovery. At the same time the US can ill afford to fall behind in the strategic game and 'contain' the unfettered rise of China. One involves the unwelcome task of cutting costs and rejuvenating the American economy to claw back the advantage from booming China, the latter calls for enhanced defence spending to sustain American power worldwide. Both pull in different directions but need concurrent attention if the

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US is to remain a 'superpower.' The USA, Obama has been elected to lead, is passing through momentous times and more than anything else, it is the fate of American primacy that is at stake.

Economics are likely to remain the principal contributor to national power. Though recent trends indicate a decline in the economic fortunes of China, her progression as a 'Nation-State' has been momentous. On the other hand, the waning of power of the US has been predicted even by her own think-tanks,¹ and if left unaddressed, this portends to become a self-fulfilling prophecy. If America is unable to translate Obama's electoral cry that 'the best is yet to come,' the writing is on the wall. The USA therefore needs to shake itself out of self-induced coma and claw back the space America has conceded to China – the straight talk of the Presidential debates now needs to be translated into tangible action(s).

While there appears to be a renewed sense of urgency in America's Asian policy, and the President's overtures have offered hope and injected a sense of collectivism in ASEAN nations, it will require greater efforts to calm the turbulent East and South China Sea waters. Despite Obama's ground breaking initiative and the keenness of the ASEAN nations, it cannot be ignored that he is fishing far away from home and there are pressing domestic reasons that detract from the USA's pivot to the Asia-Pacific.

Concurrent to the requirement of reassuring the ASEAN nations, the situation brewing up in Gaza and heightened American stakes in the Syrian Civil War along with the requirement to limit Iran's nuclear ambitions, the President can ill afford to ignore the Islamic World. The region has also mutated dangerously since the Arab Spring and the Shia - Sunni divide along with heightened Muslim activism is unsettling the precarious balance in the region. There is an urgent requirement for the USA to inject dynamism in her foreign policies. Unfortunately, after her experience in Libya these seem to be driven more from the fear of failure than with any hope of success – these are but some of the strategic challenges that President Obama has to address.

The China Inherited by the Fifth Generation Leadership

China too faces major challenges, mostly the result of her 'unique' political system and her single-minded obsession with economic

growth. It also needs to be highlighted that though the Chinese political system may appear closed and undemocratic, yet beneath the surface, she has started her own experiments with democracy.² At the same time, while the Communist Party remains all powerful, 'other' political parties are 'permitted to exist,' though their practical contribution remains negligible; the Communist Party, purportedly representing the 'people' of China remains the '*Primus inter pares*.' At the same time, the decision making within the party appears to have metamorphosed and become 'collective' and 'institutionalised' since the times of earlier generations. This has added stability in the manner modern China conducts her business.

A brief explanation of political system of China would be in order. The 82 million members of the Chinese Communist Party nominally elect 2,270 members to the Party Congress every five years and while this is fairly representative of the population, in practice it is ensured that only protégés having approval of the leadership get selected. The next step is the selection of the 370 member Central Committee, the party's policy setting body. Since the seats are only marginally more than the candidates, it is again ensured that only the 'select' get anointed. The Congress then goes on to select the Politburo of 25 members who in turn select the Standing Committee of seven members, which include the Chairman and Premier. A similar process is again followed for nominating the 34 State (provincial) Secretaries and Governors. Thus right from the top to bottom, it is more a process of 'selection' than representative elections, and it is the will of the Party that prevails. Put in different way, it is one set of 'unelected' leadership who benignly shower their blessings for the next set of 'nominated' incumbents to rule China.

The Chairman elect, Mr Xi Jinping had been a Central Committee member since 1997 and thus has adequate experience, working as the Vice President under the tutelage of Chairman, Hu Jintao and otherwise considered the protégé of Mr Jiang Zemin. Similarly, Mr Li Keqiang, has also been a member of the select committee and therefore adequately groomed for higher responsibilities. Except for minor surprises in the predicted pecking order of the anointed seven, and Mr Hu Jintao handing over reins of the 'all powerful' CMC prematurely, the transition in Beijing has been on predictable lines. Herein lies the difference between the Western system and that followed by Communist China – their

leaders are selected 'early' through a process of vigorous internal selection and then progressively groomed for higher responsibilities. At the same time, this does not mitigate the fact that since the elite nominate their successors from within, this results in the creation of a class of 'princelings' which progressively widens their gap with the people of China, whom the People's Party are purported to represent.

China's problems are a result of hyper economic development and emphasis on Foreign Direct Investment driven growth, which has left her society fractured internally. This has not only created an urban - rural divide, but glaring disparities are also visible within the progressive coastal region. Mr Hu Jintao highlighted the socio - economic maladies that have come about due to what he ascribed to China's 'unbalanced,' 'un-coordinated' and 'un-sustainable' growth, and warned that money obsessed China needs to reform politically, and apart from weeding out corruption, also has to ensure that the law of the land is applied uniformly. The new leadership has been mandated to find de-novo solutions of purging the socio-economic maladies, cutting unproductive investments without impeding China's economic development in any way. Rebalancing China's trajectory and concurrently reducing socio-economic disparities appear daunting tasks, but if left unaddressed or if not handled with the finesse the situation demands, this could result in a severe backlash. Though these are still early days, Chairman elect Xi Jinping appears to be inclined to ride the tiger by appealing to China's growing 'nationalism' - a theme that may have popular appeal and may help drown the voices of dissension, but with tensions already high in the Asia Pacific, this is a perilous path for the new leadership of China to tread on.

Potential for Conflict or Convergence

Future Sino - American relations could lead to heightening the conflict reminiscent of the Cold War or conversely, both could come to an understanding and delimit their spheres of influence like it had been done before between Czarist Russia and the British Empire at the height of the Great Game. Ultimately, in the real world, capabilities matter more than words, and both sides seem intent on developing capabilities to counter the other physically and psychologically. Hopefully, this competition may not result in a direct conflict, though an intense Sino - American game of attaining

moral and physical ascendancy, spurred by economic and/or strategic reasons is undeniably 'on.'

The Contest for Strategic Space in Asia-Pacific

China and Japan have already engaged in shadow boxing over the sovereignty of the uninhabited Senkaku/Daioyu Islands; Taiwan a claimant in her own right has wittingly given the right to Mainland China to champion the larger Chinese claims. Apart from rich fishing and energy resources, it is the locational significance of the islands that makes them militarily important. The four islands encompassing seven square kilometres form a cluster between the American Military Base of Okinawa and the island of Taiwan. For the Chinese to breach the first island chain formed by Japan – Okinawa - Taiwan, domination of the waters around Senkaku/Daioyu becomes militarily imperative.

The South China Sea is even more turbulent as the claimants are many and the stakes even higher. The Philippines, Vietnam, Indonesia, Malaysia, Thailand, Singapore and Brunei stake their claims over the energy rich waters of the South China Sea and at the same time, Mainland China has revived the 'nine dashes line' drawn by Nationalist China claiming 80 per cent of the South China Sea. Domination of sea is important for China as not only does it provide access to the Pacific and Indian Ocean, but the failure to do so restrains her to Chinese coastal waters. For resurgent China which has aspirations beyond the region, this is a major restraint impeding her strategic progression. China has already demonstrated her resolve by creating the Shansha Prefecture to administer her claims, and this pits her defiantly against the Philippines and Vietnam. China has so far resisted ASEAN collective initiatives and propagates bilateral discussion which places smaller nations at a great disadvantage. An American led security architecture currently underwrites the strategic balance and in the light of the current stand-off, the question engaging everyone's mind is how President Obama's initiative would translate in concrete terms. 'When,' 'how' and with 'what' the USA will react remain the foremost questions. At the same time, questions also arise on what 'could' and/or 'should' be the role of India and Russia who have their own interests in the region, and how they could contribute to calm the turbulent waters of the region – individually and/or collectively.

The Turbulence in Eurasia, West Asia and the Middle East

The dynamics of the Islamic World is in many ways different from the Asia-Pacific region, though apart from factoring in Russia, China's overtures remains the common factor. Central Asia is important for China not only for sourcing energy, but is increasingly becoming her window to Europe, the Middle East and North Africa. Facilitating transit and trade for China may presently be economically alluring for Russia, though it has long term security implications. China is powering her growth through the Shanghai Cooperation Organisation and though this is at the cost of the traditional Russian influence in the region, prospects of co-prosperity are making Moscow accommodative to China's overtures. At the same time, the USA is constrained to reduce her footprint in the region and this is again detrimental for her long term strategic interests. Under the circumstances, while the potential exists to build consensus between the US and Russia, in view of their traditional intransigence, India is uniquely placed to facilitate the US - Russian strategic cooperation for maintaining stability in a strategically important but turbulent region, where the Western world interfaces with the East.

The Fault Lines in the Af-Pak Region

Despite the optimism expressed by President Karzai, the world fears a downslide in the situation after the US - ISAF drawdown in 2014. While undeniably, Afghanistan has to find her own leadership and internal accommodation to guide her, there can be no doubt that ramifications of security deteriorating in Afghanistan will be felt in Washington, Moscow, Islamabad, Beijing as well as in New Delhi. Since the trigger for seismic activity in Afghanistan lies in Pakistan, the US and Beijing need to re-assess the pay-offs of continuing their linkages with Pakistan as their strategic ally.

President Obama who finally tracked down the elusive Osama-bin-Laden to Abbottabad seems to have realised the futility of dealing with the leadership of Pakistan, though surprisingly, there are signs that Washington is endeavouring to re-engage Islamabad. At the same time, Pakistan has been the (only) bright spot in China's foreign policy and the new leadership in Beijing may prefer to exploit their protégé and keep the pot boiling in Afghanistan, not merely to embarrass the Americans, but to dilute

their capacity to pivot to the Asia-Pacific. Thus, in a way, Pakistan has regained her relevance for both the US and China as part of the 'New Game' being played by them on the gargantuan Asian chess-board and this has major security implications for India. On her part, while India requires to nurture her partnership with Afghanistan, she needs to elicit the support not only of Washington but also of Moscow. This throws up yet another reason for India to facilitate strategic cooperation between the US and resurgent Russia.

Conclusion

On one hand, while there is a distinct possibility of escalation of tensions, yet at the same time there is also scope for the world to accommodate the forces of change re-configuring the existing uni-polar world order. The salience of Russia and India to 'collectively' counterbalance the tremors rising from the concurrent rise of China and possible waning of American power and managing the global strategic equation(s) amidst this turmoil, need to be harnessed. The circumstances are opportune for both to renew their strategic partnership as they collectively have the potential to shape the environment of the future and make the Twenty First century an era of co-prosperity and global stability.

Endnotes

1. United States National Intelligence Council, 'Global Trends 2025' of Nov 2008, and United States Center for Strategic and Budgetary Assessments Study by Ambassador Eric S Edelman 'Understanding America's Contested Primacy' of 2010.
2. Panda Jagannath P, 'China's Path to Power : Party, Military and the Politics of State Transition, Institute of Defence Studies and Analysis, Pentagon Security International, New Delhi, 2010.

Kautilya's Arthsastra : The Wonder It Was & the Wonder It Remains

Brigadier Chandra B Khanduri (Retd)*

An Overview

Kautilya's work *Arthsastra*,¹ is filled with maxims that have over the millenniums become part of our every day life. For instance, the four stratagems of *Saam* (conciliation or treaty), *Daam* (reward or money), *Dand* (retribution) or *Bhed* (dissension) continue to be amongst the best used political dictums across the world. Essentially a treatise on economy of a state, it is a compendium of precepts, advice and lessons on the art of governance of a nation state (*Rashtra*). It counsels a monarch on : how to administer his kingdom, how to frame and follow foreign policy with friends, neutrals and potential adversaries. Besides being a unique document of administration, it also encompasses strategic thinking, warfare, espionage and counter-espionage. It serves two primary purposes: 'one who aspires for peace should prepare for war' and, 'without good administration there cannot be good governance.' The beauty of the Book lies in the fact that the situations visualised some 2,300 years ago remain astonishingly relevant to date. It is so, despite the Industrial Revolution and ever-continuing march of science and technology besides revolutions in military affairs.

About the Book

The *Arthsastra* contains fifteen *Adhikarnas* or Books: The first five Books deal with internal administration of the state and the following eight cover its relations with neighbours, while the concluding two are on miscellaneous subjects. Written in Sanskrit, and translated in several international languages, it is read with fervour even today. Almost all aspects of governance, warfare, armed forces, economics, social life, offences and punishments are covered. For example, the first chapter of Book One 'concerning discipline' contains detailed table of contents and in one verse (1.1.18), states that it has 150 chapters, 180 *prakarnas* and six thousand verse in all. (A *prakarna* is a section devoted to a specific topic).² A brief on the contents of each of the 15 Books below

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shows clearly that all functions of statecraft and governance are covered comprehensively to facilitate their understanding and compliance, both by the 'ruler and the ruled'.

Book One (21 Chapters). Outlines the duties of the King, his training and protection; qualitative requirements for selection of ministers – their desired traits like integrity and overall capability of governance as king's representatives; and highlights the continuous need to watch and control the 'seducible' elements of the state.

Book Two (36 Chapters). Includes subjects relating to duties of the government administrators, superintendents, and intelligence agencies; responsibilities of the Commander-in-Chief, superintendents of chariots and infantry – the upkeep, welfare, training and employment of horses, elephants and cattle (as load carriers in the war zone) as essential parts of war machinery.

Book Three (20 Chapters). Elaborates on the '*code of law*' and '*duties of judges*'. The King as *Dharmaraj* (as law giver and custodian of faith) was to ensure the 'rule of law' and imparting of 'equitable justice' throughout the kingdom.

Book Four (12 Chapters). Aptly titled '*Removal of Thorns*' deals primarily with the Policing System and meting out *punishment* to law breakers and providing relief to the people affected either by natural calamities or hostile / criminal acts of human beings.

Book Five (Six Chapters). Describes measures taken to suppress treason and seditious elements, to safeguard the King and his kingdom from various threats.

Book Six (Two Chapters). Firstly, amplifies that the king, the minister, the country, the fortifications (defence measures), the treasury and the army with alliances constitute the nation state. Thereafter, the profile and best qualities required in the King and his advisers, for ensuring effective governance, are described. Secondly, it explains the types of neighbours and the circle of states (*Mandala Theory*) in various forms of alliance and conflict.

Book Seven (18 Chapters). Deals with six measures called *Sadgunya* of state foreign policy termed as: *Sandhi* (treaty), *Vigraha* (war); *Asana* (neutrality), *Yaan* (accretion of power), *Samarsya* (seeking alliance) and *Dwaidhibhava* (double policy of waging war with one and peace with another). (Book Six and Seven are interconnected and form a common forum for comprehending their

applicability). Kautilya pronounced 'politics as a science well before Aristotle. All others like Machiavelli (1513 AD) and Clausewitz (1832 AD) learnt from him when they said "War is a continuation of politics by other means."³

Book Eight (Five Chapters). Explains *Vyasanas* (calamities) that afflict a nation and affect the King and his kingdom; from internal revolt, preparedness of the army to face enemies of the King due to his addiction to vices or bad health and the common man on account of *Kama* (lust), *Krodha* (anger), *Lobh* (greed) and *Moha* (attachment / desire).

Book Nine (Seven Chapters) **and Book Ten** (Six Chapters). Related to 'The Activity of the King about to March' and 'Concerning War', both should be read conjointly. *Book Nine* deals with strategic planning for (offensive) military operations; intelligence on enemy capabilities and likely courses of action; assessment of relative strengths and selection of campaigning season; economy of effort; troops to tasks; security of rear areas including handling of revolts and rebels; and reliability of allies and cooperation and coordination with them for ensuring decisive victory. *Book Ten* deals with 'setting the camp; march from camp; fighting and countering enemy action; suitability of ground for action; functions of various components and forming up forces for various actions.

Book Eleven (One Chapter). Deals with how a would-be-conqueror should subjugate oligarchical principalities hostile to a nation state.

Book Twelve (Five Chapters). Suggests the ways and means a weaker king should adopt to outwit and outmanoeuvre a stronger hostile king to finally triumph.

Book Thirteen (Five Chapters). Deals with the strategy of capturing a fort or laying a siege and then storming it by employment of secret agents.

Book Fourteen (Four Chapters). Contains various secret remedies and means used for the destruction of the enemy. Magical and mystical lures along with occult practices are also mentioned.

Book Fifteen (One Chapter). Provides a scientific tenor to the *Arthsastra* with the Epilogue: 'The Method of Science'. It illustrates various devices to elucidate this 'Scientific Subject' and contains a long and anecdotal / referral material numbering 72. It highlights

the well established stratagems of *Saam*, *Daam(n)*, *Bhed* and *Dand* as essential tools of statecraft.

Significantly, Jawaharlal Nehru has mentioned Kautilya and Arthashastra repeatedly in his book 'Discovery of India' and thought it to be of '*inestimable value*'.⁴

A Peep into History

It may be necessary to understand, as to what led Chandragupta Maurya and his mentor Vishnugupta Kautilya (or, Chanakya) to undertake this prodigious study and write the *Arthashastra* in such a comprehensive form. It was definitely the misdeeds of the Nanda dynasty and the *Battle of Hydaspes*, commonly known as the *Battle of Jhelum* (326 BC) that left India shaken and shattered and virtually enslaved. That slavery, fortunately, lasted for such a brief period that it could be ignored. To recall, Alexander the Great led his army into Asia, with the primary objective of capturing the Persian Empire under King Darius; ostensibly, to seek a revenge caused through an earlier defeat of the Greeks by the Persians. Alexander marched through Asia Minor, Egypt, Syria, the Palestine, Persia subduing the conquered territories, leaving his army to rule the captured territories and ensuring security of his further advance over Afghanistan to the Jhelum, in Punjab. He arrived on the North bank of the Jhelum River in the spring of 326 BC.

The melting snow of the Himalayas and early monsoon had turned this 500 metre wide river into a formidable water obstacle. It was not fordable everywhere, and was being strengthened further by strong coverage of its southern bank by the army of King Porus. The assessment in the Porus army was that Alexander would have to retreat; and even if he tried crossing, he would be destroyed.

Alexander, a skillful military leader, with many major military successes behind him, chose to 'condition' Porus to his false design that his army was relaxing in the encampment and were unable to cross the river. He then proceeded to mislead his opponent by a series of small scale manoeuvres leading to feints both by day and night in front and on flanks. That carried on for several weeks. All this time his 'light troops', armed parties kept foraging the countryside for supplies, terrorised and bribed the locals to indicate the likely crossing points in the North. That was fixed approx 25 km upstream.

Simultaneously, the boats that he had built surreptitiously, were moved to the vicinity of the crossing place and concealed. Gradually the troops were concentrated over a series of nights and the river front continued to be held by smaller number of troops giving a semblance of the Greeks still encamped there. To add to the element of surprise to this deception, he chose bad weather – a stormy night – when he appreciated that the vigilance by the enemy troops would be low. At the time crossing commenced, some of his troops landed on an un-reconnoitred and undetected island but the others crossed from a shallow site.

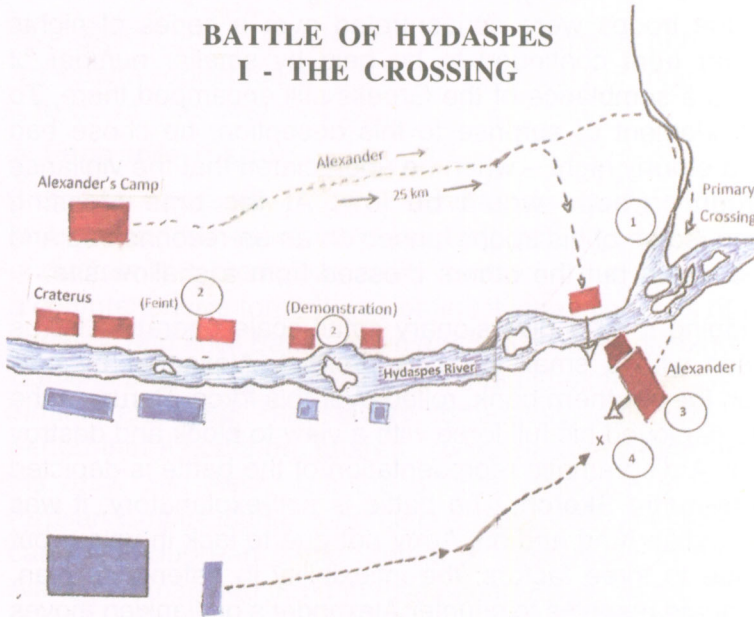
Misjudging it as a diversionary small scale operation Porus sent his son with a small force to interdict. Alexander by now firmed in on the southern bank, rolled over this force. Porus, in the meanwhile deployed his full force with a view to block and destroy the invader. A diagrammatic representation of the battle is depicted on the **Schematic Sketch**. The battle is self-explanatory, it was lost by the Indian King and his Army not due to lack in valour but primarily due to three factors: the inflexibility in defender's plan, lack of adequate reserves to counter Alexander's outflanking moves and the absence of a strategic culture of having alliances and coalitions to mutually come to the assistance of each other.

