



# ***AIR POWER***

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## **AIR POWER**

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## EDITOR'S NOTE

A major transformation in the effectiveness of air power was witnessed during the First Gulf War in the early 1990s, a transformation that came to be known as the Revolution in Military Affairs (RMA). RMA manifested itself in varied military capabilities but the major beneficiary of RMA was air power. RMA came into public reckoning less than 25 years ago but since then, the advancements have been rapid, far more meaningful, and have cast into shade the euphoria of the early 1990s. Whereas RMA facilitated more effective prosecution of war, more recent advancements could well have altered the means of waging war, and, may be, even the very nature of war.

In the intervening years, major advances have been made in stealth, precision guidance, navigation, weapons, accuracy of weapon delivery, speed, reach, airborne radars, defensive systems, etc. Such advancements improved the effectiveness of air power but still represent only a heightened capability to perform the same tasks that much better. Far more important are the progress in space capability providing better net-centricity and situational awareness, and the maturing of Information Warfare (IW). Indeed, space and the cyber world have added two additional dimensions in warfare. Do these represent the real Revolution in Military Affairs?

Increasing use of space assets is at the heart of enhanced air power capability. Civilian use of space is also on the increase. Today, space is a \$300 billion industry and growing rapidly. Competition is also increasing and it will be foolhardy to assume that we can ensure peaceful use of space for all time. Militarily, our dependence on space is so great that maintaining one's own capability and degrading that of the adversary can yield war-winning benefits. Greater militarisation of space and the inevitable weaponisation of space is a foregone conclusion. Such activities will alter the way we prosecute wars and we must prepare for what the future holds. Will the first shots in a future war be fired in space?

The potency of cyber attacks is increasingly on display with significant results – the Stuxnet and Flash attacks are but examples. This form of war – and

it must rank as a war – is at a comparatively nascent stage. A large majority of nations is actively engaged in improving resilience from cyber attacks. The obvious corollary is that many countries are also improving their offensive capability in this field. Our reliance on computers, allied with communications in all walks of life, is so great that cyber attacks are bound to impact our commercial and military interests in a decidedly significant manner. What is worse is that such attacks have the great advantage of deniability. A point to ponder over is that even if the source can be ascertained, under what circumstances can a cyber attack be termed an act of war? Again, what do we need to do to deter such attacks and how do we signal our readiness to use offensive means at our disposal if we are targeted by a cyber attack? We must find answers. Most importantly, as cyber attacks could be used to undermine our command and control system, it is more than likely that a cyber attack will herald the start of a war. Thus, a future war could start not by hitting a target on the ground, at sea or in the air but in space and/or cyber sphere.

Two other issues merit attention. They are the phenomenal increase in the number and type of unmanned systems and the widely prevalent threat of terrorism. Unmanned systems, in their immense variety, comprise not merely another form of aircraft but have immeasurably improved air power capabilities and made possible tasks and missions that could not be undertaken earlier. The progress being made in this field is exciting and its impact on future wars can only become more significant. Similarly, the threat of terrorism is on the rise and combatting it has led to the inclusion of newer systems and methodologies.

One can only wonder what the future holds and what humanity will think of next to cause loss, death, and destruction. Undeniably, the spectrum of conflict has widened and different phases in the spectrum of war could occur simultaneously. Many newer tasks have been included in the military lexicon but the list remains incomplete. Readiness and preparedness is the name of the game and, in this respect, air power can, and must, take the lead.

Happy reading.



# CONFLICTS AND AEROSPACE POWER IN 21<sup>ST</sup> CENTURY

ADDRESS BY THE CHIEF OF THE AIR STAFF AT  
JUMBO MAJUMDAR SEMINAR,  
FEBRUARY 4, 2014

**ARUP RAHA**

## INTRODUCTION

Good Morning, Ladies and Gentlemen. My special greetings to the Director General, Centre for Air Power Studies (DG CAPS) Air Mshl Vinod Patney, former air chiefs and other distinguished guests present here. It is always an honour and a privilege to come to CAPS and interact with so many senior stalwarts of the Indian Air Force (IAF) as well as experts from the aerospace fraternity with exceptional domain knowledge. At the very outset, my compliments to CAPS for regularly organising such thought provoking seminars which involve many of our esteemed veterans, thus, ensuring that we continue to interact and benefit from their immense experience.

The 'Jumbo Majumdar Seminar', in addition to paying a grateful tribute to a true air force legend, is also reputed for deliberating on many air power issues of contemporary relevance. This year's topic "Conflict and Aerospace Power in the 21<sup>st</sup> Century" is highly relevant, especially as we are currently witnessing a significant process of evolution in the nature of conflicts as well as in the expanding capabilities of aerospace power.

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Air Chief Marshal **Arup Raha** PVSM, AVSM, VM, ADC, Chief of the Air Staff, addressing the Jumbo Majumdar Seminar.

### **ABOUT JUMBO MAJUMDAR**

Jumbo Majumdar was the IAF's first World War II hero and, in fact, the only IAF pilot to be decorated with a bar to the DFC. He was one of the pioneers of the IAF's operational experience as it was under his command as a young 28-year-old squadron commander of No. 1 Squadron, that the IAF operationally cut its teeth. Barely had his squadron of 12 Lysander Army Cooperation aircraft deployed at Tungoo in erstwhile Burma, when the Japanese bombers operating out of the occupied aerodrome at Mac Haungsaun in Thailand carried out a large force raid. Fortunately, all the Lysanders were well dispersed and there was no damage either to the men or the aircraft.

Notwithstanding the fact that Lysanders were basically reconnaissance aircraft, Jumbo Majumdar had made up his mind to reciprocate in equal measure to this Japanese provocation and he earnestly got on to the task of improvising the Lysander for the bombing role. A bomb rack was improvised and 2 x 250 lb bombs were fitted on it. So impressed were the New Zealanders deployed there with Jumbo Majumdar's courageous spirit that they sent their Buffalo aircraft as escorts. Jumbo Majumdar flew over dense forests and jungles of the intervening mountain ranges and struck the Japanese aircraft hangar and wireless station with deadly precision, causing extensive damage to the hangar and the aircraft. After such an audacious display of the 'never say die' spirit of the IAF, Jumbo Majumdar promptly declared that his squadron would henceforth also function as a bomber squadron.

### **INCREASING RELEVANCE OF AEROSPACE POWER**

Ladies and Gentlemen, the IAF is proud of such a legacy of visionary leadership, innovation and pioneering spirit and it is this inheritance which has helped us in weathering many of the past and present day transformational challenges. The IAF is in the midst of a comprehensive modernisation plan, which will enable us to acquire niche operational capabilities essential for handling our future national security contingencies.



History has proved that as conflicts continue to evolve, correspondingly we have also seen aerospace power rising up to each and every emerging challenge in equal measure. I firmly believe that the future will witness the continued preeminence of aerospace power as the primary instrument of choice for almost all operational contingencies. Aerospace power is only 110 years old and despite being the youngest of the three elements of military power, it provides immense relief/freedom from surface friction which is inherent in any army/naval operation. So while the 20<sup>th</sup> century belonged to air power, the 21<sup>st</sup> century certainly belongs to aerospace power.

The history of nations/world clearly highlights the fact that for a state to become a great power, it is imperative that it demonstrate mastery over the creation, deployment and use of military power towards achieving national objectives. And amongst the three Services, it will always be the air force which will afford prompt multiple response options to the political leadership in times of national security crises.

Recent conflicts have clearly demonstrated the resounding success of aerospace power because of its ability to simultaneously interface as well as influence land/sea operations. The relevance of aerospace power, in fact, has increased manifold over the years – it is like the ultimate weapon for assured victory in a conflict. And it is for this reason, therefore, that there is a clamour for an enhanced ‘air wing’ by the army and navy, as well as by the paramilitary forces. It is due to this realisation of the paramount importance of aerospace power that nations have treated their air forces as their best form of defence and deterrence.

## **OVERVIEW**

To this learned audience, I do not wish to talk about the positive attributes of employing aerospace power. Therefore, I will briefly touch upon the nature of conflicts as we see them and look at the evolution of aerospace power, particularly in our context. Then I will spend some time on tracing the future contours of the growth of aerospace power, where I will talk about some of the associated challenges. I will also put forward some

future propositions on the employment of air power – which may also be deliberated upon during the course of this seminar.

### **THE NATURE OF CONFLICT**

When we talk about conflicts, we find that very often, war and armed conflicts are treated as near synonymous terms. With the blurring of boundaries among peace, war, armed conflict, conflict and terrorism, the transition from one to another is increasingly becoming less and less well marked. Armed conflicts embrace a wide range of conflict situations in which the armed forces may be required to operate and may encompass the entire spectrum. The dimensions and character of any particular conflict would, however, depend on a variety of factors ranging from the degree of national interest involved; the nature and the extent of limitations imposed; the character of forces engaged as also the level of intensity; and the duration.

### **CONFLICTS IN THE 21<sup>ST</sup> CENTURY : THE CAUSES**

The 21<sup>st</sup> century geopolitical environment will continue to be characterised by constant changes and upheavals. Despite the existing unipolar world order, new power centres will continue to constantly emerge and these, in turn, will necessitate realignments. To my mind, there are several predisposing factors which will govern the changing nature of future conflicts.

- Firstly, there would be an ever increasing contest over the limited resources, be it energy, food or water.
- Secondly, notwithstanding the increased cooperation which is dictated by the nature of the globalisation process, there would still be certain conflict points arising out of comparative asymmetry amongst the stakeholders. This asymmetry would be based on economic strength and vulnerabilities, technological or scientific growth with mastery over critical technologies like metallurgy, engine-propulsion, space and cyber applications, Electronic Warfare (EW), nuclear, etc; and, more importantly, the differential in the capabilities of the defence forces of the stakeholders.

- Thirdly, there would be the ever present threat posed by the extremist non-state actors, quite similar to what we have been witnessing in our neighbourhood, resulting from perceived or real grievances.
- Fourthly, all future conflicts, be they inter-state or intra-state, are likely to involve ethnic, religious or cultural issues individually or in a combination of factors. In this respect, lack of economic growth or inadequate development of human resources, and deprivation and exploitation of economically weaker sections would result in social unrest, upheaval, insurgency and conflicts, into which the armed forces may get drawn, for maintaining law and order, peace and tranquillity.
- And lastly, cyber security or the cyber domain is the new dimension of conflicts between nations. Cyber war could cripple a nation's functioning and bring it to its knees without the use of arms or violence. So, with such an abundance of predisposing factors, it would be safe to assume that conflicts will continue to arise in the future.

#### **ROLE OF THE ARMED FORCES?**

The question, therefore, is that, given the present dynamic conflict environment, what will be the role of the armed forces? Although the probability of full scale mobilisation and total wars is diminishing, the armed forces will certainly need to remain prepared for addressing asymmetric conflicts and terrorist threats. With demarcations blurring, there will be a need to address each new conflict on its own specific merits. But despite these new demands, the armed forces would still be expected to meet the classic objectives which will include deterrence, coercion, denial, destruction and disruption. Hence, the armed forces need to continuously and proactively monitor the security environment and remain prepared to tackle the contingencies, as and when they arise.

#### **AEROSPACE POWER: ITS SUITABILITY IN THE PRESENT CONTEXT**

Amongst all the other elements of military power, aerospace power is perfectly suited to handle this dynamic requirement as its inherent flexibility allows it to capitalise on the often narrow response timeframes. Air and space

capabilities afford us the much needed political freedom of manoeuvre by enabling us to exert influence in a sustainable and easily scalable manner, while, at the same time, limiting our own political liability by reducing our footprint on the ground. This, Ladies and Gentlemen, to my mind is the primary attribute which will ensure the continued primacy of aerospace power amongst the range of available sovereign options. It is also my belief that it will be air power's ability to maximise its comparative advantage in the third and the fourth dimensions and to dominate the information space that will underwrite its future utility as a useful, credible, viable and essential tool in both the influence any nation can exert in international arena as well as the hard elements of national power.

#### **AEROSPACE POWER AND AFFORDABILITY**

Let me now address the commonly held perception that in the present era of austerity and ever tightening purses, aerospace power will be an expensive capability to maintain and this characteristic will, in turn, prevent its continued growth. Yes, the upfront cost of an aerial platform may be higher as compared to other combat elements, but this, when set against the value brought throughout its effective lifespan, certainly makes it a wiser option.

#### **FORCE STRUCTURE**

Ladies and Gentlemen, while addressing our modernisation requirements, when we deliberate on the right force structure, we need to understand our priorities clearly, so that we can wisely allocate our scarce resources. At the same time, it must also be understood that resource availability alone should not be allowed to dictate our force structure to such an extent that we lose the capability to dominate the air, as this would certainly prove to be much more costly in the long run. The force structure, thus, arrived at, therefore, must provide the best value for money. With the future being as unpredictable as it is – we need to remain prepared for a full spectrum response and, hence, the IAF needs to ensure that we build as much adaptability and multi-role capability into our force structure as possible. Our focus must rightly shift away to delivery of capability rather than individual platforms.

## **QUALITY**

Another important point about affordability concerns the question of quality. We must understand that the aspect of quality, especially in the realm of aerospace power, can never be compromised – not only in our equipment which has to be state-of-the-art but, most importantly, in our people and their training. Our training domain is an important Key Result Area (KRA) for us and we have instituted many long-term initiatives to streamline it even further.

## **IMPORTANCE OF INFORMATION WARFARE**

Information has for long been recognised as a key to warfare. Developing space and cyber warfare capabilities will require a well thought out and a time-bound implementation plan. The IAF will remain at the vanguard of development of India's space and cyber space, and, hence, it is best suited to steer the future exploitation of our joint capabilities. As an organisation, in addition to focussing on platforms and weapons, we also need to address the information domain as a key force multiplier.

## **EMPLOYMENT OF AEROSPACE POWER IN 21<sup>ST</sup> CENTURY : SOME FUTURE PROPOSITIONS**

In the end, let me now put forward some future propositions about aerospace power and its continued relevance in the 21<sup>st</sup> century. To all the air power enthusiasts present here, I can confidently say that despite the constraining resources, there is no need to unduly worry about the future growth of aerospace power. I do not foresee any future operational contingency where aerospace power will not be employed, be it for control of the air, situational awareness, advanced Intelligence, Surveillance, Reconnaissance (ISR) and precision strike capability or in other cases even for supporting any surface-based operation by providing tactical and strategic transport support.

My second proposition concerns the scenario often painted by some experts outside the aerospace fraternity that we are presently witnessing the last of manned aviation and here onwards, unmanned platforms would rule the skies. Let's assume for a moment that we fully automate the air transport

role as these are in any case being flown virtually autonomously for most part of their mission. The big question, of course, is regarding how many people would prefer to entrust their safety entirely to machines. Similarly, if we look at automating the combat platforms, we will need to be clear in our minds whether we are ready to devolve life and death decision-making authority entirely to machines. It will be wrong to take the human element totally out of the loop and rely only on data-links and satellites. Ladies and Gentlemen, it is precisely these factors which will ensure that manned aircraft will continue to operate for a very, very long time in the future.

So with this thought, I thank CAPS once again for this opportunity to share some of my views. I wish the participants of the seminar fruitful deliberations and the very best of wishes.

Jai Hind !

# STRATEGIC IMPERATIVES OF MILITARY NETWORKS: TOWARDS A CREDIBLE MILITARY CYBER POWER

**M.K. SHARMA**

## INTRODUCTION

In the industrial age, post World War II, the indicators of the military might of any nation state have been robust military infrastructure, superior technology in platforms, weapon systems and Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) backed by industrial vigour. Large scale infusion of the cyber element in military hardware has resulted in the development of relatively newer concepts such as Net-Centric Warfare (NCW). The Indian military forces aim to become NCW capable in the very near future with the Indian Air Force (IAF) leading the bandwagon. NCW enables application of C4ISR results in near real-time, thus, executing Effect-Based Operations (EBO) towards a decisive victory. The backbone to integrate all surface, air and space-based weapon platforms and sensors is the military network. One cannot imagine becoming NCW capable without ensuring a truly secure and robust network for integration of military assets. This is where the military networks come to centre-stage of cyber power building and enhancing the effectiveness of the armed forces.

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Wing Commander **M.K. Sharma** is a Research Fellow at the Centre for Air Power Studies, New Delhi.

The aim of this paper is to explore the strategic impact of military networks on military cyber power and how the Indian military Services should embrace military networks.

### **MILITARY CYBER POWER APPLICATION MATRIX**

The conceptual framework to understand the impact of military cyber power on its concept of operations (con-ops) and actual mission accomplishments would be to see the military domain of cyber space as a sub-set of the global cyber space that enables the military. There are mainly two broad but blurring categories of networks with different attributes. The first category is of *open networks*, essentially driven by connectivity, whose measure of performance revolves around information sharing, collaboration and situational awareness. It permits a relatively higher latency in information transmission as compared to the almost real-time requirements in a sensor-to-shooter engagement. In other words, the importance of shared knowledge gain is more than the speed of operation.

The second and more important category is of *closed secure networks* where integrity of information, assured delivery and speed are most important tenets. The Integrated Air Command and Control System (IACCS)<sup>11</sup> and Voice Communication and Control System (VCCS) of the Air Force Net (AFNET) are examples of such secured close networks.

However, a closer look at the characteristics of the real world networks such as the Internet or any enterprise wide area network such as the AFNET, Army Wide Area Network (AWAN) or Navy Enterprise Wide Area Network (NEWN), would reveal that the open network and close network concepts do not apply directly, consistently and reliably. While the open network (i.e. Internet or a telecommunication network) is used to support some secure transmissions, a close network (e.g. AFNET) would

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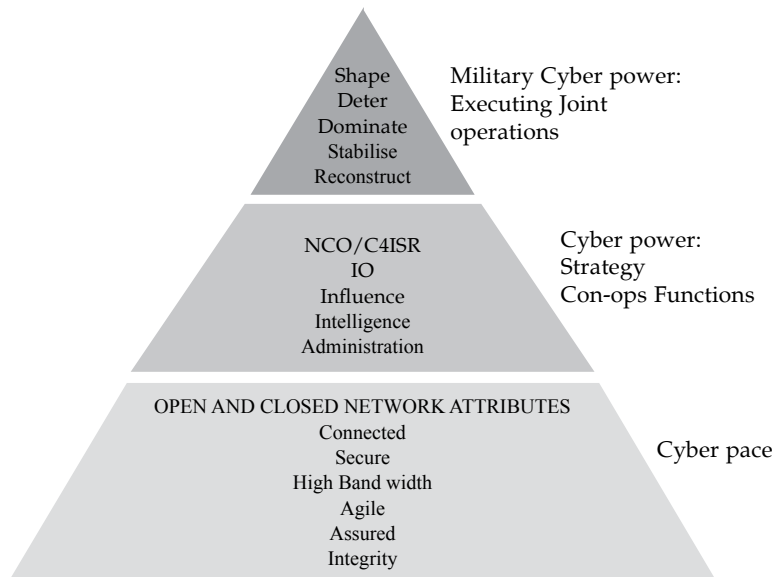
1. The Integrated Air Command and Control System (IACCS), an automated command and control system for Air Defence (AD) operations will ride the AFNET backbone, integrating all ground-based and airborne sensors, AD weapon systems and Command and Control (C2) nodes. Subsequent integration with other Service's networks and civil radars will provide an integrated air situation picture to operators to carry out the air defence role. "IAF's AFNET NCW Backbone Goes Live Next Week" <http://www.livefistdefence.com/2010/09/iafs-afnet-goes-live-next-week.html>, accessed on February 3, 2014.



allow a lot of mundane, unclassified administrative communication.

The application of military cyber power could be either as a force multiplier in support of the kinetic war or purely against an enemy within cyber space itself. Military cyber power could be conceptualised as a pyramid whose base represents the domain of cyber space including the two types of networks with their attributes (Fig 1). It would depend upon the appropriate fashion in which these networks are employed for a specific military mission that would result in either a hard power or a soft power effect on the adversary. At the next level, resides the military cyber power that is enabled by the cyber space. This includes not only the strategy, con-ops, Net-Centric Operations (NCO) and Information Operations (IO) but also the combat support operations such as administration, logistics, training, personnel, planning, etc. All military missions prosecuted at various levels of preparedness (from pre-hostilities to the reconstruction stage) involving the use of cyber power are represented by the top portion of the pyramid.

**Fig 1: Military Cyber Power in Support of Strategy, Con-ops and Functions**



Adapted from: Elihu Zimet and Charles L.Barry "Military Service Overview," *Cyber Power and National Security*, ch. 12, pp. 290.

**Information sharing enhances the quality of information and shared situational awareness that in effect enables collaboration and self-synchronisation, shortening the Observe, Orient, Decide Act (OODA) loop through increased speed of command, thus, dramatically improving mission effectiveness.**

### **APPLICATION OF CYBER POWER IN JOINT MILITARY OPERATIONS**

Planning and execution of joint operations is the key to success. This assumes more importance in the Low Intensity Conflict Operations (LICO) scenario where the armed forces may have to carry out punitive actions, peace-enforcement, peace-keeping operations and humanitarian assistance at the same time in different parts of the operation theatre. The role of cyber power to enable and synchronise hard power and soft power in support of such joint military operations include IO and NCO.

#### *Information Operations*

Electronic Warfare (EW), Psychological Operations (PSYOPS), military deception and

Computer Network Operation (CNO) all reside under the wide umbrella of IO. CNO by itself consists of specific functions such as Computer Network Attack (CNA), Computer Network Defence (CND) and Computer Network Exploitation (CNE). There are many associated functions that act as IO support operations, including physical security, physical attack, information assurance and counter-intelligence, etc. Also some soft military functions like public affairs, civil military operations or support of the military to public diplomacy are considered as related capabilities of a nation the for conduct of IO.

#### *Net-Centric Operations*

NCO is the enabling concept of military cyber power and the Indian military forces are poised to best utilise this growing facet of modern war-fighting by way of acquiring and developing systems to be more agile and adept. Information sharing enhances the quality of information and shared situational awareness that in effect enables collaboration and self -synchronisation, shortening the

Observe, Orient, Decide Act (OODA) loop through increased speed of command, thus, dramatically improving mission effectiveness. While both IO and NCO embrace the tenets of cyberpower, their taxonomies are quite different. While IO is characterised by functionalities and operations, NCO is defined as capability, and is more concerned with enhanced speed of operations, shared decision-making, and mission effectiveness.

#### *The Challenges – Inter-Service*

In execution of tri-Services joint operations, the application of cyber power raises some concerns on account of non-integrated technology platforms, stand-alone tailored view of NCW held by the air force, army and navy and variance in the Concept of Operations of the three Services. Let's take the technology non-integration issue. Broadly, non-integration exists at two levels: at the inter-Service level and intra-Service level. At the inter-Service level, the implementation of the backbone Information Technology (IT) infrastructure has not been done under a unified approach. The architecture of the enterprise wide area networks of the three Services has been developed in isolation, thus, may have variations in the Command and Control (C2) structure.

For instance, across the three Services the AFNET, NEWN and AWAN have been implemented as separate projects independent of each other. There have been a few Enterprise Resource Planning (ERP) implementations apart from messaging solutions within the Services with no common rules applicable across the Services. The navy was the first to implement a Commercially Off the Shelf (COTS) ERP for sailors and a home-grown ERP for General and Aviation Logistics. The air force has IMMOLS for logistics with no architectural similarity with the naval ERP on General and Aviation Logistics. The e-maintenance ERP for the air force is being implemented at a

**At the inter-Service level, the implementation of the backbone Information Technology (IT) infrastructure has not been done under a unified approach. The architecture of the enterprise wide area networks of the three Services has been developed in isolation.**

cost of \$55 million (approximately) and is aimed to connect critical aspects such as guided weapon systems, air defence radars, safety equipment, communication systems, armaments, mechanical transport of 170 bases, 550 units and 70,000 users to increase fleet availability to the optimum.<sup>2</sup> Absence of a unified approach while implementing such ERPs across the Services could prove to be the Achilles' heel as many common Air Defence (AD) radars, aircraft, missile systems, equipment and common spare parts are being used by the other Services whose availability, operational status, and logistics visibility would not be as transparent as desired for joint campaigns to take effect. Furthermore, the data format in which the required information is stored and transmitted may not be the same across the independent Intranets, making future "system-to-system talking" difficult. It demands more effort towards determining the technologies and procedures for common information sharing inter-Service.

### *The Challenges – Intra-Service*

Intra-Service concerns of cyber power application are of security of the classified information critical to the mission's success. This takes prominence in spite of the fact that there is a centralised control of the access to information in respective solutions through administrator groups because presently, the numbers of such centralised applications are but a few. Practically, maximum amount of information is generated on work stations through a combination of office utilities like a word processor or a spread sheet.<sup>3</sup> While there are a few office packages on operating systems like Linux, the majority of the users use Microsoft Windows and MS office. In such a yet to mature Information and Communication Technology (ICT) environment, security of information raises some concerns as mentioned below.<sup>4</sup>

- Data created on a daily basis on each Personal Computer (PC) over a period of time builds up the information inventory with no automated

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2. Sangeeta Saxena, "IAF Bases to Digitize Their Upkeep As Maintenance Command Turns 57", January 2011, <http://www.indiastrategic.in/topstories853.htm>

3. Commander Ashok Menon, "Electronic Document Handling in Armed Forces: Need for An Automated Approach", *USI Journal*, July- September 2012, pp. 432.

4. *Ibid.*, p. 434.

mechanism to know the nature of content stored in that machine.

- Due to lack of any form of automation, there is a lack of visibility of document-inventory holding of the units/directorates/establishments. This implies that there is nil visibility on the amount of classified information held on each PC across the organisation – in absolute terms. Therefore, when an IT asset is lost, the organisation is at a loss to quantify how much/ how sensitive classified information might be in the hands of the enemy.
- While there are encryption tools on individual machines for the purpose of concealing classified information locally, there is no automated established mechanism to ensure mandatory use of such tools. The only method is the provision of physical check on each machine. This leaves room for the confidential/secret/top secret documents lying unencrypted on the workstations.
- There exists a lacuna that a lot of critical and confidential data condensed in the form of Excel files or an important justification in the form of a noting sheet/note of action/memo stored in MS word to support strategic/tactical decision on deployment/acquisition of military equipment may be lying strewn on PCs across the organisation, in most cases unencrypted. The problem is further aggravated in the absence of an automated audit measurement tool to check the classified information held.
- With increased usage of Internet e-mail, it would not be wrong to assume that 'attachments' containing critical information are held in multiple work stations. This, apart from creating overheads in storage, more importantly, increases the risk of exposure due to leakage from multiple sources.<sup>5</sup>

### **PRAGMATIC UNDERSTANDING OF NET-CENTRIC WARFARE**

While the positive correlation between the use of ICT and the effectiveness of the NCW concept is established empirically, many network architect experts are cautious of possible failure modes such as congestion collapse

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5. "The Diverse and Exposing Digital Universe", IDC White Paper sponsored by EMC, March 2008.

or cascading failure. For instance, the US supported its 500,000 troops in Operation Desert Storm with 100 mbps bandwidth but in Operation Iraqi Freedom, the 350,000 war-fighters were supported by a huge 3,000 mbps satellite bandwidth. This provision of 30 times more bandwidth for a force 45 percent smaller, significantly improved the effectiveness of the platforms used. Essentially reiterating the primacy of good C4ISTAR (Command, Control, Communication, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance) systems for the success of a joint military operation. On the other hand, since the NCW focusses so much on distributed information, the armed forces must be wary of the effects of the dissemination of false information entering the system, be it through enemy deception or simple error.<sup>6</sup> While the timely correct information could be a great force multiplier, the entry of incorrect/ misleading data into a system can jeopardise the expected mission outcome. This only gets aggravated by the non-linear pace of developments of artificial intelligence and other technologies.

While it is desirable to network every platform, system to the last soldier, as reflected in some Western literature, a country like India is not likely to afford such expenditure in the very near future. Then what should be the second best option towards becoming NCW capable? We should have a canopy of networks with a secure facility for storage of data and we should be able to securely and reliably deliver the required information to any person authorised to receive it at any place, at any time.<sup>7</sup>

### **CHALLENGES TO ASCENDANCY OF MILITARY CYBER POWER**

Till the 1980s or so, the dependence of the Indian armed forces on civil infrastructure was restricted mainly to electrical power, railways and petroleum requirements. The requirement of weapons and communication systems would be met through the public sector. Other heavy military equipment like aircraft, tanks and ships was not embedded with intelligent systems though it was imported. Most of the military hardware comes with embedded electronic intelligence. Today, the Indian armed forces are sourcing a lot of their

6. Col R.K. Tyagi, *Understanding Cyber Warfare and its Implication for Indian Armed Forces* (New Delhi: Vij Books India, 2013), ch.11, p. 250.

7. Lt Gen Kochar, Chief (Sigs) at a seminar at USI on October 23, 2013.

requirements from private vendors, buying COTS equipment under various provisions of the Defence Procurement Procedure (DPP) 2013. For instance, under the 'Buy and Make (Indian)'<sup>8</sup> category of procurement, the private vendor in many cases may be just the front end of foreign manufacturers. The probability of embedding a malware by a foreign Original Equipment Manufacturer (OEM) at the behest of its government also becomes higher and easier as every weapon system or military equipment today has a 'cyber element' incorporated in it. This situation leaves India with the possibility of system disruption, and loss of command and control to exfiltration of sensitive classified information by other countries at the time of their choosing.

### **THREAT VECTORS IN MILITARY NETWORKS**

While the drive towards digitisation, automation and interoperability is the name of the game in all the three Services, cyber security is not a mutually exclusive domain. The formula for risk assessment states: risk = threat x vulnerability x consequences. Therefore, to reduce risk, the effort would have to be on reducing any of the three variables in order to resolve the threat vectors. A deeper look into what is happening on the ground would take us to the 'real threat vectors'. Fred Schreier has identified four main threat vectors to military networks : supply chain and vendor access, remote access, proximity access and insider access.<sup>9</sup>

#### *Supply Chain and Vendor Access*

Supply chain and vendor operations are very difficult to monitor.<sup>10</sup> In a

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8. Acquisitions covered under the 'Buy & Make (Indian)' decision would mean purchase from an Indian vendor (including an Indian company forming a joint venture/establishing production arrangement with the OEM), followed by licensed production/indigenous manufacture in the country. 'Buy & Make (Indian)' must have minimum 50 percent indigenous content on cost basis. This implies that indigenous content in the total of (i) Basic Cost of Equipment; (ii) Cost of Manufacturers' Recommended List of Spares; and (iii) Cost of Special Maintenance Tools and Special Test Equipment (reference parts 1(a), 1(c) and 1(d) of "Commercial Offer", Appendix G to Schedule I) must be at least 50 percent of the total contract value. In addition, such cases require minimum 30 percent indigenous Indian content in the first basic equipment made/assembled in India and in subsequent deliveries thereof, <http://www.slideshare.net/agcool/dpp-2013> accessed on February 8, 2014.

9. Fred Schreier, on cyber Warfare, DACF Horizon 2015 Working Paper No. 7.

10. Tyagi, n. 6, p. 238.

global supply chain, it is very easy an adversary to manipulate the hardware and software by exploiting increased vulnerabilities. There exist many entry points vulnerable to injection of dormant capabilities starting at the factory floor itself in spite of availability of best quality practices. The next stages of manipulation arise at service delivery, wholesaler, the retailer, during installation and commissioning, during repair and even during downloading firmware update or patch. More importantly, these entry points are not restricted to the global supply chain only; they are equally applicable to the domestic logistic process, to a compromised soldier or to a Pakistani Intelligence Operative (PIO). The Services cannot afford but to innovate and invent new methods to address these vulnerabilities.

#### *Remote Access*

Ubiquitous application of Intrusion Detection Systems/Intrusion Prevention Systems (IDS/IPS) and firewalls to prevent network intrusion or hacking has put this remote access vulnerability as one of the top priorities of the system administrators and Network Operation Centres (NOCs). This heightened visibility can be attributed to the generation of overwhelmingly high quantity of warnings by the IDS/IPS and firewalls, coupled with the subsequent requirement of scanning through logs. However, hacking or remote access by a malicious attachment may or may not be the worst of the problems. This is where the Services have to strategise the response efforts so as not to exclude other equally insidious threat vectors that are not as visible to the administrator as hacking or network intrusion.

#### *Proximity Access*

This threat vector can be exemplified by 'interception of wireless signals' or programmes like Suter, developed by the Big Safari unit of the US Air Force that can monitor, jam and manipulate the data in any computer controlled network wirelessly. The suite can be carried on an airborne platform to get proximity to the victim network.<sup>11</sup> Basically, it is the adversary's ability to

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11. [http://www.defencenow.com/news/675/pan-india-optical-fibre-cable-network-for-defence-forces-at-an-additional-cost-of-\\$13-billion.html](http://www.defencenow.com/news/675/pan-india-optical-fibre-cable-network-for-defence-forces-at-an-additional-cost-of-$13-billion.html) accessed on 23 Jan 14.



harm our cyber elements by being physically close to our systems without trespassing the defence premises. Though passive electronic communication monitoring, including phone tapping, is quite common, one of the most exploited liabilities in this regard is the wirelessly connected devices and access points. Terrorists use this vulnerability to their advantage very often. The advent of the Internet on mobiles with very low cyber security awareness is a boon to the terrorists /attackers. Even wireless key boards allow eavesdrops, broadcasting key strokes through the air, including, user id and passwords.