The question also arises, why the elephants of Porus failed to tilt the balance? Elephants, like horsed cavalry were the *force du frappe* of Porus, but here Alexander's multi-pronged, almost simultaneous attacks exposed the elephants to attack by the Greek infantry, who killed the *mahouts* and wounded the animals. Though trained to trample the enemy, the injured animals charged madly through their own troops, causing confusion and loss of control and thus became one of the immediate causes of defeat. There were other causes too. For instance, it would appear that not enough resources were employed by Porus to gain intelligence about enemy's strength and plans. As a result, Alexander managed to achieve surprise and gain initiative.

On his part, Alexander had fought his last battle at the Jhelum and while he won this battle due to his brilliant tactics, fearlessness and boldness, he was equally magnificent in his gesture of returning the kingdom to Porus. An imprisoned Porus, so Greek Historian Plutarch says, when asked by Alexander how he would like to be treated, retorted valiantly: "As a King should be treated by another

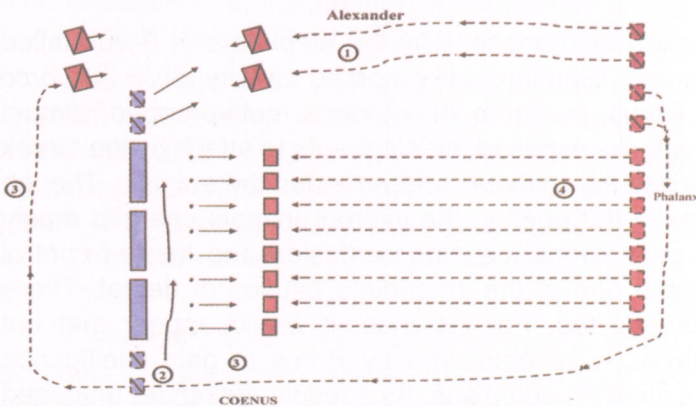
Schematic Sketch – Battle of Jhelum (326 BC)

**BATTLE OF HYDASPES
I - THE CROSSING**



1. Alexander moved bulk of his army and boats 25 km from his camp over several days.
2. At the same time a number of feints and demonstrations were carried out.
3. Alexander crossed the river on a stormy night and prepared to attack.
4. Porus sent a small force to check the crossing. This force was badly mauled.

II - THE BATTLE



1. The battle began with Alexander's cavalry charging the left flank of Porus.
2. Porus moved his cavalry from the right to the left flank leaving his right flank exposed.
3. When Coenus encircled the army of Porus from the right there was no opposition.
4. As the elephants of Porus charged Alexander's infantry moved forward to meet them.

NOT TO SCALE

King." Alexander restored his kingdom to the vanquished Porus and then left some of his lieutenants to govern India, he himself returning via Taxila where King Ambhi again hosted, feasted and equipped the fatigued but still victorious Greek Army before wheeling back through the desert and sea to Persia. Seleukos Nikator, the ablest of the generals left behind, made further foray into the Indo-

Gangetic plains but signed a treaty of friendship with Chandragupta Maurya who had ousted the Nandas by now; it was then, one sees Magasthenes remaining as Nikator's plenipotentiary at Pataliputra, the Mauryan capital, giving later generations a better perspective of India of those days through *Arian's Indica*.

Contribution and Continuing Relevance of the Arthsastra

An analytical study of the *Arthsastra* suggests that Chandragupta had made an extensive study of the causes and consequences, not only of the fall of the Nanda dynasty, but also of the failure of Porus at Jhelum. Accordingly, he introduced qualitative improvement in the Mauryan Army; in matters of tactics, defence and defence-works, encampment and forts and their defence, the security of the sovereign and all commanders from *Senapati* down to *Padika*, considerations for crossing of water obstacles, movement through deserts, forests and mountains, the formations for attack and defence – and even withdrawal. Added to these were the indispensable 'reserves'. View, for example, the tactical wisdom on reserves: Book 10.5 puts it; "Having gone a distance of 200 bows, the king should take his position together with reserves; without reserves, he should never attack..."

Selection of campaigning season formed a strategic consideration, as significant as the overall plan for operations and even the role of allies. While more thoughts are shared on allies later, the consideration for campaigning season prioritised the 'Spring' and the 'Autumn'. All these considerations must have been the key to the expansion of the Mauryan Empire that extended from Afghanistan to the Indian Ocean – creating for once the fabled *Bharat*.

The responsibility of a king (or head of state) as outlined in Book 9.2-7 shows the strategic brilliance of thoughts and clarity of concepts on national security. Possibility of insurrection in the kingdom; engineered, as drummed repeatedly, by high functionaries such as ministers, head priest, even by a disaffected prince when the king is on a foreign expedition, is examined in the light of 'ulterior motives' that impel them to revolt. There is indirect allusion to the presence of so called 'quislings' in the court and even the palace.

Logistics and communications were given due importance.

Thorough logistical appreciations culminated in detailed planning for supplies, transportation, treatment and evacuation of casualties, redressal and care of war widows and orphans. Every administrative aspect was attended to. Little wonder then, a king was personally responsible for the planning of an operation and clearly accountable for success and reverse. He couldn't be passing the euphemistic 'buck' to others.

Two more significant aspects of war were given due importance. The care and morale of the civilians in the occupied territories was the first. There was to be no 'scorched earth policy' or wholesale destruction, murders and killings or ill-treatment. People were treated humanely and won over; the troops were to go in as 'liberators and not conquerors'. The *Arthsastra* warns: "A country without people makes no sense as there can be no kingdom without people". No genocide, was the ordinance. In fact, the then civil affairs organisations that formed part of the invading force raised not only supplies for the troops but recreated local levies for its own army. Rarely was action, to disarm and disband the defeated army resorted to, unlike what the USA did in Iraq, with worse consequences.

Another important point was psychological motivation of own combatants for the operations. There was, besides material and spiritual aspects, the inalienable faith of the Indians in the teachings of the *Vedas*, the *Upanishads* and the *Bhagwad Gita*, all of whom, in their immutable wisdom, continuously preached the 'immortality of the soul', the '*Karmanya*' or duty of soldiers, their probable death and disability while in combat or combat like duties. And a soldier, should he die, (it was a forlorn hope that he wouldn't) would make his way to Heaven; on the Earth with victory behind him, he would enjoy the fruits of an honourable life. With these, the families of the dead were to be cared for by the king and honours were to be piled on the victorious soldiers. This 'battle for the hearts and minds' would continue through the campaign.

The Security of a State is irretrievably linked with foreign or external affairs. That's where the *Arthsastra* does an equally enviable work for guidance to the king in foreign affairs and expounds the much associated dictum of: *Saam*, *Daam*, *Dand* and *Bhed*. It suggests Six Measures or *Sadgunya* constituting measures of *Sandhi*, *Vigraha*, *Asaana*, *Yaana*, *Samarsya* and

Dwaidhibhava for conducting foreign affairs with the enemy, the potential adversary, the friendly powers, the neutrals (indifferent) and all those who would ally with the king against an inimical power. Out of this came the popular theory of *Mandal* and *Rajmandal* – conglomeration of states – with varying degrees of influence and inter-state relations.

The concept of *Mandala* was *ipso-facto* related to increasing growth of the power of the state and any number of permutations and combinations were expected to have been achieved according to the strategic needs, the *raison d'être* of which was always to compete with and grow stronger than an acknowledged adversary. The alliance thus obtained, it was emphasised, must not run into calamitous situation (calamities elucidated in Book 8.5.21) which otherwise adversely affect the contribution of an ally. Alliance to succeed had to act with adequate perseverance and full understanding of each other's aims, objectives, strength and limitations. Such a doctrine then – and also relevant in modern diplomacy – speaks well of the tenets of diplomacy advocated and practised during Kautilya's time.

The impermanence of *Sandhi* is also discussed in the *Arthsastra* with equal realism. A treaty with or without stipulation, as alluded in Book 7.6.112, was to be guided in accordance with the principle enunciated thus: "The observance on both sides entering into a treaty made by means of what is agreeable and beneficial and carrying out of conditions as agreed upon and their safeguarding is clinging to a treaty..." Earlier, it emphasises that the treaties made for 'open war', 'concealed war', 'silent war' could be 'spoiled' or 'repaired'. Apparently, treaties could never be 'permanent by binding'; they must have been a sort of 'marriage of convenience' – to be broken at mutual convenience. History has been witness to innumerable treaties being 'pieces of papers', to be dumped into dustbins or consigned to flame. But the principle of *Sadgunya* has served as a beacon of light throughout the history of diplomacy and diplomatic interface – if not all over the world, but certainly in India.

In summation one would gratefully quote Jawaharlal Nehru, India's first Prime Minister from page 96 of his book 'Discovery of India': "*Bold and scheming, proud and resourceful, never forgetting a slight, never forgetting his purpose, availing himself of every*

device to delude and defeat his enemy, he sat with the reins of empire in his hands and looked upon the emperor more as beloved pupil than as a master... There was hardly anything that Chanakya (Kautilya) would have refrained from doing to achieve his purpose; he was unscrupulous enough, yet he was wise enough to know that this very purpose might be defeated by means unsuited to the end."

Endnotes

1. The Arthsastra, like much of the old Indian literature was lost until Shamasastri, the Librarian of the Mysore Oriental Library located one copy and translated it in 1905. It led to greater evolutionary search. The first three editions of the 'translations' of the Book by R Shamasastri were published in 1915, 1923 and 1929. The fourth edition was reprinted in 1944 and the fifth in 1956.
2. '*Kautilya: The Arthshastra*' by LN Rangarajan (Penguin books, India (P) Ltd, New Delhi, 1987), p. 21.
3. To the Western world, Nicolo Machiavelli and Carl von Clausewitz introduced the concepts of strategy and statecraft. In the East, readers may realise, adequate thought had been given to these subjects by Sun Tzu in China (BC 500) and Kautilya in India.
4. The '*Discovery of India*' by Jawaharlal Nehru (Published by The Signet Press, Calcutta, 1946), refer to pages 73, 85, 90, 96-97, 99, 111 and 128.

On Kautilya

Kautilya, in my way of thinking, is as big a military thinker as Sun Tzu; and indeed, an outstanding political thinker, a statesman who gave inspiration to Sardar Vallabh Bhai Patel amongst others to follow his teachings at the time of our Independence. As Commander-in-Chief of the Indian Army I had the privilege to see closely the Sardar follow Chanakya in precept and practice. Chanakya has also much to offer to the Nation and to its strategists.

- Field Marshal KM Cariappa, 09 Mar 1991.

(In Foreword, of the book '*Generals and Strategists : From Kautilya to Thimayya*' by Brigadier Chandra B Khanduri (Retd))

Challenges of a Digitised Battlefield

Lieutenant General Davinder Kumar;
PVSM, VSM and Bar (Retd)*

Introduction

Digitised Battlefield is centric to the concept of Network Centric Warfare (NCW), the warfare of the twenty first century. It demands full integration and synthesis of different organs of governance like the armed forces, para military forces, intelligence agencies, transport, health, media, disaster management, energy and so on. Digitisation, massive deployment of Information and Communication Technology (ICT), organisation transformation, large scale system integration and human skill development centred around the national doctrine are the essential pre-requisites to develop capabilities for NCW in a digitised battlefield environment. These capabilities include Command, Control, Coordination, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems, digital weapon platforms and digital forces.

Digitised Battlefield

Digitised battlefield depends on *the degree of Integration of the technical components* such as:-

- (a) Computer processing, data storage and retrieval.
- (b) Advance software and hardware.
- (c) Display Systems.
- (d) Man-Machine dialogue and Interface.
- (e) Sensors.
- (f) Communication networks.
- (g) Combat Identification, Positioning and Navigating Systems.

Digitising the battlefield is a complex, lengthy and expensive process. It requires a very high degree of commitment, focus and

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vision of the emerging and future security paradigm and technologies. It presents unique and enormous challenges, each requiring synthesised effort of a number of agencies. While this paper, lists some of the challenges in the Indian context, it is for the reader to determine where we stand with regard to this Information Age Warfare capability in a digitised battlefield.

Vision, Policy and Road Map

The first challenge is to have a comprehensive vision document, policy and the Road Map formulated together by all the stake holders, duly approved by the Government and backed by necessary finance and an empowered implementing organisation accountable to the Government. Based on this document, we should work out the technologies, organisation, training and human resource requirements. We should take the existing assets in account and integrate those with the new system.

Electro-Magnetic Space Management

The Electro-Magnetic (EM) Space is a Global common. In the present environment, it is extremely complex, crowded and needs to be managed and regulated dynamically in real time. The situation is much more challenging in a digitised battle space environment where practically every system, starting from a diesel generator to a missile system, requires spectrum to operate or else it contributes to "Noise", which restricts the availability of the EM space. Add to this the high power of various radars, communication systems and electronic warfare systems and the fact that the same resource are being used by the adversary and the civilian networks. The increasing EM density of users and high power in weapon radar systems and communications have an impact on electronic control and devices that may malfunction, get de-sensitised or have undesired effects called the Electromagnetic Environment Effects or E3. The development of high energy beam weapons, LASER weapons and designators, UAVs and other aviation resources, missiles and Ballistic Missile Defence (BMD) systems and satellite constellations have further added to the challenge of management and regulation of EM space.

We would need a system and organisation that would ensure the availability of the navigation and position locating systems,

bandwidth, communication ranges and connectivity in an intense and hostile EM space environment in real time. This would require modelling and simulation of the battlespace EM environment and highly skilled man power. It would be a national effort with dedicated organisation within the Defence and Security forces. China has a training base in inner Mongolia for training in EM battlespace management. The system can simulate natural, civilian and EM environment similar to the battlefield.

Internet Protocol (IP) Addresses

In a digital battlefield, all resources at land, sea, air and space are integrated through complex communication and data networks. These networks are likely to be working on IP. This would necessitate that every soldier, weapon and support system has an IP address. This is a huge challenge both from the allocation and communication security points of view. We need to have a dedicated organisation at the National level for this as also to decide on the standards to be incorporated.

C4ISR Systems Management

A viable and efficient C4ISR systems management is at the heart of a digital battlefield. This presents the challenge of:-

- (a) Secure information management, storage, processing and dissemination.
- (b) Fielding of different sensors for providing battlefield transparency.
- (c) Sensor to shooter integration through powerful, responsive, secure, survivable, self forming and self healing resilient networks.
- (d) Real time bandwidth management.
- (e) Very high speed data processing, data storage, management, analysis and transmission.
- (f) Survivability, protection and redundancy of systems.

A key element in the digital battlefield is the value of Situational Awareness information. This information needs to be shared among

various combat teams and assets on ground, at sea, in air or in barracks. To achieve this information sharing, systems must communicate over variety of mediums and with absolute security to protect sensitive data.

As security forces become more dependant on IT, they will develop new kinds of vulnerabilities and present new challenges in protecting the information. With the need to connect and share communications, the requirement of cross domain products that can enable classified data to flow appropriately across boundaries between networks with different security levels becomes more acute.

With the battlefield transparency as high as 90 per cent, we need to conduct the warfare in an entirely different manner. While camouflage and concealment will always be important; greater emphasis will have to be laid on deception, dispersal, mobility and organisational transformation. Each of this is a challenge by itself. Decision making will have to be very quick in an environment of greater ambiguity, uncertainty and information overload.

In a digital battlefield, while C4ISR is a necessary requirement, we have to have systems, drills and capabilities to interfere and negate the adversary's C4ISR assets through electronics, cyber and physical means. At the same time, we have to protect our assets and take necessary measures to successfully operate in that environment. In China, "Detection Evasion" is central to military training for Detection in today's environment means Destruction. Camouflage, Denial and Deception are integrated and monitored in all field exercises as part of, "Counter Reconnaissance Evasion Technique"

Information Warfare (IW)

IW has added a new dimension of warfare where information dominance will decide the winner of any conflict in this information age. Information Assurance presents the challenge of protecting own information in all its stages of capture, storage, processing and dissemination. The challenge is the design, production and fielding of cryptographic systems and their integration within the Services and other organs of decision making in the country. The networks and other communication assets will have to be secured through different levels of secrecy and protected from cyber

attacks. Concurrently, crypto analysis capability will have to be enhanced substantially.

Information Dominance demands availability of potent Electronic and Optical Warfare and Intelligence Systems in all dimensions of a digital battlefield. Development of capabilities to launch cyber attacks including use of cyber weapons for creating physical disruptions is the real challenge.

Perception management will start well before the commencement of the conflict and last much after its termination. Development of capability to launch "Social Engineering" Attacks, Deception, Denial and Perception management through very skilled use of media, intelligence and communication assets is the real challenge.

Interconnection and Interoperability

Interconnection is defined as communication between different networks. This kind of communication deals with the lower protocol layers; e.g. on Open System Interconnection (OSI) reference model is related to the physical layer, data link layer and the network layer. *Interoperability is a state which interconnected systems can reach. It is the communication from one active process to another active process.* Interoperability refers to the ability of two systems to exchange data :-

- (a) With no loss of precision or other attributes.
- (b) In an unambiguous manner.
- (c) In a format understood by and native to both systems.
- (d) In such a way that interpretation of data is precisely the same.

Implementation of interconnection and interoperability is mainly about standards such as:-

- (a) Information processing standards
- (b) Data transport standards
- (c) Information standards
- (d) Human Computer Interface (HCI) standards

Hence, to achieve Interconnection and Interoperability of different information systems, a strategy of common hardware, software, standards and specifications architecture is required as the base. Each of this activity provides a major challenge.

Integration of legacy systems provides yet another challenge where development of suitable Interface would be the way to go. There are two significant differences between interfacing and interoperability : –

- (a) With interoperability, the exchange of data is performed without the need to translate to an intermediate level
- (b) Interoperable systems will provide exactly same, “answer” in the presence of identical data

Digital Imagery

A digital battlefield is characterised by high resolution digital imagery from various sources and the capacity to manipulate, model and combine the images. Inherent to this capability is the availability of digital maps, overlays, sophisticated hardware and software and very well trained human resource in the form of image analysts and interpreters. Rapid advancement in the sensor’s capabilities and the availability of different sensors, the capacity of fusing images from visible light to radar images to images transmitted by multi-spectral satellites is an operational imperative. Acquisition of this capability is a challenge as indeed is the design, development and manufacturing of sensors indigenously.

Data Management

The sensors at the tactical, operational and strategic levels and other intelligence sources create a very large amount of data running into tens of terabytes. This data has to be stored, processed, analysed and transmitted in a fully secure manner to all concerned ensuring its integrity and timeliness. *The real challenge is synthesising and analysing the data collected and convert the same to usable information;* and to quickly disseminating the results in the desired format to all those who need it. This has to be done in an extremely hostile electronic and physical environment. It requires modern data storage and retrieval systems, highly qualified human resource and very robust and resilient data networks. Related and perhaps bigger challenges are the standardisation of

formats amongst the Services, digitisation of the existing information and its integration.

Indigenous Position Locating System

A digital battlefield, in our context, will require a home-grown and owned Position Location System which could be used to meet the pointing, navigation and target detection requirements of indirect fire weapon systems, radars, intelligence systems, communications, combat aviation, special operations, manoeuvre, own and enemy force tracking and forward observers. The challenge is in the fielding, operation and sustenance of such a system in an extremely hostile physical and electronic environment.

Organisation Transformation

Acquisition of NCW capability requires three things at the macro level. These are:-

- (a) Political Will
- (b) Technology and
- (c) Organisation Transformation.

The warfare of 21st century is characterised by Asymmetric Warfare in an environment of Informationisation. This demands a very high degree of synthesis and integration of the Security Forces, Government agencies, Industry and R&D establishments. The Armed Forces will have to:-

- (a) Reorganise, equip, evolve and train to fight in an integrated manner in the digital battlefield with more than 90 per cent battlefield transparency;
- (b) Acquire and face long range, highly lethal and precision weapons;
- (c) Have greater mobility;
- (d) Operate in an environment of uncertainty and ambiguity caused by information overload.

The bigger challenge perhaps is fighting an invisible enemy in the *Infosphere* and a terrorist both of which can create havoc in the area of their choosing. Hence, in the emerging security scenario, while technology will play a very major role; survivability

and exploitation of technology will demand a major organisation restructuring and a new approach to training to have human resource with necessary skill sets- a very big challenge in the prevailing atmosphere of one-upmanship and narrow view point. Some hard decisions are required urgently.

Accurate Weather Forecasting

Weather has always played a very important part in the warfare. Adverse weather conditions have been exploited to achieve surprise. In the present context, this has become very important for long range precision weapons, aviation, operations at sea, availability of surveillance and so on. Weather inputs will have to be integrated and factored in the overall operation plans. There is a need for Military weather forecasting capability through dedicated satellites and corresponding ground infrastructure.

Technology

Availability of requisite technology by way of hardware, software and their integration present the biggest challenge. The situation is further compounded by:-

- (a) The lack of Military Industry infrastructure base in the country.
- (b) Lack of integration between the Services, DRDO, academia and the MoD.
- (c) Reluctance to invest in the R&D by the private sector.
- (d) Complicated procedures and the reluctance of the private sector to invest in defence industry due to the perception that they do not have a level playing field vis-à-vis the Defence Public Sector Undertakings (DPSUs).

In this Info Age, the country has strategic deficiencies – we do not have a chip manufacturing facility, own secure Operating System, indigenous search engine and practically no expertise in Large Scale Integration of systems. The challenge lies in quick build up of requisite capabilities through a concurrent policy of technology development and technology insertion in a Public Private Partnership (PPP) mode backed by simple procedures built on trust and accountability. We need an urgent and innovative drive to pull in our talent and deploy them in achieving “Technological Sovereignty”.

Human Resource Development

Digitised battlefield would need dedicated, highly qualified and focussed human resource to man, operate, and maintain various systems. It calls for specialists in various domains backed by a very dynamic and responsive organisation; procedures and processes. This is a time consuming process that would involve selection, intensive classroom training, operation in simulated environment and field exercises in different disciplines. It would take anything between three to five years to have the desired level of expertise assuming that the training policy, organisation and infrastructure are in place. Our capability to operate in a digitised battlefield is contingent on having appropriate and well trained human resource.

Conclusion

ICT through its all encompassing nature has changed the security paradigm wherein a Digital Battlefield has become centric to a nation's NCW capability. It has also changed the manner of conducting warfare with Information Warfare becoming the new dimension of warfare. Consequently, information superiority has become the war winning factor. *This environment demands creation of modern, capability based armed forces with high degree of jointmanship and synergy with nation's resources.* It also demands rapid and focussed technology development and insertion.

India and its Armed Forces are in a state of transition with islands of excellence in certain areas and perceptible deficiencies in some areas at the strategic, operational and tactical levels. This paper lists some of the major challenges that we face in having a true digital battlefield capability. Each of the challenge mentioned here is a subject by itself and would require detailed treatment by the Services, experts and the policy makers to provide our nation the capabilities in tune with our doctrine. We can judge where we stand today and what we need to do to quickly to bridge the gaps. It is a gigantic task which will require a very committed, innovative and forward looking leadership at all levels. The main challenges are – our cumbersome procedures, lack of unified thinking, R&D and strong defence manufacturing base and poor implementation.

Relevance of Territorial Army and Its Future Employment¹

Lieutenant Colonel Harish Katoch*

“Rise and fall of a nation rests with every one of its citizens” - Chinese Proverb

Introduction

The roots of Territorial Army (TA) are deeply entrenched in our ancient culture and society. Since time immemorial, participation by local citizens in defence of their homeland has been a practice in India.² In the times of kings and emperors, small *Jagirdaars* were supposed to muster requisite number of trained soldiers to their state forces at the time of war. Local peasants and workers from rural areas were the potential soldiers and used to be listed for this noble duty.

After the British arrival in India, the British Indian Army evolved as an organisation. Post-Independence, the responsibility of national security solely came on to own armed forces which were quite less in number and inadequately equipped. At that point of time, it had been decided to have a lighter standing army with a strong component of part-time reserve (TA). To assist *three lakh* standing army, about *one lakh forty thousand* TA³ had been suggested. But due to sour relations with China and Pakistan, the strength of our standing army had to be increased. By and by, the part-time army (TA) got marginalised and major responsibility of national security shifted towards Regular Army (RA). Certain security related duties within the society which could be looked after by TA were also handed over to a large number of newly raised police and para-military forces units. Under such circumstances, the part-time concept became difficult to sustain. In this backdrop, an obvious question therefore arises as to why should there be TA at all in the Country?

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Reasons for TA Concept Not Being Very Successful in India

The concept of part-time service (TA) was very well received by the nation after Independence. Big personalities from many fields ventured to enroll themselves and avail this unique opportunity. Being part of this concept used to be taken as a mark of patriotism, respect and dignity. The concept spread its wings in Navy and Air Force as well. However, with passage of time, the patriotic fervour amongst the population started to subside and enthusiasm towards TA waned. The Navy and Air Force also did not expand the concept further and merged their existing part-time wings into their regular components. The lack of interest for the organisation was mainly due to sudden expansion of regular components of the armed forces, coupled with collective indifference on part of people, government and the army. The following were the main reasons for TA concept being sidelined:-

(a) Social Reasons. The sudden attainment of independence and liberty amongst the people could not be matched with change in people's attitude and a sense of added social responsibility. In the process of hurrying up industrialisation and infrastructural make over in the Country, a very important aspect of citizens' participation in national security was overlooked. This was due to:

- (i) Concept of easy life.
- (ii) Fading national spirit.
- (iii) Unrealistic race for material gains.
- (iv) Changing lifestyle and work culture.
- (v) Tight working schedules due to massive privatisation.
- (vi) Employers' indifference towards national security.

(b) Departmental Reasons. Within the armed forces, the concept of peoples' participation in the security mechanism of the nation could not be holistically comprehended and constructively exploited. This resulted into passive approach of everyone towards this wonderful concept. The possible reason for this were:

- (i) Mismatch between RA and TA on perception of TA's capabilities and employment.

- (ii) TA rules/regulations were not changed with changing times.
- (iii) No road map followed on expansion/employment of TA.
- (iv) Lack of national campaign to revive the concept.
- (v) Reduction in urban type of TA units.

(c) Reasons Attributable to the Government. There has been very little involvement and support from the government side in propagating and restoring the confidence of the population in the Citizens' Army (TA). This is reflected in its action over a period of time:

- (i) No review on TA since 1996.
- (ii) No concrete action on the recommendations of previous reviews.
- (iii) No effort made to make statutory binding for government employees for giving their services to TA for specified duration during their civil service.
- (iv) Lack of incentives to private players for sparing their employees for enrolling into TA.
- (v) Negligible propagation of national security and peoples' obligations through school text books.
- (vi) Non participation by politicians/bureaucrats in security set-up of the Country by volunteering and enrolling in TA.

Relevance of TA in Present Scenario

The term, 'Security', is becoming more and more complex by the day in our society. Ever since Pakistan enforced proxy war on India, the dimension of warfare has totally changed. The threat from hostile nations is no more directional and confined to frontiers only. The conventions on fighting wars are disregarded and have become redundant and hollow. Today, enemy-trained and sponsored terrorists can strike at a place of their choice with full impunity. In the present scenario where armed forces in the Country are already overstretched in dealing with 15000 km of land border

and 7000 km sea coast, it is humanly impossible for them to be present everywhere to meet each eventuality. The complete society has to, somehow, get involved in the fight against proxy war. The security should become responsibility of each individual of the society and, therefore, the existing link between army and society in the form of Citizens' Force (TA), needs to be strengthened. Certain internal security duties and disaster related tasks should be handed over to the TA. There is no harm in replicating good lessons learnt from other countries in this regard. Concurrently, TA needs to be prepared in defensive roles to deal with various situations within the Country for its own survival and security of the installations it may be guarding. This will provide added impetus to army; and in future, TA will be in a position to shoulder more responsibility and be employed in defensive operations during war.

Applicability of Concept of TA in Present Situation

The fundamental thought behind having a force of common citizens on part-time basis is to create and have a large pool of reserves for war time employment; which should be all inclusive and maintainable at lowest cost during peace time. This involves making use of volunteer citizens from all walks of society who do not want army as their full time career but wish to contribute their services during war or any other national emergency. This force should be able to support, supplement and augment the resources of the RA. The concept is still applicable and fully suited to connect the RA to civil society to train and keep more and more people ready to defeat enemy's new designs of destabilising our Country.

Current Employment of TA

The role and task defined for TA enables it to undertake second line duties during war i.e. guard duties at static installations, escort duties with convoys and Prisoners of War (PW) cages, rear area security duties etc. This role was defined, probably considering the fact that less training was imparted to TA personnel compared to regulars, in the past. However, with the introduction of nine months of training (equal to their counter parts in RA), TA personnel are qualified now to participate in operations and take on at least defensive, if not offensive operations during war. At present, even without having the role revised, most of the Commanders committed in operations, are employing TA for defensive tasks like road opening, establishment cordons during 'cordon and search'

operations and other sensitive tasks of guarding Command/Corps HQ. The execution of these tasks by TA personnel has been exceptionally professional. It is high time that higher commanders put across their views at appropriate forums on revision of role/task of TA. Some of the advantages that TA offers are:-

- (a) Cost effectiveness.
- (b) Creation and availability of trained reserve.
- (c) Interface between Security Forces and civil population.
- (d) Information on the area available even when troops are disembodied.
- (e) Rehabilitation of ex- servicemen in Ecological TA units.
- (f) Source of employment to locals in remote/ border areas (in case of Home & Hearth TA units).

Future Employment of TA

The TA having inherent flexibility to its credit, can be modified to meet the army's requirements in many different ways. As regards employment of the TA in future, there are numerous fields where TA can contribute constructively and establish its footprint. Dual task units in the following fields can be very effective in supplementing RA efforts:-

- (a) Suitably equipped and trained TA units can be employed along with regular units in a *holding role* during war. These units can be embodied when the formations they are affiliated to, are conducting their collective training or exercises.
- (b) *Engineers* based TA units consisting of troops recruited from local districts can be very useful for construction of defences and repair of LC fencing. Such tasks are season specific and accordingly, these units can be embodied as on required basis. This will help avoiding routine induction of engineer resources year after year for this task.
- (c) Specified number of TA units having dual task for *disaster management* can be considered to be raised in disaster prone regions⁴. They could be accordingly equipped to meet disaster related challenges and can be embodied during floods/ monsoons as also when some unforeseen calamities like earthquakes and fire related accidents take place. Capabilities

of these units can be enhanced by organising capsule courses for men under the aegis of National Disaster Management Authority (NDMA).

(d) TA units can be raised for undertaking duties as *medical stretcher bearers* and as specialists for *shifting of logistics loads* at important Rail/Road Heads during war. Part of these could be utilised, if required, for convoy protection and other escort duties while operating in counter-insurgency (CI) environment. This will help relieve regular troops for other operational tasks. During peace, they continue to follow the TA concept of two months embodiment for their training etc.

(e) Making use of obsolete equipment in the *Armoured Corps and Artillery*,⁵ TA units based on these arms⁶ can be raised from local areas on the lines of Home and Hearth units. Such units can be very useful for plugging the appreciated gaps and enemy thrust lines in deserts where defences are widespread and based on nodes. Also, during disembodiment of troops, the nucleus staff (permanent staff) will continue to be on ground throughout the year and can act as an intelligence detachment for a particular sector. With raising of these units, the age old problem of mechanised columns and artillery guns reaching their forward areas with much difficulty at the last moment, will also be quelled as nuclei of permanently stationed TA units will immediately come into action and troops will be embodied within acceptable time frame.

(f) Information Technology (IT) TA units consisting of IT qualified specialists from the civil society can be raised on specific requirements. These people can be embodied on as required basis to work on programmes to enable countering possible enemy cyber-attacks on defence forces networks and war plans etc. They can also be used to take proactive measures against target countries.

(g) TA units are most suited for providing *aid to civil authorities*. This fact has been accepted by the US Government as well; and they are extensively using their National Guard for such tasks.⁷ TA units based on Home and Hearth concept will be well suited for naxal affected areas of the Country.

(h) Ecological TA units based on ex-servicemen have been engaged in many states for preserving flora and fauna. These are commonly called *Ecological Task Forces* and are showing exceptionally good results. Such units can be planned for all states to enhance the green cover. Also, some vacant areas held with army; especially firing ranges, can be selected for plantation by these Task Forces in future.

Recommendations

Appreciating the flexibility and vast potential that the TA has, the following is recommended:-

- (a) Revision in role and tasks of TA^B from existing second line duties to *defensive operations* for providing better assistance to Regular Army during war.
- (b) Embodiment of TA units/subunits to *rehearse their tasks* along with Regular Army units during operational rehearsals of the formations concerned.
- (c) Adequate expansion of TA to enable it to provide a TA battalion to each holding brigade. This will ensure added strength and continuity/overlap at the time of rotation of regular units.
- (d) As a step towards becoming a Green Army, each corps zone should have one Ministry of Defence (MoD) funded *Ecological Battalion*. These battalions should will be based on state ex-servicemen for undertaking plantation and landscaping operations; tailor-made at times, to suit Commanders' operational plans.

Conclusion

The systematic strengthening of part-time concept in the Defence Forces is in national interest; as members of society from various walks of life contribute towards national security. The 'Citizens' Army' represents the complete society and careful nurturing of this organisation can provide the nation with a readymade reserve that can be instrumental in addressing all dimensions of enemy designs during war. It must be kept in mind that future wars will not be fought on national frontiers only. Enemy will simultaneously confront us in many spheres which will have a direct bearing on

numerous facets of society; and hence, integration of society into the defence set-up of the Country is a national imperative.

Endnotes

1. Territorial Army (TA): GlobalSecurity.org
2. '*Evolution of Territorial Army*' by Lt Col AK Bakshi: Sainik Samachar; mod.nic.in/samachar/17/html/ch11.htm
3. '*The Citizens' Army – A Coffee Table Book on TA*' by Additional Directorate General Territorial Army.
4. CLAWS: Article No 1019 Dt 15/10/2007: '*Role of Army in Disaster Management*' by Col Ravi Tuteja.
5. '*Inception of Territorial Army (Artillery)*' by Col E Govind: The Artillery Journal; Sep 2011.
6. '*All for the Nation*' – Interview of ADG (TA): purpleberet.com.
7. National Guard of the United States: Wikipedia, the free encyclopedia.
8. '*Territorial Army Vision 2020*': Press Information Bureau, Government of India.

Bara Shigri Glacier: High Point on a Wonder Adventure Circuit – A USI Sponsored Study cum Adventure Trek*

Colonel KS Dhami (Retd)**

General

Bara Shigri glacier was the last on the list covering the USI's initiative on monitoring of the five big glaciers in northwestern Himalayas through 'Adventure cum Study Ventures'. Initially the plan was to cover the Baspa and the Bara Shigri glaciers in one go, however, on completion of our venture to the Baspa glacier in July 2012, the route to Bara Shigri glacier through Trans-Himalaya Kinnaur and Spiti was found to be in a bad state due to landslides. Considering the uncertain conditions, it was decided to cover the Bara Shigri glacier after the monsoons in October via Manali. Accordingly, the trek to Bara Shigri glacier was undertaken from 03-07 Oct 2012.

This was a disappointment as we would miss experiencing a part of the drive through Trans-Himalayan Kinnaur and Spiti. The world famous adventure trail takes one from Shimla along the Sutlej river, through Kinnaur to the famous Sangla valley, across the Great Himalayan Range. It carries on along the Spiti river through tribal and Buddhist belt, over the Kunzum La (Pass). A side trek/drive to Chandra Tal (moon lake) takes a day to the boulders covered Bara Shigri glacier snout across the wind swept Rohtang Pass to Manali, over the Jalori pass through Himalaya's finest conifer forests, via Narkanda back to Shimla. Please refer to the **Map** and **Photographs P1-P3** with the narrative.

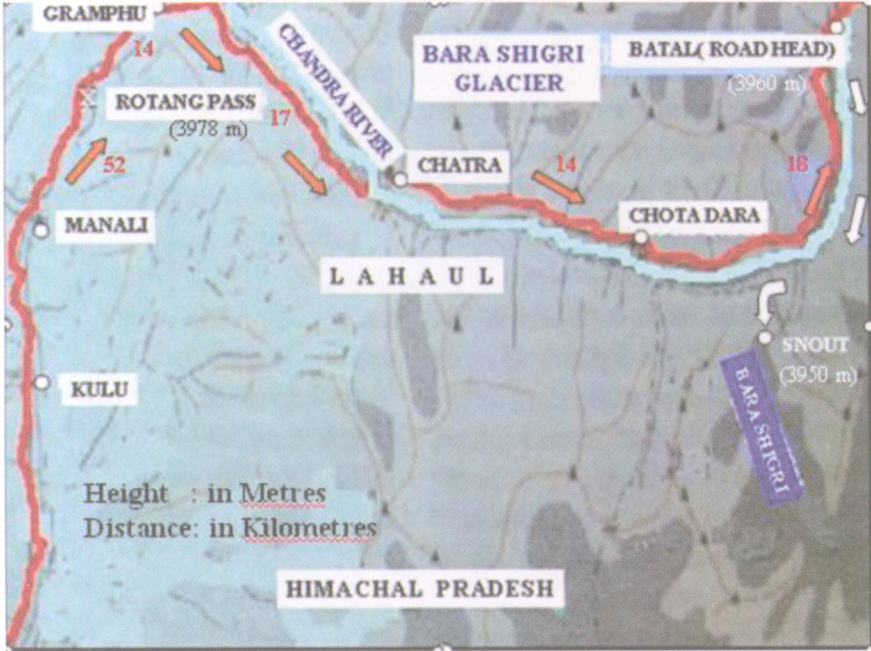
Startling Observations-Contradictions

The Geological Survey of India's report on the sponsored expedition as part of the International Geophysical Year 1956-57¹ to the Bara

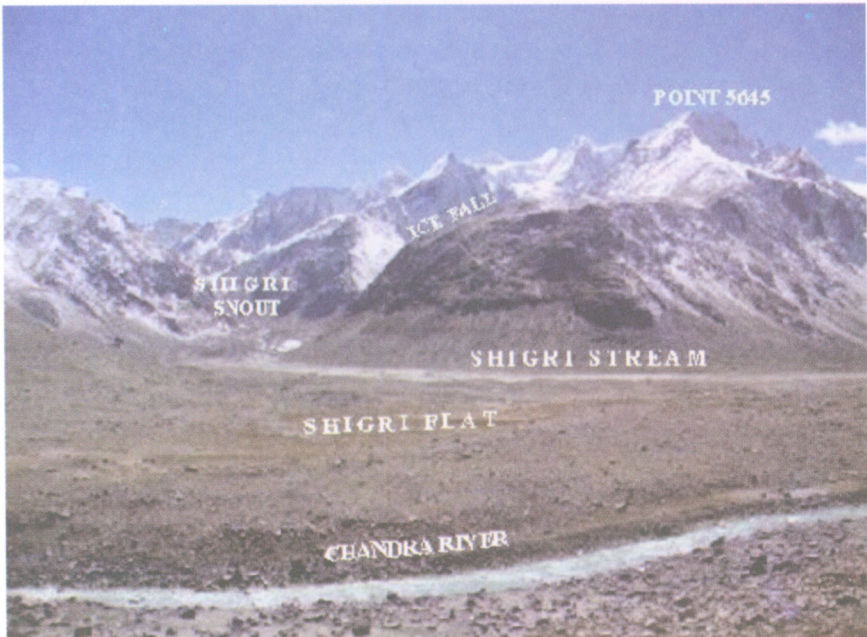
*This article is based on personal observations of the author on the ground and his earlier travels to this area.

**Colonel KS Dhami (Retd) was commissioned into 14 Horse on 12 June 1960. Later, he volunteered for transfer to the Parachute Regiment, commanded 6 PARA and took premature retirement in 1983. He led the USI sponsored adventure-cum-study treks to Gangotri Glacier in Oct 2010, Siachen and Kolahoi Glacier Expedition in Oct 2011 and Baspa Glacier from 8-17 Jul 2012.