**Though passive electronic communication monitoring, including phone tapping, is quite common, one of the most exploited liabilities in this regard is the wirelessly connected devices and access points. Terrorists use this vulnerability to their advantage very often.**

### *Insider's Threat*

Intrusion prevention devices and firewalls are like a hard outer shell that does not allow unauthorised visitors inside the network, but the employees, business partners and contractors have a unique advantage of operating from inside our physical and digital space without being challenged. If these insiders decide to attack, the consequences would be far-reaching as they know where are our mission critical jewels are kept, where the security gaps are, which security policies have not been implemented and when a key network security staff member would be away on leave, etc.

### **NETWORK FOR SPECTRUM (NFS): THE STRATEGIC IMPERATIVES OF IMPLEMENTATION**

Military networks, unlike other commercial networks, assume strategic importance as they are tailored for a specific role to expedite decision-making with the highest security and reliability. Presently, the AFNET relies on the Bharat Sanchar Nigam Limited (BSNL) Optical Fibre Cables (OFC) network for transmission of information beyond the perimeters of the campus, thus,

**The challenges peculiar to a military network are many, including delays in implementation, lack of architectural framework, security of military networks, high availability of networks, and mindset.**

it is as vulnerable as the BSNL network. In order to reduce this dependence, the project 'Network For Spectrum' at the cost of INR 9,970 crore (US\$ 2 billion approximately) has been launched to provide a dedicated and secure pan-India OFC network for the army, air force and navy. Incidentally, this would be the world's largest Closed User Group (CUG) network. The move has its background in vacation of 150 MHz of total 300 MHz of defence communication to the Department of Telecommunication (DOT) for use by commercial 3G networks. The proposed

OFC network of over 60,000 km would provide connectivity to 129 army, 162 air force and 33 navy stations.<sup>12</sup>

While NFS would bolster the prerequisite of having an exclusive Intranet towards achieving end-to-end cyber security, the enormosity of the network also throws up many challenges, technical and organisational, for the three Services to surmount. The armed forces, being the owner, provider and operator of the Intranet, have to secure the applications, data, systems and the network, unlike the commercial cyber security approach that is more inclined towards application-based cyber security. Furthermore, the challenges peculiar to a military network are many, including delays in implementation, lack of architectural framework, security of military networks, high availability of networks, and mindset.

### *Delayed Implementation*

Moore's Law says that bandwidth requirement doubles every 18 months and the number of transistors that can be put on a chip doubles every two years. In such a scenario, unconscionable delays in implementation of ICT projects defeat the very purpose. The delay causes the old technology to get inducted in the Services at a higher cost and the maintenance of such

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12. [http://www.defencenow.com/news/675/pan-india-optical-fibre-cable-network-for-defence-forces-at-an-additional-cost-of-\\$13-billion.html](http://www.defencenow.com/news/675/pan-india-optical-fibre-cable-network-for-defence-forces-at-an-additional-cost-of-$13-billion.html) accessed on January 23, 2014..

obsolete technology also gets limited support from the market in terms of non-availability of spares and expertise. There is a requirement of refining the procurement procedures, especially for ICT projects. Besides many other contributing factors, the delay is also caused on account of not setting up realistic Qualitative Requirements (QRs). The idealistic approach may not always be to our advantage. Specialisation is another factor that influences the project delivery time lines. Defence networking is a specialised task and must be handled by specialists from start to finish. The posting of tenure-based Human Resource (HR) management would cause more strategic harm besides visible delays.

#### *Lack of Architectural Framework*

The lack of a common architectural framework for all three defence Services will create incomprehensible complexities. Absence of the framework would make interoperability amongst the systems and platforms across the Services a difficult task. We need to have a common database definition, interface definition, standards' definition so as to create a universally compatible cohesive cyber eco-system. Wisdom lies in adopting the most widely used architectural framework called Department of Defence Architectural Framework (DoDAF) to suit our specific requirements. DoDAF Version 2.02 was released in August 2010 and is currently in use.<sup>13</sup> Many nations across the globe are using this open source architecture to their advantage.

#### *Security of Military Networks*

Military networks remain high value targets during both peace and war for obvious reasons. The air-gapped defence Intranets are not as secure as they were thought to be. The attack patterns are not limited to trojans/viruses/worms/logic bombs/phishing/spoofing/DDOS/PDOS, etc; the long-term organisational endeavours in the form of Advanced Persistent Threat (APT) could bring down almost any military network. For instance, the Stuxnet was used to infect computers known as the 'Industrial Control Systems' (ICS) used to programme and control the 'Programmable Logic Controller'

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13. <http://dodcio.defense.gov/dodaf20.aspx>

(PLC) devices which, in turn, controlled the frequency converter drives that ran the centrifuges at Natanz, Iran, for enriching uranium.<sup>14</sup> The assigned target for Stuxnet was the Windows machine that was running the Step 7 software used to control PLCs manufactured by Siemens Corporation. To make it more precise, the PLCs needed to be a Siemens model 6ES7-315-2 controlling at least 33 frequency converter drives, manufactured by Fararo Paya in Tehran or by Vacon in Finland, running between 807 and 1,210 Hz.<sup>15</sup> This kind of lethality and precision was not seen in earlier versions of cyber weapons on the networks that are physically, electrically and electromagnetically isolated.

Also programmes like Suter<sup>16</sup>, developed by the USAF unit 'Big Safari' can be put on an airborne platform and can penetrate a network wirelessly to not only monitor but also jam and manipulate the data. These pose another threat to securing military networks. Therefore, it is not enough to put Bulk Encryption Units (BEUs) and to 'air gap' the military networks to ensure security. Furthermore, the issues of security vs. convenience tradeoffs and standard vs. proprietary decisions would have to be weighed strategically. The approach to the security of a military network should be integrated and layered. The integration would have to be at least at two levels: the inter-Services network integration and the integration of tactical and strategic networks intra-Service. The security would have to be ensured not only at application level but at all the layers of the network, including physical, data link, transport and routing in order to provide sufficient defence in depth.

### *High Availability of Networks*

The dependence of military operations demands a very high availability of the network. The concept of six 9s (i.e. 99.9999 percent availability of

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14. "W32.Stuxnet Dossier", Symantec, ver. 1.4, 2011, <[http://securityresponse.symantec.com/en/id/content/en/us/enterprise/media/security\\_response/whitepapers/w32\\_stuxnet\\_dossier.pdf](http://securityresponse.symantec.com/en/id/content/en/us/enterprise/media/security_response/whitepapers/w32_stuxnet_dossier.pdf)>.

15. "W32.Stuxnet Dossier", Symantec, ver. 1.4, 2011, <[http://securityresponse.symantec.com/en/id/content/en/us/enterprise/media/security\\_response/whitepapers/w32\\_stuxnet\\_dossier.pdf](http://securityresponse.symantec.com/en/id/content/en/us/enterprise/media/security_response/whitepapers/w32_stuxnet_dossier.pdf)>; and Dale G. Peterson, "Langner's Stuxnet Deep Dive S4 Video", Digital Bond, January 31, 2012, <[www.digitalbond.com/2012/01/31/langners-stuxnet-deep-dive-s4-video/](http://www.digitalbond.com/2012/01/31/langners-stuxnet-deep-dive-s4-video/)>.

16. <http://www.airforce-technology.com/features/feature1625/feature1625-3.html>

network) when translated on the ground means that a system should not be switched off for more than 30 minutes (including the off time for maintenance and breakdowns) during the whole year to achieve such a level of availability. Such requirements obviously place a high demand on resources like the standby power supplies, redundant systems and alternate buildings that is not feasible for every type of information that travels on the net. Therefore, the six 9s level of availability should be applied to all mission critical information systems and gradually the other mission non-critical information systems may be brought on board as the networks evolve and the economy of the country allows.<sup>17</sup>

There are two immediate and practical challenges to attaining six 9s availability: one is of the estimation tools and the other is of Service Level Agreements (SLAs) with third parties. The estimation of network availability requires specialised studies in risk mapping and system failure probability analysis that require software tools for automated monitoring of the networks over a period of time to ensure accuracy and reliability of the results. The SLAs require to factor-in the expected refusal of a civilian vendor to carry out repair/maintenance in the theatre of operations, therefore, development of in-house technical HR expertise to build self-reliance in terms of operating the network independently should take priority. Further, there are other challenges such as mobility, scalability, adaptability, etc that require inter-Service pragmatic understanding.

### *Mindset*

While the technology pulls the organisation towards a flatter structure, the existing military set-up has always been hierarchical and would continue to be so. Therefore, the greater challenge for the leadership would be to maintain organisational hierarchy in a technically networked environment in order to get the best of both worlds. Furthermore, it is observed that automation tools are available to provide remote access, monitoring, authentication and paperless operations but we still find every PC having an operator sitting in front, physical teams visiting for IT audits and duplication through printing.

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17. Lt Col Xavier, presentation at USI on October 23, 2013.

**Ideally, we should have a proprietary network with our own standards and protocols for transmission of information but the question is whether that is a viable option?**

The adage that technology provides a lean and mean force seems an elusive phenomenon. Till such time that mindsets change, the advantages that technology provides cannot be leveraged fully. As BH Liddell Hart puts it, *"The only thing harder than getting a new idea in the military mind is getting the old one out."*

In order to embrace the current threat environment, the Indian armed forces would have to revamp their mindset that would drive HR policy, recruitment, training, postings, promotions and allocation of resources to achieve the attraction and retention of the best talent pool in the cyber domain. Without trained men/women behind the machine, the armed forces cannot exploit the capabilities of the network. Inclusion of cyber warfare in the curriculum of all training institutes including the *ab-initio* training schools of all air warriors/soldiers/sailors and the most elite warfare institutes of the Services is necessary for changing the existing mindset of considering a VOIP phone or computer as a communication tool, to a new mindset of regarding them as targets and weapons. Presently, all premier officers training institutes provide advanced training in domain specific forms of combat to a handful selected lot of officers.

Military leaders need to understand the uniqueness of end-to-end cyber security requirements of defence Intranets as against what the vendors propose according to their business convenience. The commercial communication has its evolution as 1G technology in the 1980s, 2G technology in the year 2000, and, presently, while India is taking advantage of 3G technology for spectral efficiency, the developed world is working on 4G LTE (fourth generation long-term evolution) and 4G LTE advanced to provide the customer with a more flexible environment. The militaries have also sojourned through their evolution from the concept of Revolution in Military Affairs (RMA) in the 1980s that aimed at digitising the battle space, to network enabled operations that relied on the availability of a common operating picture

in the form of information in the 1990s to battlefield command knowledge systems in the form of Net-Centric Warfare (NCW). The parallel drawn here is only analogous as militaries have moved through the concept of war-fighting based on the availability of data, information and knowledge unlike the specific 'generation of technology' in the case of commercial communication.

#### *Strategic vs Tactical*

The strategic networks would be more like the commercial networks in architecture with additional redundancies. However, the tactical networks are required for the conduct of actual operations and training exercises by seamlessly connecting the last weapon system/ platform/soldier to the strategic network, the nodes of which are generally on peace-time static locations. Thus, the tactical networks demand different tenets, including mobility, portability, wireless connectivity, authenticity and reliability. How the last man/weapon system is able to trans-receive all the features like voice, messaging, intelligence or Global Information System (GIS) across the Services is the issue of technical interoperability that needs to be addressed. This is where a need is felt for a debate on whether to have a proprietary network or a standard network.

#### *Standard vs Proprietary Network*

Ideally, we should have a proprietary network with our own standards and protocols for transmission of information but the question is whether that is a viable option? Does India have the capability of doing so? The problem with this approach is at least three-fold: firstly, the cost involved in Research and Development (R&D) and implementation of such hardware and software would be prohibitive. Secondly, we will not be able to take

**At the policy and strategy levels, the call on whether and how the cyber power could be employed would have to be taken by the Ministry of Defence (MoD). The time is propitious for the political leadership to debate on the issues of human rights, freedom of speech over national security interests against the background of growing cyber threats.**

advantage of fast paced advancements in technology in the commercial world for spectral efficiency. And, finally, there would be continuous difficulty faced in maintaining, finding the manufacturer, and creation of updates for newfound vulnerabilities. On the other hand, the available standard network architectures do not have any of these demerits, including the cost factor. However, the security requirements of the tactical network demand a proprietary framework, therefore, the defence forces should adopt the standard framework and remain adept for specific requirements of defence by carrying out 'IT Asset Segregation'.

While the militaries, in their own way, are preparing for building India's cyber power by making robust their expanding network resources and employing other cyber defences for National Critical Infrastructure (NCI) protection, their contribution would only be seen at the operational and tactical levels. At the policy and strategy levels, the call on whether and how the cyber power could be employed would have to be taken by the Ministry of Defence (MoD). The time is propitious for the political leadership to debate on the issues of human rights, freedom of speech over national security interests against the background of growing cyber threats. As India moves forward to create its Cyber Command, the issues of the role and responsibility definitions of the different concerned departments e.g. the National Technical Research Organisation (NTRO) and the defence Services during both peace and war, are crucial to the success of future cyber operations. If the ultimate onus of waging kinetic war (when called upon to do so by the political leadership) and its outcome is on the defence Services, then it is only logical that they are provided the inputs through an institutionalised mechanism of information sharing rather than vice-versa. The MoD has to focus its attention on addressing these issues at the strategic level where capabilities can have the most profound effects.<sup>18</sup> There has been some serious effort in this direction, notably the release of three policy documents by the government: Crisis Management Plan for Countering

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18. Somnath Mitra, 'Cyber Defence for Defence 2.0' Centre for Land Warfare Studies Article no. 2545, January 30, 2014. <http://www.claws.in/Cyber-Defense-for-Defense-2.0-Somnath-Mitra.html>



Cyber Attacks and Cyber Terrorism (March 2012), National Critical Information Infrastructure Protection NCIIPC (June 2013) and National Cyber Security Policy (July 2013). The military Services, on the other hand, are giving serious consideration to employment of offensive cyber power in support of their traditional operational and tactical roles. However, it is opined that the present policy, procedures and tools are not sufficiently robust to qualify for delegation of an outright offensive cyber authority beyond a very narrow scope.

National cyber power development is now a security imperative. There could be several approaches to legitimise, permit and authorise, the offensive use of cyber power against the targets deemed compliant with the Law of Armed Conflict. As a first step, the MoD, after defining the desired effects, could develop a plan for the defence forces to carry out cyber war experiments and exercises on a 'Cyber Weapons Testing Range' so developed, to explore the operational and tactical effectiveness of our cyber capabilities. This is not to suggest that the decision on offensive use of cyber power be made in haste, rather to get a realistic insight for both the policy-makers and defence forces in a 'top directed-bottom executed' approach to guide future employment of cyber tools. In a similar effort, for instance, the US has created Offensive Cyber Effects Operations (OCEO) and Defensive Cyber Effects Operations (DCEO) under the President's Policy Directive-20 that is set to authorise targets for cyber offensives, outside the geographic boundaries of the US.<sup>19</sup>

### **SOME RECOMMENDATIONS**

The government's initiative for creating a tri-Services Cyber Command is a step in the right direction towards building defensive and offensive cyber warfare capabilities that could be employed at the operational and tactical levels. This is also in consonance with the recommendations of two independent study reports by the Institute for Defence Studies and Analyses

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19. <http://www.globalresearch.ca/obamas-cyberwarfare-first-strike-using-offensive-cyber-effects-operations-oceo-to-destabilize-countries/5338457> <https://www.fas.org/irp/offdocs/ppd/ppd-20.pdf>

(IDSA)<sup>20</sup> and Data Security Council of India (DSCI).<sup>21</sup> The defence Services have to embrace ICT induced challenges by institutionally accommodating the growing training and educational needs specific to the cyber domain. Towards this, the steps would include induction of a dedicated cyber cadre at both Other Ranks (OR) and officer levels. Establishment of 'centres for cyber security' as a faculty at every training centre in all three Services that would impart essential *ab-initio* training on cyber security to all the recruits, would facilitate inclusion of cyber warfare awareness in military training. Also, establishment of a separate vertical as a School of Cyber Warfare Studies (SCWS) in the upcoming Indian National Defence University (INDU), with dedicated faculty at every institute [such as the National Defence College (NDC), College of Defence Management (CDM) and Defence Services Staff College (DSSC)] under it. This would go a long way in nurturing specialised cyber skills and developing a career path for such officers. SCWS at INDU would act as an incubator for embracing diverse thought processes and inter-Service cyber resource collaboration in military-like controlled and directed environments.

There is a justifiable case for raising exclusive cyber warfare units (as part of the Cyber Command) in various arms of the military Services. Such initiatives would require a more innovative talent management approach than the existing ones in order to attract the best talent and keep the HR environment apt for continued exploitation of their skills. Their terms of engagement, retention policies, expected work behaviour and incentives could be at variance with regulars. Specific areas that would be dealt with include encryption and cryptanalysis to build lawful interception capability, testing labs for accreditation of ICT products to mitigate risk arising from procurement of ICT products from foreign OEMs, cyber forensic and cyber crime investigation to build capacity of Law Enforcement Agencies (LEAs), Intrusion Detection Systems/Intrusion Prevention Systems (IDS/IPS), cyber surveillance and reconnaissance systems, cyber security research to cater for

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20. [http://www.idsa.in/system/files/book\\_indiacybersecurity.pdf](http://www.idsa.in/system/files/book_indiacybersecurity.pdf)

21. Comments on the 'Triad Of Policies To Drive A National Agenda For ICTE' <http://www.dsci.in/sites/default/files/DSCI%20comments%20on%20TRIAD%20OF%20POLICIES%20TO%20DRIVE%20A%20NATIONAL%20AGENDA%20FOR%20ICTE%20v2.pdf>

future NCI protection requirements and aspects of physical security of military networks.

## CONCLUSION

Development of military cyber power is but an extension of the impact of cyber space on all elements of traditional national power. While cyber power has empowered militaries with NCW capability and precision weapons to a decisive advantage in the theatre of operations, the entities indulging in irregular warfare too have been empowered by the same cyber power. In fact, they have the potential of disrupting the NCI of any reasonably ICT dependent country like India. Cyber space is steadily becoming a pillar of our NCI. While the armed forces may own and command their tanks, missiles, ships, submarines and aircraft, they, nevertheless, have a limited share of ownership and command over Optical Fibre Cables (OFC), servers and satellites that run the information super highways.

As India prepares to protect its NCI, the government's cyber policy and cyber strategy initiatives in the last two years have been noteworthy, exhibiting national resolve to protect its NCI. The onus on the military Services to develop cyber power in its three dimensions—computer network defence, computer network attack and computer network exploitation—is but imperative. The military is also getting its much needed cyber resources in terms of a huge network infrastructure and other resources. Implementation of such a network demands strategic planning and due diligence in execution from the military leadership. Such efforts would have far-reaching consequences on the outcome at both operations and tactical levels in the future.

Despite the evidence of cyber weapons like the Stuxnet (or Duqu, Flame, Mediyas, etc) demonstrating the capability of entering the adversary's physical space and sort of legitimising the use of cyber weapons as a nation state activity, many still wish to relegate cyber warfare as just an irritant, on the pretext of its incapability of causing physical harm. Perhaps nothing could better describe such a mindset for dealing with the growing threat of cyber warfare than the old British Army adage "Proper Planning and Preparation Prevents Poor Piss Performance" (or the 7 Ps).



# DETERRENCE AND DISSUASION

ASHISH SINGH

## INTRODUCTION

Deterrence and dissuasion are terms used by academics as well as military strategists. This article is an attempt to throw light on what the international strategic community understands by these terms. It traces their origins, explains the basic theory, comments on their characteristics as well as limitations, shows how they have been used, and tries to emphasise on the relationship between the two. Deterrence emerges as a more restrictive strategy, while dissuasion is more nuanced, with many more lines of action. Deterrence studies have a lot of history to draw on, while dissuasion is new. I will first write about deterrence, followed by dissuasion, elucidating with examples, emphasising on their differences.

## DETERRENCE

Deterrence has different connotations when used as a generic concept, than when used as a military theory. Deterrence as a concept has been often historically used whether in diplomacy, interpersonal relations, or even by animals. It finds academic mention in the writings of international relations theorists like Bentham and the father of Realism, Hobbes. It regained prominence as a theory after 1959, when Bernard Brodie expounded upon it in relation to the nuclear strategy of the Cold War, offering it as

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**Whereas earlier, coercive diplomacy promised the threat of hurt to a population after a military victory, with nuclear weapons, victory is no longer a prerequisite for hurting the enemy. This ability to hurt without victory was at the heart of the deterrence strategy of the nuclear era.**

an alternative to massive retaliation.<sup>1</sup> Other theorists also expanded the theoretical debate, foremost being Thomas C. Schelling.<sup>2</sup> Schelling explained how the nature of war had been radically altered by nuclear weapons. Whereas earlier, coercive diplomacy promised the threat of hurt to a population after a military victory, with nuclear weapons, *victory is no longer a prerequisite for hurting the enemy*. This ability to *hurt without victory* was at the heart of the deterrence strategy of the nuclear era. The same logic applies to the use of air power over other forms of force application towards coercive diplomacy. Since landed armies need victory before promising hurt, and air power does not, air power also emerges as a preferred tool of deterrence. Deterrence is now, thus, an accepted strategy for nuclear as well as conventional conflict.

In simple terms, deterrence is the use of threats by one party to another party to **refrain** from initiating some course of action.<sup>3</sup> Patrick Morgan narrowed its scope to say it is “the threat of military retaliation to forestall military action.”<sup>4</sup> It is a “form of preventive influence that rests primarily on negative incentives.”<sup>5</sup>

Deterrence has four defining characteristics. Being a theory based on microeconomic decision-making, it assumes that both states behave as rational actors. Rationality implies economic evaluation of cost and benefit, where economics predicts a rational actor, making value maximising choices.

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1. Bernard Brodie, *Strategy in the Missile Age* (1959; reprint, Santa Monica CA: RAND Corporation, 2007), pp.264-304.
  2. Thomas C. Schelling, *Arms and Influence*, (1966; reprint, New Haven: Yale University Press, 2008), and *The Strategy of Conflict* (Cambridge: Harvard University Press, 1980).
  3. P. K. Huth, , “Deterrence and International Conflict: Empirical Findings and Theoretical Debate”, *Annual Review of Political Science* 2, 1999, pp. 25-48, as cited in [http://en.wikipedia.org/wiki/Deterrence\\_theory](http://en.wikipedia.org/wiki/Deterrence_theory), accessed on July 7, 2013.
  4. T. V. Paul et al, *Complex Deterrence – Strategy in The Global Age* (Chicago: University of Chicago Press, 2009), p. 35.
  5. *Ibid.*, p. 37.

First, deterrence emphasises on potential **costs** or negative inducements alone, and not benefits. Second, to succeed, the deterrer must possess adequate **capability** to carry through his threat. Third, it should be able to **communicate** this threat to the opponent, and last, the threat must be **credible**.<sup>6</sup>

The credibility depends on both **military capability**, as well as **believed resolve** by the enemy that the deterrer will act. The believed resolve itself depends to a great extent on past history, especially display of 'costly behaviour'. Costly behaviour, like, say, military action, shows the demonstrated resolve. For example,

China has repeatedly demonstrated resolve to act militarily over territorial claims, whether in Tibet, the Indo-China War, or, lately, in the show of force over Diaoyu Islands. These actions define sensitivity to thresholds in the adversary's minds and affect the deterrence calculus of the adversary.

The need to have military capability to effectively deter drives nations that have adopted deterrence as an articulated strategy, to arm themselves. The superpower nuclear arms race was a classic example. This propensity is explained by the classic balance of power theory argument. Kenneth Waltz, a leading international relations scholar, explains how nations try to maximise power for security in two ways: internal or external efforts. In the military domain, internal efforts are through increase in military strength. The other option, external efforts, is alliance-based, either strengthening own alliances, or weakening opposing ones.<sup>7</sup> Thus, if deterrence becomes an articulated strategy, it leaves a country which does not want to get bound

**The credibility depends on both military capability, as well as believed resolve by the enemy that the deterrer will act. The believed resolve itself depends to a great extent on past history, especially display of 'costly behaviour'.**

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6. Ibid., p. 2. I have used the rational actor model in the entire article when referring to countries' actions. This is a simplification used for ease of analysis as well as representation. In reality, an action/ decision taken by 'India' is a result of many forces / individuals/ stakeholders, played out in a fluid environment which influences outcomes.

7. Kenneth N. Waltz, *Theory of International Politics* (New York: Waveland Pr Inc, 2010), p. 118. However, even alliance-based deterrence can be equated with 'extended deterrence', where the force of a great power is used as the potential threat. The problem here is that 'credibility' weakens, in the case of extended deterrence, the onus of proving credibility falling on the great power.

by military alliances, and has enemies, no choice but to continue arming itself to achieve credible deterrence, nuclear or conventional.

Deterrence is actually a sub-set of coercion strategies. Coercion is of two types: compellence, forcing someone to do something particular or desist from doing something already started; and deterrence, preventing someone from doing something.<sup>8</sup> Compellence involves both the threat of use of force or the actual use of force, while deterrence only uses the threat of force. Compellence leaves the compelled with no choice, and so is more difficult, while deterrence tries to make the enemy avoid one particular path, amongst the many he has. However, both can work through similar ways.

How do you deter? Air power theorist Robert Pape, while talking about coercion through air power says that coercion (since deterrence is a sub-set of coercion, this applies to deterrence as well) works mainly through two distinct ways: **punishment strategies** and **denial strategies**.<sup>9</sup> Punishment implies the threat of hurting the other state, often translating to hurting the population. Denial implies the threat of denying the enemy his objective. It often translates to denying the military objective. It helps to cognitively separate nuclear deterrence from conventional deterrence.

### *Nuclear and Conventional Deterrence*

In the nuclear context, counter-value targeting is a punishment strategy, while counter-force targeting is a denial strategy. In the current context, the recently articulated massive retaliation response nuclear strategy of India seems to indicate a counter-value targeting of the entire state of Pakistan – a punishment strategy for deterring any use of nuclear weapons.<sup>10</sup> Half

8. Schelling, n.2, pp. 70-72.

9. Robert A. Pape, *Bombing to Win – Air Power and Coercion in War* (USA: Cornell University Press, 1996), p. 13. Other writers have reiterated the same two strategies for deterrence. Glenn H. Snyder, *Deterrence and Defense* (Princeton: Princeton University Press, 1961), was the first one to suggest these. Also, T.V. Paul, et. al., eds., *Complex Deterrence : Strategy in a Global Age* (Chicago : University of Chicago Press, 2009). Pape also argues that the best instrument for coercion is air power, rather than land or sea power.

10. Indrani Bagchi, "Strike by Even a Midget Nuke will Invite Massive Response, India Warns Pak," *The Times of India*, April 30, 2013), at [http://articles.timesofindia.indiatimes.com/2013-04-30/india/38928972\\_1\\_pakistan-shyam-saran-india](http://articles.timesofindia.indiatimes.com/2013-04-30/india/38928972_1_pakistan-shyam-saran-india), accessed on May 2, 2013. Statement by Shyam Saran, convener, National Security Advisory Board.



a century ago, the US' European strategy of counter-force targeting of the USSR's forces was partly because despite having accepted the responsibility to protect Berlin, "the Western position could not be maintained with conventional weapons in a straightforward fight."<sup>11</sup> Nuclear weapons seemed the easiest denial strategy weapons against the conventionally stronger USSR's land offensive.

Conventional deterrence differs from nuclear deterrence in its effectiveness. Deterrence as a concept underwent much study because of the Cold War. Thus, when the current generation thinks of deterrence, it is unconsciously influenced by the cognitive baggage of the nuclear era. The logic of mutually assured destruction was a logic of mutually assured deterrence, to deter nuclear war. Pape has consciously separated nuclear coercion from conventional coercion. What works for nuclear deterrence may not work for conventional deterrence. While the threat of punishment works in a nuclear scenario due to the destructiveness of nuclear weapons, it fails in the conventional scenario due to the small damage caused by conventional weapons vis-a-vis resilience of the populations and states. Punitive bombing does not work, unless it is nuclear. During World War II, all the fire-bombing of Japan did not reduce resistance, but two atomic weapons broke its collective will. However, nuclear and conventional deterrence have one thing in common – the air medium is most often used for the threatened application of force.

Continuing with regard to coercion through conventional air power, Pape also adds **risk** and **decapitation** strategies to the former two, and also asserts that they are not very effective, maintaining that the denial strategy is the best form of coercion in **conventional** warfare. Risk strategies involve manipulation or escalation of risk, "raising the probability of suffering costs... slowly raises the probability of civilian damage."<sup>12</sup> Decapitation works on targeting the key command control, and communication capabilities – the classic C3. Pape shows

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11. Lawrence Freedman, *The Evolution of Nuclear Strategy* (Hampshire: Palgrave Macmillan, 2003), p.229. However, the trouble with the counter-force strategy is that it is easily associated with first use, as the USSR interpreted in the case of Berlin.

12. Pape, n.9, p. 18. He argues that in nuclear coercion, risk works better than denial. Thomas C Schelling is the one who articulated manipulation of risk of punishment as a workable nuclear era strategy.

how the denial strategy through air power works best when it aims to nullify the military objectives of the enemy through the roles of interdiction of target systems and counter-surface force operations, especially in short wars. Even here, he leans towards the latter, the destruction of enemy forces, the same objective Clausewitz holds paramount. Its best recent example is Gulf War 1, where Instant Thunder in the first six days was not decisive but contributory. "...depleting frontline infantry divisions, and destroying a large amount of equipment in place, theater air power unhinged Iraqi military strategy."<sup>13</sup> Pape tries to prove by historical examples that pure punishment strategies (like Douhet's used in World War II to bomb population centres), risk strategies (manipulation of risk through gradually escalating punishment of the enemy, as propounded by Schelling), and decapitation strategies (as was tried against Saddam Hussein during Gulf War I), are not very effective options for air power deterrence strategies in **conventional** warfare. If we believe his logic, the best conventional air power strategy, denial of enemy objectives, means that with a reactive stance of deterrence, *own strategy employed to deter depends on the enemy strategy*. While what applies to coercion also applies to deterrence, the reverse may not be true.

Nuclear deterrence is often a strategy of the weak.<sup>14</sup> This is because the weaker force knows it cannot win the war, but both sides know that with nuclear weapons, the weak state can inflict unacceptable damage. The damage is unacceptable because of the immense power of nuclear weapons and the speed at which they can be used. As Schelling said, victory over enemy forces is no longer needed to inflict punishment on the other side, a prerequisite before the advent of both nuclear and air power. Recent examples support this generalisation of nuclear deterrence being an apt strategy for the weaker side. As per one analyst, in order to avoid nuclear confrontation, a stronger India has shown restraint vis-a-vis a weaker Pakistan on four occasions : 1986, 1990, 1999, and 2001-2002.<sup>15</sup> In 1999,

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13. Ibid., p. 58.

14. Brodie, n.1, p.275.

15. Sunil Dasgupta, "How Will India Respond to Civil War in Pakistan?", *Strategic Analysis*, vol. 37, no. 4, July August 2013, pp.388, 401. He attributes this to deterrence as well as the Indian culture of strategic restraint.

it was a miscalculation of the effectiveness of nuclear deterrence which emboldened the conventionally weaker Pakistan to attempt a misadventure in Kargil.<sup>16</sup> North Korea has deterred the US from initiating offensive action, something Iraq and Libya failed to achieve, because they lacked nuclear weapons. Iran understands this, hence, its quest for nuclear security against the US. For the weaker countries, the nuclear deterrence strategy has an inescapable lure as “value for money” security against larger forces, conventional or nuclear. Even in a conventional scenario, if the aggressor is convinced that the defender has the capability to destroy his forces, a denial of objective, he will be deterred. Thus, **punishment and risk may work for nuclear deterrence** while **denial** is the strategy of choice **for conventional deterrence**.<sup>17</sup>

Deterrence does not always work. Various reasons have been offered for its failures. However, a failure of deterrence is essentially a failure to deter the mind of the target. States do not always act with the level of rationality we expect of them. others cultural values and frames of reference often differ from our own. The failures bring out the limitations of the classic deterrence theory, which like all theories, is a simplification of reality, and so incomplete. Its biggest problem is “strategic monism; the belief that one strategic concept fits all situations.”<sup>18</sup> The situation is often not the one we have prepared for. The liberal thought on deterrence says its chances of working are better when coupled with positive incentives. Used as a stand-alone strategy, its chances of failure are higher; used as one tool with other complementary strategies of influence, its chances of success increase. Dissuasion is one such framework.

## DISSUASION

Dissuasion as a strategy first made its appearance in 2001 when the US Secretary of State Donald Rumsfeld introduced the concept in that year’s

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16. Dinshaw Mistry, “Complexity of Deterrence Among New Nuclear States: The India-Pakistan Case” Paul et al., n. 4, p. 183.

17. However, as Pape contends, denial does not work against guerrillas. As the US is practising in Afghanistan and Pakistan, decapitation may also work as a complementary action to political solutions, rather than an attempt at denial using air power.

18. Mackubin Thomas Owens, *National Review Online*, January 5, 2005, cited in Harry R. Yarger, *Strategy and the National Security Professional* (Westport, CT: Praeger Security International, 2008), p.143.

*Quadrennial Defence Review (QDR)*. The *National Defence Strategy of the United States*, published in 2005, followed by the QDR of 2006, reiterated the strategy. The term has also been heard in Indian strategic circles. Yet, being a newer strategy, at least in articulation, its meaning is unclear to most. Much less has been written about dissuasion as compared to deterrence. The most comprehensive write-up is by Andrew F. Krepinevich and Robert C. Martinage in their 2008 study.<sup>19</sup>

The study defines **dissuasion** as “actions taken to increase the target’s perception of the anticipated costs and/or decrease its perception of the likely benefits from developing, expanding, or transferring a military capability that would be threatening or otherwise undesirable.” It continues “dissuasion can be viewed as a kind of ‘pre-deterrence’ in which the target—which may be an opponent or even an ally—is discouraged, not from employing the military capabilities it possesses, but from creating such capabilities in the first place.”<sup>20</sup> However, if a state were to fail in dissuading another from building a capability, it then perforce has to deter it from using it. Many people confuse the term ‘pre-deterrence’ with ‘mini-deterrence’, assuming that dissuasion works on the same principles as deterrence, just on a smaller scale. This understanding would lead to an emphasis on force structure build-up, rather than specific strategies to operationalise dissuasion.

While Krepinevich’s study only talks about capability as the object of dissuasion, the same precepts may also apply to a course of action. In an earlier 2006 study, James A. Rushton says, “Dissuasion is a strategy for persuading adversaries to seek acceptable alternatives to building threatening capabilities **or adopting hostile intentions** .... Dissuasion is a framework for organising strategy directed at dealing with *future* threats. As such, it complements other traditional national strategies (such as deterrence or coercion), and *uses* deterrence, coercion, and even

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19. Andrew F. Krepinevich and Robert C. Martinage, *Dissuasion Strategy* (Washington DC: Centre For Strategic and Budgetary Assessments (CSBA), 2008), at <http://www.csbaonline.org/publications/2008/05/dissuasion-strategy/>, accessed on April 28, 2013. Most of the following write-up is extracted from the report, using its definition and argument, explaining with my examples.

20. *Ibid.*, p. vii.

appeasement, to meet overall policy goals.”<sup>21</sup>

Unlike deterrence which uses only the threat of cost via military retaliation, dissuasion works on both **increased cost and reduced benefit**, using not only the military tool, but also economic and diplomatic instruments of persuasion. On the **cost** side, dissuasion works by increasing the target’s perception of the anticipated cost of developing or expanding a particular military capability. This could be economic, military or diplomatic costs.<sup>22</sup> For example, Nepal is naturally dissuaded from developing offensive military capability against India purely on the **economic cost** involved. Increasing international condemnation for terror camps increases Pakistan’s **diplomatic cost** in keeping its India oriented terror camps intact.

On the **benefit** side of the equation, dissuasion works by diminishing the target’s perception of anticipated benefits. This works by convincing the target that the capability it seeks is not survivable, diminishing the target’s perception of an offensive capability’s operational effectiveness, or changing the character of the competition.<sup>23</sup> China’s Anti-Satellite (ASAT) test was a dissuasive message to the US that increasing space dominance may not give the anticipated benefits, because the **capability is not survivable**. Similarly, a potential weaponisation of space by the US may dissuade nuclear missile capable countries from developing Multiple Independently Targeted Reentry Vehicles (MIRVs) because the many of them may be knocked out before reentry, **reducing operational effectiveness**, and so reducing the incentive to invest in this technology. This would also be an example of the US **changing the character of the competition**, from terrestrial to space strength. This shift to space weapons can also dissuade countries from challenging US space capabilities due to the economic cost involved.

In some ways, dissuasion is also a limited strategy because it works only on the targeted capability and only through negative influence on the incentives. Both increasing cost and reducing benefits are negative

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21. James A Rushton, *Operationalizing Dissuasion*, Thesis, (Monterey CA: Naval Postgraduate School, 2006), p.v. at [http://www.au.af.mil/au/awc/awcgate/nps/rushton06\\_dissuasion.pdf](http://www.au.af.mil/au/awc/awcgate/nps/rushton06_dissuasion.pdf), accessed on April 28, 2013.

22. Krepinevich and Martinage, n.19, pp. viii-ix.

23. Ibid., pp. ix-x.

**Dissuasion is more visible in its failure than its success, especially in hindsight. China's investment in asymmetric capabilities like ASAT (Anti-Satellite) weapons, cyber-attack, and AAAD (Anti-Access Area Denial), is a failure of US dissuasive efforts.**

incentives. Perceived increase in benefits in pursuing capabilities other than the targeted capability can also be used as a positive tool, complementing dissuasion. Such influence would work on the opportunity cost calculus of the target. For example, seen from China's point of view, it would prefer that the US military spending be channelled into the US Army, a less threatening capability, as compared to the US Air Force (USAF) or US Navy (USN), both entities with more offensive potential. Influencing US domestic policies to ensure that the chunk of the homeland defence role, along with its budget, goes to the army, rather than the USAF, would channel the expansion budget away from the USAF.<sup>24</sup>

Dissuasion works on cost and benefit through many tools. Explaining some of the tools which may be used to dissuade, Rushton says, "Methods of implementing a dissuasion policy include: presence and engagement; controlling the spread of technology and arms; conditional promises of support and threats to withdraw support; building economic ties that promote influence; and erecting cost, technological, and 'human capital' barriers to effective competition."<sup>25</sup> To continue with the earlier example, one way China can help the US Army get a bigger piece of homeland defence is by ensuring a presence in US think-tanks, influencing the outputs.<sup>26</sup>

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24. The USAF has already increased its role in homeland defence. See, Eric V. Larson, "US Air Force Roles Reach Beyond Securing the Skys," *Rand Review*, Summer 2002, at <http://www.rand.org/pubs/periodicals/rand-review/issues/rr-08-02/airforce.html> and Staff Sgt. Mathew Bates, "NORAD Commander: Air Force Role Vital to Homeland Security," November 8, 2006, at <http://www.af.mil/news/story.asp?storyID=123031246>, accessed on July 7, 2013.

25. Rushton, n.21, p.18.

26. Pakistan's Inter-Services Intelligence (ISI), which de-facto controls foreign policy, has apparently already infiltrated US think-tanks to influence policy. Chidanand Rajghatta, "ISI has Infiltrated US Think-Tanks, Pak Scholar Says," *The Times of India*, June 30, 2013, at [http://articles.timesofindia.indiatimes.com/2013-06-30/us/40285947\\_1\\_moeed-yusuf-pakistan-scholar](http://articles.timesofindia.indiatimes.com/2013-06-30/us/40285947_1_moeed-yusuf-pakistan-scholar), accessed on July 7, 2013.

Dissuasion is more visible in its failure than its success, especially in hindsight. China's investment in asymmetric capabilities like ASAT (Anti-Satellite) weapons, cyber-attack, and AAAD (Anti-Access Area Denial), is a failure of US dissuasive efforts. By militarily leading other countries by an insurmountable margin, its predominantly realist vision of international relations, coupled with a propensity to use force as a preferred tool of coercion, using the air and sea media to project this force, the US

forced China to change the character of the competition – China transferred capability into alternative technologies and asymmetric strategies. The same can be said to have happened in the case of Pakistan investing in tactical nuclear weapons. The perceived asymmetry in conventional combat potential may have inadvertently induced the Pakistani defence establishment to shift capability into cheaper nuclear deterrence.<sup>27</sup>

There are many reasons why dissuasion might fail. First, the target's rationality might not be what one assumes. It is very important to understand how the target perceives the world, and what alternatives it would evaluate. Much of North Korea's brinkmanship relies on the questionable rationality it projects.<sup>28</sup> Second, dissuasive strategy must have overt and covert elements. As Krepinevich says, "Whereas some dissuasion strategy initiatives are best pursued in the light of day so that the target (or targets) and others can readily discern them, others are best pursued covertly, such that a target cannot easily discern a direct link between US actions and their intent."<sup>29</sup> China's recent increased capability development in the

**The perceived asymmetry in conventional combat potential may have inadvertently induced the Pakistani defence establishment to shift capability into cheaper nuclear deterrence.**

27. The arms embargo on Pakistan, the Indian transparent defence purchases, and the propensity of all nations to inflate the military potential of adversaries, and paranoia over possible territorial loss, all may have contributed to this unintended result. In hindsight, this capability shift could only have been prevented if avoiding a nuclear race with Pakistan had been identified and articulated as a dissuasive politico-military aim.

28. Schelling, n.2, pp. 17, 187-203. He shows how deliberately risky behaviour is good strategy of keeping the other side guessing, unsure of control of the situation, convinced that the risk of war is real and uncontrollable – the crazy man may actually start the conflict.

29. Krepinevich and Martinage, n.19, p. xii.

**Finally, dissuasion fails because, though more effective than deterrence, it is difficult to operationalise. Operationalising dissuasion requires much strategic thought, and implementation via multiple agencies, while operationalising deterrence requires mainly capability build-up, which falls in tune with any organisation's tendency to keep expanding.**

Tibet Autonomous Region (TAR) could be partly attributable to the reactionary Indian capability build-up being overt, a very normal feature for a liberal democracy. The Indian media playing up the Chinese threat, the Indian Army's publicised bid to raise new mountain strike corps, the Indian Air Force's publicly known capability increase in the northeast, may all have contributed to China perceiving India as an increasing potential threat. Third, a successful dissuasion may result in unintended consequences, forcing a rival to choose an unintended path. For example, in an article that offers a dissuasive framework on how the US should influence the People's Liberation Army (PLA) procurement

decisions, Eric Sayers argues that the PLA might turn the dissuasive efforts of the US against itself. This could be by the PLA itself stopping ASAT development, but simultaneously blocking weaponisation of space – and, thus, raising “the political costs for the United States of developing, testing, and deploying space-based missile defence systems.”<sup>30</sup>

Finally, dissuasion fails because, though more effective than deterrence, it is difficult to operationalise. Operationalising dissuasion requires much strategic thought, and implementation via multiple agencies, while operationalising deterrence requires mainly capability build-up, which falls in tune with any organisation's tendency to keep expanding. It is also simpler to pursue a strategy like deterrence, whose implementation can be independent of coordination with other agencies. Dissuasion also needs to be operationalised at the national level, while deterrence can even

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30. Eric Sayers, “Military Dissuasion: A Framework for Influencing PLA Procurement Trends,” at <http://www.ndu.edu/press/military-dissuasion.html>, accessed on April 28, 2013.



be implemented down to a tactical military level.<sup>31</sup> For all these reasons, deterrence tends to emerge as the strategy of choice, while dissuasion is never discussed. Countries which rely on deterrence tend to continue arming, while those which use dissuasion tend to also use strategy. Conversely, it is easier to pursue dissuasion in organisational structures where all agencies can be made to cooperate in pursuance of a strategy which requires inter-agency coherence. These agencies include the branches of the military, the diplomatic corps, and intelligence agencies.

Krepinevich asserts that the most important ingredient of dissuasion is good intelligence. He means strategic intelligence, understanding reality, the imperatives of all players who have a stake in decision-making. This is essential to decide who should be dissuaded, from what, and by what means. Not only must this dissuasive strategy be decided, it must be articulated to the actors who will implement the common dissuasive strategy through their individual strengths – economic, diplomatic, military, and information. Rushton articulates a broader understanding of intelligence to give maximum importance to the “strategic culture” of the target as the framework within which dissuasion works. Strategic culture both sets limits to what is possible, as well as indicates what trajectories are more probable.<sup>32</sup>

**As realists assert, it is capability which threatens, because once capability exists, intentions can change overnight. This logic is at the heart of spiral instabilities of arms races – only military capability matters. Dissuasion works on capability, deterrence works on the intent to use the capability.**

## DISSUASION TO DETERRENCE

When dissuasion fails, deterrence is the next step. This is because, once you fail to prevent the target from building a capability, you next need to work

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31. For example, a border incursion can be deterred by a local level tactical military build-up, but dissuading the enemy from a similar capability build-up on his side of the border cannot be done at the local tactical level.

32. Rushton, n.21, pp. 21-29.

at preventing him from using it. Dissuasion alone, in the dictionary form of the word, cannot be trusted to ensure non-use of military capability. This is also a realist argument. As realists assert, it is capability which threatens, because once capability exists, intentions can change overnight. This logic is at the heart of spiral instabilities of arms races – only military capability matters. **Dissuasion works on capability, deterrence works on the intent to use the capability.** However, a country need not work on negative inducements alone; along with deterrence, it helps to use positive tools – emphasise the rewards of not pursuing the threatening path.

After pure dissuasion fails against capability build-up, and deterrence emerges as the dominant strategy, it can still be complemented by dissuasive strategies too. In such a case, we need to accept Rushton’s more inclusive definition of the object of dissuasion being not only capability, but also “a course of action”, in other words – intent. However, we must keep in mind that before the capability is built, dissuasion is the more efficient strategy, and after build-up, deterrence, even as you may still try to dissuade intent too.

While the entire paper has used the term strategy to classify dissuasion and deterrence, they are not really strategies. They are instead (strategic) *concepts*. These concepts help every level of the politico-military structure to easily understand higher guidance – policy. True strategy involves much effort in choosing the *ends* to be achieved, as well as assessing the *means* available, before choosing and articulating the *ways*. Dissuasion and deterrence are two amongst many such *ways*. These “strategic concepts provide direction and boundaries for subordinate strategies and planning.”<sup>33</sup> They become strategy only when the ends, ways, as well as the context of the strategic environment, are articulated alongside.

## CONCLUSION

Nations use both dissuasion and deterrence as strategic concepts, mostly in the military context. Both have distinct meanings, characteristics, and ways

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33. For a fuller explanation see Harry R. Yarger, *Strategy and the National Security Professional* (Westport, CT: Praeger Security International, 2008), pp. 140-144.

to achieve them. Both can work or fail. Dissuasion is more nuanced and uses many tools to achieve the ends, applying the tools through affecting the cost and benefit calculus of the target. Deterrence only works through the cost calculus, using only the threat of use of force. Dissuasion works to primarily discourage a capability build-up, while deterrence works to prevent use of the capability already built. This makes deterrence the poorer strategy. Yet, deterrence is more often the chosen strategy. This is more because of the effect of the national politico-military structure on strategic trajectory, than because of the objective strategic choice.

This article presents a condensation of the work of some theorists and academics. How does one use this knowledge? By asking the right questions. What capability do we want to dissuade? Why? How shall we achieve the ends? Which agency will play what part? How will we know we are succeeding or when we have failed? When should we switch to either new capabilities to dissuade, or acknowledge a failure of dissuasion, and switch to deterrence? What force structures will be required to deter? How will we communicate our deterrence stance unambiguously to the adversary? How much of our behaviour must seem risky? How do we display this risky behaviour? Will our chosen deterrence strategy be nuclear punishment, or conventional denial? Shall the preferred deterrence tool be the land forces, air forces, or naval forces? Why?

Dissuasion and deterrence are but two concepts in a repertoire of strategies. They are often used together. They are also misunderstood, especially when used together. But any agency which uses these specific terms, needs to first either accept the given definitions of dissuasion and deterrence, or articulate its own doctrinal understanding, so that it can effectively operationalise these concepts in its own context.



# IAF'S DEVELOPMENT TOWARDS GREATER CAPABILITY: 2032

VIVEK KAPUR

## INTRODUCTION

As it moves towards its first centenary, the Indian Air Force (IAF) is in the process of enhancing its capabilities in a major manner. Most of this enhancement of capabilities is being obtained through induction of advanced equipment such as the C-130J and C-17 transport aircraft, Rafale Medium Multi-role Combat Aircraft (MMRCA), Fifth Generation Fighter Aircraft (FGFA) to name a few of the more prominent inductions underway. A common characteristic of these inductions is that they are sourced from foreign vendors. To be a truly effective and independent force, the IAF also requires to get full control over its technology. Thus, technology ownership is an issue of importance to the IAF. Likewise, with increasing networking of its forces, the IAF requires to put in place effective cyber warfare capabilities. With the reasonable expectation of future military operations requiring close cooperation between the different military arms of the government, effective jointness requires to be planned for and implemented on the ground. Further, ensuring deep imbibing of acceptable organisational values and modes of behaviour amongst its cadre is important for internal cohesion and operational effectiveness. This paper will dwell on these issues from the point of view of enhancing the IAF's

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effectiveness in the near and medium term future out to 2032 when the IAF completes one hundred years of existence.

## ISSUES FOR GREATER CAPABILITY

### *Technology*

The IAF by its very nature is technology intensive. Due to the constraints of domestically available scientific and technological capabilities, the IAF has, since its formation, been a technology importer, adapting its doctrine, strategy and tactics to the technology available from foreign sources.

**IAF's Track Record of Proven Technical Skills:** However, despite the constraint imposed by the need to import equipment, the IAF has proven its innovativeness and technical acumen since the early years of its existence. IAF technicians, in the 1940s during World War II, modified the tail skid unit of the British built Lysander aircraft which was then in IAF service to increase the controllability of the aircraft, during its take-off and landing runs, as well as to increase reliability of the aircraft's undercarriage. Modifications carried out by IAF technicians were examined by the manufacturer of the aircraft and subsequently implemented on the entire global fleet of Lysanders by the British<sup>1</sup>. The same aircraft type was thereafter modified to carry bombs on external weapon stations, a capability the original aircraft lacked<sup>2</sup>.

After World War II, IAF technicians with the assistance of personnel from Hindustan Aircraft Limited (HAL)<sup>3</sup> were able to recover as many as 37 B-24 "Liberator" bombers from the "B-24 graveyard" at Chakeri airfield, Kanpur. At this location, the British had deliberately damaged B-24 aircraft to make them "unflightworthy and unrecoverable" in order to prevent these aircraft being used by any party apart from US and British forces, and dumped these in a 'graveyard'. The B-24 aircraft in question had been

1. SC Gupta, *History of the Indian Air Force 1933-1945* (Combined Inter-Services Historical Section India & Pakistan, 1961), pp. 4-10.
2. Ibid
3. Hindustan Aircraft Limited (HAL) was set up in India by the entrepreneur Seth Walchand Hirachand in 1940 and was the first aircraft manufacturing facility in South Asia. This facility was nationalised on April 2, 1942, by the Government of British India and in the 1960s, renamed as Hindustan Aeronautics Limited (HAL) by the Government of India. HAL, in its 1960s' avatar exists till today.

left as scrap metal by the British after World War II. These 37 rebuilt aircraft served the IAF till 1968<sup>4</sup>.

During the Indo-Pak War over Kashmir in 1947-48, the IAF again displayed its innovativeness and technical acumen through using C-47 "Dakota" cargo aircraft as bombers. The 1947-48 War for Kashmir also saw the IAF utilising Tempest fighters to deliver essential food and ammunition supplies to Jammu and Kashmir (J&K) state forces besieged by the Pakistani raiders at Skardu fort when it was found that Dakota transports would be unable to fly to Skardu<sup>5</sup>. In this war, Srinagar airfield lacked replenishment facilities for IAF fighters, and the IAF improvised through decanting fuel from Dakota transport aircraft, that had landed at Srinagar, into drums and using this fuel for refuelling Harvard-II trainers and Spitfire and Tempest fighters, effectively making the Dakotas into mobile refuelling posts while these were on the ground at Srinagar airfield<sup>6</sup>. This period also saw the first landing by a Dakota at Leh airstrip flying at an altitude well beyond the manufacturer's specified altitude limit for the aircraft<sup>7</sup>.

The IAF has continued to regularly display its technical skills in the years since then. The Display Attack Ranging Inertial Navigation (DARIN) system, an indigenously integrated navigation and attack system with a performance superior to many foreign systems of the same era (1970s-1980s), was integrated domestically with IAF participation, albeit using imported

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4. Gp Capt Kapil Bhargava (Retd), "India's Reclaimed B-24 Bombers", <http://www.bharat-rakshak.com/IAF/History/Aircraft/Liberator.html>, accessed on January 20, 2014.

5. Air Mshl Bharat Kumar, *An Incredible War: Indian Air Force in Kashmir War 1947-48* (New Delhi: KW Publishers Pvt Ltd, 2007), pp. 36-60.

6. Ibid.

7. Ibid.

components, and used to upgrade the IAF's Jaguars. The DARIN system is currently in its third iteration as the DARIN-III<sup>8</sup>.

This brief look at a few of the innovations and demonstrated instances of exercise of technical skills by the IAF since 1932 clearly brings out that IAF personnel have the "right stuff" in possessing, and, more importantly, in being able to exercise, their technical skills in an innovative manner to address practical problems.

**Pitfalls of Dependence on Foreign Sources:** Reliance on critical military technology that is not controlled by a nation itself can prove dangerous. The nation that the technology was sourced from, can impose control on the recipient's policies and available military options through denial, or restricted supply of spares and other essential support. India has faced such instances in the past. Indian Navy Seaking helicopters and Sea Harrier fighters faced a severe shortage of spare parts subsequent to the US led sanctions imposed on India post the 1998 Pokhran-II nuclear tests<sup>9</sup>. Such sanctions can be used by the supplier country of Indian arms imports to force India to toe its line politically and / or militarily. Such a situation can be detrimental to our national interest. Therefore, it is important for India to develop the ability to develop and field its own weaponry. For success in this endeavour in the aviation realm, the involvement of the IAF, the primary end user of aerial weaponry, is required to give direction, ownership and suitable oversight of the design and development process. Such a linkage would be beneficial in removing the end user's tendency to demand unrealistic performance parameters from domestic manufacturers who may be undertaking such a task for the very first time as well as to give tighter control over the activities of the designer, developer and manufacturer.

The Indian Navy's (IN's) system wherein the IN at its Naval Headquarters (HQ) has an entire directorate dealing with warship design and development (Department of Naval Design), leading on to interaction with the concerned domestic shipyards entrusted with the

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8. Vishal Rathod, "Indian Air Force DARIN Upgrades for SEPECAT Jaguar", <http://www.defenceaviation.com/2011/12/indian-air-force-darin-upgrades-for-sepecat-jaguar.html>, accessed on January 20, 2013.

9. "Indian Navy", <http://homepage.eircom.net/~steven/bombay.htm>, accessed on April 12, 2013.



actual manufacture, deserves a serious look. The IN, through this system, ensures end user involvement at every stage, from initial design through manufacture till commissioning into service of domestic warships. This is helped further by having serving or retired naval officers in the upper echelons of the warship building shipyards. This model displays backward and forward integration and appears to have worked fairly well (despite primarily public sector shipyards being involved in warship building) given the fact that the IN has several frontline indigenous ships in service.

**A Possible Technology Solution for the IAF:** The IAF could adapt and use the IN system through setting up a separate Directorate of Aircraft Design and Development (Dte of ADD) at Air HQ. The Dte of ADD could be tasked with developing aircraft and weapon system designs to meet the IAF's future operational requirements. This new directorate could be manned by a mix of specially chosen engineers with design acumen and operational aircrew with test pilot and operational, including viable tactical solutions development, experience. A few suitably qualified representatives of Research and Development (R&D) laboratories under the Defence Research and Development Organisation (DRDO) could also be assigned here. Such a mix would ensure that the designs are grounded in capabilities required by the IAF while staying within the bounds of domestic technical feasibility.

Further down, from Air HQ, the bulk of the IAF's highly qualified engineers could be encouraged to undertake higher, Masters and Doctoral level, educational qualifications, in Indian as well as foreign institutions of higher education, specialising in aspects of aerospace technology. The IAF could actively interact with institutions such as the Indian Institute of Science (IISc), Bangalore, to reserve seats in aeronautical disciplines for IAF personnel detailed and nominated for such training by the IAF. These officers could then be posted to specific DRDO R&D laboratories as well as to 'upgraded' Base Repair Depots (BRDs) of the IAF to undertake R&D work required to meet milestones set out in the Ministry of Defence's (MoD's) and the IAF's long-term plans. Another batch of IAF engineers

could be deputed to work in aircraft manufacturing agencies in both the public and private sector. This body of personnel would ensure that the linkage from the apex at Air HQ, where designing is initiated, through R&D centres to manufacturing locations, till the delivery of the required equipment is maintained unbroken. The IAF would have unprecedented oversight over the entire domestic design, development and production chain in addition to involvement and ownership of the process. Such an integrated structure could be reasonably expected to deliver better than the current system has.

The IAF has several BRDs which today act as storage locations for spares while undertaking limited maintenance work on equipment. BRDs could be upgraded to full capability R&D centres specialising in different aspects of the required aerospace technologies. If manned by a mix of qualified and motivated IAF engineers and scientists from DRDO, these could develop into centres of excellence in their respective fields.

Such a system is likely to ease many of the problems that exist in today's sub-optimal deployment of skilled manpower as well as in indigenous production of aviation equipment. Total ownership of technology and development of technology to address the IAF's actual problems in operations could, through such a change in structure, be within the IAF's grasp. Engineers could be made to keep in touch with the realities in the field through innovative posting policies. Engineers may spend a few years at a junior level in operational units and later at suitable intervals, say, for six months every 10 years, rotate through tenures in field units in order to retain a feel for the actual issues and problems in operational field units.

Manpower planning and career progression issues obviously would be heavily involved in the solution suggested above. Manning and personnel issues are involved in other aspects of IAF development also and, hence, will intentionally not be expanded upon in this paper. These could form the subject of a separate paper.

**Choosing the Right Technology:** Recently the ability of indigenous design and manufacture organisations has increased manifold in several

different areas while some problem areas do remain<sup>10</sup>.

As the IAF looks ahead, it needs to decide about the type and nature of the technology it should invest in for the future. The IAF requires being certain about the capabilities it would require in the 2032 timeframe and in subsequent further timeframes. This process should not be based upon just following the path earlier trod by more advanced countries of the West (such blind copying of the West may lead to commitment of resources towards very high end “gold plated” weapon systems such as the F-22 “Raptor” of which even the US found it could buy not more than 187), but should be an independent exercise with no pre-conceived notions about what future technologies should. The IAF should dispassionately analyse the available options and the real world practicality of new technologies. This would help it take informed decisions about the research and development efforts it should invest in for the future. For instance, while assured penetration of hostile air space could be a desired capability required, this capability could be achieved through the use of “stealth” aircraft or through hypersonic “space-planes” or even through attacks from platforms based in outer space. This elementary example brings out the fact that in most cases, there will be more than one way to achieve an operational end. Such choices between alternatives will carry an element of risk. The challenge for the IAF with respect to technology selection will be to arrive at reasoned decisions with adequate risk alleviation strategies built into its plans. Such a technology identification and selection process is likely to be best done at Air HQ in a specialised cell of the new Dte of ADD in order to marry operational needs with technical feasibility. The development of Long-Term Perspective Plans (LTPPs) at Dte of ADD could give direction to long-term R&D into enabling technologies for futuristic LTPP projects. In the US, the Defence Advanced Research Projects Agency (DARPA) carries out this function

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10. The Light Combat Aircraft (LCA) is near Initial Operational Clearance (IOC), Dhruv and Rudra are in service, with the Light Combat Helicopter (LCH) near delivery, indigenous Airborne Early Warning and Control (AEW&C) near fructification, FGFA in development, Agni series of missiles up to Agni-V and Brahmos are in active service and INS *Arihant* is under trials for induction. Delays with the LCA’s Multi-Mode Radar (MMR), delays with the Kaveri engine and the indigenous Intermediate Jet Trainer (IJT) HJT-36 “Sitara”, delays in Scorpene submarine deliveries and delay in operationalisation of INS *Arihant* with its ballistic missiles installed indicate that there is still some way to go and work to be done.

**The IAF's large pool of highly educated AE branch officers requires effective deployment for tasks that are suitably challenging for them and which utilise their capabilities for the greater good.**

for the US armed forces as a whole. Concepts accepted by the organisation and government are contracted out by DARPA to private and public sector agencies for further development and "proof of concept" before being developed into operational systems for military use. The Dte of ADD could set up a department to serve a similar function as served by DARPA in the US till all three Services and the MoD can set up one combined central agency for this important task.

**Deployment of Aeronautical Engineer (AE) Branch Officers:** Most modern equipment whether for civil or military use comes with exhaustive documentation that includes fault identification and rectification checklists and flowcharts. These two aspects are most often covered as a series of block diagrams with the sequence of progression clearly defined. Availability of such documentation means that maintenance personnel in units do not require M. Tech. or even B.Tech. level of knowledge to carry out routine maintenance activities, especially with Line Replaceable Units (LRUs)<sup>11</sup> being the standard design aspect of most modern weapon systems. The IAF's large pool of highly educated AE branch officers requires effective deployment for tasks that are suitably challenging for them and which utilise their capabilities for the greater good. The paragraphs above cover some of these options.

**Weapon Inductions for Effectiveness:** The IAF would also require development / induction of suitable technologies for effective air-to-

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11. LRUs: if a system, say the radar becomes unserviceable, a Built in Test (BIT) system checks all the radar's components for faults. On identification of the faulty component, say Item A1, the faulty Item is unplugged from the radar and replaced with a serviceable Item A1 while the unserviceable Item A1 is back loaded to a rear echelon repair agency. A simple pulling out and replacing of a part about the size of a UPS used for personal computers or of the size of a laptop computer is all that is needed to maintain serviceability. LRUs are designed for ease of removal and replacement. Their intricate innards are repaired at locations that have the advanced technical expertise to do this. These locations in the US case are usually the aircraft manufacturer's factory itself. In India, this rear echelon repair task could be done by HAL, civil manufactures or the IAF's own BRDs.

ground attack in the mountains given that India's disputed territories for the most part lie in the Himalayas<sup>12</sup>; in the 1999 Kargil War, effective attack in the mountains was a major challenge for the IAF.<sup>13</sup> Widespread induction of Precision Guided Munitions (PGMs) should be catered for. PGMs would find use in mountainous terrain as well as in the plains<sup>14</sup>. Widespread availability of PGMs could make Battlefield Air Strike (BAS)<sup>15</sup> freer from risks of fratricide apart from making it more effective. The IAF will need to identify leapfrogging technologies in order to retain the ability to counter the People's Liberation Army Air Force (PLAAF) and other air forces. The IAF's highly qualified AE officers could be deployed to address such challenges of technology and equipment development.

#### **CYBER WARFARE (CW)**

Another branch of technology that demands mention here is that of the cyber domain. The IAF is making rapid strides towards becoming a fully networked force able to execute networked operations<sup>16</sup>. The IAF is putting in place its Air Force Network (AFNET) which is a fibre optic-based high bandwidth connectivity backbone between all IAF ground locations and it is able to provide high bandwidth voice, data and video streaming facilities to its users. The IAF's Integrated Air Command and Control System (IACCS), an advanced automated command and control support system that enables near real-time information sharing and combat

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12. "India's Boundary Disputes with China, Nepal, and Pakistan", <http://www.boundaries.com/India.htm>, accessed on January 28, 2014.

13. "1999 Kargil Conflict", <http://www.globalsecurity.org/military/world/war/kargil-99.htm>, accessed on May 28, 2012.

14. In the 1999 Kargil War, the IAF used large numbers of "iron" bombs with limited destruction of the enemy's hardened shelters. Use of just two PGMs led to the destruction of a vital enemy bunker on Tiger Hill, helping in its liberation. [Discussion with Air Marshal Vinod Patney, SYSM, AVSM, VrC (Retd) Air Officer Commanding-in-Chief (AOC-in-C) of Western Air Command during the Kargil War 1999, on July 27, 2012, at IDSA.] This brings out the importance of PGMs in the modern period for ground attack in mountainous terrain.

15. BAS was earlier referred to as Close Air Support (CAS). Contrary to the impression carried by some non-air force personnel, the IAF has never said that it will stop, nor has stopped, CAS to surface forces and still does and always will, whenever it is required, only under a different, possibly more accurate, name (BAS).

16. "The Indian Air Force Today", [http://indianairforce.nic.in/show\\_page.php?pg\\_id=13](http://indianairforce.nic.in/show_page.php?pg_id=13), accessed on January 30, 2014.

**The IAF's Integrated Air Command and Control System (IACCS), an advanced automated command and control support system that enables near real-time information sharing and combat decision support operates on the AFNET backbone. AFNET also enables Internet Protocol (IP) based communications amongst its users.**

decision support operates on the AFNET backbone<sup>17</sup>. AFNET also enables Internet Protocol (IP) based communications amongst its users. IACCS nodes are rapidly expanding over the IAF; a total of ten nodes is planned to cover the entire country. While the AFNET architecture provides seamless connectivity between ground locations aircraft and satellites for real-time voice and data, including high definition video sharing amongst users, the IAF is progressing towards even greater connectivity through putting in place a wideband Code Division Multiple Access (CDMA) 3G portable wireless network.

This network is reportedly meant to ensure complete connectivity among more than 80,000 IAF personnel and their bases. High end smart phones manufactured by HCL are expected to be issued to all officers and other air warriors down to sergeant rank towards this end<sup>18</sup>. The IAF is, thus, well on its way towards achieving a fully networked and integrated organisation able to share relevant information rapidly, thus, achieving significant force multiplication effects. These networked operations and capabilities reside in the availability of computers and reliable infrastructure to connect them into one seamless entity. Networking can achieve significant force multiplication effects through near instantaneous sharing of information amongst all war-fighters. Such information sharing could significantly reduce the "fog of war" and make the IAF's networked forces significantly more effective.