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Map – Route to Bara Shigri Glacier



P 1 – Chandra River-Bara Shigri Glacier

Shigri glacier surprisingly does not mention the coordinates of the snout though coordinates of the point where the Bara Shigri stream joins the Chandra River are given. However, there is one very useful information that we could work on. The report states of a picturesque 'icefall' (hanging glacier) entering the Bara Shigri glacier about 1.6 km south-west of the Ice cave (Bara Shigri snout 1956-57). This would mean that if we could now fix the location of the present glacier snout in relation to the icefall one could work out the melting rate from 1957 to date. This is what we (my guide Tenzin and I) did and more. The next monitoring of the glacier by the GSI was done in 1964.² *This, seven years after the last report, gives the same distance between the snout and the ice fall (1.6 km), yet stating that the glacier was retreating rapidly ?*

Approach to Bara Shigri Glacier

The Bara Shigri glacier, amongst the big Himalayan glaciers, is located in Lahaul. It is a major source of water for the Chenab river. The glacier is a little distance from the road connecting Lahaul to the Spiti valley. From Manali the route takes one over the famous Rohtang Pass down to the Chandra river valley to a point Gramphu from where one road goes West to Keylong-Leh and the other to Kaza in the East to Spiti. The road is difficult going. From Gramphu it is completely unmetalled and at places over rocky surfaces. One can also come via Simla through Kinnaur and Spiti – starting from Chandigarh and returning via Manali. From the acclimatisation point of view it is better to go via Shimla.

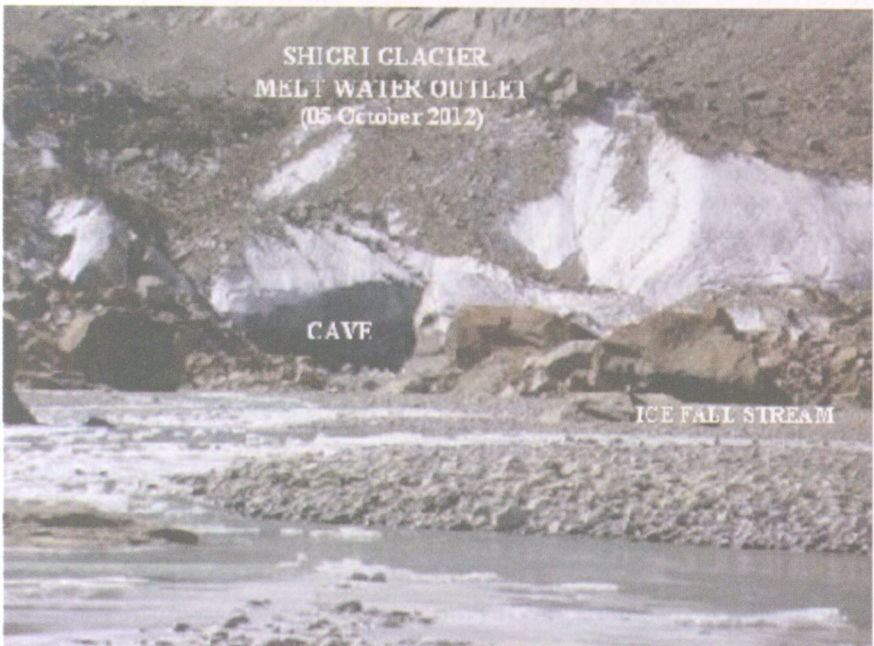
Except for seasonal *dhabas* there is absolutely no habitation and the mountain sides are completely barren. The road head for the glacier is Batal. My guide's parents run the only *dhaba* in Batal and are doing a flourishing business—a satellite phone in their *dhaba* is the only communication with the outside world. PWD rest houses are at Chota Dhara and Batal. Some basic food items are available at Chatra and Batal. There is no tyre repair facility between Kaza in Spiti and Khoksar – 5 km from Gramphu. During the trekking season tourist operators set-up tented accommodation at Chandra Tal (moon lake), 14 km from Batal, Himachal's popular tourist attraction.

Bara Shigri Glacier

The Bara Shigri glacier snout is about 4.5 km from the Chandra river. The area nearer to the Chandra river is a vast plain called the 'Shigri flat', There are two trek routes to the Glacier from the



P2 – Bara Shigri Glacier Icefall



P3 – Bara Shigri Snout–Icefall Stream Confluence

road. The shorter route is from Chota Dhara along which one has to cross the Chandra river by a *Jhula* (bridge) constructed for convenience of the Geological Survey of India. Quite often access to the *Jhula* bridge, as we found, is locked and the caretaker not available. The other route via Batal, which we took, is longer but the trail is over level ground. The 14 km route from Batal is along the West (left) bank of the Chandra river over gravel, stones and rocks; and nearer to the glacier, over boulders involving moving across some streams.

The Snout Zone

The snout of the glacier has receded to a point where the icefall stream now meets the Bara Shigri stream right in front of the main cave-like water outlet. As per the GSI report mentioned above, this point was 1.6 km from the snout in 1956. This fact is also stated in the Geological Survey of India 1964 report. The retreat, according to this data, from 1956 to date works out to 28 metres a year. Considering most part of the glacier being over a km in width up to the meeting point with the icefall stream and covered by boulders this is quite possible.

From the present location of the snout the width, to the extent observed, is about 300 to 500 m but more in height. Ice is seen only in the snout face near the cave from where the melted water flows out. Rest of the area including the ablation zone is all covered by surface moraines (stones, boulders) with a layer of black soot. The close-up pictures have been taken from the Eastern part of the snout zone which is melting slower than the Western side that gets maximum heat from the Sun. Remains of the snowfall on 3rd October night were still there.

The Race Back

With the job done, it was time to race back to Batal. The last three km to the snout over rocks and boulders had been tough for me; so I told Tenzin that we will have a race – he would go by the route we had taken; and I will move down over the pebble strewn river bed, criss-crossing the streams. With shoes on, staff in hand to check depth and for maintaining balance, I stepped into the stream covered with a thin layer of ice sheet. I felt the chilling of my feet at the initial crossing; but in subsequent crossings, through fast flowing but luckily just a little over knee level water, I felt no cold. We met at a pre-determined point, almost to a photo finish and then hurried on to Batal. On the streams en route he would

look for places to jump across or stepping over stones while I would just wade through. We reached Batal at about 2.30 p.m. and then moved on to Manali. With fingers crossed, because with a punctured tyre, it would have been a nightmare to be stranded, worse still, if it snowed like on 3rd October night. At Koksar, we got the tyre repaired then went over the Rohtang Pass. Luckily there were no traffic jams and we had clear weather – reaching Manali at 9.30 p.m.

Future State

In the years to come, the receding rate of a glacier can be very accurately calculated with reference to the confluence of the Bara Shigri glacier and the Chandra river stream – a perfect reference point. Presently, based on GSI reports one can conclude that the glacier has been retreating about 28 metres yearly, faster in the last 10 years. The snout face is retreating, like in the case of other big glaciers, due to 'toe cutting' inwards that forms cave like outlets /arches during summer snow melting. With no support, the top and sides shear and crumble in huge blocks of ice that break-up and melt/float away in small streams. Beside loss of ice due to receding of the glacier snout, far greater loss of ice (as in all glaciers) occurs from melting in the ablation zone, where melted water flows out from cave/arch like opening in the snout.

Endnotes

1. (http://www.igsoc.org/journal.old/3/30/igs_journal_vol03_issue030_pg1007-1015.pdf) and GSI web site, details under published reports.
2. The coordinates of the glacier mentioned above, as given in the GSI journal of 1957, were checked at the Survey of India in Chandigarh and were found to be off by 9 km longitudinally (probably an error). Further cross checking with Google showed a difference of about 2 km only. We could not get the required number of satellites in view /use to get an accurate reading on the GPS due to the mountains interference. I contacted Director, Glacial Division, GSI Lucknow to clarify details. He e-mailed back, stating that he could not comment on old publications. However, he downloaded and sent me the 1964 report on the Bara Shigri glacier. The ground observations, photograph and the point of entry of the icefall leave no doubt as to its present melting state and physical location of the Bara Shigri glacier snout that can be used for future reference.

Indian Wars - As Seen Through Soldiers' Eyes

(Based on their personal experiences)

From this Issue onwards, we are carrying various accounts of Indian Wars as seen through Soldiers' Eyes based on their personal experiences in battle or a conflict situation. These accounts capture the essence of a soldier's feelings: the zeal to achieve the mission, his duty to the country, *izzat* of his regiment, camaraderie, motivation, travails of leadership, feelings towards the family, fear of the unknown, assessment of the enemy and a myriad of other emotions.

Many historians, academics, strategists, defence analysts and scholars have written about wars / battles / campaigns and have inferred about what was done and what ought to have been done, without ever experiencing the heat or cold, dust and din of a battle. To that extent, such accounts remain academic and theoretical. In a battle, it is important to visualise the situation and the environment to be able to appreciate the decision dilemmas of the commanders and the actions of the combatants.

With the above in view, we have invited first hand experiences of soldiers from Indian wars, conflict situations and deployments to be able to recreate and share with our readers – as to what a soldier, from the lowest to the highest level, goes through in battle. These are stories of humans and their emotions in 'do or die' situations without an attempt to justify any actions or denigrate anyone. Through these accounts, the soldiers share their thoughts and emotions while fighting India's wars. The words of Captain Shekhar Dutt, SM (later joined IAS and became India's Defence Secretary, and is presently Governor of Chattisgarh) whose experience of 1971 war is being carried in this issue capture quite succinctly the essence of a soldier's feelings. I quote :-

".....There was a sense of adventure, an enthusiasm for combat and a great sense of team spirit in the youngster.....History was being made but this was the last thing in our minds when actual tasks and combat were an obsession.....I have purposely denied myself the benefit of hindsight and experience so as to retain the flavour of youthful participation...."

Editor

The Attack on Bomdi-La : A Personal Experience*

Lieutenant General Pran Pahwa, PVSM (Retd)**

Introduction

In Nov 1962, Bomdi-La had a full infantry brigade (48 Inf Bde) with a fair amount of artillery (arty) and an armoured squadron (armd sqn). The bde had around three weeks to prepare its defences and unlike Se-La and Dirang, was never bypassed or cut-off by the Chinese. And yet it fell without a serious battle. How did it happen?

As the Arty Observation Post (OP) Officer with an infantry battalion (1 SIKH LI), I was located in the company that was attacked. The only other officer present there was the company commander, Major NK Mayne. He was unfortunately wounded and evacuated quite early in the battle. Major Mayne is now no more which makes me the only officer who was actually present there throughout the attack. This narrative does not give the whole story about what happened at Bomdi-La. It is essentially about what I saw and where I was personally involved - a worm's eye view. Much was happening at other places of which I had no information.

Background

135 Heavy Mortar Battery (Hy Mor Bty) (comprising two troops of 4x4.2 inch hy mors each) ex 30 Hy Mor Regt was affiliated to 48 Inf Bde of 17 Inf Div located at Ambala. 48 Inf Bde including 135 Hy Mor Bty was moved from Ambala to Bomdi-La in the Kameng district of Arunachal Pradesh (then NEFA) at 48 hours notice. I was the Second-in-Command (2IC) of the battery even though I had barely three years service; the other four officers in the bty were all junior to me. My Bty Commander (BC) moved ahead with

*A shorter version of this article appeared in the December 2009 issue of Defence Watch Journal. A complete version of the article is being printed here with due permission from Defence Watch.

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the Bde Orders Group (Bde 'O' Gp) while the rest of the bty followed by train a day later. We reached New Misamari, the railhead for the Bomdi-La – Dirang – Se-La Axis, on 27 Oct 1962. By then my BC had already moved up to Bomdi-La. Despite our hurried move from Ambala, there was no air of urgency in New Misamari. The transport capable of going up the steep 1 ton road to Bomdi-La and beyond was limited and was controlled by Headquarter (HQ), 4 Corps at Tezpur. Many units which had arrived before us were still waiting for vehicles to move up.

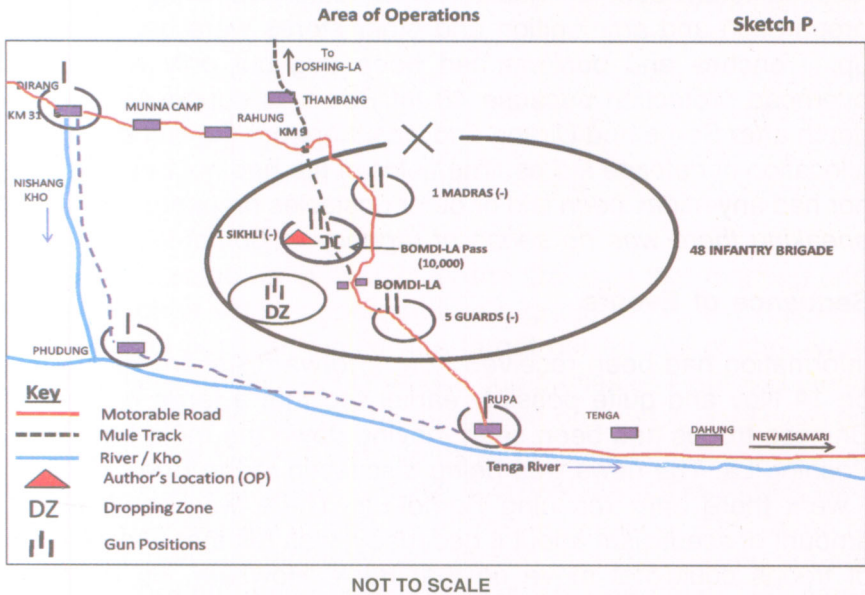
While still in New Misamari, we received a signal that Lieutenant General BM Kaul had once again taken over 4 Corps from the popular Lieutenant General Harbaksh Singh who had been appointed only a few days earlier. The signal specifically stated that the message must be read out to all ranks at roll call. I still remember an all-round feeling of dejection caused by the announcement.

Move-Up to Bomdi-La

Our move to Bomdi-La was the result of a decision taken by the Commander Corps Artillery (CC Arty) on the spur of the moment. All unit and subunit commanders in New Misamari periodically visited the Corps HQ at Tezpur to inquire about the availability of transport to move up. On one such trip on 13 Nov, I accidentally ran into the CC Arty who asked me what I was doing there. I told him that I had come to find out about the transport to move up. He thought for a moment and then told me that I should pool in all the good vehicles in my bty and move at least one troop to Bomdi-La at once. When I went and informed the General Staff Officer Grade-2 (Arty), [GSO 2 (Arty)] about the CC Arty's order he told me not to carry any ammunition as two x second line 4.2 ammunition had already been air dropped in Bomdi-La. Please refer to **Sketch**.

Since I was also the troop commander of B troop in addition to being the Bty 2IC, I decided to take my own troop to Bomdi-La. When I told my troop that we would not be carrying any ammunition, all the Junior Commissioned Officers (JCOs) protested saying that arty must never move without ammunition. It was finally decided to somehow squeeze in 50 rounds per mortar in the available

vehicles. This was a fortunate decision because on reaching Bomdi-La we found that no mortar ammunition had been dropped there.



We left New Misamari on 14 Nov and reached Bomdi-La the same evening. 48 Inf Bde was located at Bomdi-La as part of 4 Inf Div which was responsible for the Kameng Sector. Another bde of the div was at Se-La and the third bde along with the Div HQ was located at Dirang – midway between Se-La and Bomdi-La. 48 Inf Bde's defences were based on a hill feature (Bomdi-La feature) just ahead of the town. The feature was around 10,000 ft high, thickly wooded and with very heavy undergrowth. A mule track from the town climbed steeply up to the pass on the feature and then dropped sharply down on the other side to meet the Bomdi-La-Dirang road near Km 9. 1 SIKH LI less a company was deployed astride the pass covering the mule track. 1 MADRAS less a company was on its right guarding the main axis and 5 GUARDS less a company was in depth. One company of each of these bns was located at Rupa, Dirang and Phudung. The arty element consisted of one fd bty ex 6 Fd Regt (8x25 pounder guns), RHQ 22 Mtn Regt with one bty (4x3.7 Inch Howitzer) and the newly arrived B Troop ex 135 Hy Mor Bty. An arm'd sqn from 7th Light Cavalry (less one troop) was also located in Bomdi-La.

On reaching Bomdi-La, I was ordered to move to 1 SIKH LI as OP officer the next morning. The climb from the base to the bn location took about an hour. The bn defences were still under preparation and ammunition and other stores were being hauled up. Trenches and bunkers had been dug but only a few had overhead protection because 48 Inf Bde was supposed to be in depth after Se-La and Dirang and was therefore the last priority for allocation of defence stores. The fields of fire had not been cleared nor had any mines been laid or other obstacles prepared. *Generally speaking there was no sense of urgency in Bomdi-La.*

Sequence of Events

Information had been received from a forward Assam Rifles post on 14 Nov and quite possibly earlier too that a large number of Chinese troops had been seen moving down the mule track from Poshing-La. The news was being discussed in the Bde HQ when I went there after reaching Bomdi-La. There was considerable amount of scepticism about it because it was felt that a large body of troops could not move on that track. However, as follow-up reports continued to confirm the information, 5 GUARDS was sent in bits and pieces on that axis over the next two days. First a platoon was sent and then the rest of the company. After that, when the seriousness of the threat was realised, the rest of the bn was sent to join them. The bn made contact with the Chinese at Thembang, a little distance ahead of Bomdi-La, on 17 Nov afternoon. A fierce battle ensued. 5 GUARDS was provided fire support by the fd and mtn guns but ultimately its position was overrun. The Chinese, in keeping with their known tactics, also cut-off the bn from the rear. Finding its route to Bomdi-La blocked, the bn split into small groups and made its way to the plains.

Bomdi-La was now left with only two battalions, both less a company. From Thembang the Chinese advanced further that night and established a road block near the Border Roads Camp at Km 9. All this time very little information about the enemy had been passed on to the forward troops by the brigade or the battalion HQs. Similarly, I got no information at all through the artillery channels, not even about the fate of 5 GUARDS. All through the night personnel from the Border Roads Camp moved back through Bomdi-La Pass but there was no hint given that the enemy was

so near. I was, therefore, taken by surprise when at about 0300 hr on Night 17-18 Nov I was told by my BC to fire a few rounds at random to let the enemy know that our defences were alert and ready. I accordingly fired a few rounds at one of the predesignated 'Defensive Fire' targets (DFs). The Chinese however did not attack that night and there was a general feeling that the Chinese had missed their opportunity because two more battalions were expected to reach Bomdi-La by that evening. We never thought of a day-time attack.

My BC came up to my OP for the first time that morning and tried to engage what appeared to be a group of Chinese. He was unsuccessful because neither the target nor the fall of shot were clearly visible. In the meantime, two companies of 1 SIKH LI along with two tanks and the mtn bty had been ordered to assemble on the road below to clear the enemy road block near Km 9 on the Bomdi-La – Dirang road. I was not informed about this through the artillery channels but picked it up from the inf bn. I later came to know that in actual fact only one section of mtn guns and not the whole battery had been ordered to join the task force. This order was reportedly given by the Corps Commander personally; the Bde Commander's objection that this would completely denude the Bomdi-La defences was overruled by him.

Two companies of the bn were pulled out as ordered. Only 'A' Company, which was deployed on the pass and in whose area my OP was located, was now left in the whole bn defended area. 1 MADRAS was left untouched. The whole operation to clear the road block eventually turned out to be meaningless because by then Dirang had already been abandoned and Se-La was also in the process of being abandoned.

The Attack

The Chinese pre-empted us. Before our task force could contact their road block (at Km 9) they attacked the defensive position just vacated by our troops. The attack came on Alfa Company position at 1230 hr. It was a frontal attack in single file along the mule track. There may have been other Chinese in the undergrowth on the sides but we could not see them. The bn Subedar Major and I were standing on the Pass after the departure of the two

companies when he remarked that some more stragglers from the Border Roads Camp seemed to be coming up. I looked through my binoculars and saw some people moving up the track about 1500 yards away. From their body language it was clear that they were not stragglers but Chinese. The attack took us by complete surprise. The withdrawal of the two companies from the bn had seemingly conveyed the impression that there was no immediate threat. Moreover, we were mentally unprepared for the possibility of a mid-day attack. Probably for the same reason there were no OPs in position to give early warning. *The situation now was that while two companies of 1 SIKH LI along with a section of mountain guns and two tanks were moving toward Km 9 at about a distance of about one and a half hour's walking time, the battalion position with only one company in location was being attacked by the Chinese.*

Everybody immediately rushed to his defensive position. The Medium Machine Gun (MMG) section near the pass opened up at once and though the enemy was still more than 1000 yards away most of the company's small arms and the infantry mortars also started firing. I called for fire on a DF task from all the artillery weapons. The hy mors and fd guns responded immediately but the mountain battery replied that they were on the move. Actually it was the section with the task force that I had contacted. I was not aware that the other section was still in its Gun Position and available to fire; nor did I have its radio call sign. The field guns' fire had to be stopped because they were blocked by the crest and their rounds were falling in our own positions. The surveyed data of the DF tasks had been given to the fd bty but it had not cared to calculate their crest clearance.