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17. "Indian Air Force Gets 3G Network To Heighten Operational Efficiency", <http://www.defencenow.com/news/107/indian-air-force-gets-3g-network-to-heighten-operational-efficiency.html>, accessed on February 2, 2014.

18. n.17.

Such new capabilities bring new vulnerabilities in tow.<sup>19</sup> Enemy attacks on this network and its component parts could be devastatingly paralysing to the extent that the IAF is made non-functional through denial of networking. In a situation where the war plans are based upon availability of the network, its absence could throw these plans into disarray. At best, reversion to non-networked operations could be resorted to, in the face of denial of the networked capability, with accompanied loss of efficiency. Therefore, along with induction of cutting edge technology, the IAF requires to devise effective means of insulating itself from the new vulnerabilities that accompany the new technology inducted.

The IAF is relying upon a dedicated self-owned fibre optic cable network for high bandwidth data transfer. Fibre optic cables provide a degree of safety from leakages as intercepting the “on fibre” data would require a relatively difficult direct tapping into the network through cutting into fibre optic cables or access to AFNET linked computers, both of which can be protected physically. Discipline must be enforced to prevent unauthorised equipment being connected to the IAF’s secure computers. The hacking of the Indian Navy’s computers in Eastern Naval Command is suspected to have been caused in part through the use of an unauthorised storage (USB Pen Drive) device<sup>20</sup>. India’s Computer Emergency Response Team (IN -CERT), set up by the central government, is already hard-pressed in dealing with the many attacks on Indian computer systems<sup>21</sup>. The need to extend the IAF’s ground-based network till the sensors and war-fighters in the air means that wireless data-links are also needed from the secure ground network (net) to the airborne net. The CDMA-based 3G wideband wireless network could also be tapped into by malicious elements, apart from the real danger of

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19. Dave Lee, “Flame: Massive Cyber-Attack Discovered, Researchers Say”, <http://www.bbc.com/news/technology-18238326>, accessed on January 29, 2014.

20. “Govt Confirms That The Naval Computer Network Was Hacked In November ”, <http://www.techtree.com/content/news/1727/govt-confirms-naval-computer-network-hacked-november.html#.UZMJwkrxg0Q>, accessed on January 30, 2014.

21. “Hackers Pick Holes in Indian Cyber System, Hit Government Websites 1030 Times in Three Years”, <http://economictimes.indiatimes.com/tech/internet/hackers-pick-holes-in-indian-cyber-system-hit-government-websites-1030-times-in-three-years/articleshow/19936557.cms>, accessed on January 30, 2014.

some of the 80,000 handsets issued to personnel falling into hostile hands. These handsets could be configured to require a frequent authentication through biometric means tied to the authorised user to continue to have access to the AFNET. In the case of theft of a handset in such a situation, it would fail to open a vulnerability window for attacking the AFNET even if the theft is not reported to the IAF authorities immediately. Securing of wireless data-links cannot be done through physical protection alone but requires technological means such as possibly a combination of advanced encryption, to defend against eavesdropping, and spread spectrum ultra wideband transmission characteristics to defend against jamming. It should be borne in mind that a static system, if attacked continuously by hostile elements, is likely to finally succumb. Therefore, the defence of a network requires being dynamic in nature and continuously evolving to deal with ever more complex threats as these, in turn, evolve. This brings out that instead of relying upon an architecture designed and put in place at a discrete time, safety would lie in the network's defences continually evolving towards ever more sophistication to deal with more advanced attacks as time passes. In view of the numerous attacks continually taking place on Indian computer networks and IN-CERT involved in dealing with these<sup>22</sup>, it would be prudent and even necessary for the IAF to have its own cyber security personnel.

A dynamic cyber defence option would require highly skilled teams of experts continually working to identify weaknesses in the network, analysing the state and sophistication of attackers and, in turn, dynamically updating / upgrading the network to deny hostile elements access to it. The IAF could achieve this end through entering into contracts with the parties that designed the AFNET and IACCS. In addition, it could hire "ethical hackers" on a permanent basis. These "ethical hackers" could be tasked by the IAF to continually probe the IAF's network to identify potential weaknesses. Such identification of weaknesses should lead, in turn, to development of suitable patches to secure the potential weaknesses found. This latter option could be applied in parallel with the former for greater

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22. Ibid.



redundancy. A purely defensive approach is unlikely to be adequate. Therefore, the IAF may need to develop Offensive Cyber Warfare (OCW) capability to supplement its Defensive Cyber Warfare (DCW) capability<sup>23</sup>. This OCW capability should comprise the ability to trace back the path of cyber attacks (from hacking, denial of access attacks to virus insertions) to their source and then counter attacking such sources, once identified, with “overwhelming, but precise, retaliation”<sup>24</sup>. Given the complexity of cyber attacks, this task of identification of the actual initial attacker itself would require very high end skills and capabilities as attackers routinely conceal their identity through the use of drone or hijacked computers and “false flag” Internet Protocol (IP) addresses to launch their attacks. Merely training regular IAF personnel by putting them through computer skills courses may not suffice in building up highly skilled manpower for OCW and DCW. The IAF may require inducting personnel who have both the aptitude for cyber technology and already possess advanced cyber skills as “cyber combatants”; such “cyber combatants” possibly forming a new branch in the IAF. Selection of personnel with basic language skills aligned towards the likely adversaries may be beneficial. For forces aligned towards China, suitable personnel from northeast India may be inducted at as early as school level and put through intensive Chinese language courses in parallel with advanced computer skills courses. Those who show the aptitude and skills required in language and computers could then be offered permanent commission in the IAF as “cyber combatants” for DCW and OCW tasks. Similarly, selection of specific people could be carried out for manning cyber forces aligned towards other potential adversaries. In this manner, a suitable Cyber Warfare (CW) capability specialised towards potential adversaries could be built up. The IAF would, thus, also be able to leverage the diversity in India’s population to its advantage. CW personnel would require deployment at levels from the highest at Air HQ down to the field

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23. “Air Force Details 6 Cyber Capabilities That Are Now Weapon Systems”, <http://fortunascorner.wordpress.com/2013/04/18/air-force-details-6-cyber-capabilities-that-are-now-weapon-systems/>, accessed on January 29, 2014.

24. “Japan Develops Defensive Cyber Weapon Arsenal”, <http://www.techweekeurope.co.uk/news/japan-develops-defensive-cyberweapon-arsenal-52170>, accessed on February 6, 2014.

**The IAF must include a tie-in with the army and navy when planning its new inductions to ensure that the capability for joint operations is enhanced progressively leading to the ideal of seamless joint operation capabilities. The challenge arises in developing a model of jointness most suitable for India's current and future needs.**

units to ensure total integrity of the AFNET, wideband wireless 3G mobile network, and IACCS. At Air HQ, Air Command and air base levels, CW personnel would interface with the cyber personnel of the army, navy and other government organisations [such as IN-CERT and National Technical Research Organisation (NTRO)<sup>25</sup>] involved in CW. At lower levels, CW personnel would need to interact with their counterparts in the other two Services and elements of the civil administration in their vicinity.

## JOINT OPERATIONS

### *Joint Operations*

Future wars are likely to require joint operations of a much greater magnitude than in the past. Therefore, the IAF must include a tie-in with the army and navy when planning its new inductions to ensure that the capability for joint operations is enhanced progressively leading to the ideal of seamless joint operation capabilities. The challenge arises in developing a model of jointness most suitable for India's current and future needs. The tendency to copy models developed by other armed forces for their own peculiar needs is strong but should be avoided with effort being expended towards developing a specific model suitable for India.

### *Examination of Models of Jointness*

The need for change in India's current modes and methods for jointness is brought out most clearly by an assessment of the US' defence organisation post the Cold War by the renowned management and organisational

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25. "NTRO: India's Technical Intelligence Agency", <http://www.indiandefencereview.com/news/ntro-indias-technical-intelligence-agency/>, accessed on January 31, 2014.

development guru Peter F Drucker. Peter Drucker wrote of the US Pentagon that each headquarters staff in the Pentagon, “...the office of the secretary of defense (OSD), Joint Staff, service secretariats, and military staffs – is organized along traditional lines with manpower, intelligence, logistics and other functional activities. The input nature of defense budget categories reinforces this functional orientation. Although this structure provided the needed stability during the Cold War, it does not adjust well to new missions<sup>26</sup>. Peter Drucker’s assessment is relevant not only to the Pentagon but also to India’s defence organisation which in many respects, when viewed in a macro manner, is arranged in a similar way as the Pentagon’s organisation.

Drucker has written, “The Functional Principle..... has high stability but little adaptability. It perpetuates and develops technical and functional skills, that is, middle managers, but it resists new ideas and inhibits top-management development and vision.”<sup>27</sup>

In order to determine the most suitable model of jointness for India, possible jointness models from other countries and put forth by thinkers who have written on the subject will be critically examined.

The first model is the “De-confliction Across Environments”<sup>28</sup> model. This model is characterised more by a lack of jointness than by jointness as here, three single Service campaigns are apparently planned and executed, with de-confliction being carried out in order to reduce mutual interference, rather than truly joint campaigns and plans aimed at achievement of synergy. The Indian armed forces have in the past mostly followed this model. The most outstanding example of success within this model is the 1971 Indo-Pak War on the eastern front. There were essentially single Service plans in force, with de-confliction carried out; early achievement of eastern war zone objectives of achieving total air superiority over East Pakistan and cooperative action taken at the tactical or field level (from dedicated air strikes to facilitate swifter army movement and deploying

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26. Sam Nunn “ Future Trends in Defense Organization” *JFQ*,/ Autumn 1996, pp.63-66.

27. Peter F. Drucker, “New Templates for Today’s Organizations”, in *Harvard Business Review on Management* (New York: Harper and Row, 1975), p.631.

28. Gen R.R. Henault “Jointness, Expeditionary Force Projection and Interoperability: The Parameters of the Future”, paper provided as reading for DCDS Retreat, February 2003. [http://dcds.mil.ca/other/retreat/pages/reading\\_e.asp](http://dcds.mil.ca/other/retreat/pages/reading_e.asp), accessed on January 22, 2013.

“air-bridges” through the use of IAF helicopters to help the army overcome water obstacles) delivered outstanding success. While this model of “De-confliction Across Environments” has at times delivered a degree of success in specific circumstances, it remains an obsolete model, not worthy of being pursued further, as it does not strive for synergy and, hence, this model is discarded.

The “Joint HQ”<sup>29</sup> model is characterised by the top-down joint campaign planning, leading, in turn, to single Service planning. The Integrated Defence Staff (IDS) and Strategic Forces Command (SFC) in India could to an extent be said to be modelled on this concept of jointness. The same model appears to form the basis for the demands for a “Theatre Command” in some sections of India’s armed forces. This model, however, though at first glance quite seductive, has major lacunae. There is a very real danger in this model of smothering of the core competencies of technologically intensive forces in the overall plan due to lack of knowledge of the intricacies of specific force utilisation, expert advisors notwithstanding. Group think becomes a very real danger in such a set-up. Moreover, in this plan, once the overall plan is decided, the individual planning is still left to the individual Services, thus, reverting to effectively single Service war plans with the required de-confliction. Hence, this model too, despite its vocal proponents, is felt to be eminently unsuitable for adoption by India’s armed forces.

In the “Integrated Organisation”<sup>30</sup> model of jointness, a single organisation is formed by submerging the individual Services into an all encompassing combined defence force. There are no longer any individual Services but a combined defence force with branches such as the “air” branch, “maritime branch,” etc. This model has most famously been actually tried out practically in Canada where the Royal Canadian Army (RCA), Royal Canadian Air Force (RCAF) and Royal Canadian Navy (RCN) were merged to form the Canadian Defence Forces (CDF) all in one common uniform and answering to a common hierarchical chain of command, much like personnel of different specialisations on an air base fall under the command of the same Air

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29. Ibid.

30. Ibid.

Officer Commanding (AOC) in the IAF. Quite surprisingly, and contrary to expectations, it was found that the loss of individual Service culture and traditions led to a loss of domain specific core capabilities and competencies wherein soldiers and aviators who had earlier fought tenaciously for the pride and honour of their individual units and Services were found to have lost that intangible *josh* which is a vital ingredient of battle success in combat. Additionally, in the Gulf War of 1991, of all the participants in the US led “Coalition of the Willing,” the CDF was found to suffer from a surprisingly excessive lack of jointness in comparison to the armed forces of nations that followed more ‘obsolete’ organisational models<sup>31</sup>. The Canadian experience clearly brings out that, especially in view of the rich traditions and history that our three military Services possess, the “Integrated Organisation” model of jointness is unsuitable to our environment. A further lesson is that blindly aping the more advanced nations in this matter could prove disastrous for us. Hence, we need to develop our own model or “Jointness with Indian Characteristics” as it were.

**The Integrated Systems Model Moving Towards a Model of Jointness for India:** In the ultimate analysis, jointness matters most at the sharp end in the actual battle where synergistic joint application of military power can totally overwhelm the enemy at minimum cost to friendly forces. However, for such a synergistic application of force to be achieved, it is essential that all arms of the military approach the problem together, critically and dispassionately examining the situation, desired aims, problems, own capabilities and limitations, and without any own Service jingoism, strive to develop a joint approach that can deliver synergy. This envisions true joint planning flowing backwards even to the weapon systems development and induction phases on to development of the war plan and its subsequent execution. The “Integrated Systems”<sup>32</sup> model of jointness addresses this need to quite an extent. This model envisages true interoperability among the equipment of the three Services with all personnel being delivered true transparency through compatible Operational Data-Link (ODL) systems so

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31. Ibid.

32. n. 23.

that all combatants operate with full information of their own and other domains at all times, thus, optimising force utilisation in quantity as well as time and space. Such compatible equipment induced true transparency would deliver true networking down to the grassroots level, doing away with the traditionally mistrustful attitude towards sister Services. This model implies a truly joint approach towards national security, moving away from the earlier Service-centric and myopic set-up that focussed more on turf protection than actual jointness. Beyond the initial truly joint planning and, hence, total understanding of individual capabilities and limitations brought to the table by the individual Services, it is reasonable to expect that a synergistic joint plan would flow down to lower execution levels that are empowered to do this efficiently while continuing to enhance jointness through information empowerment across narrow Service boundaries. Thus, true jointness would be available in the actual battle space. This model requires, firstly, a coordinated system of systems approach to development and induction of new weapon systems as well as upgrades to currently deployed weapons. In new weapon development and induction, interoperability needs to take pride of place. This model has the potential to deliver true jointness in several disparate scenarios and, thus, should form the starting point in the development of the Indian model of jointness. This is especially relevant today as the three Services stand poised to upgrade currently in Service equipment and induct new equipment from both indigenous and foreign sources. The IAF's AFNET hosted IACCS aims to deliver such transparency down to the lowest levels, including at interfaces with army and naval forces. A further development of this system to encompass all surface forces as well as the IAF could lead to a base from which to go further in enhancing jointness.

The "integrated systems" model of jointness, due to its merits, should form the foundation of jointness for India's armed forces. Once this basic model has been implemented at the field level, on the basis of hands-on experience gained in the current scenarios of operation from Low Intensity Conflict (LIC) to anti-piracy, the model could be tweaked to fine-tune it further.

Resistance to this model is likely to emerge from an unlikely source – the lower and higher echelons of the current military and civil hierarchy. This is simply because this model empowers the actual combatants in the field through total transparency of the battlefield, beyond and across domains, and could potentially lead to two different situations. Firstly, commanders at the lower levels could be tempted to overstep their laid down boundaries in view of more information being available to them, thus, feeding resistance from higher command echelons; secondly, at the other end of the spectrum, commanders at higher levels could be tempted to micromanage events at lower levels due to more complete detailed information being available, thus, feeding resistance from lower level commanders. For maximum benefits to be derived from this model, field commanders must have the power to assess the situation and take decisions and implement these in a fast Observe, Orient, Decide and Act (OODA) loop for success. These field commanders would in essence be usurping a few limited powers and functions of current higher commanders up to general rank. This is a strength of this model and also its main weakness as it makes it vulnerable to attack from within. In this model, at the full implementation stage, the role of higher formations and headquarters may decline to the provision of resources, issuance of broad strategic directives, and supervision of the progress of operations. Within broadly set boundaries, the field level could have full operational freedom last witnessed when generals and commanders such as Alexander the Great and Chengiz Khan led from the very frontline of the battle. Alternatively in this model, higher commanders, who have access to more complete real-time information than ever before, could effectively direct even field operations through the use of the very comprehensive information on progress of activities at the field level now available to them through the integrated information technology system of the highly networked warfare enabled armed forces. This would represent a large step towards a matrix-like organisational structure for the armed forces. In this model, the hierarchical structure within each Service would still most likely be retained.

**The IAF must work in concert with the other organs of state security to ensure that the most appropriate model of jointness for our situation is implemented effectively, while also building up the required capabilities for scenarios that require single force (aerospace force, land force or naval alone) missions.**

It is opined that the “integrated systems” model of jointness, later leading on to a “heirarchical command, networked control and empowered field commanders” model of jointness would be able to address the jointness needs of the Indian armed forces for all envisaged scenarios [from LIC, conventional war and Out of Area Contingency Operations (OOACO)] in the foreseeable future. In this model, through availability of real-time and very complete fused information on the actual progress of all activities at the battlefield, the higher hierarchical command levels could exercise far more effective control on operations than they have hithertofore. A major advantage in this model is that unlike today, wherein if the higher commander controlling the operations is made ineffective or communications fail, and the operations suffer due to incomplete information at the field level, the availability of information at all levels would permit effective continuance of the battles till the higher commanders are effective again. It is opined that this basic model should be taken up by India for further development into an Indian model of jointness to deliver truly synergistic application of military power in the service of the nation.

In sum, the IAF must work in concert with the other organs of state security to ensure that the most appropriate model of jointness for our situation is implemented effectively, while also building up the required capabilities for scenarios that require single force (aerospace force, land force or naval alone<sup>33</sup>) missions.

The country's security apparatus must give due attention to futuristic models of jointness in order to develop a suitable model for India. After

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33. Such single force missions could be precise delivery of weapons at large distances at short notice, physically securing ground positions, and “anti-piracy” patrols at sea to name three. In the foreseeable future, there is still likely to be need at times for single Service operations based upon specific circumstances. Hence, these capabilities should be retained.



adequate detailed study, the armed forces should commence their implementation of the developed / chosen model of jointness for the nation to remain secure from a military standpoint.

#### **OPTIMAL UTILISATION OF RESOURCES**

The IAF, being a technology intensive Service, requires investing in expensive equipment on a regular basis. Towards the end of the 1980s and in the early 1990s, as India was undergoing a major economic crisis, funds were unavailable for the purchase of new equipment. Subsequent to economic liberalisation and the faster growth of the economy, by the early part of the first decade of the 21<sup>st</sup> century, lack of funds was no longer an issue; while, at the same time, the earlier reluctance of a few Western nations to export technology to India reduced. With funds not an issue, the IAF embarked upon a re-equipment plan to overcome the obsolescence forced on it during the lean period (early to mid-1990s). New fighters, force multipliers, etc were inducted from various sources, while also upgrading some types of aircraft. Most of these purchases have come from foreign sources. The issue of possible sanctions adversely affecting force availability has been discussed earlier as has the need to control and own one's technology. These issues apart, import of equipment, even with licensed manufacture, at best, looks after immediate needs. Licensed manufacture brings "knowhow" (basically screwdriver level, building to foreign blueprints with foreign tooling, etc without knowing the reasoning and theory behind all that is being done) level technology. Replacement then requires foreign involvement again. Each time the equipment is replaced or upgraded, there is significant foreign exchange outflow. At times, availability of specific technology may be restricted by the technology exporters. A more cost effective albeit slower process could be to invest in a planned manner in developing indigenous

**Licensed manufacture brings "knowhow" level technology.**

**Replacement then requires foreign involvement again.**

**Each time the equipment is replaced or upgraded, there is significant foreign exchange outflow.**

design and manufacture capabilities. In the short term, this is likely to lead to delays and development of equipment that falls below global specifications. However, in the long-term, it should lead to equipment equal to, or exceeding, globally available equipment (especially as it can be specifically tailored to local conditions from the word go). The money spent on such indigenous equipment, would, in the long-term, contribute to the economy and, hence, to the nation's power as it stays within the country and does not go abroad. The section on technology earlier in the paper suggests a path towards this end.

A small point here on costs. It is often brought out that making, say, a Jaguar aircraft in India costs more than the same product bought from British Aerospace, the Original Equipment Manufacturer (OEM). This, as we are seeing in press releases on the current MMRCA deal and in discussions on the offsets clause of the current Defence Procurement Policy (DPP) is primarily because the foreign supplier compensates himself for his losses in manufacturing due to licensed production or offsets by increasing the costs of critical parts that may still be imported for the locally built aircraft or by increasing the final contract price by an amount sufficient to recover these losses<sup>34</sup>. For instance, until its production line was shut down, the MiG-21, built in different variants in India since 1967, and till the very end even aircraft "built from raw materials" locally by HAL incorporated a few critical parts directly imported from the Soviet Union<sup>35</sup>. The supplier naturally recovered some of his losses through very high prices for these parts. Stories about spare parts priced close to the current bullion rates surface from time to time in the open press. Only through indigenous design and complete manufacturing can a nation free itself from such external constraints and exploitation. This, in turn, can be achieved best through the facilitation of the growth of a viable aircraft sub-components ancillary industry to support large public and private sector full system integrators in the domestic aviation field.

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34. "Offsets of Foreign Military Sales, FMS Offsets And Other Issues Affecting FMS Procurements Frequently Asked Questions (FAQs)", [http://www.acq.osd.mil/dpap/cpic/ic/offsets\\_of\\_foreign\\_military\\_sales.html](http://www.acq.osd.mil/dpap/cpic/ic/offsets_of_foreign_military_sales.html), accessed on January 23, 2014.

35. Discussion with Gp. Capt. S Chenna Keshu (Retd), formerly managing director of HAL's Bangalore Complex, in July 2008, at his residence in Bangalore.

Resources, if utilised in this manner domestically, after a period of some amount of pain caused by teething troubles in the challenges in design, development and procurement, could lead to better utilisation of the available resources.

### **ACCEPTABLE ORGANISATIONAL VALUES**

The IAF necessarily draws its personnel from the Indian population. While military socialisation has always endeavoured to insulate military personnel from the ills affecting civil society<sup>36</sup>, over time, some leakage into the military of the ills prevalent in civil society is only to be expected. There is need to ensure that seepage of undesirable activities does not take place in the IAF. The IAF needs to include a strict code of conduct while socialising its recruits from the initial induction stage itself. Such socialisation could include a set of hard and fast "Acceptable Organisation Values" that all entrants must understand fully and live by at all times. Such a code of conduct must be imbibed by new entrants through the example of their seniors. Such a code of values could be modelled on the Honour Code system used by the US Marine Corps. Such a system could emphasise that each and every air warrior is a warrior first and member of his branch, etc later. It may be driven home through instruction and example that air warriors do not "free-load" ever. A policy of "zero tolerance" to moral turpitude could be promulgated and enforced mercilessly. Here it will be the example of seniors which will carry more weight than just slogans, songs, statements, lists and orders. From the basics of human behaviour, it is well known that subordinates in all walks of life will do as the leaders do and not as they say<sup>37</sup>. Initial steps in this direction have already been taken. These require to be followed through fully.

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36. Maj R. B. McKittrick, "An Analysis of Organizational Socialization in the Marine Corps", <http://www.globalsecurity.org/military/library/report/1984/MRB.htm>, accessed on January 23, 2014.

37. Kenneth E Lloyd, "Do as I Say, Not as I Do", *New Zealand Psychologist*, vol. 9, no. 1, May 1, 1980, pp. 1-8.

## **CONCLUSION**

The IAF will complete a century of existence in 2032. It faces several internal challenges in the years till 2032. These include technology ownership and indigenous aerospace equipment development, cyber security, joint operations and inculcation of acceptable organisational values. Through innovative changes to the way the IAF is structured and deploys its resources, both equipment and manpower, it can successfully meet these challenges and increase its capabilities, in turn, leading to a greatly enhanced air power capability for the nation. Through interaction with other stakeholders, it can also contribute towards development of a suitable model of jointness for India to enable synergistic application of military power, if and when required.

# TRANSFORMATION OF THE IAF: TOWARDS ACHIEVING A GREATER ROLE IN NATIONAL SECURITY DYNAMICS

NISHANT GUPTA

Military transformation in a complex democratic political system cannot be pursued in isolation; in fact, it would essentially depend upon the entire eco-system comprising various elements, including threat perception, national outlook towards defence, geopolitical scenario, national strategic culture, institutional strengths, economic status, technological capabilities, as well as the national education system. Moreover, unlike Pakistan and China, where military leadership plays a dominant role in the national decision-making process, the Indian military is considered a tool available to the national leadership to secure its core values and safeguard its national interests, including maintaining sovereignty and national integrity. Thus, transformation of the Indian Air Force (IAF) calls for a well coordinated and concerted political-bureaucratic-military initiative. Nevertheless, to be a flag bearer of the process of transformation, the IAF has to sincerely initiate and catalyse the process of quantum change; and that necessitates clear understanding of national security dimensions, including the institutional framework, challenges, threat perceptions and capability requirements. Identification of the drivers and barriers of transformation is also necessary to

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**The success of any military initiative is the product of an integrated effort involving the political leadership, bureaucrats, military professionals, scientific community; and a high level of coordination amongst all the sub-systems of the defence establishments.**

chalk out the likely roadmap. For harnessing effective changes in an efficient manner, the IAF needs to simultaneously pursue all the three transformational approaches – bottom-up, top-down as well as lateral. The top-down approach demands convincing the external stakeholders, especially the political-bureaucratic machinery, to put in place appropriate institutional mechanisms and facilitate a suitable eco-system that strengthens the transformation of aerospace capabilities; whereas the bottom-up approach would necessarily address the internal

organisational dynamics of the IAF so that it is equipped to envision, initiate, propagate, catalyse, and absorb the process of transformation. The lateral approach entails *jointness* and an integrated approach with the other stakeholders of India's national defence be it sister Services, the scientific community, industry, Ordnance Factory Board (OFB)/Defence Public Sector Units (DPSUs) or other private sector entities. This research paper is an attempt to explore the broader macro level initiatives that would facilitate transformation of the IAF into a formidable force capable of meeting future challenges. Suggestions articulated are recommendatory in nature and are by no means prescriptive or comprehensive.

## **TRANSFORMATION OF HIGHER DEFENCE ORGANISATION AND MANAGEMENT**

The success of any military initiative is the product of an integrated effort involving the political leadership, bureaucrats, military professionals, scientific community; and a high level of coordination amongst all the sub-systems of the defence establishments. Political control over the Indian military is well known; and the situation is unlikely to change in the foreseeable future. However, to maximise the potential of the armed forces, formal documents like the national security doctrine, objectives, strategy and policy; and national

defence objectives, strategy and policy are necessary. By and large, India has been observing an overly cautious approach towards issues pertaining to national security and defence, and thereby exhibiting reluctance in bringing such issues into the public domain. Nevertheless, lately, the Ministry of Defence (MoD) has taken steps to address this limitation and published a technology oriented public version of the LTIPP (Long-Term Integrated Perspective Plan) 2012-27<sup>1</sup> titled "Technology Perspective and Capability Roadmap 2013" (TPCR), an articulation of a futuristic technological view of the Indian military for industry and for other stakeholders as well. But credible fructification of long-term aspirations mentioned in the TPCR

is questionable since these plans are being made in the absence of an effective institutional mechanism, the necessary defence policy guidelines and the commitment of the required funding to the defence budget.<sup>2</sup> Additionally, as per the TPCR 2013, "...specific programmes or technologies could be discussed by industry in greater detail with the respective Services. This document has been prepared in a Service-neutral format since a large number of the technologies required are common between the three Services, wherein the exact specifications of the equipment for single Service requirements in a joint as well as individual scenario may vary even though the technology may be common. Also, many of the capabilities sought have overlapping requirements between the three Services."<sup>3</sup> However, the existing Higher

**Credible fructification of long-term aspirations mentioned in the TPCR is questionable since these plans are being made in the absence of an effective institutional mechanism, the necessary defence policy guidelines and the commitment of the required funding to the defence budget.**

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1. The LTIPP, based on foreseeable strategic trends, attempts to identify the shape and size of the Indian military over the next fifteen years. Having been approved by the Defence Acquisition Council, the LTIPP would act as a guiding principle for the formulation of five-year and annual defence plans.
  2. The present system of annual budgeting gives no commitment of funds beyond a financial year. Consonance between futuristic plans and budgets would be a more practical approach.
  3. *Technology Perspective Capability Road Map 2013* (New Delhi: HQ IDS, 2013) accessed at <https://mod.gov.in/writereaddata/TPCR13.pdf>, on August 13, 2013.

Defence Organisation (HDO) and management barely facilitate such inter-Service and Service-industry interactions.

Effective realisation of the LTIPP and TPCR are crucial for transformation of the IAF and this begs for extensive reforms in the HDO. Mention of reforms in the HDO, invokes thoughts about the highly debated issue of the CDS (Chief of Defence Staff). Despite discussions for more than six decades, the nation has not been able to reach any consensus on this strategic matter. Though the CDS is a vital issue concerning the HDO, instead of focussing the debate around an isolated appointment, the deliberations have been restricted to other macro level issues involving formulation of effective and efficient structures and frameworks, since in a democratic set-up, institutions, policies and procedures are on a higher pedestal as compared to an individual post which inherently has a high probability of personage and personal whims.

The HDO of successful democracies comprises primarily three levels. The first level reflects the political control over the military; the second level integrates political, bureaucratic and military wisdom to drive defence planning and policy; and the third level boosts the combined military potential of the armed forces. In India, at the highest level, the Defence Committee of the Cabinet (DCC) was established in 1947 but it did not last beyond a decade and presently the Cabinet Committee on Security (CSS) looks after all the issues concerning national security, including defence. Today, India has ten other Cabinet committees, including the Cabinet Committee on Accommodation and Cabinet Committee on Unique Identification Authority of India Related Issues but the Cabinet Committee on Defence has not yet found favour with the politico-military leadership.

The second level of the HDO generally comprises councils and boards exercising governmental authority on policy formulation, planning and resource allocation. The British initiated this system way back in the 17<sup>th</sup> century with the establishment of the Board of Admiralty in 1628. Since then, the system of boards and councils has been consistently well placed and has considerably progressed further. India also followed the British pattern of the democratic system at the time of independence,



but there has not been any significant achievement with respect to the establishment of defence councils and boards. In 1947, India established the Defence Minister's Committee (DMC), however, during the era of Krishna Menon (the then defence minister), this committee suffered a severe setback and was virtually made non-functional, essentially owing to his typical style of functioning. Unfortunately, in the absence of any legislative compulsions, this committee too was never revived. Seemingly, India is the only major country that has failed to successfully adopt the system of effective boards and councils, thus, losing out on maximising on the military efficiency. As a matter of fact, experts have pointedly brought out that "it is absurd to keep talking about modernising our Services without modernising this essential aspect of the higher command structure"<sup>4</sup>. Though non-establishment of boards and councils is largely attributable to the political and bureaucratic leadership, nevertheless, inadvertently, the military leadership also contributed to this strategic deficiency. To fill the critical gap in the HDO, in 1955, Jawaharlal Nehru, the then prime minister of India, had made announcements in the Parliament with respect to the adoption of defence councils and boards on the British pattern. The composition of the proposed Air Force Board (and other two Service boards) to be constituted under the Defence Council, was planned on the following pattern:

- Defence Minister – Chairman
- Minister of State
- Under Secretary of State
- Chief of the Air Staff
- Vice Chief of the Air Staff
- Deputy Chief of the Air Staff
- Air Member for Personnel
- Air Member for Supply and Organisation
- Chief Scientist (Royal Air Force), etc

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4. Lt Gen Eric A Vas (Retd), *Truly an Extraordinary Fellow*, accessed at <http://www.rediff.com/cms/print.jsp?docpath=/news/2004/may/27spec1.htm>, on August 12, 2013.

But the army leadership, particularly Gen Thimayya, opposed the establishment of such boards on the plea that the Principal Staff Officers (PSOs) could not sit at the same table and hold a different opinion.<sup>5</sup> There is no denial that military institutions are highly disciplined organisations, with unquestioned execution of orders and are inherently designed to be largely closed and insulated from civil systems; but transformation needs new ideas which cannot flourish without an atmosphere that in essence promotes debates, discussions and difference of opinion on professional matters during the decision-making process.

At the third level, India has the Chiefs of Staff Committee (COSC) for the management of national defence at the strategic and tactical levels. The COSC — the only functional committee in the HDO surviving since independence — provides collective military advice to the Cabinet and direction to the armed forces. But the absence of councils, boards and committees for professional policy guidance at the second level severely constricts the functioning of the COSC.

Despite the obvious inheritance of the British system of governance and HDO, wherein substantial weightage was accorded to military matters and military leadership, India lacks a rational and credible system of councils and boards. There seems to be a deliberate political effort to disregard the essential requirement of a robust national defence mechanism. The Indian political and bureaucratic leadership, being disillusioned by the devastation of the two World Wars and deeply impressed with the success of Gandhi's strategy of non-violence, was optimistically aspiring for a world order that would effectively resolve all conflicts peacefully. Nehru even described Gandhi as an exponent of the "indirect approach" — a concept well articulated by the British military strategist Basil Liddell Hart.<sup>6</sup> Thus, in a strong desire to remain peaceful and move India away from war-like scenarios, the national leadership deliberately neglected the military and HDO. The armed forces, as brought out by Adm Arun Prakash, former chairman, Chiefs of Staff

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5. Jasjit Singh, "India's Higher Defence Organisation: An Introductory Essay" in R Venkataraman, *India's Higher Defence: Organisation and Management* (New Delhi: KW Publishers, 2011), p. xvi.

6. Sunil Khilnani, "Introduction" in Jawaharlal Nehru, *The Discovery of India* (New Delhi: Penguin, 2010), p. xxiv.

Committee, and the chief of the Naval Staff, have been kept completely isolated from India's strategic programmes, and "Service HQ staffs have never been involved, nor the Service Chiefs ever consulted, either before or after seminal events such as India's 1974 Peaceful Nuclear Explosion (PNE), the discovery of the Sino-Pak nuclear nexus, and, of course, the Pokhran II tests".<sup>7</sup> This is a glaring example of the exclusion of the military leadership from the national security structure.

While deliberately pursuing this policy, the national leadership overlooked the fact that the nation cannot wish away a war only by reducing its military strength and preparedness. India, a peace aspiring nation, ignored the fact that for maintaining lasting peace, credible deterrence is a more viable option than adopting a policy that deliberately disregards a robust military defence on the assumption that an adversary would also do the same and would naturally prefer peace over war. India faced severe consequences for not strengthening its defences in the form of five wars, several other adventures by neighbours and a number of '*near war situations*'.

Despite repeated recommendations by several committees including the Kargil Review Committee (KRC) and Group of Ministers Report of the KRC of 2001, the nation has continued to follow the *minimalist* approach towards defence, and due to preoccupation with other priorities, the political leadership has largely remained unsuccessful in initiating corrective steps. It is high time that all the three levels of the HDO are suitably transformed.

### **MACRO LEVEL REFORMS IN HDO**

At the highest level, India needs a Cabinet Committee with the prime minister as the chairman, and the defence minister, minister for external affairs and finance minister as political members, exclusively focussed on defence matters. With the Service chiefs as permanent members, non-political members should include the National Security Advisor (NSA) and Scientific Advisor to the Raksha Mantri (SA to RM). The committee may be named the Cabinet Committee on Defence (CCD) or Cabinet Committee

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7. Adm Arun Prakash, "9 Minutes to Midnight: Opacity about Their Deterrents is Leading to a Nuclear Arms Race between India-Pak" *Force*, July 2012, p. 4.

**For effective functioning, the COSC – the apex body to advise the political leadership on military issues — needs empowerment in terms of availability of real-time intelligence assessment and greater delegation of power. The Joint Intelligence Committee (JIC), which was transferred from the COSC to the Cabinet Secretariat in the 1960s, may be brought back to its original structure.**

on Military Affairs (CCMA). The primary responsibility of the committee would be to provide strategic direction for long and medium term planning in consonance with the national strategy.

At the second level, for medium and short term planning, the establishment of a Defence Council (DC) on the British pattern is desirable. The DC is proposed with the following composition:

- Defence Minister - Chairman
- Defence Secretary - Secretary
- Service Chiefs - Members (Military)
- Vice Chiefs - Members (Military)
- SA to RM - Non-Military Member
- Secretary Finance (MoD) - Member

Other relevant secretaries and additional secretaries of the MoD, and PSOs of Service HQ may be called on an as required basis. The DC would be mainly responsible for implementation of defence policy guidelines provided by the CCMA or CCD. The DC would play a seminal role in matters like approval of the LTIPP, finalisation of five-year defence plans, linking of the annual defence plan to the Defence Services Estimate, promoting defence Research and Development (R&D), periodical monitoring of various important projects concerning infrastructure modernisation, acquisition and weaponisation.

At the third level, empowerment of the COSC – the only functional committee of the original HDO envisaged in 1947—is a necessity. For effective functioning, the COSC – the apex body to advise the political leadership on military issues — needs empowerment in terms of availability of real-time intelligence assessment and greater delegation of power. The Joint Intelligence Committee (JIC), which was transferred from the COSC to the Cabinet Secretariat in the 1960s, may be brought back to its original

structure. Amongst other initiatives, establishment of three Service Boards – the Admiralty Board, Army Board and Air Force Board – would provide the impetus to the mechanism of administering and monitoring single Service performance. The Air Force Board, with Executive Committees under the chief of the Air Staff, would enable formulation of the required policies for efficient functioning of the IAF in line with the aims specified by the DC.<sup>8</sup> The CDS, as and when appointed, should obviously be a permanent member at all the three levels.

Nonetheless, establishment of new frameworks without associated enablers and fixation of accountability would not give the desired results. The aforementioned transformation in the HDO would not be effective without adequate legislative mandates and rational military and bureaucratic integration. The HDO conceived after independence could not continue for long and fell into disuse essentially because of personality issues and the personal desires of the politico-bureaucratic leadership (and not because of any planned and well thought out policy decisions). Thus, an appropriate legislative initiative is essential to make the organisational changes strong enough to stand the test of time. For institutionalising effective defence reorganisation, even the United States, which is economically and democratically a much advanced country, had to resort to the Defence Reorganisation Act (commonly known as the Goldwater-Nichols Act of 1986). Secondly, there is also a need to integrate the military and bureaucratic leadership through practical initiatives. Presently, the MoD is a separate entity almost exclusively staffed with civil servants. The primary mandate of the MoD is to frame policy directions on defence and security related matters; communicate the same to the Service HQ, inter-Service organisations, production establishments and R&D organisations; and ensure effective implementation of the approved policies within the allocated budgets. Thus, policy-making and execution are by different agencies with the onus of policy-making on civil servants who largely work in isolation from the military. The desired military-bureaucratic synchronisation cannot

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8. For further details, see R Venkataraman, *India's Higher Defence: Organisation and Management*, (New Delhi: KW Publishers, 2011).

**Establishment of a specialised cadre of civilian defence officers is vital for creating a pool of bureaucrats adequately informed about the nuances of defence related matters, including the work culture and ethos of the Services and diplomatic necessities.**

be achieved by just renaming Service HQ as Integrated Headquarters of the MoD; in fact, the MoD and Service HQ are to be operationally and structurally transformed into one single entity.

Two essential steps towards achieving this desired integration are establishment of a specialised cadre of civilian defence officers; and cross-postings of officers between Services HQ and the MoD. Establishment of a specialised cadre of civilian defence officers is vital for creating a pool of bureaucrats adequately informed about the nuances of defence related matters, including the work culture and ethos

of the Services and diplomatic necessities. In the present system of the civil services, there is a specialised cadre of Group 'A' Service for handling issues like Defence Accounts (known as 'Indian Defence Accounts Service') and Defence Estate (known as 'Indian Defence Estate Service') but surprisingly there is no special cadre for occupying higher positions in the MoD and allied defence establishments. This lacuna may be addressed through the establishment of a special cadre for defence and related appointments and that may be known as IDS (Indian Defence Service). IDS officers are to be well versed in defence and diplomacy in almost equal terms. To initiate this cadre, experienced civil and military officers with exposure and experience in the MoD and/or Ministry of External Affairs (MEA) can be inducted. Recently, in 2012, the UPSC (Union Public Service Commission) initiated a scheme wherein young military and paramilitary officers could join the Indian Police Service (IPS) cadre.<sup>9</sup> Similar schemes could be pursued for establishing the proposed IDS cadre. And once the foundation is laid, regular recruitments may commence along with other civil services cadres – Indian Administrative Service (IAS), IPS and Indian Foreign Service (IFS). The long

9. Advertisement titled "Indian Police Service Limited Competitive Examination, 2012", dated March 10, 2012 accessed at [http://www.upsc.gov.in/exams/notifications/2012/ips/ips\\_eng.pdf](http://www.upsc.gov.in/exams/notifications/2012/ips/ips_eng.pdf), on May 19, 2013.

pending recommendation of curtailing the all purpose character of the IAS and replacing it with specialist cadres may be acted upon at the earliest.<sup>10</sup> Systemic cross-postings and institutional linkages are also essential for establishing cohesion and understanding each other's strengths, limitations, expectations, work culture and ethos.

### **ORGANIC TRANSFORMATION OF THE IAF**

The above mentioned macro level recommendations for transformation of the HDO and management are significant for treading the path of transformation, nevertheless, instead of awaiting the external transformation to materialise first, it would be more prudent and practical for the IAF to simultaneously initiate internal transformation so that it can make best use of the available resources and is better prepared to catalyse and absorb external changes in the dynamic environment. To be a long-reach, high endurance, all-weather, precision, air dominance, networked and space-enabled force, capable of handling the full spectrum of war, crises, threats and peace-time requirements, the IAF needs to change the mindset and move away from a 'threat-based approach' to a 'capability-based approach'.

Globally, employment of offensive air power in the contemporary battle space is increasingly becoming more complex, especially due to the blurring of the distinction between combatants and non-combatants. The USAF (United States Air Force) has termed its concept of transformational pursuit as DOTMLPF – that reflects its desire to improve Doctrine, Organisation, Training, Material, Leadership, Personnel, and Facilities in a coordinated manner.<sup>11</sup> For India, air power employment in an offensive role is an even greater challenge since the nation follows the basic precepts of military power projection – *necessity, humanity, and proportionality* — in letter and spirit. The inordinately slow defence acquisition set-up, unplanned deficit in the force levels, low technological base, ongoing economic slowdown,

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10. The need for creating specialists in the IAS cadres was also felt by the first Administrative Reforms Commission way back in 1966; but the recommendations made therein are yet to be implemented.

11. *United States Air Force Unmanned Aircraft Systems Flight Plan 2009-2047* (Washington DC: USAF, 2009).

coupled with high inflation and devaluation of the rupee clearly indicate trends that would continue to limit the availability of air power assets in the next two decades. The air assets would be hardly sufficient to meet the likely operational peace-time and war-time demands across the full spectrum, over all the distant and diverse theatres. Thus, there ought to be greater emphasis on effective and efficient employment of the available air power and prudence demands that the IAF should develop air power capabilities that make the force more flexible and adaptable. Additionally, transformation calls for '*professional mastery*' at all levels, individual as well as collective.

Before dwelling upon '*professional mastery*', appreciating the subtle difference between a '*profession*' and an '*occupation*' is important. An '*occupation*' is a habitual employment defined in economic terms and market value, striving for a balance between the organisational requirements of the employer and the economic needs of the employees. The primary motive of the organisation and the employee is to meet their respective self-interests at an agreed financial implication. On the other hand, the term '*profession*' is based on ethical principles, special trust and mutual confidence with theoretical underpinnings that far outweigh any potential for economic gains.<sup>12</sup> Moreover, a profession tends to evolve and get institutionalised with a purpose transcending individual self-interests in favour of a presumed higher good. A military force – in the profession of arms – is the embodiment of this evolution, and the IAF is no different.

The IAF, being a system of systems, every sub-system has to strive for professional excellence. The IAF, aspiring to have a tangible influence on the national security calculus, needs to ensure that all its components — right down to every single air warrior at the bottom of the pyramid — are proficient to handle their respective tasks, duties and responsibilities, be they operations, technical or administrative. However, in the current age—signified with information overload, increasingly high rate of technological change, expanding spectrum of conflict with increasing

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12. Sanu Kainikara, *Working Paper 33: Professional Mastery and Air Power Education* (Canberra: Air Power Development Centre, 2011), p. 3.



non-traditional threats, growing expectations that demand a leader to be a proficient *specialist* as well as *generalist* — it is humanly impossible to have in-depth knowledge of all the dimensions of national security and defence. Limited knowledge is an issue the military leadership must face boldly. For example, Adm Arun Prakash, gracefully accepted his ignorance about the nuclear issues and went further to state that “...after 39 years in uniform, the system had ill-prepared me for the most critical responsibility that I was to ever shoulder; but equally galling was the realisation that the time I devoted, as Chairman COSC, to the nuclear deterrent would be at the cost to India’s maritime security – my primary commitment as Naval Chief.”<sup>13</sup> Lack of knowledge and robustness in strategic thinking leads to diminished awareness among the military leadership of the wider context of national strategy and security thinking; and the corollary is their exclusion from the strategic decision-making process. The IAF training and education are to be structured in such a manner that while every single *air warrior* aspires for technical and professional mastery, the senior leadership possesses the requisite knowledge, experience and wisdom that enables comprehensive understanding of the wider perspective of national grand strategy, national security and defence related issues. Military training is normally built around a competency-based system in which trainees are indoctrinated in their attitudes to be disciplined and trained to follow the Standard Operating Procedures (SOPs) to accomplish given tasks. This kind of ‘task oriented’ training is very effective in developing technical mastery at the operator level. But as the level rises, education gains prominence and at the highest level, it is paramount.<sup>14</sup>

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13. Prakash, n. 7, p. 4.

14. Appreciating the distinction between education and training, and understanding their impact on transformation of the IAF is imperative. Training is a repetitive process of acquiring predefined knowledge with an aim to improve skills through instructions and practice. On the contrary, education is an intellectually stimulating process that develops wisdom, widens the horizon of the individual and generates capability to understand ideas and big picture. While ‘training’ is aimed at equipping a person in performing a particular task in a well defined manner as well as moulding of attitudes through formalised drills; education aims at developing an understanding of the guiding principles, theory and concept of a particular subject in the correct perspective of a wider background. Essentially, training tells ‘how to complete a task’ while education gives wisdom of ‘how to think’ and ‘what to do’.

*IAF and National Grand Strategy*

Ideally, the IAF should aspire to reach the highest level of professional mastery and play a leading role in the formulation and execution of the national grand strategy. However, the journey to reach the highest level is long, uphill and arduous, involving multiple challenges. First, the organisation desirous of being on a high pedestal has to consistently display a very high order of operational excellence for a long period of time. During its long history of 80 years, the IAF has successfully displayed this capability by largely meeting all the national security and defence requirements. The only war India lost was the one in which the IAF was not allowed to participate in a direct combat role. Since 1971, the IAF has been effectively defending national air space and there has been no attack from the air. Secondly, the IAF needs to have a robust doctrine and concepts of operations at the unclassified level. Articulating targeted campaign documents to make all the stakeholders – be they strategic analysts, academicians, bureaucrats, political and military leadership or laymen— understand the philosophy of air power is also crucial. There is significant scope to strengthen this aspect because such documents are hardly available in the public domain. The IAF took 80 long years to publish its first open source doctrine. This initiative needs to be further strengthened in terms of publishing targeted literature. Thirdly, having the requisite confidence to play an active role in the national security community, and the capability to function effectively at this highest level of the security calculus is also significant. Moreover, just getting a place at the highest table is not enough — the aerospace leadership should also be capable of influencing the decision-making process of the national grand strategy. IAF aspirations should focus on an active role in national security dynamics that encompasses defining the bounds of India's national security, determining the desired end state to any crisis/confrontation involving the national security imperatives and the point of military disengagement, providing the government with viable sovereign options and alternatives to meet the threat/crisis, deciding the best course of action, planning and conducting multi-agency and joint campaigns, and tailoring the response to achieve the desired end states at minimum cost. Conceptualising futuristic

rational strategies and doctrines demands philosophical inclinations.

Essentially, the IAF should continue to aspire to be a capability-based, high-tech, modern, well trained and flexible force capable of meeting all future requirements by 2032, when the IAF will be celebrating its 100<sup>th</sup> anniversary. A long-term transformation policy has to basically begin with the articulation of a thought process on aspirations, capabilities, drivers, enablers, as well as limitations and roadblocks; and this begs for initiating the process of a broader strategic and philosophical debate. The chief of the Air Staff and top brass of the IAF of 2032 would presently be at the middle management levels, with about 15 to 17 years of colour service. Therefore, the concerted efforts should be towards familiarisation of this cadre with the IAF Vision 2032, and rationally grooming them towards realisation of the vision.

**The IAF should continue to aspire to be a capability-based, high-tech, modern, well trained and flexible force capable of meeting all future requirements by 2032, when the IAF will be celebrating its 100<sup>th</sup> anniversary. A long-term transformation policy has to basically begin with the articulation of a thought process on aspirations, capabilities, drivers, enablers, as well as limitations and roadblocks.**

### *Philosophical Pursuits in the Military*

The profession of aviation, as brought out by Winston Churchill, attracts adventurous souls who are physically adept, mentally alert and pragmatic rather than *philosophically inclined* (emphasis added).<sup>15</sup> Across the world, air power leadership has been largely dominated by highly professional and accomplished pilots with a proven track record of mastering the nuances of flying that include learning, training, experimenting and exploring air power with an inherent sense of adventure. The profession of flying and employment of air power demands that its practitioners strive for

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15. AP 3000, Royal Air Force, ch 2, accessed at [http://www.raf.mod.uk/rafcms/mediafiles/374B96A2\\_1143\\_EC82\\_2E93053B8A5AF3EF.pdf](http://www.raf.mod.uk/rafcms/mediafiles/374B96A2_1143_EC82_2E93053B8A5AF3EF.pdf), on July 14, 2013.

**Another important issue is the commonly held belief that the military maintains a bias against intellectuals, scholars and thinking-soldiers in favour of soldiers of action. The preference for character over intellect and for brawn over brain is widely talked about.**

perfection, and, thus, they naturally develop a practical, scientific and specialist mindset. And a specialist naturally gravitates towards knowing more and more about less and less; and mathematical extrapolation suggests that a '*specialist is the one who knows everything about nothing*'. Hence, in the pursuit of excellence in his own specialised area, generally, a specialist tends to lose the larger perspective. Konrad Zacharias Lorenz has rightly brought out that, in order to compete with other people, every man gets into a narrower and narrower field of knowledge in which he must be an expert. Air power leadership is no

different. On the other hand, philosophical pursuits like conceptualisation of strategy, doctrines, campaign documents, propagation of air power and convincing its stakeholders (internal as well as external) require a fair amount of philosophical acumen and a mindset that is more *generalist* than *specialist*. Philosophical speculators, as stated by Will Durant, know less about more as narrow knowledge does not generate wisdom.<sup>16</sup> Nonetheless, many practitioners of air power have successfully overcome the above stated practical constraints and have excelled in philosophical pursuits as well.<sup>17</sup> Though the size of this elite community is quite small, slowly but surely it is growing. It is desirable to make conscious efforts to promote and energise expansion of this pool of scholar-air warriors, qualitatively as well as quantitatively, so that an increasing number of air warriors acquire adequate knowledge and wisdom to handle strategic, doctrinal and policy matters concerning air power.

Another important issue is the commonly held belief that the military maintains a bias against intellectuals, scholars and thinking-soldiers in favour of soldiers of action. The preference for character over intellect and

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16. Will Durant, *The Story of Philosophy* (New York: Pocket Books, 2006), p. xiv.

17. Air Cmde Jasjit Singh, a renowned national security expert and strategist was an undisputed leader of the strategic community in India.

for brawn over brain is widely talked about. The British war-time Prime Minister Lloyd George (1916-22), caustically observed that the “military mind ... regards thinking as a form of mutiny.”<sup>18</sup> Additionally, intellectual pursuits and professional excellence are generally in competition for quality time. On the one hand, mastering sophisticated air power systems demands considerable training and time, and, on the other, the process of education, learning, introspection, acquisition of knowledge and its practical application all are also long-drawn processes involving immense sacrifice, dedication and sincerity of purpose. The IAF, while facing a shortage of 600 pilots, cannot afford to promote a culture of scholarly pursuits in terms of sparing its pilots on long sabbaticals for undertaking research/studies to explore theories on various relevant fields, including air power strategy, national defence, international relations and diplomacy.

Effective educational measures essentially require both ‘pull’ and ‘push’ mechanisms. Organisationally, the IAF must continue to ‘push’ the air warriors as per the prevailing structure of an institutionalised educational mechanism. However, there is a need to guard against institutionalised educational courses leaning towards training, overlooking an educational spirit. The tendency of treating institutional courses as ‘a series of courses that one has to undergo’, ‘a break from operational pressure’, ‘botheration that has to be suffered’, or ‘something that interferes with one’s primary duties’ needs to be curbed through developing a culture of education.<sup>19</sup> It is important to understand that the culture of excelling through accomplishment of a given operational task is a well entrenched psychology in air forces across the world, at organisational as well as individual levels. Through PME (Professional Military Education), the IAF should take this ‘*task oriented approach*’ to a higher level wherein air warriors not only focus on their respective tasks but understand various dimensions of generation and employment of air power. Additionally, intellectually inclined, capable and interested volunteers should be identified and motivated

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18. Col. Lloyd J. Matthews, “The Uniformed Intellectual and His Place in American Arms,” *Army Magazine*, July & August 2002, accessed at <http://www.freerepublic.com/focus/news/735611/posts>, on July 30, 2013.

19. Kainikara, n.12, p. 13.

to pursue their educational interests provided they are aligned with the organisational requirements. For this, at the outset, the IAF needs to bid for adequate manpower so that air warriors are not excessively tasked in routine operational requirements and are left with some quality time for intellectual pursuits.

To 'pull' the air warriors towards educational and intellectual pursuits and to introduce willing learners to quality literature and encourage self-study, significant air forces across the world – including the USAF, Royal Air Force (RAF), Australian RAF routinely publish 'Reading Lists' containing recommendations of their respective chiefs in terms of books, biographies, movies, etc that air power professionals should read or watch to enhance their knowledge and appreciation of air power history, theory, strategy and the leadership challenges likely to be faced in today's and tomorrow's Service. These lists, current as well as archives, are readily available on their respective official website. But the IAF is yet to publish any such list on its official website, though a considerable amount of quality literature on air power and national defence published in India/abroad is already available in the public domain.

More importantly, scholarly pursuits should be suitably rewarded in terms of career progression, promotions, special appointments as well as financial incentives. On the contrary, the world over, there are numerous examples of thinking-soldiers getting ridiculed, superseded and even court-martialled. Giulio Douhet, the Italian author of *The Command of the Air* a seminal work on air power, was court-martialled, imprisoned, and retired for his severe criticism of the conduct of the Great War. Incidentally, when investigation of the Italian defeat at Caporetto in 1917 justified his criticisms, his conviction was reversed, and he was appointed head of the aviation Service.<sup>20</sup> Col. John A. Warden III, a renowned theorist of air power, of Warden's Five Rings fame, could not rise in the USAF beyond the rank of colonel. The IAF should essentially be conscious of this systemic faultline across the air forces of the world, and make efforts towards

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20. "Giulio Douhet" *Encyclopaedia Britannica*, accessed at <http://www.britannica.com/EBchecked/topic/170252/Giulio-Douhet>, on July 30, 2013.

reversing the trend of sidelining scholars and thinkers. Realisation should dawn that intellectualism is the basis of military transformation and not just technological advancements. Individual thinkers striving for change while working within a system would generally encounter opposition from elements seeped in traditions and bureaucracy. Countering this resistance requires efforts to embed institutional intellectualism in the organisational framework that can promote free thinking and exchange of ideas.

### *Technology and Human Element*

Some quarters, especially the ground forces, feel that aerospace power does not appreciate the ground realities since it operates in the third dimension, far away from the surface where the real action takes place, and being highly technical, its dependence on technology is so high that it almost excludes the human element. Thus, the aerospace leadership is, by and large, believed to be detached from human elements and their understanding of the ground realities is considered to be shallow. It is feared that this *detachment* would further amplify with the increasing use of unmanned platforms and exploitation of space. Such allegations are far removed from truth and reality. How can one overlook the fact that strategy, concepts, tactics as well as conduct of actual operations are always decided and directed by human beings. The human resource has always been more important than the machine, since it is human ability that produces or exploits a machine. The men behind the machines have always been most critical in making a military force credible and effective. During World War I, the required technology and raw material were available with nations to produce aircraft in huge numbers (during the first ten months of 1918, France, Britain and Germany had collectively produced about 50,000 aircraft); but generating well trained and capable pilots in commensurate numbers in the given timeframe must have been a bigger challenge since pilot training is a highly sophisticated, long-drawn and costly process.

Though air forces are highly technical, they are inherently human as well. The IAF also considers air warriors as primary assets and the same is well conveyed through its motto "*People First Mission Always*". All the IAF operations in peace as well as war are inherently human activities undertaken

**The political and bureaucratic leadership should take concrete steps to strengthen the image of the IAF in terms of *weightage* accorded to it in the formulation of the national grand strategy and the security calculus.**

through technological means. Globally, advanced Unmanned Combat Air Vehicles (UCAVs) are also remotely piloted and are not autonomous. The only difference is that the cockpit is on the ground and not in the aircraft. Thus, as of now, people are indeed central to any air force since autonomous robots or flying platforms are still far from being a technical reality and practical option of deployment. Nevertheless, since a future war will be more and more network-centric and integrated, inter-Service *jointness*, civil-military relations and understanding of each other's capabilities and limitations are crucial to the national war-waging potential. Thus, instead of just denying these parochial views and in order to dispel these myths, the IAF needs to pursue the necessary steps through the means of campaign documents, discussions, wider debates and increased interaction with sister Services and civilian counterparts. Autonomous think-tanks like IDSA (Institute of Defence Studies and Analyses), CAPS (Centre for Air Power Studies), CENJOWS (Centre for Joint Warfare Studies), CLAWS (Centre for Land Warfare Studies) and NMF (National Maritime Foundation) can play an important role by facilitating preparation of such documents and providing a common platform for bridging the gap amongst the Service HQ, MoD and HDO through discussions and debates.

***Attracting Best Talent and Aspiring for Professional Mastery***

To produce competent professionals, the IAF essentially needs to attract the best talent available in the country and thereafter educate and train them through the best curriculum and practices that create an excellent work culture and working environment. In the absence of good intake, even the best of the PME (Professional Military Education) practices would be insufficient to produce the best professionals. The military which used to be a profession linked with royalty, honour, patriotism and service to



the nation, is appearing to be gradually losing its sheen. The *profession of arms* has considerably slid down in the priority list of potential candidates looking for a profession. The reasons are many, including a short career span associated with a steep promotional pyramid; inherent social hardships to the air warriors as well as their family members due to frequent postings and remote locations; huge disparities in promotions, remunerations and little influence in higher defence management as compared with their counterparts in the bureaucracy; a highly disciplined work culture demanding a high order of obedience, loyalty and unquestioned execution of orders that is not in step with the societal trends of consumerism, equality and general freedom of choice.<sup>21</sup> Addressing these systemic and societal issues requires a multi-dimensional approach. At the broadest level, further boosting the image of the IAF (and that of the defence forces) is crucial. The political and bureaucratic leadership should take concrete steps to strengthen the image of the IAF in terms of *weightage* accorded to it in the formulation of the national grand strategy and the security calculus. First, as mentioned earlier, the IAF top brass merits a greater role in the higher defence management decision-making process so that they can initiate and steer appropriate measures to address the given shortcomings. Secondly, the socio-economic status of the air warriors has to be uplifted. Thirdly, the IAF needs to consciously develop a mechanism that unequivocally dissuades *careerism* (a phenomenon gaining prominence in all professions) and promotes *integrity* and *professionalism* — a humongous challenge in the prevailing socio-economic conditions and general aspirations.

## POLICY AUDIT

The IAF, a unique institution, is entirely different from commercial organisations at least in three aspects. First, in a war there is no second position: either you win a war or you lose a war. Secondly, in peace-time, real future operations are difficult to predict and it is very complicated to

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21. "Generation Next Workforce Study 2013", a study brought out jointly by CII (Confederation of Indian Industries) and Deloitte, highlights and quantifies the reducing loyalty amongst the Indian workforce, especially amongst the generation born after 1981 which is termed as 'Generation Y'.

**Transformation is an endless journey and not a destination, thus, no competitive advantage over a potential adversary or capacity to neutralise an expected threat can be retained forever. Retaining competitive advantage requires a mindset to explore and change continuously.**

truly ascertain the war-waging potential of a force. Genuine effectiveness can only be tested during actual operations whereas performance appraisals undertaken during simulated conditions are based upon perceptions of likely war scenarios, primarily based on a national understanding of war and assumptions of the enemy's likely capability and strategy. Thirdly, in India — a true democracy with defensive and non-alignment policies — there is no national alternative to the IAF. Unlike the North Atlantic Treaty Organisation (NATO) nations, India does not have any alternative arrangement or fallback mechanism in terms of bilateral or multilateral defence alliances.<sup>22</sup> Hence, the nation needs to realise that any laxity in the preparedness of the IAF would

severely jeopardise national security and defence.

Transformation is an endless journey and not a destination, thus, no competitive advantage over a potential adversary or capacity to neutralise an expected threat can be retained forever. Retaining competitive advantage requires a mindset to explore and change continuously. Therefore, to be considered a credible element of the national grand strategy, it is desirable for the IAF to continuously monitor its strategy, policy and organisational practices, their impact on organisational capability to wage and win a war, power projection, handling threats and exigencies. And this entitles the IAF to a reality check through a realistic and consciously critical policy audit on a regular basis (only a financial/performance audit would not suffice). A policy audit has to be pitched at a much higher level and the scope of the audit should include all the larger issues, including vision, strategy, policies, work culture, values, perceptions and aspirations having a bearing on the organisational

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22. Historically, India believes in strategic autonomy and international partnerships, not in alliances.

capability to perform and transform. Table I below lists out some essential aspects that need to be covered during an effective organisational audit of the IAF (the list is suggestive and not comprehensive).

**Table 1: Audit Guidelines<sup>23</sup>**

<b>Leadership</b>
<ul style="list-style-type: none"> <li>• What is the vision of the organisation?</li> <li>• What does the organisation aspire to achieve?</li> <li>• What are the core values that guide executive decision-making?</li> <li>• What is the dominant leadership style?</li> <li>• What leadership traits are rewarded?</li> </ul>
<b>Strategic Elements</b>
<ul style="list-style-type: none"> <li>• What elements are recognised, developed and encouraged?</li> <li>• What are the external and internal threat perceptions?</li> <li>• What are the drivers of the organisational strategy?</li> <li>• How does the IAF educate and train its professionals?</li> <li>• What are the professional strengths of the air warriors?</li> <li>• Is there a willingness to change?</li> <li>• What is the organisational attitude towards change/transformation initiatives?</li> <li>• What are the elements of pride amongst air warriors?</li> </ul>
<b>Organisational Values and Practices</b>
<ul style="list-style-type: none"> <li>• What are the official values and how well are they articulated and communicated to the air warriors?</li> <li>• What are the unofficial values and practices followed? What happens when they are violated?</li> <li>• Does any disjunction exist between the two? If yes, then how is it being addressed?</li> <li>• How do the air warriors interact with each other at different levels?</li> </ul>
<b>Technology</b>
<ul style="list-style-type: none"> <li>• What is the extent and nature of technology?</li> <li>• What are the technological aspirations?</li> <li>• How comfortable are the employees with the use of technology?</li> </ul>

23. Adapted from Abinash Panda, "Do you know Who You are Dealing With? Cultural Due Diligence: What, Why and How" *Vikalp: The Journal of Decision Maker*, vol 38, April-June 2013, p. 11.

**Perception of Air Warriors**

- How do the air warriors perceive the IAF?
- How do they perceive India's defence, including other Services and HDO?
- What is their perception of national security threats?
- How do they perceive other air forces, especially the PLAAF, PAF and USAF?
- What is the shortfall between perceptions and aspirations?

**CONCLUSION**

There is no doubt that maintaining and exhibiting technical and professional mastery is an essential element for the IAF, but it is insufficient to transform it into a full spectrum formidable force. The biggest challenge is to gain a chair at the highest table of the national grand strategy and its security framework. In the politico-civil-military complex of the Indian democratic system, this can be achieved only through establishing credibility, dispelling mistrusts and developing mutual understanding and respect amongst all the stakeholders of national defence. And this begs for transformation in the higher defence organisation and management so that suitable frameworks and systems are created and appropriate practices are followed. Alongside, the IAF has to continually aspire for professional mastery and acquisition of high-tech national defence capabilities.

The most significant step towards achieving transformation is adoption of an appropriate mindset. The old adage that everything is born twice – first in the mind and subsequently in a physical state – would continue to be the cardinal principle of transformational pursuits. A change in mindset, even without any change in force, technology or equipment, can simply change the thought process and transform the way we think, plan, develop, deploy and employ the existing force. Thus, mindset is most crucial to the process of transformation and the air warriors must be continuously educated and trained to inculcate a mindset that has the propensity to understand the big picture and assume a larger strategic role in the national grand strategy.

# WHY IS CHINA EXHIBITING BELLIGERENT BEHAVIOUR?

RAJ MONGIA

## INTRODUCTION

Of late, China has been displaying a shift in its foreign policy. The change is perhaps its way of asserting itself and declaring to the world its new status, announcing its phenomenal rise as a great power.<sup>1</sup> China has also indulged in making use of paramilitary forces, economic sanctions, fishing and oil ventures. It exhibits an offensive outlook and uses intimidating means to deal with territorial disputes in the South and East China Seas. This development forces one to ponder over whether the Chinese leadership has abandoned the low profile diplomacy advocated by Deng Xiaoping. Or has China reoriented its foreign policy towards a more assertive direction as a symbol of its wealth and power?