It is thus ironical that out of the 16 arty pieces in Bomdi-La at the time of the attack only four hy mors which had actually been sent there as an afterthought were available for engaging the enemy. The heavy mortars fire was not accurate because mortar rounds have a wide dispersion which is further exaggerated in hilly terrain. I found it difficult to correct their fire because there were many other weapons firing in the same area and I could not distinguish the mortar rounds from the others in the heavy smoke and dust. The thick undergrowth further compounded the problem. I tried various artillery procedures for such situations like 'salvo ranging' and 'report standby' but that did not help. I tried to guess which

could be the hy mors rounds and give corrections but to no avail. I later learnt that the field battery whose fire was crested and the section of mountain guns still deployed in the gun position had on their own begun engaging some other DF tasks. Since all the DFs in front of the battalion area were close to each other (and no meteorological information was available) it is possible that their fire was also falling in the same general area as the hy mors. This could possibly be one of the reasons why I could not determine the exact fall of shot of the hy mors.

All this while, Major Mayne, the company commander of A Company, was running from one platoon to the other encouraging his men and asking them to hold their fire till the enemy came within range. Their firing, however, continued. After some time Major Mayne came and stood behind my OP. The OP was just an open trench without any overhead protection or cover because till now I had not been given any defence stores. Seeing Major Mayne standing there I decided to come out of the trench and join him. Just as I was pulling myself out Major Mayne was hit by a bullet in his thigh. My Operator Wireless Arty (OWA) and Technical Assistant (TA) quickly pulled him inside the trench and applied first field dressing on his wound. Seeing him about to pass out the TA pulled out a bottle of rum from his pack and gave him a quick shot. I then told them to take him to the bn Medical Inspection Room while I continued to engage the enemy. The fire was still inaccurate and though the Chinese may have suffered some casualties on account of our small arms and arty fire I personally did not see a single Chinese drop. It was very disheartening.

By now, as often happens in the hills in the Northeast, a thick blanket of mist had begun to cover the area making the observation of fire even more difficult. The OWA and TA who had gone to evacuate the company commander came back very soon. They said that as soon as they reached the reverse slope about a dozen men from the company came and took the stretcher from them saying that they would evacuate their company commander. They also told me that they had seen a number of people from the bn leaving their positions and going down. I had no knowledge of what was happening because I was not in radio or line communication with anyone either in the company or the bn. We were unable to see what was happening in the forward platoons

because by now the visibility had been reduced to less than 15 yards. There was however no sound of firing or any other sound coming from those areas. The MMG section which had been firing without a break was now silent and the enemy shelling had also stopped. It appeared that the forward localities had either been overrun or abandoned. We began to feel quite isolated. It seemed that everyone had gone leaving us behind.

My TA and OWA started suggesting that we should also leave. Deep in my heart I too wanted to leave but was hesitant because I had no idea what was happening and whether the others had really left. Enemy firing and shelling had already made my OP unsafe as the wounding of Major Mayne had shown. Due to my inexperience (I had never performed the duties of an OP officer before, even in an exercise) I had selected an OP position that was tactically unsound. It had a good view but was on the forward slope and fully exposed to enemy fire. No senior officer had ever visited me. Even my own BC had come there for the first time that morning and he had not pointed out any flaw. Since the present OP position had become very unsafe I decided to move out. I said that we would first go to the Company HQ and if we found no one there then we would also leave; otherwise we would re-establish our OP there. We then picked up our equipment and making our way around two dead bodies lying just behind the OP made our way to the Company HQ some 75 yards behind us.

There was no one in the Company HQ when we first reached there but then we saw the Company 2IC, a Subedar, hurrying up the track. As soon as he saw me he said 'Sahib, where are you going? We want fire'. He could not tell me where he wanted the fire because he had no idea about what was happening in front. I told him that there did not seem to be anyone left in the forward localities. He however kept repeating that he wanted fire. Since he was insistent, and I was feeling guilty about having tried to leave, I quickly established my OP near the Company HQ. The OP was out in the open next to a big tree stump that was about two feet high and about a foot and a half in diameter. The Company 2IC came and sat down next to me while I called for fire on one of the DF tasks. The hy mors responded immediately but there was no reply from the mtn guns (I was still calling only the section with the

task force, not knowing that the other section was deployed in the gun position and was available to me).

The fog had now begun to lift and the visibility had improved. What none of us knew was that the Chinese were at that very moment less than 50 yards from us. I was leaning against the tree stump still trying to get through to the mtn bty when the OWA drew my attention toward the Pass. What I saw there was four Chinese standing in the open about 15 yards away, smiling and talking to each other. They had not seen us and their relaxed manner seemed to indicate that they did not expect to find any Indian troops around. It was obvious that the forward localities had been either overrun or quietly vacated under the cover of thick mist and that we had left our previous OP just in time. The logical thing for us to do now was to quietly slip away in the undergrowth. *However, without thinking I instinctively pulled out my pistol and fired at the Chinese.* Simultaneously, I rolled to my left and took cover behind the tree stump. I remember feeling at that time that this was the end. Thereafter, no other thought entered my mind. My shot did not hit any of the Chinese but resulted in drawing their attention to me. One of them immediately rushed toward me with his rifle and took cover on the other side of the stump.

The two of us were now on the opposite sides of the stump, he crouching with a rifle and me flat on my stomach with a pistol. The Chinese slowly brought his rifle around the stump on to my left side. I quickly moved my right arm with the pistol to the same side and fired blindly around the stump. He at once pulled back and so did I. A small pause and then his rifle came around the stump once again and I again fired in the same way. I don't know whether he was actually firing. I was too engrossed in trying to save myself to notice. This fire and pull back routine continued for some time, probably five or six times. He was handicapped because with a rifle he could not take proper aim at me from around the stump or stand up and fire at me from over the stump without exposing himself. Toward the end I was only gesturing with an empty pistol because the five rounds in it had already been expended. My adversary did not realise this and continued to pull back even when I brandished an empty pistol.

Till now I had remained totally engrossed in saving myself and all my actions had been reflexive. It now occurred to me that

my opponent would soon realise that my pistol was empty and become bolder. I also knew that though I had only seen four Chinese there were bound to be many more in the area and some of them would soon come to his aid. For the first time, I began to consider the possibility of escaping. No sooner had I thought about it then I made my plan though its chance of success appeared remote. The next time the Chinese pulled back on seeing my pistol, I quickly slid down the slope behind me, jumped into a nearby depression and dived into the undergrowth near it. I then began crawling. All this happened so quickly that it caught my adversary off guard and there was no reaction from him.

The Company 2IC and my TA and OWA had already left though I had not seen them go. The OWA was later captured by the Chinese. He told me after his release that all three of them had quietly slipped away as soon as they saw me trapped behind the stump. The TA and he were together for some distance after which he was hit by a bomb splinter in the leg and had fallen back. The following day he was captured by the Chinese near Tenga. The TA in the meantime went straight down to New Misamari. On reaching there he reported to the bty that he had personally seen me being killed, so confident was he that I would not come out alive.

The two SIKH LI companies were ordered to rush back to their defensive positions as soon as information of the Chinese attack was received. They had to move quite a distance and had managed to climb only part of the way up the hill by the time the Chinese reached the top of the Bomdi-La feature. The companies then took position wherever they were and began firing upward at the Chinese. Caught in the cross fire between the two, I continued to crawl downhill till I reached an open patch from where onwards it was safe to stand up and walk. It was now 1430 hr. Looking up, I saw a Dakota aircraft circling over the Dropping Zone (DZ), dropping two loads in each circuit and quite unaware of what was happening below.

Withdrawal from Bomdi-La

I hit the main road just below Bomdi-La town and headed for my troop's Gun Position near the DZ. As I was passing the DZ, I saw CO 22 Mtn Regt standing there with the COs of two inf bns which

were on their way up and the armed sqn commander. On seeing me, he asked me to join them. He then told all of us that the Bde Commander had gone away and he had taken over the brigade. He said that there was no enemy on the Bomdi-La feature. Our troops had just panicked and left and he planned to reoccupy the abandoned defences. His broad plan was for the two inf bns (which were still on their way up) to climb up the feature that night with one battalion on either side of the mule track and reoccupy the positions vacated by 1 SIKH LI. It was to be a silent attack with no artillery support. No other details were given. He then asked me to describe the terrain and the layout of the bn defences to the inf COs. I briefed them about whatever I knew. I also told them firmly that the enemy was very much there and that I had personally seen the Chinese troops. CO 22 Mtn Regt, however, ignored my view and continued to insist that there was no enemy on the hill feature. We continued to argue and at one point I even volunteered to go up to the defences with him if he was so confident about it but he brushed aside the idea. Surprisingly, the two inf bn COs had no questions on these half-baked orders. They probably felt that all this was just bravado and there was not going to be any attack. They were right because I did not hear any talk about it after that.

I went to my mortars Gun Position after that and found that all the men had gone leaving the mors behind. The fd and mtn btys were however still there. I then headed for Bomdi-La town. It was dark by the time I reached there. The people in Bomdi-La were just moving up and down the main road aimlessly, not knowing what had happened and what they should do. No one knew the whereabouts of the Bde Commander. They were equally hazy about when and why the Bde HQ, 1 SIKH LI and the administrative units deployed in and around the town had left and where they had gone. Most of them said that they had gone away from their unit for a short while for some reason and when they returned they found it gone. All were waiting for someone to tell them what to do next and where to go. Moving along the road I came across 10 persons from my own troop, including the Gun Position Officer (GPO) and a JCO. The GPO said that he had gone to the Bde HQ for some work and when he came back he found the troops gone. To this day, I have not been able to find out just under what circumstances my troop and the other elements deployed around

Bomdi-La town left. My BC was around there at that time but he could never clearly explain how it happened, such was the confusion. I also asked some of my men about it and all of them gave the same answer – everyone was leaving and so they also left. It appears that the sight of I SIKH LI troops coming down the hill and rushing backwards through the town unnerved them and they also joined them, so low was the morale.

My men and I spent the night in Bomdi-La with the enemy on the hill above us, waiting for further orders. The Chinese did not attack the town that night, probably because it had no tactical value. Instead they bypassed it and made straight for Rupa, their next objective. Around 0400 hr next morning we were told by someone that everyone was to withdraw to Tenga. Bomdi-La had now officially fallen, though not in battle – it had been handed over to the enemy piecemeal. No one said anything about I MADRAS which had not been attacked and had not taken part in the battle. It received no orders and seemed to have been forgotten. The battalion remained in its defences for the next 48 hr after which it decided to withdraw. It suffered heavy casualties on the way back.

We walked down to Tenga and reached there after about two hr. In Tenga also there was no sign of any command and control. People were sitting around in small groups, once again waiting for orders. Vehicles were lined up along the road but could not go down because a Major from Army Supply Corps (ASC) had closed the Traffic Check Post (TCP). He said that he had been ordered not to allow any vehicle to pass through. In the meantime the fd guns also reached Tenga and were told to deploy there even though they had no ammunition with them. About an hour after we reached Tenga, we heard some rifle shots. A Gurkha battalion that was on the way up from the plains had come in contact with the Chinese just beyond Tenga toward Rupa. The sound of the shots had an electrifying effect on the people sitting around in Tenga. They all immediately got up, climbed into the nearest vehicle and rushed toward the TCP. The TCP was still closed and the Major there refused to open it till he received orders from the CO of the Gurkha bn. Seeing me standing there the Adjutant of 22 Mtn Regt asked me to take a civilian jeep that he had commandeered and get the necessary permission from the CO. I found him about two kilometres away behind a huge rock talking on the radio. He at once agreed to let the mob in Tenga leave.

The moment the TCP was opened all types of vehicles with as many people packed into each as possible poured down the road. I squeezed all my ten men into the civilian jeep that was still with me and joined them. All the vehicles were stopped at a TCP on the way, probably at Eagle's Nest, where all those from the inf and some others were told to dismount while the rest of us were told to keep going. We then carried on to New Misamari.

Conclusion

Bomdi-La was a case of unbelievably poor leadership and bungled battle management in which every principle of war was violated. What stands out in this non-battle is the utter professional incompetence of the senior officers. They were in a time warp and their military thinking had not progressed beyond the World War II practices. Instead of fighting according to their own plan they reacted to the enemy's moves at each stage till they were overwhelmed by the events and lost complete control over their troops. Two other points need to be made here. It is popularly believed that one of the reasons we lost the 1962 War was because of our outdated equipment. This may be true for other areas but not for the Bomdi-La, Dirang and Se-La Axis because there never was any set piece battle here (except perhaps at Thembang to some extent) and even our existing weapons were hardly used. As the above narrative shows, the result would have been no different even if we had the latest equipment. The second point is about the use of Air Force (AF). There is a view that the result of the war would have been different if we had used our AF as we enjoyed a clear advantage over the Chinese in this area. I do not agree. I have already described the situation on the ground in Bomdi-La and according to my information things were about the same in Dirang and Se-La. No amount of air support, no matter how effective it was could have possibly made up for the poor leadership and lack of professionalism that was on display in these places. Even at the technical level it is questionable whether aircraft fitted with the avionics of that era would have been very effective in the hilly terrain and the thick undergrowth of that area.

I realised that day, how important it is for commanders at all levels to keep in constant touch with their troops, especially with those in the forward localities and keep passing on information to them. Each post and locality feels isolated when the going is bad

and tends to imagine the worst, particularly when it is not getting any information. Once troops get the impression that others are leaving, it is very difficult to stop a mass exodus.

I have tried to describe what happened at Bomdi-La without being judgemental except to say that the senior officers were unbelievably incompetent. This ultimately led to very low morale amongst the troops and resulted in the humiliating fall of Bomdi-La without a proper fight.

1971 – An Excursion in Sindh : Notings from a Soldier's Diary

Captain Shekhar Dutt, SM, IAS (Retd)*

Editor's Note

This is a narration of events of the 1971 War in Barmer – Naya Chor (Sindh-Pakistan) Sector, seen through the eyes of a young Captain Shekhar Dutt, SM, who later joined the Indian Administrative Service (IAS) and rose to be the Defence Secretary. The narration takes place in the backdrop of operations of 11 Infantry Division (11 Inf Div), which was tasked to advance to Naya Chor – Umarkot across the international border and pose a threat to Hyderabad (Sindh-Pakistan). Shekhar Dutt was posted in 218 Medium Regiment (218 Med Regt) and was affiliated as Forward Observation Officer (FOO) to 3 Independent Armoured Squadron (3 (I) Armd Sqn), equipped with T/55 tanks. This squadron supported by a company of 2 MAHAR was to spearhead the attack in this sector.

Captain Shekhar Dutt carried a small green rexene jacketed note book 2.5"x 4" in his dungaree (overalls) pocket; wherein he made very cryptic entries which have been elaborated from his memory in this narration. The elaborated entries have been edited at places to keep the narrative short and to the point, but what appears in the pages that follow is generally his own words. Nothing has been edited in the narrative that either changes the events or thoughts or the context.

*The actual entries in the note book are highlighted and have been produced verbatim. Please refer to **Sketch P** while reading the narrative.*

*Captain Shekhar Dutt, SM, IAS (Retd) was commissioned into the Regiment of Artillery on 06 August 1969. After release from the Army he joined the Indian Administrative Service and rose to be the Defence Secretary from 29 July 2005 to 31 July 2007. After retirement he served as the Deputy National Security Adviser for two years. Presently, he is serving as the Governor of Chattisgarh since 23 January 2010.

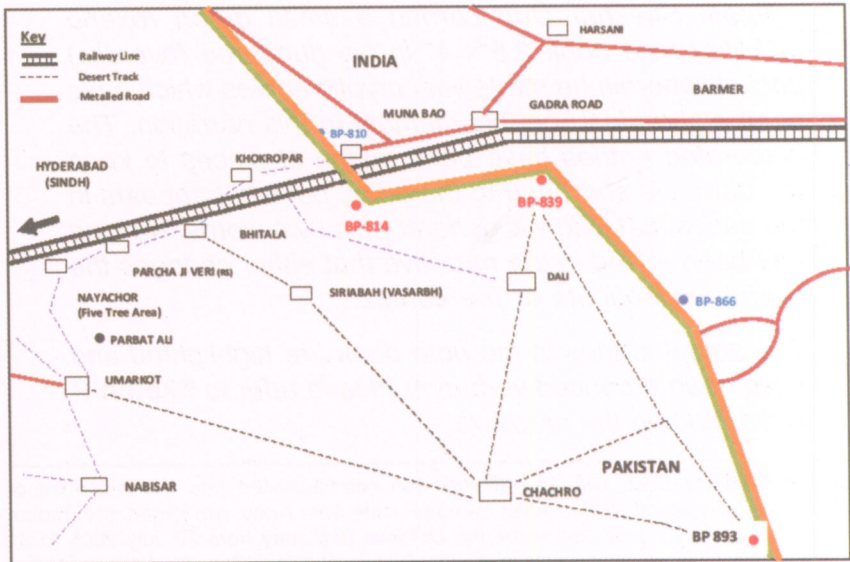
Entry on 21/10 : Joined 3 (I) Armd Sqn.

Came to Forward Assembly Area (FAA).

On 21st Oct 1971, I along with my Observation Post (OP) team joined 3 (I) Armd Sqn at FAA, situated North of Muna Bao – Khokhropar – Hyderabad (Sindh) railway track. We found that if the OP party, with its radio sets etc, got inside the gunner's compartment of the T55 tank then the tank commander and the gunner would not be able to operate efficiently. The Squadron Commander, Major Mehta explained that at best only I could be accommodated in the gunners' compartment of the tank. Realising that there was no point in being cut off from my Technical Assistant (TA) and Operator Radio Artillery (ORA); I declined the offer and chose to sit on the turret straddling the Anti Aircraft (AA) Gun, with my boys sitting on either side of the turret. As the tank moved with its hatches closed, I found that I had the best view and knowledge of the surrounding areas.

AREA OF OPERATIONS

Sketch P



In the event of a war, 3 (I) Armd Sqn was to enter Pakistan from the North of the railway track. It would go behind the Pakistani post at Bhitla and the neighbouring areas. Another group was to cross the border from South of the railway track and onwards to Chachro. The Div spearheaded by 85 Inf Bde would move into Pakistan from Gadra Road – Muna Bao Axis near Border Pillars (BP) 810 and 814, straddling the railway track, and onwards to Khokhropar and beyond to Naya Chor. The task of 3 (I) Armd Sqn was to outflank the Pakistani positions so that the main force of the Division found it easy to progress through the enemy defences.

The Team



2ND Lieutenant Veeru Jetley, Captain Vikram Deuskar, VrC (Sqn 2IC), Lieutenant Murdhar Singh, the Author and the Tank Driver Bhik Singh

Entry on 4 Dec (2200 hrs) : Entered Pak from BP 810.

The armoured group chose to enter at night from BP 810. Complete radio silence was maintained. We moved from the FAA at about 1900 hrs and it took us three hours of fast cross country movement to reach the border.

I think it was on the 4th of December that we had three visitors to the sqn. They were Lieutenant Colonel Alexander,

Commanding Officer (CO) of a Madras battalion, Major Viroo Mehta and Captain Upreti of 70 Armd Regt. They were going to join their formation/unit South of Chachro. I remember they had a meal with us in the open desert. Major Viroo Mehta told us that he had put in his papers and that his discharge from the Army was almost through. However, since the war had started he chose to experience the war first and would then leave the Army. After the meal, they left in a small convoy.

Few days later we heard that this convoy was ambushed by the enemy and Lieutenant Colonel Alexander and Major Viroo Mehta were killed while Captain Upreti escaped with a serious injury in one of his eyes. I have always thought that the intrinsic romance of taking part in an operation makes heroes out of brave men. Major Mehta was drawn into such a romance.

Entry on 5 Dec (0600 hr) : Entered Bhitla. Pak forces ran. Got some material.

First to fire Med Guns.

Before the day break we had reached our first destination and started engaging the enemy with direct tank fire as well as artillery fire from the med guns. The Pakistanis had absolutely no clue where this fire was coming from. Radio silence was maintained and full surprise was achieved. Bhitla is on the Pakistan Western Railway and beyond Khokhropar railway station, which is a key station on that track. The bulk of the Pakistani forces got jittery and scattered. On initial searching of some of the Pakistani positions we found valuable clues regarding their formations and composition etc. As we could not afford to lose time we carried on towards Naya Chor leaving the mopping up operations to be done by the forward elements of 85 Inf Bde.