It has been suggested by some scholars that China has emerged sooner and more assertively than was expected. It seems Beijing now asserts its interests and willingness to prevail even at the expense of appearing aggressive. China has been moving gingerly beyond the paradigm of developmental modesty.<sup>2</sup> But this hesitant approach leads one to wonder

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1. Matthew R. Costlow, "Gunboat Diplomacy in the South China Sea", [http://www.usafa.edu/df/inss/Research%20Papers/2012/Costlow%20South%20China%20Sea%20\(22%20Jan%202013\).pdf](http://www.usafa.edu/df/inss/Research%20Papers/2012/Costlow%20South%20China%20Sea%20(22%20Jan%202013).pdf), 2012, accessed on October 13, 2013, pp.5-6.
2. Suisheng Zhao, "Chinese Foreign Policy as a Rising Power to find its Rightful Place", *PERCEPTIONS*, vol. XVIII, no. 1, Spring 2013, pp. 101-128. pp.117-119.

**For many years after the end of the Cold War, fully understanding that its geostrategic position just did not allow it to exert enough clout, China followed the policy of hiding its capabilities, focussing on national strength building and biding its time.**

whether China is prepared to play the positive leadership role of a great power in the 21<sup>st</sup> century. This article dwells upon China's foreign policy behaviour, especially after the global downturn in 2008.

### **METAMORPHOSIS**

For many years after the end of the Cold War, fully understanding that its geostrategic position just did not allow it to exert enough clout, China followed the policy of hiding its capabilities, focussing on national strength building and biding its time. The policy is aptly captured in a Chinese phrase *Tāoguāngyǎnghuì*

(韬光养晦).<sup>3</sup> Deng Xiaoping was a strong proponent of this policy. In the 1990s, China kept its head low and avoided confrontation with the US and other Western powers. This was a well thought out posture in the wake of its vulnerability towards Western sanctions following the Tiananmen Square protests in 1989. As a result, Beijing followed a good neighbourhood *mùlín zhèngcè* (睦邻政策) policy to conduct relations with its Asian neighbours and create a peaceful regional environment conducive to its economic development.

As far as the major powers were concerned, China made lot of allowances to "learn to live with the hegemon". It made a lot of adjustments and policy adaptation to coexist with the reality of dominance in the international system. Since the US held the key to China's continuing modernisation efforts, it was important that the US was not offended. With rapid economic growth over the past three decades, China weathered the global economic slowdown that started from 2008, better than many Western countries. New China's foreign policy behaviour has shifted towards a more assertive direction. Chinese leaders and official publications have started talking

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3. Suisheng Zhao, "A New Model of Great Power Relationship and China-US Competition in the Asia Pacific", ISPI Analysis Publication, Analysis No 211, November 2013, pp. 4-5.

about China's core national interests, defined as "the bottom-line of national survival" and essentially non-negotiable. Though some Chinese scholars advised that China should be more ambiguous in listing its core interests, in order to leave room for manoeuvre, the Chinese leaders made clear in their speeches that sovereignty and territorial integrity are among China's core national interests. They steadily included more and more controversial issues in the expanding list of China's core interests, signalling the resolve of China's rising power intent. This reorientation in its foreign policy resulted in damaging China's relations with the Western countries and many of its Asian-Pacific neighbours.

China no longer avoided appearing confrontational. It berated American officials for the global economic crisis. It refused to back a tougher climate change agreement in Copenhagen. It stood fast against American demands for tough new Security Council sanctions against Iran. The Western economies were floundering and the Chinese economic and diplomatic clout rising.<sup>4</sup> The US was perceived in China as a country which, though in heavy debt to China, was still attempting to leverage its superiority to keep China down. This perception has made Chinese leaders less willing to make adaptations and more ready to challenge the US in defending what they call China "core interests".

Upping the ante with regard to the US arms sales to Taiwan, China lodged a strong protest in its dire sounding warning against the consequences of the arms sales as a serious challenge to China's core interests. RAdm Yang Yi openly stated that it was time for China to sanction the US defence firms behind the sales to reshape the policy choices of the US. When the Obama Administration notified Congress of the US \$ 6.4 billion arms sale to Taiwan on January 29, 2013, it faced unprecedented Chinese objections.<sup>5</sup> In addition to what China did in the past by announcing the suspension of some military exchanges with the US, the Chinese Foreign Ministry spokesman officially threatened, for the first time, to impose sanctions against American companies involved in the arms sales.

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4. Zhao, "Hu Jintao's Foreign Policy Legacy", e-International Relations, December 8, 2012, pp1-2.

5. Zhao, n.2, pp. 104-105..

**Chinese leaders expanded the core interests in 2009 to include the maritime territorial claims in the South China Sea, where China confronts a number of disputes over islands and seas. These water bodies are also claimed by other Asian countries.**

When the Dalai Lama was scheduled to meet President Obama in early 2010, China, instead of following the low profile dictum, reminded the West of the tough sentiments once expressed by Deng Xiaoping that no one should expect China to swallow the bitter fruit that hurts its interests.<sup>6</sup> China regularly raised its voice against the European countries when their leaders met the Dalai Lama in an official setting. China denounced German Chancellor Angela Merkel over her meeting with the Tibetan spiritual leader. It suspended its ties with Denmark after its prime minister met the Dalai Lama. When French President Nicolas Sarkozy met the Dalai Lama in his capacity as the president of the European Union (EU), Beijing abruptly cancelled the scheduled EU Summit in December 2008. It perhaps wanted to show that, even amidst the global economic crisis, it has the tenacity to confront the leaders of its biggest trading partner nations.

Reflecting on the maritime territorial sphere, one observes that though China's official statements on core interest convey its concerns involving sovereignty and territorial integrity, they refer almost exclusively to the three issues of Taiwan, Tibet and Xinjiang. In 2009, Chinese leaders expanded the core interests in 2009 to include the maritime territorial claims in the South China Sea, where China confronts a number of disputes over islands and seas. These water bodies are also claimed by other Asian countries. China made it a point to prevent Vietnamese and Philippine vessels from exploring oil and gas in the disputed waters in the South China Sea. These attempts provoked diplomatic crises during which China displayed its naval warships to support its sovereignty claims. China's relations with the Asia-Pacific countries have touched the lowest ebb in recent times.

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6. Even Mac A Skill in Washington and Tania Branigan in Beijing, "Dalai Lama to meet Barack Obama as US Relations with China Worsen", *The Guardian*, February 4, 2010.



For several decades after its founding, the People's Republic of China (PRC) seemed to have adopted a strategy of maintaining China's claim to disputed territory. It, however, avoided using force to escalate the conflicts. The reasons were quite obvious. Its military forces were mostly land based and its naval capacity could rarely reach beyond its near seas. Facilitated by rapid economic growth, China carried out wide ranging modernisation, with adequate stress on building naval capacity. With the enhanced military capacity, the People's Liberation Army Navy's (PLAN's) mission expanded beyond primarily defending China's coastlines.<sup>7</sup> It now included securing the resources and sea lanes from the East China Sea along the Ryukyu Islands chain, through Taiwan and the Philippines, and to the Strait of Malacca in the South China Sea. China modified its long time delaying strategy and plunged into a new pattern wherein it started aggressively asserting its suzerainty and sovereignty over the disputed maritime territories.

China's toughness was also evident in the renewed dispute with India over India's northeastern state of Arunachal Pradesh. China claims it to be a territory of southern Tibet. During the 1962 War, China had advanced deep into the region, and then withdrew after a brief occupation. Although Arunachal Pradesh achieved statehood in 1987, China has continued to lay claim to this territory. China has started using increasingly strident language to object to any Indian assertion of sovereignty over the area, in the recent years. In 2009, China blocked the Asian Development Bank from providing a US \$60 million multi-year loan meant for infrastructure improvements in the state. When India had no other choice left, it decided to fund the project itself.<sup>8</sup> In retaliation, China sent more troops to the border. The Dalai Lama's trip to the state in November 2009 caused Indo-China relations to deteriorate. Beijing was antagonised because the Dalai Lama did not restrict his visit to Itanagar, the state capital. He also visited Tawang which is the main bone of contention between India and China. It is the piece of Indian real estate that China covets the most in the border dispute. In Indian eyes,

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7. Thomas J Christensen, "The Advantages of an Assertive China: Responding to Beijing's Abrasive Diplomacy", Brookings, March/April 2011.

8. Annual Report to Congress, 2013, available at [http://www.defense.gov/pubs/2013\\_china\\_report\\_final.pdf](http://www.defense.gov/pubs/2013_china_report_final.pdf), accessed on December 25, 2013.

China has become increasingly provocative over the long running dispute in the Himalayas.

On the night of April 15, 2013, a platoon strength (50 personnel) contingent of China's Army came 19 km inside the Indian territory in Burthe in Daulat Beg Oldi (DBO) sector, which is at an altitude of about 17,000 ft in the Depsang valley, and established a tented post there. The Indian side got the first indication of the gradual Chinese build-up when the troops noticed three vehicles moving between the Chinese tents and their nearest back-up location 25 km away, suggesting replenishments of supplies. Troops from the Indo-Tibetan Border Police (ITBP) also established a camp approximately 300 m opposite the location.<sup>9</sup> The Ladakh Scouts, an infantry regiment of the Indian Army, specialising in mountain warfare, was also moved towards the area where the situation was described as tense. Although small incursions are common across the Line of Actual Control (LAC), the *de facto* border that runs some 4,000 km across the Himalayas, it is rare for either country to set up camp so deep within disputed territory.

Differing perceptions about the disputed boundary, which is yet to be demarcated, was said to be the root cause of the problem and it was expected to be resolved amicably. DBO, located in northernmost Ladakh, is a historic camp site, located on an ancient trade route connecting Ladakh to Yarkand in Xinjiang, China. It lies at the easternmost point of the Karakoram range in a cold desert region in the far north of India, just 8 km south of the Chinese border and 9 km northwest of the Aksai Chin LAC between China and India. A landing strip was established at DBO during the 1962 War. At 5,100 m, the strip is one of the world's highest. Though the standoff was resolved 21 days later, with both the Chinese and Indian sides returning to their original positions behind the LAC, the exact motive of the Chinese incursion remains unexplained.

For the time being, the issue has been resolved through the Border Defence Cooperation Agreement (BDCA), signed between India and China during Prime Minister Manmohan Singh's official visit to China on October

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9. Rajesh Kalia, "Chinese Troops Intrude into Indian Territory in Ladakh, Erect a Tented Post", *Hindustan Times*, April 19, 2013.

23, 2013. It contains 10 clauses that seek to maintain peace, tranquillity and stability along the 4,000-km-long Line of Actual Control. It reiterates that “neither side shall use its military capability against the other side and their respective military strengths shall not be used to attack the other side”. The agreement basically puts together the past mechanisms for establishing peace along their disputed boundary that has seen frequent intrusions, especially by Chinese troops, causing concern in India.

The agreement will facilitate exchange of information on military exercises, unmarked mines, aircraft and also in the non-military field on activities related to smuggling of wildlife and other contraband. Both sides are also to respond to natural disasters and work with each other. There would be an increase in the frequency and level of meetings – from the border level between military personnel, to the command level and at the level of their respective Defence Ministries. Both sides would also continue with their existing mechanisms – the Working Mechanism for Consultation and Coordination on India-China Border Affairs and the Meetings of the India-China Annual Defence Dialogue. Both sides are to establish personnel meetings between their border troops “in all sectors”.<sup>10</sup> Now how much of the agreement is implemented on the ground and followed in letter and spirit remains to be seen.

The Chinese grand strategy resembles their national game, *Wéi Qí* (围棋), which is different from the US and Western premise of grand strategy based on the game of chess. In chess, there are 16 identified pieces of known capabilities, with each side on a playing board with 64 squares. The contest is for total victory, through checkmate. Translated into military strategy, chess identifies the adversary’s centre of gravity and seeks decisive points to eliminate the opponent through a series of head-on clashes. Both the intent and capabilities of each side are on the table.

*Wéi Qí*, on the other hand, has an expansive playing board with 361 squares. Each player is given a total of 180 stones of equal capabilities. Unlike chess, where a game starts with all the pieces fully displayed on the board, *Wéi Qí* starts with an empty board. The players take turns placing stones

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10. Raj Mongia, “Hotline to China in New Border Pact”, October 24, 2013, available on CAPS website [www.caps.india.org](http://www.caps.india.org), accessed on December 25, 2013

**The Chinese leaders are realists. Their making of Chinese foreign policy often starts with a careful assessment of China's relative power in the world.**

at a point on the board, building up positions of strength while working to encircle and capture the opponent's stones. Multiple contests take place simultaneously in different portions of the board. At the end of the game, the board is filled with an interlocked area of strength. The margin of advantage at each point is small; only a *Wéi Qí* expert can assess victory through a multitude of contests. In military terms, *Wéi Qí* is about strategic encirclement and demands enormous patience and single-mindedness of purpose through strategic flexibility to achieve objectives.<sup>11</sup> This strategic thinking is in consonance with Sun Tzu's famous treatise on "The Art of War", where the premium on victory is through psychological advantage and by avoidance of direct conflict. The border incident amply indicates China's new found confidence and willingness to assert itself without any provocation, perhaps to drive home the point that in the Asian region, it is the lone dominant player.

#### **CHINA : VICTIM OR CULPRIT?**

The reasons for China's changing foreign policy are many. China's increasing confidence in its ability to deal with the West and the territorial disputes with its neighbours is one. Another reason is China's frustration over the perceived anti-China forces trying to prevent its rise to its rightful place. This frustration has sustained the nationalist sentiment to assert China's core interests and prevail. The uneasiness among Chinese leaders after the leadership change because of the slowdown of China's economic growth can be considered as the third reason. The new leadership had to meet any possible threat to the regime's authority with an unusually suppressive reaction. It is perhaps the amalgamation of feelings of confidence, frustration and uncertainty that has manifested in China's new found assertiveness.<sup>12</sup>

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11. Ibid. Praveen Sawhney and Ghazala Wahab, "China's Age of *Wéi Qí*", *Force*, National Security and Defence News Magazine, May 2013.

12. "Changing Face", *The Economist* (Beijing,) March 23, 2013.

The Chinese leaders are realists. Their making of Chinese foreign policy often starts with a careful assessment of China's relative power in the world.<sup>13</sup> China's perception of the global balance of power tilting in its favour implied that the Chinese leaders were now more confident of their ability to deal with the West and settle territorial disputes on their own terms. They are now more willing to participate in world affairs. The confidence has come after overcoming inhibitions and frustrations in a proactive manner. An attempt is made to enumerate the reasons of their frustrations in the succeeding paragraphs.

**In 2003, China overtook Japan as the second largest oil consumer, next to the US, and in 2004, it overtook the US as the world's biggest consumer of grain, meat, coal and steel. China, therefore, had to search for resources overseas to sustain its rise.**

The Obama Administration is believed to be working against China's rise and leaving no stone unturned to contain China. Although many Americans cite China's political system as one of the main points of friction and have pressed China on the issues of human rights and democracy, one wonders whether they would be favourable to them even if China became democratic, as the US would not want to see China, democratic or not, become richer and stronger.<sup>14</sup>

The second reason has its genesis in the Chinese policy-makers perceiving a Western conspiracy to slow down China's rise by blocking its global search for natural resources and acquisition of foreign assets. China's rapid economic growth has brought about an unprecedented resource vulnerability. In 2003, China overtook Japan as the second largest oil consumer, next to the US, and in 2004, it overtook the US as the world's biggest consumer of grain, meat, coal and steel. China, therefore, had to search for resources overseas to sustain its rise. The perceived attempts by the US and other Western countries to block

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13. Suisheng Zhao, "Shaping the Regional Context of China's Rise: How the Obama Administration Brought Back Hedge in its Engagement with China", *Journal of Contemporary China*, vol. 21, no. 75 2012, pp. 377-379.

14. n. 2, p.110.

China in its global search for resources led to the frustrations of the Chinese policy-makers.<sup>15</sup>

The third reason was the intensified international scrutiny of many of China's awkward domestic and external challenges such as human rights, media freedom, Tibet, Taiwan, pollution and relationships with neighbouring countries. When China was in a jubilant mood after the successful preparation of the showcase of the Beijing Olympics Games, the Chinese government was caught by surprise when, in March 2008, angry Tibetans burned non-Tibetan businesses and attacked Han migrants. Perceiving the riots as organised by foreign forces trying to pull China down on human rights, including ethnic minority rights in Tibet, to embarrass China ahead of the Olympics, Beijing dispatched a large number of troops to suppress the protests. The stern handling of the issue put the spotlight on China's human rights and ethnic problems and led to wide Western media condemnation. It also invited demonstrations by international human rights groups and Tibetan exiled communities. The conduct of the Olympic torch relay was hindered in London, Paris and San Francisco.<sup>16</sup> The perception that much of the foreign media took a clear anti-China stance on the issue not only frustrated but also angered the Chinese government and the Chinese people.

In February 2009, the then Vice President Xi Jinping, the heir-apparent to President Hu Jintao, used extraordinarily strong language at a meeting with representatives of the Chinese community during a visit to Mexico city. He said: "Well fed foreigners have nothing better to do than keep pointing fingers at China, even though China is not exporting revolution, poverty, hunger or making troubles for other countries."<sup>17</sup>

This sense of frustration was used by the Chinese government to their advantage, by exploiting it to sustain a popular nationalist sentiment and also to compensate for the declining appeal of Communism. With a deeply

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15. Hongshan Li, Zhaohui Hong, *Image, Perception, and the Making of US-China Relations*, (University Press of America, 2013), pp. 5-6.

16. Suisheng Zhao, "China's New Foreign Policy Assertiveness: Motivations and Implications", *ISPI Analysis*, no.54, March, 2011, pp 5-6.

17. Malcolm Moore, "China's 'Next Leader' in Hardline Rant", *The Telegraph*, (Shanghai,) February 16, 2009.

rooted suspicion of the USA and a desire to avenge past humiliations, the Chinese government found itself under heavy pressure to take a confrontational position against the Western powers and to adopt tougher measures to claim its maritime territories. Popular nationalism reached a crescendo in 2008-09 because a marginalised West signified a gratifying target for pent-up feelings.<sup>18</sup>

A popular nationalist book, *China is Not Happy Zhōngguó bù gāoxìng* (中国不高兴) has been written by the authors of *China Can Say No Zhōngguó bù kěyǐ bù shuō bu* (中国 不可以不说不). They intended their book to be a sequel to *China Can Say No*, with the difference — according to one of the authors — that while the latter asserted only that China was capable of leading itself, the new book takes the view that China is capable of leading the world. According to an interview with the authors in the official *Canton Daily Guǎngzhōu rìbào*, one of the main themes of the book is that “if we still do not get rid of the culture of being slaves to foreigners, then we have no way to save ourselves” *Zàibu pāoqì yángnú wénhuà, wǒmen jiù méi déjiùle* (再不抛弃洋奴文化, 我们就没得救了). With regard to France, the authors advocate “punitive diplomacy” *chéngfá wàijiāo* (惩罚外交) and revenge as a response to the disruption of the Olympic torch relay last year. The book also condemns the so-called “elite” *Jīngyīng* (精英) (i.e. the faction seen as “cosmopolitan” or “liberal”, which the authors maintain have hegemony over public discourse) and corruption in academia. The five authors of this book are Song Qiang, one of *China Can Say No*’s main authors), a nationalist ideologue Wang Xiaodong, the military analyst Song Xiaojun, the sociologist Huang Jisu, and the journalist Liu Yang.<sup>19</sup> The book sold half a million copies within a few months of its release in early 2009, not counting online piracy. It immediately shot to the top of the bestseller list.<sup>20</sup>

Dai Xu, who is a prolific Chinese author and social commentator, is also a proponent of similar sentiments. He is also a professor at the China National Defence University and holds the rank of senior colonel in the

18. Jean-Pierre Cabestan, “The Many Facets of Chinese Nationalism”, *Chinese Perspective*, 2012, pp.3-4.

19. Website <http://chinasaysno.wordpress.com/2009/03/16/new-book-chinas-not-happy/> accessed on December 3, 2013.

20. Raymond Zhou, “Why is China Angry?”, *China Daily*, April 24, 2009.

People's Liberation Army (PLA). Through his popular book in late 2009 and his provocative speeches that were among the most popular videos on China's Internet, Xu has claimed that China was encircled in a C-shape by hostile countries beholden to the United States. He further opined that China could not escape the calamity of war in the not-too-distant future. He argued that since the US had lit a fire in China's backyard, the Chinese leaders should light a fire in the US backyard.<sup>21</sup>

The pressure, therefore, built up upon the Chinese government to flex its muscles in defending its core interests.<sup>22</sup> Although China's authoritarian political system gives the state immense power to drive foreign policy, the country is no longer headed by charismatic leaders like Mao Zedong or Deng Xiaoping, who had the authority to arbitrate disputes in the leadership or personally set the country's course. Current Chinese leaders have to cater to a range of constituencies. The power of the Chinese government has become more and more conditional on its ability to defend China's national interests as the Communist ideology is losing its charm. Social controls loosened by market-oriented economic reforms and nationalist appeals of prosperity and power have become the new bases for regime legitimacy.

While China's assertiveness was primarily driven by growing confidence, its frustration and the economic and political uncertainties at home also played an important part. Though China was a relatively bright spot in the global downturn, its rapid economic growth led to huge social, economic and political tensions. It also raised the expectations of the Chinese people about the government's performance. Serious challenges emerged due to the growing public demands related to the government's policies on economic and social inequality, endemic corruption, epidemic pollution, emaciated healthcare, shredded social services, entrenched industrial overcapacity, ethnic conflicts and ageing population.<sup>23</sup>

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21. Dai Xiu, "C Shape Encircle, China's Breakthrough with Internal Concerns and External Dangers", *Wenhui Chubanshe*, (Beijing), 2009.

22. 王嵎生 (Wang Yusheng), "中美建立新型大国关系可能么?" (Is it Possible for China and the US to Build a New Type of Great Power Relationship?) 《外交》 *Foreign Affairs Journal*, no. 1, 2013, p. 102.

23. D.M. Lampton, "The United States and China in the Age of Obama: Looking Each Other Straight in the Eyes", *Journal of Contemporary China*, vol. 18, no. 62, November 2009, p. 727.



When the global financial crisis started, little did the Chinese leaders anticipate that it would produce unrest in society. The high profile unrest in Tibet in 2008 and in the Muslim region of Xinjiang in 2009 caught them by surprise. They were routinely facing tens of thousands of civil and ethnic protesters—those robbed of their lands for development, laid off workers and those suffering from the side-effects of environment despoilment. Millions of migrant workers lost their jobs as labour intensive industries, churning out cheap products for export, closed down because of the financial meltdown sweeping the globe. A similar dilemma was posed on account of the many white collar workers who were laid off or had their bonuses and wages cut. The only way out for the Chinese government to deploy its enormous state capacity to pull its economy out of the downturn was to attribute the financial meltdown entirely to economic mismanagement by the Western countries.<sup>24</sup> The masterstroke was to take a more assertive position to defend China's core interests. This way, the Chinese government could not only avoid charges of incompetence but also divert public attention from its domestic problems.

**BEING ACCEPTED AS A GLOBAL POWER? YES. SHOULDERING GLOBAL POWER RESPONSIBILITY? NO.**

Although a more powerful China has been more than willing to leverage its growing capabilities to shift the global power balance in its favour and vigorously pursue its core interests, It does not seem to be ready to take on the role of global leadership and assume more international responsibilities as a rising global power. China's three core interests are:

- To maintain its fundamental system and state security.
- To maintain state sovereignty and territorial integrity.
- Continued stable development of its economy and society.<sup>25</sup>

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24. 袁鹏 (YUAN PENG), 中国真正的挑战在哪里 (Where are the True Challenges to China), 人民日报海外版 (People's Daily, Overseas Edition), July 31, 2013, [http://news.xinhuanet.com/world/2012-07/31/c\\_112575005.htm](http://news.xinhuanet.com/world/2012-07/31/c_112575005.htm). accessed on December 28, 2013.

25. <http://www.chinanews.cn/gn/news/2009/07-29/1794984.shtml>, accessed on December 1, 2013

**Beijing's coffers may be bulging with \$2.1 trillion in foreign currency reserves, but its willingness to spend that cash on common crises outside China is not commensurate. Besides propagating a new international reserve currency, China has mostly remained taciturn on how to reform the global financial system.**

These are narrowly defined interests having more to do with the Chinese leaders' preoccupation with regime survival and national security than with China's great power aspirations. The survival of the Chinese Communist Party (CCP) is the paramount core interest. Because of the authoritarian nature of the Chinese political system, the challenges to regime legitimacy would always be a concern for the CCP. A combination of foreign forces with domestic discontent could seriously threaten the regime.

The second core interest of state sovereignty and territorial integration refers almost exclusively to the Taiwan and Tibet issues. Both are extremely sensitive issues, taking into account the stakes and profiles of the players involved.

The general perception about China is that it is reluctant to take on a broad international responsibility to be a visionary and magnanimous global player. The willingness to look beyond its own narrowly focussed core interests is yet to be exhibited. China is often accused of being a "global free rider" because Beijing remains unwilling to take on more burdens — be these economic, political or military<sup>26</sup>. At the G-20 summit in April 2009, the only thing China cared about was keeping Hong Kong off the list of offshore tax havens being scrutinised. Beijing's coffers may be bulging with \$2.1 trillion in foreign currency reserves, but its willingness to spend that cash on common crises outside China is not commensurate. Besides propagating a new international reserve currency, China has mostly remained taciturn on how to reform the global financial system.<sup>27</sup>

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26. Stephanie T. Kleine-Ahbrandt, "Beijing, Global Free-Rider", *Foreign Policy*, at [http://www.foreignpolicy.com/articles/2009/11/12/beijing\\_global\\_free\\_rider](http://www.foreignpolicy.com/articles/2009/11/12/beijing_global_free_rider) accessed on December 1, 2013.

27. Minxin Pei, "Why China Won't Rule the World", *Newsweek*, December 7, 2009.

As a reflection of its position, Chinese scholars and policy-makers have been debating and expressing distinct views on China's changing international role. The three most prominent views are elaborated below:

- The Chinese government should abandon the passive '*Tiaoguang Yanghui*' policy and take a great power (*daguo*) responsibility to ensure a just world order.
- The government should adopt a modified *Tāoguāngyǎnghuì* policy to give more emphasis on *Yǒushuō Zuòwèi* (striking some points/successes) and take a more active role in pursuing certain policy objectives, particularly in China's core interest issue areas.
- Continue the low-key policy and avoid taking a leadership position on most issues.

**The growing confidence of China in its increasing power and influence is combined with its frustration and the regime's fear of many political, social and economic issues at home.**

The first view has received the most attention in the Western media and is also popular among the Chinese people. But this is not the official position of the Chinese government, which has taken the third view. In practice, the second view is the actual policy.

## CONCLUSION

Having dwelt on various phases and aspects of China's behaviour, it emerges that China raised its head during the global economic downturn in 2008-09 when the Western countries' inability to deal with recession effectively propelled China to review its relations with the Western powers.<sup>28</sup> This proved that China's growing national strength could alter, and to an extent has already altered, its foreign policy behaviour. In comparison to the past years, Chinese foreign policy in 2009 witnessed an important change. China would no longer bend to Western pressures

28. Jin Cnarong and Liu Shiqiang, "*Guoji Xinshi de Shangke Biandong Jiqi dui Zhongguo de Yingxiang* (The Significant Change in International Situation and its Impacts on China)", *Xiandai guoji guanxi* (Contemporary International Relations), December 2009, pp.1-3.

and give importance to what the West thought of its behaviour.<sup>29</sup>

The growing confidence of China in its increasing power and influence is combined with its frustration and the regime's fear of many political, social and economic issues at home. The new assertiveness has, however, focussed on pursuing its immediate interests and Beijing is still hesitant to use its rising power status to contribute to the global common welfare.<sup>35</sup> China's foreign policy agenda is still to find a balance between taking on broad responsibility as a great power and focussing on its narrowly defined core interests. Though definitely well on an upward trajectory, China is still trailing far behind the US. It is not yet in a position to dislodge the US from its position of global dominance. The continuing growth of China's national strength may eventually eliminate the contradiction when the Chinese leaders come to view their country less as a poor nation and more as a great power. Until then, the Chinese foreign policy remains in a transitional stage, from a reluctant rising power to a true great one.

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29. Wang Xiaodong, " *Wo Kanhao Zhongguo* (I look Well at China)", *Zhongguo Gaige Wang* (China Reform Net) at <http://www.chinareform.net/2010/0212/12486.html>, accessed on December 2, 2013.

# THE SHANGHAI COOPERATION ORGANISATION: EVOLUTION, CONTEMPORARY RELEVANCE AND FUTURE TRAJECTORY

**PRAVDA P.**

## **INTRODUCTION**

The security architecture of the Central Asian region is in a phase of rapid transition. The role of the Shanghai Cooperation Organisation (SCO) in this context has been very relevant. In its eleven years of existence, the SCO has evolved as an organisational structure, expanding formal ties with the major regional players and other multilateral institutions. However, to analyse whether the SCO has been successful in addressing the major security concerns of the region requires a thorough understanding of the security architecture of the region.

The Shanghai Cooperation Organisation was formed in 2001, to address the major security concerns of the region. The strategic vacuum that occurred after the demise of the Soviet Union, and the various other security challenges like border security, Islamist fundamentalism and the inefficient and corrupt governments gave China the strategic space to engage with the region through the SCO, which sought to address these challenges. In January 2004, the Regional Anti-Terrorist Structure (RATS) was formed

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**The interest of India in the Central Asian region stems mainly from the prospects of energy cooperation and concerns on the religious extremism and Islamist fundamentalism. This concern of India has been reflected in its observer status in the SCO.**

mainly to coordinate the member states' actions against terrorism, separatism and extremism, and till date, has remained a strong arm of the SCO.<sup>1</sup>

The RATS is an integral part of the mechanism of the SCO in dealing with terrorism. The SCO has China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan as full members and India, Iran, Mongolia, Afghanistan and Pakistan as official observers. Belarus and Sri Lanka and Turkey are the organisation's dialogue partners<sup>2</sup>. India has often expressed its

interest in assuming a more active role in the organisation. The interest of India in the Central Asian region stems mainly from the prospects of energy cooperation and concerns on the religious extremism and Islamist fundamentalism. This concern of India has been reflected in its observer status in the SCO. Though currently India has less presence in the region, its role in the SCO, along with the emerging cooperation in the energy sector, is expected to give it a foothold in the region.

It is significant in this context to analyse the eleven years of the SCO's existence and make projections for its future. There is a prominent view among the strategic community that the SCO has been evolving as a China dominated counter-balance to the US-led North Atlantic Treaty Organisation (NATO). This view has gained salience in the context of the USA's declaration of gradual withdrawal from Afghanistan which is also expected to reduce its presence in Central Asia considerably. However, it is to be remembered that the configuration and purpose of both are totally different. The evolving strategic complexes and the SCO's role in them are

1. "The Regional Anti-Terrorist Structure of the Shanghai Cooperation Organization (RATS SCO)", Agentura.ru, see, <http://www.agentura.ru/english/dossier/ratssco>, accessed on August 13, 2012.
2. "SCO Accepts Afghanistan as Observer, Turkey as Dialogue Partner", Xinhua net.com, see, [http://news.xinhuanet.com/english/china/2012-06/07/c\\_131637206.htm](http://news.xinhuanet.com/english/china/2012-06/07/c_131637206.htm), accessed on September 19, 2012.

significant to understand the strategic options that India has in the SCO.

### GENESIS AND EVOLUTION

After the end of the Cold War and the demise of the Soviet Union, there was a strategic vacuum in the region. The newly formed Central Asian states were looking forth for asserting strategic autonomy, out of Russia's influence. On the other hand, China had border issues with Russia and the newly emerged Central Asian states had been a major security concern for China in its western borders in the 1990s<sup>3</sup>. The border disputes were the only

obstacle in establishing cooperation between China and Central Asia. Since this perception was mutual, China seized the opportunity to establish a friendly relationship with the Central Asian Republics (CARs) and Russia. This formed the context for the formation of the Shanghai Five. It was formed in 1996 to develop Confidence-Building Measures (CBMs) in the troubled border area between the member nations and with a larger goal to demilitarise the border between China and the Soviet Union. The Shanghai Five comprised like-minded nations with similar norms and goals and reflected the major security concern of the region at that point of time, which was the settlement of border disputes and resolution of potential disputes in the newly independent Central Asian nations. The organisation was largely successful in meeting these goals. The resolution of most of the border disputes of China with its neighbours can be attributed to this organisation and the confidence-building measures initiated under it. The member countries met in 1996 and 1997 and signed the Agreement on Reduction of Military Forces in Border Regions which contributed greatly

**The Shanghai Five comprised like-minded nations with similar norms and goals and reflected the major security concern of the region at that point of time, which was the settlement of border disputes and resolution of potential disputes in the newly independent Central Asian nations.**

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3. Thomas W Robinson, "The Sino-Soviet Border Dispute: Background, Development and the March 1969 Clashes", *The American Political Science Review*, vol .66, no.4, p.1175, December 1975, p. 1175, <http://www.centralnation.com/recall/zhenbaodao1969.pdf>, accessed on September 19, 2012.

to the peace-building measures and peaceful settlement of border disputes<sup>4</sup>.