Entry on 6 Dec (1300 hr) : Entered Vasarbh. No opposition.

(1500 hr) : Mines blow off Colonel Handa and Brigadier Kataria. Vikram Burns got it badly (later died).

When we were advancing towards Naya Chor, sitting on the turret of my tank, I heard a loud blast. This was a bit strange as, so far, the progress had been without any major opposition. The noise had come from behind us and after a while we could see a column

of black smoke from the general area of Bhitla. I drew the attention of the tank commander and it was decided that we turn back with a troop of tanks and engage any Pakistani elements who may have caused that blast. On reaching the site we found that the 85 Inf Bde Commander, Brigadier Kataria's vehicle had gone over an anti-tank mine. Brigadier Kataria had a bone injury and Colonel Handa, who was the CO of 164 Field Regiment (164 Fd Regt), was also injured. However, the young Intelligence Officer (IO), Second Lieutenant Vikram Burns Appalaswami suffered the most grievous injuries and died while being evacuated. The fact that the Bde Commander had come so far ahead demonstrated that the 85 Inf Bde had been advancing at a rather fast pace. I knew the three officers fairly well and felt very sorry to see a look of dejection, especially on the face of Brigadier Kataria who I had always seen displaying exceptional enthusiasm. I recall him telling us to carry on and that he would return to take part in the operation before long. Vikram Burns on the other hand was showing no signs of any response and perhaps had had a massive internal injury. I felt really sorry for him as only a few days ago he had presented me with a book on the war in Vietnam. After ensuring that the Bde Commander and the other injured were evacuated for treatment, we resumed our advance towards Naya Chor.

Entry on 7 Dec (0700 hr) : Firing came from Parcha Ji Veri (RS).

Parcha Ji Veri RS is one station short of Naya Chor and almost at the end of the Pakistani desert and had a spattering of shrubs and bushes. For the first time since we entered Pakistan we came under effective enemy fire. We took positions and engaged them with tank as well as artillery fire from our Med Regt.

Entry on 7 Dec (1000 hr) : Entered Parcha Ji Veri (RS) under heavy enemy arty fire.

The Pakistanis were desperately trying to stop our armoured group. However, because we had divided them from their troops at Khokhropar and Bhitla, they were not able to regroup and give us any worthwhile resistance. We entered Parcha Ji Veri RS and

found that it had a fairly large compound and well constructed railway infrastructure. However, all through the day the Pakistani artillery kept on pounding our positions in the RS complex. We spread out and made good use of whatever little cover was available.

Entry 7 Dec (1500 hr) : Under heavy enemy air attack. Four Sabres.

Registered couple of tgts. Stayed the night in Parcha Ji Veri.

Our camouflage drill paid dividends as the sky was soon swarming with F 86 Sabre jets which circled around Parcha Ji Veri and strafed and bombed whatever they could sight. Some of our three tonners, mainly supply vehicles, were hit. We used our medium machine guns with great effect which kept the enemy fighters at bay. I noticed that Pakistani aircraft on their way back from bombing missions in India dropped their munitions on forward Indian positions (like our position at Parcha Ji Veri). I reckoned that in order to prevent the possibility of damage due to friendly fire, Pakistani units identified their own positions to their returning aircraft by firing smoke shells in a linear fashion demarcating the area held by Indian troops. Paying back in their own coin, on a few occasions, I fired the same colour of smoke shells as a linear target deep inside the Pakistani positions. This led the Pakistani aircraft to strafe and bomb their own positions thinking that it was held by the Indian troops. Since the Pakistani forces were lulled to believe that their own aircraft would not bomb them, they were careless in their movements and thereby attracted the friendly fire. All through the afternoon, I ranged and registered a number of targets. We had dug in and stayed that night in the Parcha Ji Veri area. I slept under the tank quite comfortably. Since the time the operation had started this was the first night that I had really slept.

**Entry 8 Dec (0600 hr) : Left Parcha Ji Veri RS towards SW.
Under heavy Pak arty fire.**

We wanted to take a short detour to Naya Chor and outflank it from the South. However, Pak arty fire continued relentlessly forcing us to take a wider detour.

Entry 8 Dec (1200 hr) : Went with one troop of tanks to relieve 10 SIKH LI under counter attack. Our heavy arty fire beats off counter attack.

(1300 hr) : We chased them and ran into their arty fire.

(1500 hr) : We come back in 10 SIKH LI area.

Whole night under shelling.

While we were taking a detour to outflank Pakistani positions, we came to know that there was a counter attack on the 10 SIKH LI position. Sqn Commander, Major Mehta asked me to take a troop of tanks to support 10 SIKH LI. I readily agreed. While approaching 10 SIKH LI position, I ranged and targeted the Pak arty positions as well as the advancing Frontier Force Battalion. By this time, our fd arty guns had also become available. Our accurate fire broke up the counter attack. We gave the Pakistanis a chase. As we went closer to their positions we encountered rather heavy arty shelling. This was obviously a well entrenched defensive position and the Pakistanis were desperately trying to defend it.

Entry 9 Dec (1000 hr) : I engaged some targets.

Our HF-24 aircraft rocketed two tanks of Pakistan and burnt them.

In the morning of the 9th for the first time we got a hint that Pakistani tanks were around. We located some of their possible sites and I 'ranged' them with our guns and conveyed the information to our Air Force. Panic stricken, two enemy tanks broke cover and were spotted by our HF 24 aircraft, which knocked them out. It was a beautiful sight seeing the pair of Marut aircraft coming almost at tree top level, then climbing up and again diving while releasing their rockets at the enemy tanks.

Entry 9 Dec (1300 hr) : Engaged targets.

(1900 hr) : Came back to rejoin rest of our tanks.

From the flanks of the 10 SIKH LI position I had a panoramic view of the Pakistani defences. A larger number of our fd arty batteries were becoming available to me and I was able to bring down our

field as well as medium artillery on the enemy. However, as our troop of tanks had been away from the main squadron for over a day by now, it was decided that we rejoin them.

Entry 10 Dec : Enemy air came over twice but could not locate us. Whole day we kept our arty fire on various enemy tgts.

Havaladar Keshav Singh, my Mike NCO (for laying telephone lines), was proving to be a man worth his weight in gold as he kept me in contact not only with the Arty Bde Headquarters but also with the regiments and batteries. During the last few days I had noticed that the Pakistanis had breached our radio net. In order to counter such a possibility, during the exercises I had developed a simple but fail-safe code with Keshav. I used to call him on the PRC 25 radio set and give an indication that we should start operating our own code. He would then switch on to another pre-arranged frequency and receive my instructions, again change the frequency and communicate. For every new communication we had a pre-arranged method of changing the frequency and communicated with each other without any possibility of being intercepted. Havaladar Keshav Singh would then relay my instructions to the concerned gun positions on line. Keshav was responsible for laying the cables for these lines and connecting me with the gun positions.

Many years later in 1991, when I was Joint Secretary in the Ministry of Defence responsible for major projects, electronics and ship building, I was educated about the technology of 'frequency hopping' radio sets then just being introduced in military warfare. Keshav and I apparently had hit on this concept of frequency hopping and used it successfully in the 1971 war much before the development of the technology. I was, therefore, never out of contact with my guns.

Entry 11 Dec (0300 hr) : Attack started by 10 SIKH and 2 Mahar.

(0400 hr) : All objectives secured.

(0400 hr) : We moved in for out flanking manoeuvre.

This was a major offensive on a feature called Parbat Ali. The attack started much before day break. The units of 85 Inf Bde, i.e. 10 SIKH and 2 MAHAR, overran some of the Pakistani positions. Even in darkness we could see the disarray amongst the

Pakistanis. The Sikh and the Mahar war cries were resonating in the desert. In panic, the enemy left their trenches, many of them in underclothing. Later we found that their soldiers, and especially the officers, were a rather indisciplined lot as evidence pointed to the recent presence of women in their trenches. This was in stark contrast with the discipline existing in the Indian Army. The attack on Parbat Ali was undertaken with complete surprise. Some enemy elements were seen sneaking in the general direction of Naya Chor and it was necessary to cut them off. Therefore, we moved our tanks on an out-flanking manoeuvre.

Entry 11 Dec (0900 hr) : Ran into dense anti-tank minefield 4000 yards South of Naya Chor.

(1100 hr) : Under intense Pak mortar fire. Three tanks caught in the minefield blew. I engage enemy mortars (Target U 1111) by 164 Fd Regt.

I still recall that morning of 11 December. It was biting cold with low visibility. At a distance of about half a kilometre we could see people running away from us. My TA Virender Pal Singh looked up at me from his perch on the side of the turret with a silly grin. I asked him what had happened. He told me that his rifle was not firing. Apparently, he was trying to fire at some shadowy figures about 250 meters away. I told him to hold his fire because they might be our men. As the tank closed in we found that, indeed, they were 10 SIKH troops carrying out mopping up operations. Our tanks continued moving forward, cleared a hump and suddenly came into a depression. The first few tanks went 30-50 yards into the depression. Lieutenant Murdhar's tank was the first one and I was sitting atop the second tank. There was a loud thud like sound and my tank, on whose turret I was sitting, suddenly jumped a couple of feet. Then the tank sank in the sand with a big jerk. The bogey wheels of my tank had been disengaged from the tracks thus making the tank completely immovable. Suddenly it was all quiet. The tanks had all stopped in their tracks. I realised that my tank had gone over an anti-tank mine. Thirty yards ahead on our left Murdhar's tank had also halted but it was safe. At a distance on my right I could see one more tank squatting in a peculiar position, clearly incapacitated by another anti-tank mine. It was clear that our tanks had gone into a minefield. In a little

while, I heard some high pitched whistling sounds over my head. A minefield is usually covered by small arms fire and we realised that the whining sound was that of bullets flying over our heads. Thus, it was only a matter of time before the Pakistanis would engage us with recoilless (RCL) guns or other anti-tank weapons. Therefore, we decided to get off the tanks and walk back in the direction we had come from, and take cover behind the hump. I took all our weapons and ammunition, picked my camera and radio from inside the gunner's compartment and put them in my haversack. I was about to disembark when the tank driver, Bhik Singh, stopped me from getting down. He told me "*Sir, aap mere piche chalo, jahan per main pair rakhta hoon, wahein apna pair dalo.*" He wanted me to follow him and step at the same places where his steps fell. Only much later did I realise that Bhik Singh knew that where anti-tank mines were laid there could be anti personnel mines also. He was risking his life in order to give me a better chance.

Lieutenant Murdhar Singh's tank, which was the first to enter and travelled the maximum distance into the minefield, miraculously did not go over a mine. Showing tremendous bravery, Murdhar later went back to his tank and with the help of his driver and a Sapper NCO, backed the tank out of the minefield following exactly the same tracks it had made while entering the minefield. Murdhar and the Sapper NCO walked along the tracks guiding the driver to exactly retrace the tank's earlier path. Thus, the tank could rejoin the battle. After this, Murdhar and I rode the same tank, with me sitting on top of the turret. Without doubt Lieutenant Murdhar Singh and Driver Bhik Singh were among the bravest men.

Many years later, in 2005, when I was Defence Secretary and attending the Raising Day function of Skinner's Horse, I asked about Bhik Singh and was told that he had passed away a few years ago. I also asked about Murdhar Singh and was informed that he had probably made it to a Lieutenant Colonel, but his present whereabouts could not be confirmed.

Entry 11 Dec (1300 hr) : Came back to Raj Rif area with rest of the tanks.

(1500 hr) : Enemy air spotted our tks.

We regrouped in 22 RAJ RIF area and continued on our mission

to completely overcome the defences at Parbat Ali. By this time elements of an Indep Inf Bde had joined us, greatly improving our strike capability. Our fire power was also improving day by day as I was finding more artillery regiments on my net. The Pakistani Air Force, consisting mostly of F 86 Sabres, occasionally circled around us and took on isolated supply or ammunition vehicles but could not damage any of our tanks.

Entry 11 Dec (1700 hr) : 4 Sabres came and get the two stranded tanks.

(1800 hr) : Pak RCLs blow the same two tanks off. Own arty fired the whole night.

This was expected. Pakistanis were, however, not willing to risk their soldiers in their own minefield and attempt to recover our tanks.

Entry 12 Dec (0800 hr) : Four Sabres come back but could not locate us.

All through the day we regrouped and prepared for the final assault on Parbat Ali.

Entry 13 Dec (0400 hr) : 10 SIKH and 2 MAHAR attack and capture Parbat Ali occupied by 39 FFR. Heavy Pakistani casualties. 350 captured.

The final assault on Parbat Ali was well planned and didn't give the enemy much chance. We used our guns to the fullest advantage and took on the targets that we had ranged and registered earlier with precision, accuracy and volume. The enemy who was well dug in and entrenched, gave in and this time our forces were able to fully occupy the Pakistani positions at Parbat Ali.

Entry 14 Dec : Moved to 10 SIKH LI area.

10 SIKH LI was preparing to launch an attack on Pakistani positions near Naya Chor. The area was registered as an arty target and named 5 Tree Area. It was, as the name suggests, the beginning of their green belt. There was a village on one side. The whole day I ranged and registered various targets in the area.

Entry 15 Dec : 10 SIKH LI attacks on village and 5 Tree Area. Heavy enemy arty fire. 10 SIKH LI suffers a lot of casualties. Capt Sengupta (Arty OP) injured. 2nd Lieutenant Bahadur (10 SIKH LI) killed.

The resistance from the Pakistanis was severe because 10 SIKH LI had moved into the range of their arty. Unfortunately, they lost the services of their OP officer Captain Sengupta of 164 Fd Regt. I volunteered to replace Captain Sengupta and went in the direction of 10 SIKH LI. There was a great deal of firing. While I was running towards them I saw one of their company commanders, Major Arora whose leg seemed to have been almost severed, being evacuated. There were many other casualties. Colonel Basant Singh, the CO of 10 SIKH LI, was calmness personified. He was very happy that I had come. A Pakistani Lysander observation aircraft was hovering in the skies. The Pakistanis were firing airburst shells which were causing maximum casualties. As their OP officer had been injured, 10 SIKH LI became rather vulnerable without any arty support. Also, their forward elements were within the machine gun range of the enemy. Taking advantage of all this, the Pakistanis had launched a counter attack on 10 SIKH LI and were approaching under the cover of arty fire. I immediately started directing fire on the Pakistani gun positions and also the machine gun posts which I had already 'ranged and registered' the day before. With some corrections I was able to bring down fire on the Pakistani guns.

That afternoon I was returning after consultations with Colonel Basant Singh, CO 10 SIKH LI, when I noticed TA Virender Pal Singh communicating on the radio. I heard him saying "*To confuse enemy aircraft*". He repeated this number of times. I asked him whom he was speaking with. He told me that he was giving the target description to the gun position for firing smoke shells at least 2/3 kilometres inside the Pakistani held territory. This he was doing, he said, as the Pakistani aircraft had gone out for a sortie and would soon be returning. Virender Pal Singh was ensuring that the returning Pakistani aircraft would be confused into bombarding their own troops. Within a few seconds our guns had fired their smoke shells deep in Pakistani territory and indeed the returning Pakistani air sortie emptied their remaining ammunition on their own troops.

TA Virender Pal Singh was awarded a mention in despatches for his adventurous presence of mind and initiative to bring harm to the enemy in the operation.

Entry 16 Dec : Engaged lot of enemy tgts. Am still in SIKH LI area village.

A very difficult time. Heavy shelling, chaps killed in next trench. Shift to B Coy. Engage DFs. Stay whole night under air attack and shelling.

This was a very difficult day. 10 SIKH LI was in an open and plain area which was obviously a known and registered Pakistani arty and air target. During one spell of intense shelling I, with my TA and Operator had taken shelter in a trench when there was a loud noise very close by. This was a direct hit by a Pakistani shell on a trench very near us which I believe had more than three soldiers – all of whom were killed. I decided to shift to Bravo Company as it gave us a better field of vision. I found at least one more subscriber on my radio net indicating the addition of another arty regt with us. I believe it was 68 Fd Regt. This boosted our fire power considerably. Realising the intention of the enemy, I started engaging a series of Defensive Fire (DF) targets. The Pakistanis were also obviously desperate to prevent Indian ingress. The whole night shelling went on from both sides. The Pakistanis also carried out a few air raids at night.

Entry 17 Dec : Two East Bengali Officers Capt Hussain, AMC and one from Engrs surrendered. Get a lot of info. Mulla Feroze and Dastoor capture confirmed. 4 to 5 Sabres come thrice and strafe and bomb. Some damage to soft vehicles. Their GOC, ex GOC, a lieutenant col and a maj were hit by our air. Pakistan agrees to our call for cease fire at 2000 hr today. Dhaka surrendered at 1101 hr on 16 Dec.

On the morning of 17 December a number of East Bengali officers in the Pakistan Army sneaked across towards our position. Two such officers came right across my position. They told me that Flight Lieutenant Mulla Feroze and Captain Dastoor had been captured when they strayed and bumped into Pakistani elements

that were in the process of retreating from Bhitla/Khokhropar. Immediately I realised how the Pakistani side had breached into our radio net. Being the Air Control Team (ACT) with tentacle, the two Indian officers were in possession of all frequencies and diagram of our Radio Net and that must have fallen into Pakistani hands. My pre-war arrangement of alternate communication channel with Keshav Singh, therefore, had paid us rich dividends. The two East Bengali officers told us about the loss sustained by the Pakistanis, especially some of their General rank officers. They also spoke about their own relief and joy that Dhaka had fallen. By evening, it was clear that there would be "All Quiet on the Western Front." Cease fire was agreed.

**Entry 18 Dec : GOC 11 Div, Commander Inf Bde and
Commander Arty Bde come to SIKH LI position.**

Without losing any time the three commanders of the main formations taking part in our sector of operations, namely GOC 11 Inf Div, Commander 85 Inf Bde and Commander 11 Arty Bde, came together to 10 SIKH LI position and met the CO, officers and men, and visited the forward most unit of the Div which had suffered the maximum casualties. This speaks volumes regarding the quality of leadership present in the Indian Army during Operation Cactus Lily (as this operation was code named). As a young captain, albeit on a ringside seat, I found this to be a remarkable event and wrote this as the last entry of my diary in the war.

Epilogue

Nostalgia tends to add colour to events, forcing an element of subjectivity into a narration. To retain objectivity, I have stuck to the cryptic notes of a fairly ancient and war torn pocket note book. There was a sense of adventure, an enthusiasm for combat and a great sense of team spirit in the youngster who penned these small thoughts. I am sure it was true of all of us who were my age and service and had the good fortune of being part of the 1971 War. History was being made but this was the last thing in our minds when actual tasks and combat were an obsession. There will be much time and occasion to draw lessons and see the events in a larger perspective. I have purposely denied myself the benefit of hindsight and experience so as to retain the flavour of youthful participation. I will leave the scholarly part for another occasion.

Letter to the Editor

India's North West : The New Great Game

Dear Editor

Please refer to the article 'India's North West : The New Great Game' in July-September 2012 issue of the USI Journal. The author a former Director General, Defence Intelligence Agency has done well in explaining why the general area of Gilgit- Baltistan is so important for India strategically, the Chinese overtures and also our likely response. The appreciation of adversary's capabilities should be realistic to ensure that no over or under estimation is made. I wish to add a few points so that we have a different perspective in understanding the intricate issue more intensely.

The Gilgit-Baltistan (GB) area is being further divided into three divisions as per the wishes of the people of the area to ensure so called better administration. The Gilgit division would comprise of Gilgit, Hunza-Nagar and Ghizer districts while Astore and Diamer districts would be included in the Diamer division. Similarly, Baltistan would comprise Skardu and Ghanche which has already been notified.¹ The Bill has been approved by the GB Legislative Assembly and sent to the Pakistan cabinet for approval.²

The Selig Harrison article³ quoted has not been verified by any other agency so far. In fact, it has been contradicted by most agencies. Most of the facts quoted on page 410 and 411 are from this article. They are exaggerated and not consistent with what satellite imagery and other open sources are suggesting. Here are some inconsistencies in the Selig Harrison's article :-

- (a) A large group of 7000-11000 PLA personnel would require massive administrative support at high altitudes. It cannot be kept a secret.
- (b) Karakoram Highway does not slacken the Sea Lanes of Communication (SLOC) noose for China but has tightened it further as it is closed since 04 Jan 2010. Almost 30 kms of it from Attabad to Hussaini is under water for the last 34

months. A new Hunza lake has been formed which Pakistan is unable to drain.⁴

(c) The cargo transportation time from Kashgar or Khotan or Rikaze to mainland China itself takes more than 72 hours. Hence, it would take at least 144 hours from mainland China to Gwadar.

(d) Even the best of motorways in Pakistan are less than 30 m wide. The widening of Karakoram Highway to 30 m and maintaining it would be next to impossible.

(e) The supposedly massive 22 tunnels have not been observed by anybody else and seem to remain elusive till date.

The Gwadar port as of date (07 Nov 2012)⁵ has a berthing space of only 600 m, suggesting it can handle only two or three large vessels at a time. It has a total of nine cranes out of which only two are large gantry cranes. The road to Gwadar port is through the town of Gwadar and is only 5 m wide. Thus, as of date, the cargo handling capacity of the multi-purpose terminal is limited. The status of Roll On – Roll Off (RO-RO) and container terminal has reverted to that of 2005 status. The progress of work on the port facilities has almost come to a standstill.

The Middle East Media Research Institute (MEMRI) is neither considered reliable nor a think tank in the US. In fact, it is accused of inaccurate translations, bias and propaganda by many a noted journalists including Brian Whitaker of the Guardian.⁶ The founder and President of MEMRI is Colonel (Retd) Yigal Carmon who has served in the Israeli Military Intelligence from 1968-1988. Anything that MEMRI says needs to be taken with a fistful of salt.

The airbases at Kashgar and Khotan are 620 and 390 kms respectively from Leh. However, we can't afford to be complacent as the PLA Air Force has enough refuellers and AWACs to provide support to its fighter aircraft operations well within India.

The entire area of GB still reverts its master the Hazir Imam, the Aga Khan. He takes keen interest in socio-cultural and politico-economic improvement of the people of GB. The areas of Hunza and Gojal have shot in prominence since 04 January 2010 after closure of Karakoram Highway due to a massive landslide at

Attabad. The efforts by Pakistan government and the Pakistan Army have not yielded results in lowering water level of Hunza Lake.⁷ The MLAs of this area Mehdi Shah and Mutabiat Shah have always played sectarian cards to gain political clout. It should not be perceived as a major divide any more than what is generally seen in the rest of Pakistan.

There are two major issues which need to be considered while estimating Chinese capabilities in this area. Firstly, a new airport with a runway length of 5 kms has been constructed at Ngari Gunsa which is just 320 kms from Leh. It is closer than Kashgar and Khotan. Most of the aircraft on PLAAF inventory today have a combat radius of more than 500 kms. Secondly, PLA's Second Artillery has prepared at least two locations with underground storage facilities and launching of strategic missiles very close to the Line of Actual Control. They are located at Saitula in Xinjiang and Haji Langar in Aksai Chin. Both these locations are barely 240 kms from Leh. Although, no deployment has been observed through open source imageries at these three locations but, construction of these facilities makes the intentions of PRC extremely clear.

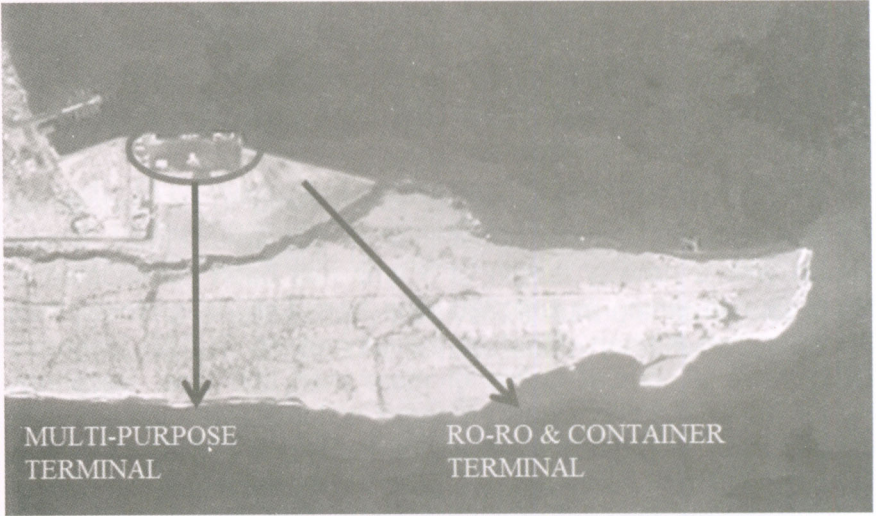
Yours Sincerely

Colonel Vinayak Bhatt

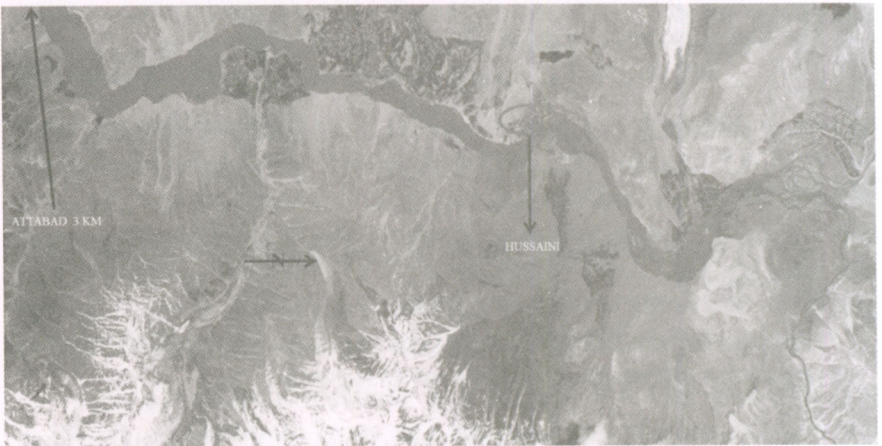
Endnotes

1. <http://tribune.com.pk/story/330126/gilgit-baltistan-divided-into-three-divisions/>
2. <http://pamirtimes.net/2012/07/13/gbla-approves-resolution-demanding-creation-of-three-more-districts-cm-disagrees/>
3. http://www.nytimes.com/2010/08/27/opinion/27iht-edharrison.html?_r=0
4. <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=44551>
5. <http://www.guardian.co.uk/world/2003/jan/28/israel2>

6. Digital Globe satellite imagery of 07 Nov 2012 Gwadar port:



7. Digital Globe satellite imagery of 07 Jul 2012 Hunza Lake:



Recollections of The Se La Bomdi La Debacle 1962*

Major General PJS Sandhu (Retd)**

This book is based on personal recollections of the author who was the Brigade Major (BM) of the ill fated 62 Infantry Brigade at Se La, commanded by Late Brigadier Hoshiar Singh, IOM, IDSM, who was killed in battle. The story of 62 Infantry Brigade which has been a void all these years has been told in all its vivid detail.

The author brings to life the dilemmas that the Commander and the entire command and staff structure of 62 Infantry Brigade, commanding officers included, faced on the fateful night of 17/18 Nov 1962 (eve of the battle) when the Commander was ordered by General Officer Commanding (GOC) 4 Infantry Division to withdraw the entire Brigade from Se La to Bomdi La, while it was poised for a fight with the Chinese. The withdrawal was to commence the same night. *The Commander remonstrated against the decision but to no avail.* Perhaps, the fact that the road between the Divisional HQ at Dirang Dzong and Bomdi La had been interdicted by the Chinese on 17 Nov itself seems to have weighed heavily with the GOC. Reluctantly, the Brigade Commander asked for permission to commence withdrawal the next night (Night 18 / 19 Nov) which was agreed.

The Commander thereafter carried out a detailed briefing of the Reconnaissance Group and staff for withdrawal commencing the next night which was duly recorded by the author as the BM and has been reproduced in the book. Next morning (18 Nov) at 0400 hours, the Commander set out from his HQ to see for himself how the withdrawal of covering troops was progressing and to personally brief the commanding officers. Ironically, the Chinese were attacking Se La, Dirang Dzong and Bomdi La precisely at that time (morning of 18 Nov) simultaneously. That was the end

***Recollections of The Se La Bomdi La Debacle 1962**, by Major General Jaidev Singh Datta (Retd) (New Delhi, KW Publishers Pvt Ltd, 2013), pp. 175, ₹ 780/-, ISBN 9789381904367.

****Major General PJS Sandhu (Retd)** was commissioned into 8th Light Cavalry on 15 June 1966 and later commanded 47 Armoured Regiment. He retired from the Army as Chief of Staff, HQ 1 Corps on 31 July 2003. Presently, he is working as Deputy Director and Editor at USI.

of planned withdrawal and 62 Infantry Brigade as a fighting formation.

The book is also remarkable for another reason. It describes the battles at Se La, Dirang Dzong and Bomdi La based on two Chinese books : 'True History of China India Border War' authored by Professor Yan Xun of National Defence University (Beijing), published in 1993 and 'China's War of Self Defence Counter Attack on India' published by Academy of Military Sciences (Beijing) in 1994 which the author managed to obtain and get these translated through his personal efforts which is creditable. Two versions of the Chinese perspective based on the above two books have been narrated in Chapter 6 of the book. These throw fresh light, hitherto unknown, of the Chinese operational plans and conduct of the battles. However, these two narratives could have been combined to give one cohesive overview of the Chinese perspective. That would have made understanding the battles by the reader simpler.

There are many lessons that emerge from these battles and these have been brought out by the author in chapter 8 (Aftermath) of the book. Though the main aim of the Chinese lay in the Western Sector (Ladakh), the main effort was directed towards the Eastern Sector (Kameng) as the terrain there facilitated application of major forces. The military aim given to the PLA in the Kameng Sector was to annihilate the Indian forces deployed in this Sector. The operational plan was evolved accordingly. A study of the battles at Namka Chu, Se La and Bomdi La would reveal that the Chinese, time and again, adopted the tactics of deep penetration, outflanking, encirclement and multi-directional attacks to achieve their operational objectives. They succeeded admirably because the Indian forces neither expected, nor were they prepared for such tactics.

The author has rendered a yeoman service by bringing out this book fifty years after the event; better late than never. It is an irony that the bravery and sacrifice of the Indian soldiers have not been adequately recognised by the Nation because of the bigger debacle. Nonetheless, they deserve recognition, even at this belated stage.

The book is a valuable addition to the literature about the 1962 War and needs to be read by military professionals, scholars and students of military history.

Short Reviews of Recent Books

Restructuring India's Military-Out Of Box Option. By Rear Admiral AP Revi (Retd), (New Delhi: Gyan Publishing House, 2012), pp..305, Price ₹ 750/-, ISBN 9788121211611.

The book provides an insightful look at the Higher Defence Management Organisational structures existing in various parts of the world and a proposed option for India.

The first four chapters give a detailed account of the higher defence organisations models that exist in the United States of America, the United Kingdom, Russia and China. He engages the reader's attention by bringing out the historical evolution, chronology of events, pitfalls of the systems as existing in these countries and their implications for India in an interesting manner.

The author thereafter has summarised the main characteristics of the four models wherein he argues that there is a clear political control over military in all cases. He goes on to add that the common threads include the structuring of the functional divisions, out of area and joint operations and a stress on theatre and integrated joint commands, and a revolution in military logistics.

The main argument by the author while proposing an out of the box option for India lies in finding ways and means to get around the roadblocks and complete the ongoing Higher Defence Management Organisation model for India within the broad framework recommended by the Group of Ministers and the Cabinet Committee on Security in February 2001. The author argues his case keeping in mind the inherent inadequacies in the Indian environment which are an overbearing reality. He thereafter lists out the conditionalities which need to be taken onboard before a Chief of Defence Staff (CDS) is appointed in India. The author in the end lists out a recommended sequence of implementation for a smooth transition.

Chapter 6 covers the Revolution in Military Logistics in a detailed manner as the author strongly believes that integration of logistics within the armed forces is a common thread that runs across the globe. He follows this up with the coastal security architecture and civilian control over the military and finally concludes with a recommended course of action.

The principal value of the book lies in its systematic collation of a historical perspective, operational development, emerging doctrines, trends and challenges in the higher defence organisation the world over. The arguments stated are well supported by relevant statistical data.

This well edited and well-presented book provides the reader with a very comprehensive expose on the nuances of higher defence organisation.

Captain Sandeep Dewan, (IN), Senior Research Fellow (USI)

Internal Conflicts : Military Perspective. Edited by VR Raghavan, (New Delhi: Vij Books India Pvt. Ltd., 2012), pp..324, Price ₹ 1250/-, ISBN 9789381411339.

The book has been published for the Centre for Security Analysis (CSA) Chennai, India, as a part of an ongoing three years research project 'Internal Conflicts and Transnational Consequences', which conceptualises a new approach to understanding long standing internal conflicts in India, Nepal, Myanmar and Sri Lanka. The present volume comprises two sections. The first section is based on a paper presented by Lieutenant General VR Raghavan (Retd), and gives a strategic overview of the internal conflicts in India Nepal, Myanmar and Sri Lanka and covers the Political, Economic, Diplomatic and Security aspects including their internal and international implications.

The second section deals with implications of deploying Armed Forces in such situations and is a compilation of papers presented at a seminar held in Chennai last year. These papers were presented by retired Armed Forces Officers and Senior Administrators with vast hands on experience of handling such conflicts. Aspects of doctrine, force structure including re-equipment, psychological aspects and socio-political impact on governance and civil military relations are discussed. Broadly, it emerges that the prolonged deployment of the Armed Forces in such an environment has in some way affected their doctrine and force structure; also recommends a change from 'Top down' to 'Bottom Up' approach. Need for laying down an institutionalised coordinated structure for joint command; with specific authority, responsibility and accountability is highlighted. The two papers on Nepal highlight the impact of Maoist insurgency on governance in

Nepal including the Nepalese Army; which are both in transformation at present. It's long term impact on Indo-Nepal relations need constant monitoring. The paper on Coast Guard gives an overview of their functioning and recommends operational independence in their functioning to exploit their full potential.

Since the aspects dealt in various papers are interlinked, a certain amount of overlap in such cases is unavoidable. In spite of this, the book makes a cogent and thought provoking reading and provides excellent material for study of the subject and is recommended for study by the Armed Forces personnel and policy makers dealing with such conflicts.

Lieutenant General MM Lakhera, PVSM, AVSM, VSM (Retd)

Through Wars and Insurgency – Diary of an Army Officer. By Brigadier Kuldip S Brar (Retd), (New Delhi: Pentagon Press, 2013), pp..246, Price ₹ 595/-, ISBN 9788182746824.

Brigadier Kuldip Singh Brar served the country upholding the highest standards of service in dedication to the nation in all its wars for over three decades. It is not given to too many officers to claim this distinction. Fewer still write about it. It is a pity that so few of our distinguished officers pen their story, their fortunes good or bad, and pass on their experiences to a newer generation to benefit.

What stands out in the book is the sincere and simple narration of situations from the “boot up”. The most important chapter perhaps, is the experience of the Battalion in 1962 War in the Walong Sector. The conflict in this Sector is the least written about in the history of that war. The distance from Delhi, remoteness of the theatre, the dense jungle terrain, all precluded visits by any war correspondent, of the few that were in India then. Though India suffered a serious reverse in the overall campaign but, it were not the men who lost that war. Their courage and determination under the most unfavourable conditions cannot be questioned. Kuldip's own efforts at extricating his men from capture and successfully leading them back is a glorious episode in this tale.

Kuldip does ask but does not answer, if the conditions were different and his troops given half a chance would the outcome have been different? One misses this critique in his writings. But, after all it is in fact written as a “diary”, narrating stories and events from the perspective of a regimental officer.

There are numerous vignettes of army life in all its diversity. Life in cantonments, courses and exercises, demonstrations and operational deployments, of other wars and insurgencies; all described from a personal viewpoint of a young officer. There is his personal story as well as befits a diary.

Kuldip's career in the Army came to an early end as the years had run out for him. Even then he continued to serve later in a civilian capacity restoring the faith and trust of the Sikh youth led astray by hostile propaganda, as part of an initiative of the Government of Punjab. Again his leadership qualities were in full display.

This book is the story of the Indian Army, a living being, much more than the sum total of its numbers. It breathes its environs, sets new standards and upholds values fast disappearing in a materialistic world. More such ventures need to be encouraged. The printing and production of the Book is highly commendable. A good Index facilitates reading. A few photographs add the personal touch. It is a book that describes the life of an individual, but celebrates the Indian Army.

Major General Dipankar Banerjee, AVSM (Retd)

Bangladesh's Fight Against Terrorism (Return from the Precipice). *By Dr Anand Kumar, IDSA. (New Delhi, Pentagon Security International, 2012), pp..141, Price ₹ 595/-, ISBN 97882746978.*

Dr Kumar has done excellent work by researching; explaining and analysing the problems faced by Bangladesh since its creation He has also highlighted the impact of Dhaka's political problems on security concerns of the region, especially India.

In a systematic and logical manner, he first traces the revival of Islam and its fundamentalist seeds in the predominantly Sufi nation. The influence of Pakistan and other Wahabi nations, foreign NGOs (mostly sponsoring madarasa and being financed by Islamic countries) and the local elements who were against the creation of Bangladesh, have been covered in adequate details. The involvement of Pak ISI in using Bangladesh as a base for destabilising India and the part played by Bangladeshi national returning from the Afghan War and the rise of anti-India feelings

post 1975 assassination of Banglabandhu, and the first military coup, have been well covered.

Tracing the patronage received by various Indian insurgent groups (like ULFA) in Bangladesh, especially during the two spells of military rule and of BNP (which termed them as freedom fighters) has been well documented. The chapter on 'Financing of Terror Groups' is well researched and informative, relying on varied sources. Details of various terrorist groups operating in Bangladesh and their political and social influence highlight the immediate and long term goals, to convert the Country into a staunch Islamic nation, their links with Indian sympathisers have been highlighted.

Of special significance is the chapter 'From Denial to Action Against Terror'. The author highlights that till 2008 Bangladesh had always denied presence of any Indian Insurgents Groups in that country. This has changed since 2009. The Awami League under the Prime Minister, Sheikh Hasina took bold action against terrorist groups of not only Bangladesh but also of India, by handing over ULFA leaders to India; though there is no Treaty of Extradition between the two countries. Dhaka also drove away other Indian insurgents from their territory. These two very positive steps auger well for the future. The Awami League has also shown firm resolve by conducting trial of War Criminals in a transparent manner, for their anti Bangladesh role.

In the last chapter the author feels that lack of domestic consensus on firm action against fundamentalists is the major handicap being faced by Bangladesh in bringing back the Country to its original secular form. He concludes that while under the Awami League terrorism is certainly down, but it has not yet been fully overcome. This, he attributes to the internal terrorist crisis in Pakistan, a country which is seen as a role model by Bangladesh terrorists and fundamentalists till now.

Written in a direct, simple manner, the list of references and citations add to the authenticity and research effort put in by the author. The book is a must read for all those studying military matters and international relations as it not only narrates the success of Bangladesh against terrorism, but also highlights its impact on India's internal security.

Lieutenant General YM Bammi, PhD (Retd)

End Game in Afghanistan : For Whom the Dice Rolls. By Hiranmay Karlekar, (New Delhi: Sage Publications India Pvt Ltd., 2012), pp..353, Price ₹ 495/-, ISBN: 9788132109747.

This book, laid out in seven chapters, deals with the future of Afghanistan; analysing regional and geostrategic consequences of possible contingencies up to 2014 and beyond including an extreme possibility of a takeover by Al Qaeda-Taliban. The duplicity and dubious reliability of Pakistan as peace broker, her obsession with 'strategic depth', facade of operations in FATA, inability of prolonged opposition to the US, the US accommodating Pakistan without compromising own core interests and imponderables of trusting "good Taliban" are covered well.

Riddled with ethnic and other fault-lines and 97 per cent GDP dependent on foreign aid, Afghanistan's ability to defeat Pakistan backed forces will depend on internal cohesion, military capability, reasonably good governance and international assistance, both economic and military.

ISI sheltered LeT, JeM, HuM functioning unhindered despite bans is strengthening Taliban-Al Qaeda in a rapidly radicalising Pakistan. Should Al Qaeda-Taliban succeed in Afghanistan, together with Al Qaeda / affiliates entrenched in Arabian Peninsula and North Africa, they may become unstoppable. Such eventualities together with BNP victory in Bangladesh can kick-start the Ghazwa-e-Hind (Battle for India).

Though the US seeks out long-term security ties with Central Asia Region (CAR), in the event of Taliban-Al Qaeda getting upper hand in Afghanistan, the US is unlikely to return in force. The overall scenario requires a wider global coalition to include Russia, India, China and moderate Muslim countries in conjunction with western forces.