After the border disputes were amicably settled, the leaders of the Shanghai Five sought to expand it into a regional structure for multilateral cooperation<sup>5</sup>. The rising separatist tendencies in China's western borders and the need for engaging with the Central Asian states in the context of China's burgeoning energy needs were China's motives behind the formation of the SCO. On June 15, 2000, the heads of the member states signed the "Declaration on Establishment of the Shanghai Cooperation Organisation"<sup>6</sup> to form an expanded organisation for regional cooperation, the Shanghai Cooperation Organisation, which now included the Central Asian state of Uzbekistan. The SCO was formed in June 2001.<sup>7</sup> It was during this time that the "Shanghai Convention on the Fight Against Terrorism, Separatism and Extremism", the so-called "three evils", was also signed. This was a prudent move as the region was slipping into the hands of fundamentalist elements at this point of time. In 2002, the SCO Charter was signed by the heads of SCO member states at St. Petersburg, expounding the purposes and principles of the SCO, its organisational structure, operational aspects and cooperation orientation.<sup>8</sup>

From 2004, the organisation was seen transforming from a purely regional organisation to one that seeks more international cooperation and

4. Gao Fie, *The Shanghai Cooperation Organization and China's New Diplomacy, Discussion Paper* (The Hague: Netherlands Institute of International Relations 'Clingendael', July 2010), see, [http://www.clingendael.nl/publications/2010/20100700\\_The%20Shanghai%20Cooperation%20Organization%20and%20China's%20New%20Diplomacy.pdf](http://www.clingendael.nl/publications/2010/20100700_The%20Shanghai%20Cooperation%20Organization%20and%20China's%20New%20Diplomacy.pdf), accessed on September 10, 2012.
5. Murat Laumulin, "The Shanghai Cooperation Organization as 'Geopolitical Bluff?': A View from Astana" (Paris: Institut Français des Relations Internationales Research Centre, July 2006), see, <http://www.ifri.org/downloads/laumullinenglish.pdf>, accessed on August 28, 2012.
6. Marcel de Haas, "The Shanghai Cooperation Organisation: Towards a Full-Grown Security Alliance?" (The Hague: Netherlands Institute of International Relations Clingendael, November 2007), see, [http://www.clingendael.nl/publications/2007/20071100\\_cscp\\_security\\_paper\\_3.pdf](http://www.clingendael.nl/publications/2007/20071100_cscp_security_paper_3.pdf), accessed on August 27, 2012.
7. Alyson J. K. Bailes, Pál Dunay, Pan Guang and Mikhail Troitskiy, "The Shanghai Cooperation Organization", *SIPRI Policy Paper* (Sweden: Stockholm International Peace Research Institute, May 2007), p.1, see, [http://www.voltairenet.org/IMG/pdf/SIPRI-Shangai\\_Coop\\_Org.pdf](http://www.voltairenet.org/IMG/pdf/SIPRI-Shangai_Coop_Org.pdf), accessed on September 10, 2012.
8. "Shanghai Cooperation Organization", Ministry of Foreign Affairs of the Peoples Republic of China, January 2004, see <http://www.fmprc.gov.cn/eng/topics/sco/t57970.htm>, accessed on September 7, 2012.



participation. The SCO has been successful in this to a large extent. In 2004, the SCO received observer status at the United Nations. Thus, the genesis and evolution of the SCO can be demarcated into three periods: the first one that extends from 1996-2001, mainly aimed at the solving of border disputes; the second from 2001 till now, with a focus on fighting against the “three evils”; and the present phase where the organisation is striving to become a multilateral forum of global relevance.

### **MANDATE AND THE MECHANISM OF SCO**

The mandate of the SCO has undergone specific changes from that of the Shanghai Five, to reflect the region’s current security environment. The primary mandate of the organisation has been to strengthen mutual trust and good neighbourly and friendly relations among member states. The Shanghai Five was formed with an aim of military force reduction, establishing confidence-building measures and increasing transparency in the 7,400-km-long border area of the member states<sup>9</sup>. However, following the transformations in the regional security fabric due to violence and unrest in Kazakhstan, Kyrgyzstan, Tajikistan and Xinjiang, greater focus was given later to countering the three evils: “separatism, terrorism and religious extremism”. With the multi-ethnic profile of the member states, it was necessary to have a structure like this in place to deal with conflicts that could upset the regional security.

The core of the SCO’s mandate can be derived from its declaration which states: “The SCO aims to strengthen mutual trust and good neighborly and friendly relations among member states in politics, economy, trade, science, technology, culture, education, energy, transportation, environmental protection and other fields.”<sup>10</sup> Adherence to the UN Charter and the five principles of peaceful coexistence is also stipulated by the Charter<sup>11</sup>.

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9. Osman Gökhan Yandas, “Emerging Regional Security Complex in Central Asia: Shanghai Cooperation Organization (SCO) And Challenges of The Post 9/11 World”, *Middle East Technical University*, June 2005, see, [etd.lib.metu.edu.tr/upload/12606201/index.pdf](http://etd.lib.metu.edu.tr/upload/12606201/index.pdf), accessed on August 29, 2012.

10. Kajari Sahai, “Declaration of the Shanghai Cooperation Organization”, *China Report* (Sage Publications, 2002), see, [http://www2.ohchr.org/english/bodies/hrc/docs/ngos/HRIC\\_parallel\\_report\\_Kazakhstan\\_Annex1HRC102.pdf](http://www2.ohchr.org/english/bodies/hrc/docs/ngos/HRIC_parallel_report_Kazakhstan_Annex1HRC102.pdf), accessed on September 1, 2012.

11. *Ibid.*

The SCO's mandate also stipulates cooperation in the "maintenance and strengthening of peace, security and stability", to counter the three evils, "terrorism, separatism and extremism in all their manifestations", and to jointly fight against "illicit narcotics, arms trafficking and other types of criminal activity".<sup>12</sup> This was signed in the meeting of the heads of states in Shanghai on June 15, 2001, which also marked the signing of the "Declaration on Establishment of the Shanghai Cooperation Organisation".

The SCO seeks to embody the "Shanghai spirit" which calls for mutual cooperation irrespective of the ideological affinities of the member states. On its anniversary in 2006, the SCO acknowledged the relevance of the "Shanghai spirit". It declared that the "SCO owes its smooth growth to its consistent adherence to the 'Shanghai spirit' based on mutual trust, mutual benefit, equality, consultations, respect for the diversity and aspiration toward common development"<sup>13</sup>. The functional framework of the SCO is based on consensus-based decision-making. Any nation can veto a decision that may be detrimental to their national interests. New members are admitted to the organisation "on the basis of unanimous agreement through consultation among member states".<sup>14</sup> Thus, in principle, the SCO grants equal power to all member states.<sup>15</sup> This is also often used to substantiate the argument that the SCO is not a mere mouthpiece of China.

Initially, a bilateral mechanism, the SCO has now become a multilateral forum, including most of the major powers in the region, reflecting the realities of the multipolar world. The notable feature of the SCO, however, is that its mandate has expanded and accommodated the changing nature

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12. "Shanghai Cooperation Organization and Counter-Terrorism Fact Sheet", *Implementation of the International Covenant on Civil and Political Rights in Kazakhstan*, June 3, 2011, see [http://www2.ohchr.org/english/bodies/hrc/docs/ngos/HRIC\\_parallel\\_report\\_Kazakhstan\\_HRC102.pdf](http://www2.ohchr.org/english/bodies/hrc/docs/ngos/HRIC_parallel_report_Kazakhstan_HRC102.pdf), accessed on September 18, 2012.
  13. Alexander Lukin, "The Shanghai Cooperation Organization: What Next?", *Russia in Global Affairs*, vol. 5, no. 3, September 2007, p.141, see [http://eng.globalaffairs.ru/number/n\\_9132](http://eng.globalaffairs.ru/number/n_9132), accessed on October 4, 2012.
  14. "Declaration of Shanghai Cooperation Organization", *People's Daily*, June 15, 2001, see [http://english.peopledaily.com.cn/200106/15/eng20010615\\_72738.html](http://english.peopledaily.com.cn/200106/15/eng20010615_72738.html), accessed on October 8, 2012.
  15. Stephen Aris, "Russian- Chinese Relations through the Lens of the SCO", *Ifri*, (Paris: Russia/NIS Centre, 2008), see [http://www.ifri.org/files/Russie/Ifri\\_RNV\\_Aris\\_SCO\\_Eng.pdf](http://www.ifri.org/files/Russie/Ifri_RNV_Aris_SCO_Eng.pdf), accessed on October 7, 2012.

of regional security concerns over the years. Though its focus was initially limited to aims like establishing confidence-building measures across the borders, the SCO now aims at a comprehensive regional development that covers the economic, security and cultural spheres. The organisation has also sought to serve some of the major interests of the region like terrorism, drug trafficking, economic integration and cultural interactions. However, to say with firm conviction that the SCO has been a tailor-made model for the Central Asian security architecture, one has to assess whether the mandate of the SCO has been fulfilled in the last one decade of its existence.

### **SECURITY ARCHITECTURE OF CENTRAL ASIA**

Soon after the independence of the Central Asian nations, the basic issues that marred Central Asia were corruption, border disputes, poverty and basic governance. The strategic vacuum that occurred after the collapse of the Soviet Union led to the rule of oppressive and inefficient political regimes which aggravated the security threats of the region. The main security challenges that destabilise Central Asia today are terrorism, drug networks, corruption, smuggling, social disparity between the rich and poor, ethnic clashes and insurgency<sup>16</sup>. Since 2004, there has been rapid increase in radical Islamism and terrorist activity.<sup>17</sup>

The 'colour revolutions' comprised another event that has featured in the Central Asian security architecture lately. The authoritarian rule of the governments of the Central Asian Republics led to widespread protests for fair elections. The wave of colour revolutions was felt massively in Georgia, Ukraine and Kyrgyzstan in 2005. These large scale protests which were led by the civil society and racial and terrorist forces, received the attention of the international media and shook the very foundations of the Central Asian governments. Though the governments clamped down on

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16. Robert Axelrod, "Modeling Security Issues of Central Asia", *CMT International*, June 2004, see [http://www-personal.umich.edu/~axe/research/Security\\_Central\\_Asia.pdf](http://www-personal.umich.edu/~axe/research/Security_Central_Asia.pdf), accessed on September 12, 2012.

17. Zyno Baran, S. Frederick Starr and Svante E Cornell, "Islamic Radicalism in Central Asia and the Caucasus: Implications for the EU", *Silk Road Paper* (Washington D.C: Central Asia Caucasus Institute, 2006), p. 33, see <http://www.silkroadstudies.org/new/docs/Silkroadpapers/0607Islam.pdf>, accessed on September 13, 2012.

**China started to enhance its presence in the region after it solved major border disputes with Russia and its Central Asian neighbours. Its strategic positioning in Central Asia has been greatly enhanced by the formation of the SCO, which does not have US presence.**

the protestors heavily, this should only be perceived as short-term stability. For truly stabilising the security structure of Central Asia, it is essential to have transparent and responsible governments in the region. Parallel to this, the Central Asian nations are blessed with immense natural resources which might have facilitated the interest of external powers in the region. This is another major factor that has spurred the cooperation of the Central Asian nations with China through the SCO. This dynamics can be elucidated from the example of Turkmenistan. Turkmenistan had proven oil reserves of around 600 million barrels in January 2012<sup>18</sup>. But the country faces a challenge in terms of selling it to the world markets profitably due to its geographical distance from potential markets. It also lacks the capacity to invest in pipeline infrastructure in order to transport it and requires capital, technical support and political assistance. This explains the renewal of the Central Asian nations' relations with China.

The role played by external powers is closely intertwined with the security architecture of Central Asia. The US, Russia and China are the major powers that seek to extend their leverage in the region. Soon after the Soviet collapse, the US Congress passed the Freedom Support Act (FSA) in 1992, in order to give aid to the Central Asian Republics. In 1999, the US adopted the "Silk Road Strategy Act", which was inclusive of economic aid, border controls and transportation and communication enhancement<sup>19</sup>. China started to enhance its presence in the region after it solved major border disputes with Russia and its Central Asian neighbours. Its strategic positioning in Central Asia has been greatly enhanced by the formation

18. "Turkmenistan", *Country Analysis Briefs*, (Energy Information Administration, January 2012), p.1, see <http://www.eia.gov/EMEU/cabs/Turkmenistan/pdf.pdf>, accessed on September 18, 2012.

19. Arun Sahgal & Vinod Anand, "Strategic Environment in Central Asia and India", *Reconnecting India and Central Asia*, p.41, see, <http://www.silkroadstudies.org/new/docs/publications/1004Joshi-V-Strategic.pdf>, accessed on September 12, 2012.

of the SCO, which does not have US presence. Russia's interest in the region has been mostly related to its ambition of regaining control over its former satellites by reducing the North Atlantic Treaty Organisation's (NATO's) presence. Besides, the stability of the region is in the interest of Russia and China. This is because the separatist movements in Chechnya and Xinjiang which have profound security implications for Russia and China respectively have been sympathised with, and funded by, Central Asian fundamentalists.<sup>20</sup>

Though the Central Asian nations have the potential for economic development, they still occupy a modest places in the world Human Development Index.<sup>21</sup> This can be attributed to the weakness of the government in transforming the potentials into reality. These socio-economic factors lead to social tensions and allow room for external terrorist agents to function. Thus, the fundamental task before the SCO and the international community is to address these socio-economic disparities so that security in other spheres can be ensured.

Thus, the security architecture and the resources in Central Asia have induced the regional and extra-regional powers to intervene here. This is also the prime driving factor of the Shanghai Cooperation Organisation, which aims at "safeguarding regional peace, security and stability".

## **ROLE OF CHINA IN THE SCO**

The role of China in the SCO is widely discussed and debated in the strategic community. There have been conflicting perspectives on whether the SCO is transforming into a strong arm of China in counter-balancing the West and NATO in the region. There have also been views that the mandate and functioning of the SCO is tailored to meet the interests and security concerns of China. It will be worthwhile to analyse China's role in the SCO

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20 Michael Snyder, "The Shanghai Cooperation Organization: A New Order in Central Asia", Stanford University, 2008, p.17, see, <http://sjeaa.stanford.edu/journal81/CE2.pdf>, accessed on 13 September 2012.

21. Jacqueline Mc Laren Miller, "Central Asian Security: Two Recommendations for International Action", *EWI Briefing Paper* (East West Institute, April 2010), p.6, see <http://www.isn.ethz.ch/isn/Digital-Library/Publications/Detail/?ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=115687>, accessed on September 13, 2012.

**Through the SCO, China has succeeded in achieving its larger goals of strengthening its relations with Russia, garnering the support of the Central Asian nations to counter the transcending fundamentalist elements to its troubled Xinjiang province, and promoting trade and cultural relations which is primary to its concept of soft power diplomacy.**

and the larger goals that China seeks to achieve through this regional security organisation.

The importance of the SCO to China can be assessed from its strategy in the emerging geopolitical scenario, where it seeks increasing international participation through multilateral fora. Through the SCO, China has succeeded in achieving its larger goals of strengthening its relations with Russia, garnering the support of the Central Asian nations to counter the transcending fundamentalist elements to its troubled Xinjiang province, and promoting trade and cultural relations which is primary to its

concept of soft power diplomacy. The SCO, which has two of the permanent members of the UN, can also evolve into a voting bloc and benefit China in the international fora. The main factor, however is that the SCO plays an important role in the shaping of China's Central Asian policy. So the role of China in the SCO can be mostly derived from its interests and policies towards Central Asia.

The importance of Central Asia to China has now become vital due to various reasons. The most prominent among them are Central Asia's energy resources, countering Islamic fundamentalism to stabilise its west and its larger need to immune itself from the 'strategic encirclement' of the United States<sup>22</sup>. To attain these goals, China seeks to project its image as a responsible power in the region and to shed its image as a regional hegemon. Central Asia is also a part of China's "periphery" which it considers crucial for the nation's stability. A stable Central Asia would be

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22. Fen Wang, "Case Study: Grand Strategy in the Great Game" (Burlington: Institute of Environmental Diplomacy and Security and the University of Vermont, January 2012), p.6, [http://www.uvm.edu/ieds/sites/default/files/SCO\\_casestudy\\_V4.pdf](http://www.uvm.edu/ieds/sites/default/files/SCO_casestudy_V4.pdf), accessed on October 10, 2012.

sought by China so that it can focus more on its internal developments. The SCO is an apt platform for China to attain this objective. By the 2001 SCO Treaty, China is stipulated as a member of a collective security organisation which legalised the projection of Chinese troops beyond China's borders at the request of any one of the other signatories. Following this, China held its combined military exercises with the Kyrgyz border forces in October 2002<sup>23</sup>. In August 2003, the representatives of the General Staff of the Chinese People's Liberation Army (PLA) and Kyrgyz Defence Minister Esen Topoyev met in Kyrgyzstan where China agreed to provide military and technical aid to the Kyrgyz Army<sup>24</sup>. These factors reflect China's effort to solidify its commitments to Central Asia through the SCO.

China is also reaping the benefits of its strategy in the SCO. China has been successful in assembling many of the member countries under the banner of "fight against the three evils" to counter separatism in Xinjiang. Kazakhstan, Uzbekistan and Pakistan have put restrictions and have also disbanded many Uyghur political parties<sup>25</sup>. This will considerably reduce the support base for the Uyghurs in Xinjiang.

A common perception about the SCO is that it is a Russian and Chinese led alliance to counter balance the NATO. But, the SCO has become a military alliance like NATO and has been formed to meet regional security concerns rather than global ones. Director of the SCO Studies Centre in Shanghai Pan Guang's views support this argument. He says, "The relationship between China, Russia and the Central Asian states – under the SCO umbrella – constitutes a close partnership with constructive intentions while stopping short of a military alliance"<sup>26</sup>. However, since NATO expansion poses a threat to China and Russia alike, the SCO might be used as a tool at least

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23. Wilson Chun Hei Chau, "Explaining China's Participation in Bilateral and Multilateral Military Exercises", *Security Challenges*, vol. 7, no. 3, 2011, p. 51, see, <http://www.securitychallenges.org.au/ArticlePDFs/vol7no3Chau.pdf>, accessed on September 19, 2012.

24. Ann McMillan, "Xinjiang and Central Asia Interdependency – Not Integration" in Colin Mackerras and Michael Clarke, eds., *China, Xinjiang and Central Asia: History, Transition and Cross border Interaction Into the 21st Century* (Taylor & Francis, Routledge, 2009), see <http://books.google.co.in/books>, accessed on October 18, 2012.

25. Ariel Pablo Sznajder, "China's Shanghai Cooperation Organization Strategy", *Journal of IPS*, vol. 5, 2006, p. 93, see, <http://irps.ucsd.edu/assets/004/5367.pdf>, accessed on October 2, 2012.

26. Pan Guang, "A Chinese Perspective on the Shanghai Cooperation Organization", *SIPRI Policy Paper* (Stockholm: Stockholm International Peace Research Institute, May 2007), n.17, p.47, see,

to prevent US presence in the region. It is observable that China, through various steps, has endeavoured to reduce the US military presence in Central Asia to a certain extent. By the Asthana Declaration of 2005, the US was urged to set a timetable for the withdrawal of its troops from the member countries.<sup>27</sup> The fact that China does not exert pressure on these nations to implement liberal values like democracy is a luring factor in this context<sup>28</sup>. In spite of the member states' insistence that the SCO is not directed against the West<sup>29</sup>, these factors suggest that China seeks to reduce the US presence in the region using the SCO as a tool to obtain this goal. Another argument projecting the SCO's benign intentions is that the concerns of China and the US in Central Asia converge in areas like counter-terrorism. However, with the US' phased withdrawal from Afghanistan and the SCO's success story in preventing the 'three evils' from erupting, one is led to conclude that the SCO might not seek the support of the US in its future counter-terrorism efforts in the region.

The Shanghai Five and later the SCO have ushered in a decade of close cooperation between China and Russia. Through the SCO, the two nations identified the converging areas of their national interests and forged cooperation in these areas. The border disputes between the two nations have been amicably settled. However, Russia, like China, may have ambitions of having a strong presence in Central Asia. This conflict of interests may lead to ripples in the SCO, if both nations adopt a pragmatic strategy in the SCO, with a larger aim of not undermining the organisation's legitimacy. This can be also be pointed out as one of the challenges that China should foresee in the organisation's future trajectory.

Overall, the SCO has been serving China's global as well as regional strategies. However, it is clear that China has adopted a cooperative rather than coercive stand in the SCO till now. This is in tandem with its global

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27. T.Tugsbilguun, "Does the Shanghai Cooperation Represent an Example of a Military Alliance?", *The Mongolian Journal of International Affairs* (Mongolia, 2009) n.15, p.61, see, [www.mongoliajol.info/index.php/MJIA/article/view/32](http://www.mongoliajol.info/index.php/MJIA/article/view/32), accessed on October 4, 2012.

28. Sahai, n.10, p. 96

29. Flemming Splidsboel Hansen, "The Shanghai Co-operation Organization: Probing the Myths" (Copenhagen: Royal Danish Defence College, December 2008), p. 7, see <http://forsvaret.dk/FAK/Publikationer/Briefs/Documents/The%20Shanghai%20Co-operation%20Organisation%20-%20Probing%20the%20Myths.pdf>, accessed on October 15, 2012.



strategy of promoting a benign image to be accommodated by other players in the international arena.

### **RELEVANCE OF SCO IN THE CURRENT SECURITY ENVIRONMENT**

It is crucial to see whether a prominent regional organisation like the SCO is equipped to meet the challenges in the current security environment in the region. The security architecture of the region faces challenges primarily from the non-state actors. Countering terrorism, separatism and Islamist fundamentalism has been a daunting task before China and the Central Asian states. The SCO's anti-terrorist wing, the Regional Anti-Terrorism Structure (RATS) is very relevant in this context. The three evils are considered extraditable offences within the SCO framework. The 2009 SCO Convention on counter-terrorism and the 2001 Shanghai Convention with a focus on terrorism are important steps taken by the SCO to evolve a consensus on countering terrorism. China also held its first ever joint anti-terror drill with Russia in 2007 named "Cooperation 2007" under the Shanghai Cooperation Organisation<sup>30</sup>. But, currently, RATS is confined to the members of the SCO. The observer states, India and Pakistan, have been suffering from the menace of terrorism. So, the positive engagement of these nations with the RATS is necessary. However, a drawback of the SCO is that while it aims at fighting against terrorism, it is not based on a common definition of terrorism but on some unilateral definitions given by the member states<sup>31</sup>. This implies that the member nations can define terrorism on their own terms and deal with their resistant elements under the umbrella of the SCO. This ambiguous policy has also led to China adopting harsh policies towards the Uyghur separatists in Xinjiang province by branding them as terrorists. China has also been influencing the Central Asian nations to adopt measures against the sympathisers of the Uyghur separatists in Central Asia through the SCO.

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30. "China to Hold First ever Joint Anti-Terror Drill with Russia", *The Times of India*, September 1, 2007, see [http://articles.timesofindia.indiatimes.com/2007-09-01/china/27954446\\_1\\_anti-terror-drill-joint-exercise](http://articles.timesofindia.indiatimes.com/2007-09-01/china/27954446_1_anti-terror-drill-joint-exercise), accessed on October 3, 2012.

31. "Shanghai Cooperation Organization: A Vehicle for Human Rights Violations", see [http://www.fidh.org/IMG/pdf/sco\\_report.pdf](http://www.fidh.org/IMG/pdf/sco_report.pdf), accessed on September 23, 2012.

**The SCO has initiated several steps towards strengthening the trade capacity of the region. An extensive programme of multilateral trade and economic cooperation was approved by the SCO in 2003.**

The SCO is far more relevant since it has all the major actors in the region as members, including Afghanistan. This makes it a platform for these nations' meeting along the sidelines of the summits. For instance, the issues of narcotic trade and fundamentalism in Central Asia have been transcending from conflict ridden Afghanistan. Since Afghanistan is an observer country in the SCO, it is capable of fostering a dialogue between Central Asia and Afghanistan in its fora. The SCO's gradual

transition into an organisation of global dimensions will also help a great deal in the region's geostrategic interactions. The 2012 Beijing Summit had officials attending from the United Nations, the Commonwealth of Independent States (CIS), the Eurasian Economic Community and the Collective Security Treaty Organisation. This opening up will help the region in seeking global support for domestic issues.<sup>32</sup>

One of the major issues faced by the Central Asian nations, despite being resource rich, is the inaccessibility to markets. The SCO has initiated several steps towards strengthening the trade capacity of the region. An extensive programme of multilateral trade and economic cooperation was approved by the SCO in 2003. It also established an Interbank Association in 2005 and a Business Council in 2006<sup>33</sup>. The areas of transportation and infrastructure are being focussed on by the SCO to facilitate trade in the region. China has also granted loans worth billions of dollars under the SCO umbrella to member countries for various initiatives.

However, it is to be analysed whether China itself is sticking to the resolutions passed in the SCO. At the Beijing Summit of the SCO, a

32. Andrei Akulov , "The Shanghai Cooperation Organization: A Way Toward a New World Order", *NSNBC*, June 9, 2012, see <http://nsnbc.wordpress.com/2012/06/09/the-shanghai-cooperation-organization-a-way-toward-a-new-world-order/>, accessed on October 27, 2012.

33. Julie Boland, "Ten Years of the Shanghai Cooperation Organization: A Lost Decade? A Partner for the US.?", *Policy Paper* (Washington, D.C: Brookings Institution, June 20, 2011), p.14, see [http://www.brookings.edu/~media/research/files/papers/2011/6/shanghai%20cooperation%20organization%20boland/06\\_shanghai\\_cooperation\\_organization\\_boland](http://www.brookings.edu/~media/research/files/papers/2011/6/shanghai%20cooperation%20organization%20boland/06_shanghai_cooperation_organization_boland), accessed on September 19, 2012.

Declaration on Building a Region with Lasting Peace and Common Prosperity was signed. The document emphasised that “the member states support the building of a world free of nuclear weapons and in strict compliance with the Treaty on the Non-Proliferation of Nuclear Weapons”<sup>34</sup>, while China’s own track record has not been clean on proliferation issues.<sup>35</sup>

It is also to be seen how the SCO has helped to improve the current security concerns of India. India has been recognising the relevance of the SCO which explains it pitching for full membership in the organisation. While addressing the extended session of the 12<sup>th</sup> Summit of the SCO, held in Beijing, External Affairs Minister S M Krishna had said that India believes that the SCO “can potentially play a much larger role in the future for both the security and prosperity” of the region.<sup>36</sup> India’s increasing interest in Central Asia exemplified through its “Look Central Asia Policy”, is also reflected through its active participation in the SCO. South Asia’s lack of connectivity with Central Asia is a major factor that is affecting India-Central Asia relations at a time when India is increasingly looking to Central Asia for energy resources. Though there is road connectivity between the two regions, a seamless and hassle-free rail connectivity is what the regions seek. Such connectivity will also serve to facilitate the Eurasian trade by opening up vast markets.<sup>37</sup> The North- South transport corridor, mooted by

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34. Ibid.

35. Urvashi Aneja, “Pakistan-China Relations Recent Developments (Jan-May 2006)”, *IPCS Special Report* (New Delhi: Institute of Peace and Conflict Studies, June 2006), pp.2-4, see [http://www.ipcs.org/pdf\\_file/issue/136564802IPCS-Special-Report-26.pdf](http://www.ipcs.org/pdf_file/issue/136564802IPCS-Special-Report-26.pdf), accessed on September 20, 2012.

36. “Seeing Larger Role for SCO, India Pitches for Full Membership”, *The Indian Express*, June 7, 2012, see <http://www.indianexpress.com/news/seeing-larger-role-for-sco-india-pitches-for-full-membership/958982/3>, accessed on October 23, 2012.

37. “India Initiates Rail Route Plan Through Central Asia”, *Russia and Indian Report*, March 1, 2012, see [http://indrus.in/articles/2012/03/01/india\\_initiates\\_rail\\_route\\_plan\\_through\\_central\\_asia\\_15011.html](http://indrus.in/articles/2012/03/01/india_initiates_rail_route_plan_through_central_asia_15011.html), accessed on September 17, 2012.

India, Russia and Iran in 2000<sup>38</sup> is expected to be the gateway of India to the Central Asian nations, bypassing Pakistan. Many of the nations involved in this project are also associated with the SCO. Thus, a steadily evolving cooperation is quite visible in the region. Multilateral frameworks like the SCO will definitely propel this evolving dynamics.

### **FUTURE TRAJECTORY**

On a larger canvas, the SCO's role, just like any other successful regional organisation, is relevant since it will prevent the unilateralism of states which is good for the stability and peace of the region. The future trajectory of the SCO will be shaped by the arising security concerns of the region and the strategic perceptions of the member states.

The inclusion of Afghanistan as an observer state in 2012<sup>39</sup> further makes the future trajectory of the SCO important for the region. In the context of the USA having declared a phased withdrawal from Afghanistan, there is a need for a new security framework in the region in order to fill the strategic vacuum. Afghanistan has also been the focus of the New Silk Route initiative of the US. This will enhance its role as a trade transit route. In this context also, Afghanistan's partnership becomes relevant for the SCO. It is to be seen what kinds of engagement the SCO will have with Afghanistan. This will have implications not only for Central Asia, but also all other regional players like India. At this juncture, the SCO should be involved in the reconstruction of Afghanistan and should give priority to creating a secure environment in the region. Afghanistan has also been the focus of the New Silk Route initiative of the US. This will enhance its role as a trade transit route. In this context

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38. Debidatta Aurobinda Mahapatra, "The North-South Corridor: Prospects of Multilateral Trade in Eurasia", *Russia and India Report*, March 14, 2012, see [http://indrus.in/articles/2012/03/14/the\\_north-south\\_corridor\\_prospects\\_of\\_multilateral\\_trade\\_in\\_eurasia\\_15134.html](http://indrus.in/articles/2012/03/14/the_north-south_corridor_prospects_of_multilateral_trade_in_eurasia_15134.html), accessed on October 1, 2012

39. Khushnood Nabizada, "Shanghai Cooperation Organization Accept Afghanistan as Observer", *Khaama Press*, June 7, 2012, see <http://www.khaama.com/shanghai-cooperation-organization-accept-afghanistan-as-observer-745>, accessed on September 18, 2012.

also, Afghanistan's partnership becomes relevant for the SCO.<sup>40</sup>

The SCO's emergence as a counter-balance to the Western alliance is a factor that is much debated while its future trajectory is discussed. The SCO's membership in itself, involving Central Asia, India, Pakistan and Turkey, manifests its success in balancing the Western influence in the region. Moves like the decision to accommodate the pro-Western Turkey as a dialogue partner should also be seen in the light of the future trajectory of SCO. However, the SCO does not possess the infrastructure and capability to replace NATO yet. However, the strength of the organisation which will promote its future growth in the region is that it focusses more on non-traditional security concerns like terrorism which is faced by all the nations associated with the SCO. Trade and energy relations, which are also one of the major concerns of the SCO, will induce the active participation of nations.

The security scenario in the Central Asian region is going through a period of rapid transition. At this juncture, it will be prudent for the SCO to outgrow any mutual distrust that may be detrimental to the cooperative mechanism and evolve as an active multilateral forum that strives for the stability and progress of the region. It should not seek to evolve as an alternative to NATO, but as a unique alliance of the regional powers for addressing their own security concerns. India's role in this strategic alliance will also be significant in the years to come.

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40. Sreemati Ganguly, "2012 Meet of the Shanghai Cooperation Organization (SCO): A Step Towards the Future?" (Calcutta: Institute of Foreign Policy Studies, 2012), see <http://www.caluniv.ac.in/ifps/Sreemati%20Ganguly.pdf>, accessed on September 17, 2012.



# A BRIEF LOOK INTO FORMATION OF JAPAN'S DEFENCE POLICY

PRERNA GANDHI

*Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes.*

*In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.*

— Chapter II, Article 9 of Japanese Constitution

## INTRODUCTION

From a bipolar world during the Cold War when Japan comfortably gave up its diplomatic influence by sheltering underneath the US security umbrella and focussing on building up its lost wealth and prosperity after the horrendous defeat in World War II, to the unipolar world post the Cold War wherein the US became the centre of influence, and a rapidly growing China threatened to outrun Japan and counter US power by its massive size, Japan underwent continuous 'security identity' crises that shaped and modified its 'identity' as a state, the threats that it perceived could undermine that 'identity' and the aspirations it had in the arena of regional and international security affairs. The concept of 'national identity' is intangible in international relations studies for understanding

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a nation's choices, preferences and actions as they are governed not only by material considerations but also by ideational ones of what it assumes to be its inner values and role as a state, both domestically and in the international scenario. 'Security identity', a sub-feature to the larger concept of national identity is defined as the larger-held principles reflecting the role and threat perception that determine a state's policy in the domain of security affairs as these principles, entrenched in the policy-making institutions, inform about the actions and decisions of that state. For Japan, these

principles have been in a constant flux as events post World War II have been far-reaching in the changing international power dynamics.