The author has also addressed two vital questions: will the US focus shifting to Asia/Asia-Pacific detract from war against Taliban - Al Qaeda; and, can the shift to intelligence based special operations and drone attacks succeed in the backdrop of limited Afghan military capability? The nuances, imponderables and remaining question marks are discussed in detail.

The book is well researched, well referenced and certainly adds to knowledge about the fast changing developments of the

region. The style of writing is smooth flowing, displaying clarity of strategic thought that keeps the reader engrossed.

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

Peace is Everybody's Business: Strategy for Conflict Prevention. By Arjun Ray, (New Delhi, Sage Publications India Pvt. Ltd., 2012), pp..233, Price ₹ 495/-, ISBN 9788132109433.

Ray's magnum opus on strategy for conflict prevention is based on his version of *Sadbhavana*, which as he puts it, came to him as a 'vision' whilst commanding a Corps in Ladakh. The author propounds this strategy across fourteen chapters that include essays on alienated societies specially the Muslims, conflict prevention, human security, people, winning the hearts of alienated societies, prevailing culture of silence, women's empowerment, media and peaceful uses of technology, leadership change, re-education and a changed role for the military. While elaborating on these issues, Ray shows himself to be a maverick who thinks in new directions yet admits his failure in converting his senior and middle piece officers to his form of *Sadbhavana*. What Ray actually faced as insurgency movement in Ladakh was by his own admission to handle 'anomie' – a lack of social standards and 'existential vacuum' – a mix of collective apathy and boredom!

Pursuing his 'vision' with extraordinary zeal, he embarked on a mission and set up 13 primary schools, 11 women's empowerment centres and 60 centres for education of non-literate women in 16 months. Apart from educating his men on the Quran and Hadith, a curious measure enforced by him was the use of defence and regimental assets for helping the populace along the Line of Control. Ray makes trenchant observations that the Indian Government inclusive of administration, politicians, experts, NGO's as well as the military have failed to understand the underlying causes of alienation, especially in Kashmir. The author is categorical that the Kashmir problem is not because of the proxy war, infiltrators or terrorists sent by Pakistan but because of us – since every Kashmiri is not with us! In these intellectually reasoned essays, Ray tends to overwhelm with statistics, homilies, philosophies and quotations. While there is some truth in many of his assertions at times he meanders off into jejune and didactic statements whose relevance is at best tendentious.

Major General Ashok Joshi, VSM (Retd)

Towards a Geopolitics of Hope. By *William H Thornton and Songok Thornton (National Cheng Kung University, Taiwan), (India: Sage Publications, 2012), pp..260, Price ₹ 750/-, ISBN 9788132109440 (HB).*

As a hypothesis, the book argues that the assumption of First World countries that economic prosperity will result in a more democratic China, has failed. Even within China, only a percentage of population has benefited, while her record of dealing with Human Rights continues to be dismal.

The book reflects on the post World War II ; and more currently, on post 1990s Cold War policies of the West and Russia towards China. It analyses how and why these have failed to change the political attitude of China.

In eight chapters devoted to policies of America, Russia, India and the region of South East Asia towards Beijing, especially in the era of Globalisation and market reforms of Deng leading to an open market, the authors highlight that the world professing democracy and regime change have failed in China. They argue that for economic and trade benefits, the so-called democracies have not succeeded in encouraging China to become more sensitive to values of Human Rights (HR) and adopting a democratic system. They point out that while the Free World denounced the Tiananmen Square massacre, they did not forcefully impose trade penalties on Beijing, mainly to safeguard their economic interests.

The prevailing situation in Tibet and the ill-treatment of the Tibetans by the Chinese, and its impact on India and the region is well covered. In the same wane, the authors also take India to task. They feel that New Delhi has given greater emphasis to Globalisation and economic relations with China, rather than impressing upon Beijing to improve her HR record. The chapter touching upon the socio-economic and political culture of India, highlights its weaknesses, including her opportunist policy towards Myanmar. The authors feel that India has a major role in shaping the 21st Asian Century, for which she needs to set her house in order, including steps to fight Naxalism.

The book covers a vast canvas (including Russia's intervention in Georgia, expansion of NATO, Myanmar's relations with China, India and ASEAN), which enhances its value. It would be of interest to scholars.

Lieutenant General YM Bammi, PhD (Retd)

Ours Not To Reason Why. By Brigadier RR Palsokar (Retd), (Kolkata: Power Publishers, 2012), pp.. 273, Price ₹ 450/-, (US \$ 20, GBP 15), ISBN 9789382070702.

Amongst the plethora of books and articles on the chequered course of the Indo – Sri Lankan Accord and consequent intervention by the IPKF, professional (military) readers rued the absence of authentic literature on the bloody campaign trail of the IPKF from those who intimately saw and experienced ‘blood, toils, sweat and tears’. The Campaign against LTTE claimed 1240 lives with thrice that number being wounded. This story needed to be told!

Ravi Palsokar, who commanded 7 Infantry Brigade for two years as part of the IPKF, has admirably filled this void. The seemingly confusing and at times pointless operations conducted by his units and sub units have been expertly interwoven into a racy, taut, highly engrossing narrative embellished with the author’s forthright and balanced observations. The author candidly admits the shortcomings of his overstretched force in an alien environment and the difficulties that they encountered. Most importantly, it has been done without rancour. Palsokar has thoughtfully introduced a chapter at end of the book giving a brief glimpse of the vexatious Sinhala – Tamil problem for those unfamiliar with the Sri Lanka imbroglio.

Though the author has restricted his narrative to the operations of his Brigade, important lessons emerge in the realm of India’s force projection overseas in counter-insurgency operations such as: dissonance in political thinking, its adverse impact on higher direction of operations, lack of appropriate political and military intelligence, poor training, unsuitable equipment, failure to exploit the full potential of the Indian Air Force and the Indian Navy, flawed psychological build-up and poor media management; reminiscent of our 1962 debacle. Bravery of the Indian soldiers and officers once again bailed out the Nation. Tragically and not surprisingly, we were to learn the same lessons from the Kargil War again. Equally sad was the home-grown support that the recalcitrant LTTE continued to enjoy in Tamil Nadu throughout IPKF’s bloody struggles.

This story was worth waiting for 25 years because of the lessons it brings out. It is a must read for all who want to know

what it was like to be in a difficult sector of Northern Sri Lanka. For those who were there, it will be a nostalgic trip down the memory lane.

Brigadier AS Adhikari, VSM (Retd)

Victoria Cross: A Love Story. By Ashali Varma, (New Delhi, Pearson, 2013), pp..243, Price ₹ 375/-, ISBN 9788131774595.

Lieutenant General Premindra Singh Bhagat, PVSM, VC was an exceptional individual who defined and shaped the Indian army of his age. This eminent soldier was the first Indian Commissioned Officer to earn the Victoria Cross for valour during the Second World War for the astounding act, described by his commanding officer as “the longest continued feat of sheer cold courage” at Metemma (Abyssinia) on 31 January 1941. That achievement alone could have defined his military career but he went on to achieve much more. Examples of physical and moral courage are seldom found together, in the same person, yet Bhagat had this distinction.

The book *Victoria Cross: A Love Story*, written by his daughter, Ashali Varma, is a fascinating showcase of biographical writing. It combines the insight of a child and the discernment of a historian in evocative detail which recreates the story of his life and times.

Prem Bhagat was commissioned on 15 July 1939 from the Indian Military Academy and later rose to be the first General Officer commanding-in-Chief (GOC-in-C) of Northern Command. He also headed the Indian side at the delineation talks with Pakistan to demarcate the Line of Control after the 1971 war. Few military commanders, in India, have been treated with the reverence that Prem Bhagat received.

Prem Bhagat did not resign from the army on being passed over to be the Chief of the Indian Army. In July 1974, he accepted the appointment of Chairman, Damodar Valley Corporation (DVC) as a serving military officer. With his characteristic vigour and no-nonsense approach, he got the sluggish behemoth moving, and soon, the results were there for all to see. During the ten months he was at the DVC, production increased twenty-fold, and he became the toast not only of Kolkata, but the whole of West Bengal.

Ashali Varma is wisely restrained in commenting on military matters as she narrates her story of a man who gained immense

stature within the army by his deeds. For those who love reading history, the story of such a pivotal figure is full of fascination.

Written in a simple, easy to read style, the book is a riveting read and is highly recommended for its inspiring tale of two great individuals – Prem and his wife Mohini. It is a touching memoir and a valuable record of two exceptional individuals. It deserves a place in all homes and libraries.

Colonel Harjeet Singh (Retd)

LATEST PUBLICATIONS of USI

	Price	Year
● ** China's Maritime Ambitions and the PLA Navy Cdr Sandeep Dewan	Rs 795	2012
● ** Maoist Insurgency and India's Internal Security Architecture Shri EN Rammohan, Brig AP Singh and Gp Capt AK Aggarwal	Rs 650	2012
● ** Possibility of a Nuclear War in Asia : An Indian Perspective Col GG Pamidi	995	2012

** (Available from Vij Books)

Additions to the USI Library for the Quarter – Ending Dec 2012

(The books reviewed in Jul - Sep 2012 issue have been added to the Library during this quarter but not shown in this list)

Afghanistan

Afghan Frontier : At the Crossroads of Conflict by Victoria Schofield. London, Tauris Parke Paperbacks, 2011. 389p., Rs.495, ISBN 9781848851887

Afghanistan Aid, Armies and Empires by Peter Marsden. London, IB Tauris, 2010. 234p., Rsw.395, ISBN 978184517511

Asia

India and Central Asia : A Reader. Edited by Xinru Liu. Delhi, Permanent Black, 2012. 342p., Rs.795, ISBN 9788178243474

Great Games, Local Rules: The New Great Power Contest in Central Asia by Alexander Cooley. New York, Oxford University Press, 2012. 252p., Rs.1195, ISBN 9780199929825

Autobiography/Biography

Dongri to Dubai: Six Decades of the Mumbai Mafia by Zaidi, S Hussain. New Delhi, Roli Books, 2012. 378p., Rs.350, ISBN 9788174368942

A Soldier in Arabia : A British Military Memoir from Jordon to Saudi Arabia by Nigel Bromage. London , Radcliffe Press, 2012. 172p., £ 27.50, ISBN 978178076082

Bureaucracy – India

Bureaucracy and Politics : Growth of Service Jurisprudence in All India Services by Mohammed Ali Rafath. Jaipur, Rawat Publications, 2012. 198p., Rs.515, ISBN 9788131605097

China

The China Wave : Rise of Civilizational State by Zhang Weiwei. Hackensack , World Century Publishing Corporation, 2012.190p., Rs.1526, ISBN 9781938134012

Winner Take All : China's Race for Resources and What it Means for the World by *Dambisa F Moyo*. New York, Basic Books, 2012. 257p., \$26.99, ISBN 9780465028283

Disarmament

Post Conflict Disarmament, Demobilization and Reintegration : Bringing State Building Back In. Edited by *Antonio Giustozzi*. Aldershot, Ashgate, 2012. 142p., £ 50, ISBN 9781409437383

Defence Policy

A Handbook of Defence Economics. Edited by *SC Narang*. Delhi, Prashant Publishing House, 2012. 288p., Rs.895, ISBN 9789380565279

Fiction

Trojan Horse : A Novel by *Mark Russinovich*. New York, Thomas Dunne Books, 2012. 319p., ISBN 9781250010483

Zero Day : A Novel by *Mark Russinovich*. New York, Thomas Dunne Books, 2011. 328p., \$ 14.99, ISBN 9780312612467

Humanitarian Aid

International Organizations and Civilian Protection : Power, Ideas and Humanitarian Aid in Conflict Zones by *Sreeram Chaulia*. New Delhi , Viva Books, 2011. 263p., Rs.1295, ISBN 9788130919232

India - History

The Role of Muslims in the Indian Freedom Struggle 1857-1947. Edited by *Rafaqat Ali Khan*. New Delhi, Genuine Publications and Media Pvt Ltd, 2011. Vol. 1, 331p., Rs.995, ISBN 9789389965278

Indian Air Force - Helicopters

The Purple Legacy : Indian Air Force Helicopters in Service of the Nation by *Rajesh Isser*. New Delhi , Pentagon Press, 2012. 296p., Rs.795, ISBN 9788182746886

Indian Army

A Handbook of Military Conscription and Composition the World Over by *Rita J Simon and Mohamed Alaa Abdel-Moneim*. Lanham, Lexington Books, 2011. 224p., £39.95, ISBN 9780739167519

The Indian Army, 1939-47 : Experience and Development. Edited by *Alan Jeffreys and Patrick Rose*. Aldershot, Ashgate, 2012. 244p., £65.20, ISBN 9781409435532

Soljer Soljer by Mahip Chadha. Bloomington, Author House, 2011. 196p., Price NA, ISBN 9781467067386

International Relations

Foreign Policy and Strategic Issues : Think Tanks in US and South Asia by Rahat Hasan. New Delhi, New Century Publications, 2012. 195p., Rs.680, ISBN 9788177083194

Indo-Russian Relations 1917-1947 : Select Archives of the Former Soviet Union an Inventory. Edited by Purabi Roy, Sobhanlal Datta Gupta, Hari Vasudevan. Delhi, Shipra, 2012. 138p., Rs.550, ISBN 9788175416055

Post Soviet States : Two Decades of Transition & Transformation. Edited by Ajay Patnaik and Tulsiram. New Delhi, Knowledge World, 2012. 337p., Rs.880, ISBN 9789381904206

Indian Constitution

The Indian Constitution : Oxford India Short Introductions by Madhav Khosla. Delhi, Oxford University Press, 2012. 191p., Rs.195, ISBN 9780198075387

International Trade Relations

India and SouthEast Asia : Strategic Convergence in the Twenty First Century. Edited by T Nirmala Devi and Adluri Subramanyam Raju. Delhi, Manmohan, 2012. 361p., Rs.995, ISBN 9788173049521

Islam – Middle East

Islam and Peacemaking in the Middle East by Nathan C Funk and Abdul Aziz Said. New Delhi , Viva Books, 2010. 305p., Rs.995, ISBN 9788130912219

Israel – Politics and Government

The Oslo Idea : The Euphoria of Failure by Raphael Israeli. New Jersey, Transaction Publishers, 2012. 216p., \$34.95, ISBN 9781412846110

National Security – India

Under Fire : Dealing With Threats to India by Bharat Verma. New Delhi, Lancer International, 2013. 154p., Rs.395, ISBN 9781935501398

Pakistan

Frontline Pakistan : The Path to Catastrophe and the Killing of Benazir Bhutto by *Zahid Hussain*. London I B Tauris, 2010. 220p., Rs 350, ISBN 9781845118020

Pakistan : Beyond the Crisis State. Edited by *Maleeha Lodhi*. New Delhi, Rupa & Co, 2011. 391p., Rs.495, ISBN 9788129118714

Terrorism

After Abbottabad: Terror to Turmoil in Pakistan by *Bhat Anil*. New Delhi, Pentagon Press, 2012. 200p., Rs.795, ISBN 9788182746718

Kill or Capture : The War on Terror and the Soul of the Obama Presidency by *Daniel Klaidman*. Boston, Houghton Mifflin, 2012. 288p., \$ 28, ISBN 9780547547893

The Meadow : The Kashmir Kidnapping that Changed the Face of Modern Terrorism by *Adrian Levy and Cathy Scott-Clark*. New Delhi, Penguin Books India Pvt. Ltd. , 2012. 510p., Rs.499, ISBN 9780143418757

United States of America

Confront and Conceal : Obama's Secret Wars and Surprising Use of American Power by *David E Sanger*. New York, Crown, 2012. 476p., \$28, ISBN 9780307718020

War / Warfare

Beyond Guns and Steel : A War Termination Strategy by *Dominic J Dominic J*. New Delhi, Pentagon Press, 2012. 219p., Rs.995, ISBN 9788182746206

The CIA's Secret War in Tibet by *Kenneth Conboy and John Morrison*. Kansas, University Press of Kansas, 2002. 301p.,

Civilian Victims in War : A Political History by *Richard Shelly Hartigan*. London, Transaction, 2010. 173p., \$ 29.99, ISBN 9781412813389

For Free India : Indian Soldiers in Germany and Italy During the Second World War. Edited by *Aad Neeven*. Oosthuizen , Oskam-Neeven v.o.f., 2010. 455p., Rs.3528, ISBN 9789460190162

The Heights of Courage : A Tank Leader's War on the Golan by *Avigdor Kahalani*. New York, Praeger Publishers, 1944. 198p., Rs.1746, ISBN 9780275942694

Hybrid Warfare : Fighting Complex Opponents from the Ancient World to the Present. Edited by Williamson Murray and Peter R Mansoor. Cambridge, Cambridge University Press, 2012. 321p., \$29.99, ISBN 9781107643338

Soldaten : On Fighting, Killing and Dying, the Secret World War II Tapes of German POWs by Sonke Neitzel and Harald Welzer. London, Simon and Schuster, 2011. 437p., Rs.499, ISBN 9781471101038

Towards a Geopolitics of Hope. by William H. Thornton and Songok Han Thornton (New Delhi : Sage Publication, 2012), pp.. 259, Rs.750.00, ISBN 9788132109440

No Easy Day : The Only First-Hand Account of the Mission that Killed Osama Bin Laden by Mark Owen with Kevin Maurer. London, Michael Joseph(Penguin), 2012. 316p., Rs 499, ISBN 9780718177522

**Library Catalogue is available
on USI Website**

New Life Members

The following officers joined the Institution as Life Members during the period 01 Oct – 31 Dec 2012 :-

1.	LM/70309	Col Ajay Kumar Singh	AMC
2.	LM/70310	Rear Adm Sanjiv Kapoor,AVSM (Retd)	Exec
3.	LM/70311	Lt Col Sudhakar Tyagi	Arty
4.	LM/70312	Lt Arun Samant	EME
5.	LM/70313	Maj Kingshuk Ukil	Arty
6.	LM/70314	Capt Brij Bhushan Singh Jamwal,IN	Logistics
7.	LM/70315	Lt Gen Surrinder Kumar Jetley, PVSM,AVSM,SM (Retd)	CIH
8.	LM/70316	Capt Pradeep Kumar	18 Kumaon
9.	LM/70317	Lt Col Rajesh Sharma	Raj Rif
10.	LM/70318	Capt Ritesh Kumar Malhotra	89 Armd Regt
11.	LM/70319	Lt Col Sandesh S Amin	AOC
12.	LM/70320	Maj Bhaskar Rautela	Engrs
13.	LM/70321	Capt Rohit Kumar Mishra	Arty
14.	LM/70322	Maj Gaurav Kumar Singh	18 Bihar
15.	LM/70323	Brig C Mani	Sigs
16.	LM/70324	Lt Madhav Moorthy	6 Lancer
17.	LM/70325	Lt Ashish Minocha	Sigs
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OUR ACTIVITIES

Library and Reading Room

The library holds over 57,000 books, and journals, including some books of 17th, 18th and 19th centuries, on an astonishing variety of subjects. While the principal emphasis is on strategy and defence, there are a large number of works on different vistas of Indian life. There are memoirs, biographies, recollections, diaries, journals, manuscripts for scholars and researchers. The reading room is air-conditioned, spacious and well stocked in terms of current reading material. Library was automated in 2002.

Correspondence Courses

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

USI Journal

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

Centre for Strategic Studies and Simulation

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

scenarios, to evolve options for wider discussion and consideration.

USI Centre for UN Peacekeeping (CUNPK)

The Centre was established in 2000. It aims at organising workshops, seminars and training capsules for peace-keepers, observers and staff officers - both Indian and foreign. It also oversees the practical training of Indian contingents. It functions under a Board of Management headed by the Vice Chief of the Army Staff and works in close coordination with the Service Headquarters and the Ministries of External Affairs and Defence.

Centre for Armed Forces Historical Research (CAFHR)

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

Gold Medal Essay Competitions

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

Lectures, Discussions and Seminars

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

MacGregor Medal

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

MEMBERSHIP

All classes of membership except temporary membership and membership of Service Officers applying for Correspondence Courses being conducted by the USI, will be subject to approval by the Executive Committee. The following are ordinarily eligible to become members of the Institution, with full voting rights :-

- (a) Officers of the Armed Forces.
- (b) Class I Gazetted Officers of Group 'A' Central Services.
- (c) Any category mentioned in sub-para (a) and (b) above will be eligible even though retired or released from the Service.
- (d) Cadets from the NDA and Cadets from the Service Academies and Midshipmen.

For further particulars, please write to Director, USI of India, Rao Tula Ram Marg, (opposite Signals Enclave) Post Bag No 8, Vasant Vihar PO, New Delhi-110057