To understand the pace of change for Japan, one has to only see that in the span of the last 72 years, the very country that accused it of being a military aggressor and agitator for World War II and dropped two atomic bombs on it, is today, its closest ally, has its second largest overseas military base in Japan and now accuses it of not fulfilling its military obligations wholeheartedly. It has been 68 years since the end of World War II, and Japan has come a long way from its days as an Axis power to becoming a peaceful nation, remaining the world's second largest economy till 2010 for 42 years after overtaking West Germany in 1960, yet historical legacies and war memories render hostility to Japan even today. Japan legally has no army; its military forces are referred to as Self-Defence Forces or *Jieitai* (自衛隊). It renounced its right to belligerency with the adoption of the 'Peace Constitution' in 1947; and the Security Treaty of 1951 and Treaty of Mutual Cooperation and Security of 1960 with the United States have been the underpinning of its territorial and external military security till date. These security treaties that entitle the United States to station military bases in Japan and extend nuclear deterrence to Japan, have been pivotal not only to Japan's post-war strategic culture but also to the strategic-military balance of power in the region. The US-Japan alliance is crucial to deterring



the threats of major conflicts on the Korean Peninsula, off Japan, and in the Taiwan Strait<sup>1</sup>.

### **THE CHINA ANGLE TO THE US-JAPAN ALLIANCE**

China with its double digit figures of both growth and defence budgets has been the focus of much of the (international relations) studies in recent times. It would have been easier if one could characterise China as a new kid on the power block but for the fact that the world's third largest country, in terms of area size, and the world's most populous country is no new power. In fact, it is used to enjoying great power and holding notions of Sinocentrism or being the centre of civilisation for much of its history and referring to itself as the Middle Kingdom. But if we look more in depth at its strategic culture, it was always a little inclined to aggressive expansionist policies (Feng 2007). China's rulers and ministers believed that the vastly superior Chinese civilisation founded upon 'virtue' and reinforced by its lavish material achievements would overwhelm the hostile tendencies of the uncultured. Frequent gifts of the embellishment of civilised life, coupled with music and women would distract and enervate even the most war-like people. If they could not be overawed into submission or bribed into compliance, "using barbarian against barbarian" was followed (Sawyer 1993). Ironically, even with insufficient transparency and information, much clout has been given to China. Is China a realist, mercantilist or revisionist power and "what exactly is China up to" have been questions of much debate and speculation in foreign policy and international relations studies.

China's growing assertiveness, bordering on aggression, in international strategic relations since the 2000s has more often than not found itself clashing with US presence and hegemony in the Asia-Pacific region. With its rapid economic and military growth, China finds itself at a crossroads as it can no longer rely on the Communist or Maoist ideology to hold itself together. Hence, nationalism serves as a better binding factor, and rather than working to create a strong national identity from within, it is much easier to do it from outside-in by demarcating the outside national enemy for everyone to unite against. Hence, as in China's case, stir up hostilities with a nation and

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1 "US Force Posture Strategy in the Asia-Pacific Region: An Independent Assessment", Centre for Strategic and International Studies, 2012, at <http://csis.org/publication/pacom-force-posture-review>.

**With its rapid economic and military growth, China finds itself at a crossroads as it can no longer rely on the Communist or Maoist ideology to hold itself together.**

you get a nation with an overzealous sense of patriotism. The USA and China can be said to be a classic case of frenemies. While the United States and China inevitably engage in a competition of influence to some extent, Beijing's counter-containment strategies (such as A2AD or Area Access-Area Denial) used as tactical strategies in response to its perception of US engagements in the Asia-Pacific region, are deemed as a repeat of the Cold War "containment". Distinguishing between legitimate and manufactured concerns

requires careful attention and continuous strategic dialogue between both countries<sup>2</sup>. Both countries are well aware of Armageddon scenarios in case of full-blown conflicts in this century and both know the space they have for peaceful diplomatic manoeuvre, therefore, it is expected by the international community that they will know what to forgive and what to forget.

Probably the post-modern People's Republic of China (PRC) is still in the process of defining its role and ambitions as a state and sees equal or more threat to its 'national identity' as compared with the international perception as a 'threat' to undermine regional and global power dynamics. Yet, being an old neighbour of Japan, with a long memory of historical relations, it exerts much influence on Japan's strategic-military policies. However, Japan's *alliance with the US and its position as an economic power have been the major deciding themes in its strategic-military policy decisions. For the United States, Japan has been the core of its access and influence in the Asia-Pacific region.* Japan has more often than not been criticised of "free-riding" on this alliance; it wasn't until 1978 that Japan picked up budget sharing for the maintenance of US forces in Japan. Recent initiatives post the 2000s indicate a marked change from Japan's passivity as a partner in the alliance, as indicated by the Iraq Reconstruction Assistance Special Measures Law passed in 2003 and its 2004 despatch of ground troops for the first time since World War II, to a country in which fighting was still going on to assert that it was a responsive ally and willing to make its share of the contribution.<sup>3</sup>

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2. Ibid.

3. Takeshi Yuzawa, *Japan's Security Policy and the Asean Regional Forum: The Search for Multilateral Security in the Asia-Pacific* (Routledge, 2007).

### SENKAKU/DIAOYU ISLAND CONFLICT

The long standing conflict between Japan and China over islands in the East China Sea known as the Senkaku Islands in Japan and the Diaoyu Islands in China, has been deteriorating since 2010. In August 2012, the Japanese government's purchase of three of the disputed islands from a private landowner in order to preempt their sale to Tokyo's nationalist Governor Shintaro Ishihara, sparked massive Chinese protests and a marked drop in Sino-Japanese trade. This led to military escalation in the East China Sea by both countries, leading to the scrambling of fighter jets and locking of radars, followed by an undue display of naval warships which further precipitated suspicion rather than calming the conflict. The island's conflict in the East China Sea goes beyond mere questions of territorial sovereignty over three uninhabitable islands and five rocks (which, in total, amount to only 2.7 square miles in the East China Sea); clashing Exclusive Economic Zones (EEZ) and continental shelves based on the inconclusive UN Convention on the Law of the Seas (UNCLOS)<sup>4</sup>, fisheries, shipping routes and logistics, uncertainty of the exact scope and scale of resources in the East China Sea after the last exploration in 1968 and a desire to perpetuate the conflict as a nationalist agenda building up on historical wounds and memories by both countries<sup>5</sup>.

China's increasing demand for energy has prompted intense interest in resource extraction from the continental shelf that runs under the East China Sea. The hotly disputed oil and gas fields in the East China Sea named Chunxiao, Duanqiao and Tianwaitian by China, and Shirakaba, Kusunoki and Kashi by Japan, overlap the median line, which Beijing refuses to recognise as the EEZ demarcation boundary<sup>6</sup>. Also the strategic shipping routes for China in the YSEB (Yellow Sea Economic Basin) catering to 57 percent of China's trade, north of the East China Sea, lead

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4. As defined in Part VI, Article 76 of UNCLOS III, "The continental shelf of a coastal State comprises the seabed and subsoil...to the outer edge of the continental margin or to a distance of 200 nautical miles" from the nation's coast (UN 1982).

5. Amelia Moura, "The Senkaku/Diaoyu Island Dispute in the East China Sea", June 7, 2013, at <http://blogs.scientificamerican.com/expeditions/2013/06/07/the-senkakudiaoyu-island-dispute-in-the-east-china-sea/>.

6. Brahma Chellaney, *Asian Juggernaut: The Rise of China, India and Japan* (Harper Collins Publishers, 2006)

to more reasons for the Chinese controlling interests in the islands<sup>7</sup>. For Japan, its stake to those islands assumes even more strategic importance beyond the oil and the fish, as they form its first line of defence and are a mere 410 km or 220 nautical miles (nm) away from Okinawa which holds critical importance for both Japan and the US. The United States is bound by the US-Japan Security Treaty to protect “the territories under the Administration of Japan” and has asserted that Japan administers the Senkakus (Diaoyu Islands). Yet, though Japan is assured of US help through the treaty, its anxiety remains over Washington’s commitment to defend Japanese territory if there is a risk of going to war with China. Shinzo Abe has taken a firm stance on the island dispute. But he has also pushed for a high-level dialogue with China to help improve ties. Beijing has so far refused to hold such talks.

### **2010 NATIONAL DEFENCE POLICY GUIDELINES**

Unlike most countries which regularly update their security strategy and defence plans, Japan’s National Defence Programme Guidelines (NDPG) have been updated three times since their initial conception in 1976: in 1995, 2004, and, most recently, in 2010. The increasing frequency of NDPG revision indicates that Japan is constantly evaluating its minimalist security policy to adapt it to the changing needs of the international security environment. The 2010 NDPG published under the Democratic Party of Japan (DPJ) government, introduced a major shift in the country’s strategic concept from “basic defence force” to “dynamic defence capability” in response to the rapid transformation of the security environment. It is evident that Japan wants to pick up a more assertive role in both regional and global defence matters but under the aegis of the US-Japan alliance so as not to create distrust among the international community<sup>8</sup>.

NDPG 2010’s acquisition programmes specifically target areas that promote the growth of dynamic defence capabilities within the Japanese Self-Defence Forces (JSDF). These include capabilities to ensure security of

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7. “The Yellow Sea Economic Basin - A Sea of Stars”, Investment and Pensions Asia, 2009 at [http://www.ipe.com/asia/the-yellow-sea-economic-basin-a-sea-of-stars\\_30583.php?categoryid=5689#.UkKbn9JWb34](http://www.ipe.com/asia/the-yellow-sea-economic-basin-a-sea-of-stars_30583.php?categoryid=5689#.UkKbn9JWb34).

8. “Special Feature”, Ministry of Defence, *Japan Defense Focus*, no. 4, at <http://www.mod.go.jp/e/jdf/no04/special.html>.

the sea and air space around Japan, respond to attacks against island areas, counter cyber attacks, defend against attacks by special forces, provide for ballistic missile development capability, respond to complex contingencies throughout the region, and provide consequence management and humanitarian assistance to large-scale and special disasters. Focus areas for future development include joint operations, international peace cooperation activities, intelligence, science and technology, research and development, and medical capability<sup>9</sup>. The most pressing issues for Japan from the context of international perception at the moment seem to be redefining the right of collective self-defence, whether or not to amend the Constitution and changing the three non-nuclear principles, especially of Japan developing nuclear deterrence capability<sup>10</sup>.

#### **ARTICLE 9 AND THE RIGHT OF COLLECTIVE SELF-DEFENCE**

Change in Article 9 of the Constitution has been a strong agenda of Prime Minister (PM) Abe since his election. Yet there is strong political opposition, as evidenced by the Liberal Democratic Party's (LDP's) own ally New Komeito being staunchly opposed. "If the LDP shifts toward the direction where the public is wary (such as revising Article 9), we will side with public sentiment and control the LDP" even though the LDP has far more Diet members, President Yamaguchi of New Komeito said in an interview with *The Japan Times*<sup>11</sup>. Article 9 of the Constitution is seen as the first target by Abe, as easing the procedure for an amendment is critical for the Japanese Constitution that has never been amended since its implementation. The LDP has drawn up a proposal to lower the required parliamentary margin of approval for constitutional revisions to a simple majority in each House<sup>12</sup>. Article 9 reads in full:

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9. Douglas John MacIntyre, "Emerging from Behind the US Shield: Japan's Strategy of Dynamic Deterrence and Defense Forces", *JFQ, Issue 65*, 2<sup>nd</sup> Quarter, at <http://www.ndu.edu/press/lib/pdf/jfq-65/jfq-65.pdf>.

10. "Japan's Defense Policy: The View from Washington DC", Brookings Policy Paper, 2012. at <http://www.brookings.edu/research/papers/2012/08/13-japan-kageura>.

11. "New Komeito Chief Vows to Counter Abe if he Tries to Change Article 9", *Japan Times*, June 29, 2013, at <http://www.japantimes.co.jp/news/2013/06/29/national/new-komeito-chief-vows-to-counter-abe-if-he-tries-to-change-article-9/>.

12. "Behind Moves to Revise Article 9", *Nippon News*, July 11, 2013, at <http://www.nippon.com/en/genre/politics/100042/>.

Amendments to this Constitution shall be initiated by the Diet, through a concurring vote of two-thirds or more of all the members of each House and shall thereupon be submitted to the people for ratification, which shall require the affirmative vote of a majority of all votes cast thereon, at a special referendum or at such election as the Diet shall specify.

Amendments when so ratified shall immediately be promulgated by the Emperor in the name of the people, as an integral part of this Constitution.

Revision of Article 9 of the Japanese Constitution has attracted much attention from the international media. The two-decade-long recession and China surpassing Japan in Gross Domestic Product (GDP) terms (2010) has led to lowered morale for the Japanese public and left space for the Japanese politicians to once again pick up the agenda of sovereignty and national defence. Clause 1 of the Constitution raises the issue of identity and legality of the SDF forces and their deployment in national as well as international war-like scenarios. Clause 2 raises issues of possessing sufficient weapons and nuclear deterrence. Change in Article 9 is more than likely to damage Japan's reputation as a peaceful state. Though its interpretation sufficiently favours both the SDF and the US-Japan alliance, it is the definition of the extent of collective self-defence that becomes the problem. Not exercising the right of collective self-defence obstructs both Japan's diplomatic leverage in strategic-military affairs, regionally as well as globally, and also creates imbalance in the US-Japan Treaty as rather than defence sharing, it puts all the burden on the United States, with Japan taking no accountability in the alliance .

## **NUCLEAR STAND**

There is probably no country that shows greater dislike for nuclear armaments than Japan, having suffered the trauma of nuclear attacks twice, with opinion polls consistently revealing that public opinion is overwhelmingly opposed to nuclearisation. Japan has been active in encouraging and strengthening multilateral non-proliferation and disarmament regimes since the early 1990s and has submitted disarmament resolutions to the United Nations General Assembly every year since 1994. Japan's nuclear and non-proliferation policy comprises four main pillars: the Atomic Energy Basic

Law of 1955 restricting Japan's nuclear energy use exclusively to peaceful purposes; the "Three Non-Nuclear Principles" of not possessing, producing or introducing nuclear weapons on Japanese soil; compliance with the nuclear Non-Proliferation Treaty (NPT); and reliance on the US nuclear umbrella for external security.<sup>13</sup> However, Japan's role as a spokesperson for nuclear disarmament is a complicated one between its contradictory positions of nuclear abstinence and ensuring the credibility of the US extended nuclear deterrence. In 2010, Japan acknowledged a Cold War secret pact with the United States, concluded in 1969, that US ships carrying nuclear weapons could stop at Japanese ports as it was not tantamount to passage of nuclear weapons on Japanese soil and nuclear weapons could be stationed in Okinawa in times of emergency. "The No Confirm-No Denial" policy deterred questions for the United States Forces in Japan (USFJ) without creating tensions in the region and implicating Japan.<sup>14</sup>

Issues of national identity and sovereignty have plagued Japan time and again, with debate ongoing among the nationalists, pragmatists and pacifists. The United States' commitment to deterrence has been a concern in Japanese politics, though the Obama Administration has once again put the focus on the Asia-Pacific region as integral to its strategic interests<sup>15</sup>. Before concluding the NPT, to appease the United States in 1970, in return for control of Japanese jurisdiction in Okinawa, Prime Minister Eisaku Sato conducted a secret non-governmental study in 1968 (with a second part of the study conducted in 1970) to investigate the possible economic, technical and diplomatic aspects involved in nuclearisation. The study concluded that the costs of nuclearisation far outweighed the benefits (the study came to light in 1994). Though the impact of the 1968/1970 study on the Japanese defence policy remains debatable, nonetheless, similar attitudes persist even today that nuclear weapons would provide few benefits to Japan and may show a breakdown of the US-Japan alliance, weakening the security of the region, and may even start a dangerous arms race in East Asia should

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13. "Japan's Policies on the Control of Arms Exports", Ministry of Foreign Affairs at <http://www.mofa.go.jp/policy/un/disarmament/policy/>.

14. "Secret Pacts Existed; Denials 'Dishonest': Deals Reached on Nuclear Arms Entry, Okinawa Reversion: Panel", *Japan Times*, May 10, 2010, at [http://www.japantimes.co.jp/news/2010/03/10/national/secret-pacts-existed-denials-dishonest/#.UePDxtJgf\\_Y](http://www.japantimes.co.jp/news/2010/03/10/national/secret-pacts-existed-denials-dishonest/#.UePDxtJgf_Y).

15. "US Force Posture Strategy in the Asia-Pacific Region: An Independent Assessment", Centre for Strategic and International Studies, 2012 at <http://csis.org/publication/pacom-force-posture-review>.

**It is expected that once the reprocessing plant moves beyond the testing phase to become commercially operational, it will separate and stockpile up to 8 metric tonnes of plutonium annually. This amount is sufficient to produce 1,000 nuclear weapons.**

Japan walk down that path<sup>16</sup>.

Though strategic studies depend a lot on official positions and statements, any good analyst would know that there is a lot of reading between the lines. The construction of the Rokkasho spent fuel recycling complex in Aomori Prefecture has been subject to strong controversy. It is expected that once the reprocessing plant moves beyond the testing phase to become commercially operational, it will separate and stockpile up to 8 metric tonnes of plutonium annually. This amount is sufficient to produce 1,000 nuclear weapons.

The Rokkasho reprocessing plant was originally scheduled to become operational in November 2008, however, complications during test operations caused the Japan Nuclear Fuel Ltd. to postpone the date further, in its 19<sup>th</sup> postponement, to October 2013<sup>17</sup>.

### **SELF-DEFENCE FORCES 'LEGITIMACY' CRISIS**

The SDF, since the time of their inception in 1954, had faced crises on its purpose and boundaries. The Peace Treaty of 1951 stated that "Japan as a sovereign nation possesses the inherent right of *individual or collective self-defense* referred to in Article 51 of the Charter of the United Nations and that Japan may voluntarily enter into collective security arrangements." The US and Japan Mutual Defence Assistance Agreement (MSA Agreement) signed on March 8, 1954, obliged Japan to strengthen its defence capacities. Article VIII of the agreement read, "The Government of Japan . . . will make . . . the full contribution permitted by its manpower, resources, facilities and general economic condition to the development and maintenance of its own defensive strength and the defensive strength of the free world, take all reasonable measures which may be needed to develop its defense capacities, and take appropriate steps to ensure the effective utilization of any assistance provided by the Government of the United States of

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16. "Country Profiles, Japan", Nuclear Threat Initiative (NTI), 2013, at <http://www.nti.org/country-profiles/japan/nuclear/>.

17. Ibid.



America<sup>18</sup>.” When the Bill for the SDF was introduced into the House of Representatives, there was much concern that government interpretation of Article 9 ultimately would allow the unlimited increase in self-defence capability under the name of self-defence and that after the MSA Agreement became effective, Japan would have obligations under the right of collective defence and would be obliged to dispatch the SDF overseas. Hence, when the House of Councillors passed the SDF Law, it also passed the Resolution on Ban of Despatch of SDF to Abroad.

Yoshida Shigeru, one of the most powerful figures in post-war Japan and prime minister from 1946-47 and then 1948-1954, influenced much of post-war Japan’s strategic–military policy and promulgated the “Yoshida doctrine” built on three pillars of ‘*seikei-bunri*’ or economics first policy, Japan’s adherence to the Peace Constitution and reliance on the US for security. The Basic Policy on National Defence or BNPD 1957, Japan’s first post-war official document on its strategic-military role in national and regional security, defined Japan’s role as: to resist direct and indirect aggression against Japan’s national security pending the arrival of assistance from the US/UN forces. This approach was reinforced in the second official document on Japan’s defence policy NDPO (National Defence Policy Outline) that, for the first time, defined the mission and force structure for the SDF in 1976. Yoshida’s landmark quote, “If you like shade, find yourself a big tree” was to remain a defining theme in Japan’s post-war strategic-military culture until the 1970s when it was challenged by multiple international events such as Nixon visiting China in 1972, the oil crisis, withdrawal of American troops from Vietnam in 1975, increased trade friction with the US and continuous US pressure after the Nixon-Sato communiqué in 1969 to take up greater military responsibilities<sup>19</sup>.

Post-war Japan had assumed that the international security environment was a given which could not be affected by Japan but the breakdown of détente and intensification of the Cold War in the late 1970s led to a new comprehensive security concept that security went beyond military issues and Japan could also influence the international environment. For fear of US military withdrawal from Asia, the Guidelines for Defence Cooperation

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18. “Law Library of Congress, Article 9”, at <http://www.loc.gov/law/help/JapanArticle9.pdf>

19. M Blaker, “Evaluating Japan’s Diplomatic Performance”, in GL Curtis, ed., *Japan’s Foreign Policy after the Cold War: Coping with Change* (M.E. Sharpe, 1993)

**Japan's first post-war official document on its strategic-military role in national and regional security, defined Japan's role as: to resist direct and indirect aggression against Japan's national security pending the arrival of assistance from the US/UN forces.**

were signed in 1978 when Japan started contributing 10 percent to the maintenance of US forces in Japan. It also expanded its ODA (Official Defence Assistance) policy in the 1980s to countries deemed as "strategically important" by the United States<sup>20</sup>. Further changes came along under Nakasone's term as prime minister as he removed the ban on Japan's export of dual military technology to the US. Under him, Japan also agreed to cooperate with the US in its Strategic Defence Initiative (SDI) and entered into joint production of the advanced fighter aircraft

FSX. He also broke the one percent ceiling on defence expenditure (though it amounted to only 1.013 percent) to strengthen military capability in areas such as anti-submarine weapons<sup>21</sup>. Nakayama Taro's (foreign minister at the time of the Gulf War) quote, "Peace has its price, and we have to pay it" was a radical departure from Yoshida and laid down the tone for the 1990s, marked by the Gulf War, North Korean nuclear and missile crises, Taiwan Strait crisis, increased threat perception from China and a landmark revision of the 1978 guidelines after almost 20 years, resulting in the US-Japan Joint Declaration on Security Alliance that provided the mandate for Japanese military involvement in situations that not only involved a direct attack on Japan but also in military contingencies in the Asia-Pacific region<sup>22</sup>.

The Gulf War in the beginning of the 1990s' decade raised serious concern over the issue of collective self-defence, as Japan, though it had initially declined US/ UN requests for participation in the war on the grounds that it did not want to get involved in a Middle Eastern crisis but later contributed about \$13 billion to the war effort, was excluded from Kuwait's congratulatory message to US/UN forces. Fear of alienating the US and isolation in the global community provoked Japan to seriously question

20. Akitoshi Miyashita, *Limits to Power: Asymmetric Dependence and Japanese Foreign Aid Policy* (Lexington Books, 2003).

21. Bhubhinder Singh, *Japan's Security Identity: From a Peace State to an International State* (Routledge, 2013).

22. Ibid.

its pacifist policy. While the UN was used to shield its minimalist security policy in the 1950s, Japan in the 1990s relied on the UN again to overcome domestic constraints so as to carve out a responsible role in international security affairs<sup>23</sup>. With the enactment of the International Peace Cooperation Law (IPCL) in 1992 that allowed Japan to send not just civilian personnel but even the SDF, Japan has cooperated in 8 peace-keeping operations such as in Angola, Cambodia, Mozambique, El Salvador, the Golan Heights and Timor-Leste, in 5 international humanitarian relief operations such as for Rwandan refugees and Timorese and Iraqi displaced persons, and in 5 international election monitoring activities such as in Bosnia and Herzegovina and Timor-Leste.<sup>24</sup>

Under the notion of collective defence, Japan's participation in the UN Peace-Keeping Operations (PKO) and its anti-piracy measures in Somalia by guarding commercial ships with military escorts has won it much international acclaim and praise but siding with its ally in wars in the Middle East has received serious criticism and raised questions on the "self-defence" nature of the SDF. Owing to the Gulf War debacle, after the 2001 terrorist strike on US soil, Japan was quick to show solidarity and passed the Anti-Terrorism Special Measures Law in September 2001, following which the SDF was deployed to assist the US led international Coalition through rear end and logistics support. Former Prime Minister Koizumi justified the decision to send the SDF to Iraq with the following three points: to send the SDF to Iraq is to help the Iraqi people and support international cooperation; the SDF would be offering humanitarian assistance and would not be using force; it is important for Japan's international relations with the US<sup>25</sup>. Further, in the Diplomatic Bluebook 2004, the Japanese government stressed that instability in Iraq would have a direct impact on Japan due to its extensive reliance of almost 90 percent on Middle Eastern oil and, hence, it was necessary that Japan make efforts towards ensuring peace and stability in this region.<sup>26</sup> Japan withdrew from Iraq in 2006.

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23. Ibid.

24. "Japan's Contribution to UN Peacekeeping Operations", Ministry of Foreign Affairs, 2005 at <http://www.mofa.go.jp/policy/un/pko/pamph2005.html>

25. Noriko Hashimoto, "Is the Overseas Deployment of Japan's Self-Defense Force (SDF) Illegal? Rethinking the Japanese Contribution to International Peace and Security", February 10, 2009, at [http://www.monitor.upeace.org/innerpg.cfm?id\\_article=586](http://www.monitor.upeace.org/innerpg.cfm?id_article=586).

26. "Diplomatic Bluebook", Ministry of Foreign Affairs, 2004, at <http://www.mofa.go.jp/policy/other/bluebook/2004/>

A nation has full rights to maintain its sovereignty with honour and pride, and Japan having been a responsible state in the world community after its World War II debacle, should be allowed to decide for itself. Yet the immense international interest in Japan's pacifism is motivated by its own interests in ensuring global peace and regional security. Japan has been a model of economic development with numerous lessons of growth for developing economies. It is one of the few countries to possess economic power and high standards of living without having an extensive military structure. It also disproves the theorem that military Research and Development (R&D) forms the basis of technological development of a country. Hence, Japan serves as an ideal for countries undergoing military and diplomatic crises that non-proliferation and nuclear disarmament may serve their purpose better than engaging in conflicts over nationalistic issues. Even the United States exploited this image of its ally as evidenced by its assigning disarmament and reconstruction work to the Japanese contingent in Iraq.

### **ISOLATION OF DEFENCE INDUSTRY**

Japan's defence industry has been kept in quasi-isolation by its own government with a ban on arms exports in keeping with "The Three Principles" of non-export to Communist bloc countries, countries subject to "arms" exports embargo under the United Nations Security Council's resolutions, and countries involved or likely to be involved in international conflicts since the declaration of the principles at the Diet session in 1967. In February 1976, the Government of Japan announced the collateral policy guideline at the Diet session that the "arms" exports to other areas not included in the Three Principles will be also restrained in conformity with Japan's position as a peace-loving nation.<sup>27</sup> However, despite the isolation, the domestic defence industry has transformed into a dominant player in design and manufacture of defence components. Post 1952, when the aircraft production and development ban was lifted, 14 projects to produce US military aircraft under licence have been undertaken in Japan. With each production, the Japanese components of the aircraft have increased, from 60 percent in

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27. "Japan's Policies on the Control of Arms Exports", Ministry of Foreign Affairs, at <http://www.mofa.go.jp/policy/un/disarmament/policy/>.

the F-86 to 85 percent in the F-104. Even the latest F-2 does not realise full autonomy, but the indigenously produced Mitsubishi ATD-X Shinshin stealth aircraft scheduled for test flights in 2012 may be the realisation of Japan's dreams after almost six decades of technology transfer from the world's most advanced aerospace industry.<sup>28</sup> The Greater Nagoya Industrial Cluster, housing many of Japan's biggest defence companies, with its sub-clusters of automotive, aerospace, information technology, biotechnology, ceramics and environmental technology and premier universities and research institutes generates one percent of the world's GDP.<sup>29</sup>

In late 2011, the ban on weapons export was lifted after decades of a self-imposed embargo. A report entitled "Towards Formulation of a Strategy for Survival," released by the Ministry of Defence's Defence Production and Technology Base Research Committee after a six-month study, notes that Japan is suffering from what is often called the "Galapagos syndrome" of isolation from global markets after half a century of ban on weapons exports. The report mentions that conglomerates such as Mitsubishi Heavy Industries, Mitsubishi Electric, IHI, NEC, Toshiba and Fujitsu, for whom defence production is a fraction of their global business, should consider alliances or mergers of business units to improve efficiencies, stop overlaps, and pool production and R&D resources. The issue at urgency is that Japan, with its numerous legislative constraints, must ensure that the domestic defence industry remains dynamic as its collapse in the face of international competition may lead Japan to lose much-needed autonomy in defence production or at least breakout capability for autonomy and, thus, strategic leverage on the US, and any independence left in the destiny of its own security policy.<sup>29</sup> However, by creating civil-military clusters conducive to technology transfers and emphasising on the development of dual use technologies while hugging its security ally close, Japan has produced advanced platforms such as the FS-X/ F-2 fighter, the Aegis equipped

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28 Jenny Lu, "Technology Transfer and the F-2 Fighter: How the Japanese Defense Industry Defied the Odds", 2013, at [http://www.mindef.gov.sg/.../techedge/.../55-63\\_\\_Technology%20Transfer%...%E2%80%8E](http://www.mindef.gov.sg/.../techedge/.../55-63__Technology%20Transfer%...%E2%80%8E)

29. "Japan Strives To Overcome Defense Industrial Base 'Crisis'", *Defense News*, June 24, 2012 at <http://www.defensenews.com/article/20120624/DEFREG03/306240003/Japan-Strives-Overcome-Defense-Industrial-Base-8216-Crisis-8217->.

destroyer and the four Mitsubishi intelligence-gathering satellites.<sup>30</sup>

### **CONCLUSION: IMPLICATIONS FOR INDIA- JAPAN RELATIONS**

Relations between India and Japan are without much historical baggage for Japan and enjoy positivity. Cultural exchanges between India and Japan began early in the 6<sup>th</sup> century with the introduction of Buddhism to Japan from India. As a result of the link of Buddhism between India and Japan, monks and scholars often embarked on voyages between the two nations. At the International Military Tribunal for the Far East, one of the dissenting judgments in favour of Japan was made by Indian Justice Radhabinod Pal. The principled judgment of Justice Radhabinod Pal is remembered even today in Japan. In 1949, Prime Minister Nehru responded to a letter from school children in Tokyo, and sent an elephant named 'Indira' after his daughter to the Ueno Zoo as a gift<sup>31</sup>. Many in Japan also remember India's refusal to attend the San Francisco Peace Conference in 1951 for the reason that India was concerned about the limitation on Japanese sovereignty and national independence. After the restoration of Japanese sovereignty, Japan and India signed a separate peace treaty and established diplomatic relations on April 28, 1952, in which India waived all reparation claims against Japan. From being the first recipient of Japan's first Official Development Assistance (ODA) in 1958, to becoming one of the largest recipients of Japanese ODA, India has received approximately ¥3,600 billion (US\$36 billion) over the past few years<sup>32</sup>. Japan sees its ODA for India as one of the important tools to strengthen Japan-India relations set forth by the "Japan-India Strategic and Global Partnership", and sustainable growth of India is paramount in ensuring that of Asia, including of Japan<sup>33</sup>. Also, the agreement in 2004, during Kawaguchi's visit to India for the formation of the G-4 by Japan, India, Germany and Brazil to acquire permanent seats

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30. Jenny Lu, "Technology Transfer and the F-2 Fighter: How the Japanese Defense Industry Defied the Odds" at [http://www.mindef.gov.sg/.../techedge/.../55-63\\_\\_Technology%20Transfer%...%E2%80%8E](http://www.mindef.gov.sg/.../techedge/.../55-63__Technology%20Transfer%...%E2%80%8E).

31. Symposium on Japan and India: Challenges and Responsibilities as Partners in the 21<sup>st</sup> Century in Asia, March 16, 2005, Keynote address by Yoshiro Mori, former PM of Japan.

32. Rohit Sinha and Geethanjali Nataraj, "Japanese ODA Stimulates Indian Infrastructure Development", EastAsiaForum, 2013 at <http://www.eastasiaforum.org/2013/06/18/japanese-oda-stimulates-indian-infrastructure-development/>.

33. "Overview of Japan's ODA to India", Ministry of Foreign Affairs, 2011, at [http://www.mofa.go.jp/policy/oda/region/sw\\_asia/india\\_o.pdf](http://www.mofa.go.jp/policy/oda/region/sw_asia/india_o.pdf).

in the UN Security Council, has been a significant gesture of the growing friendship between the two countries.

Relations between the two nations became constrained by the Cold War politics as Japan sided with the US, and India headed the Non-Aligned Movement (NAM). There was a brief low in 1998 as a result of Pokhran-II. Japan imposed sanctions on India following the test, which included the suspension of all political exchanges and the cutting off of economic assistance. These sanctions were lifted three years later. Asia's two largest democracies—second and third largest economies respectively—Japan and India have developed close relations since 2000 as India grew closer to the United States with Clinton's historic visit in 2000 (after a lull of 22 years since the last visit by US President Carter in 1978), followed by a visit by President Bush in 2006 and later President Obama in 2010. From the 1998 debacle, to a decade later, the two now refer to each other as "Strategic Global Partners" as per their 2006 Strategic Global Partnership, and have concluded a Joint Declaration on Security Cooperation along with a Comprehensive Economic Partnership Agreement (2010) that liberalised bilateral economic activity. Since 2006, India and Japan have held annual prime ministerial level talks—a privilege afforded by each to no other state and, in Japan's case, not even the United States (Panda 2012). Trade between Japan and India had never been impressive. Japan's exports to India in the fiscal year ending March 2013 were worth \$8.25 billion. Imports were worth \$5.7 billion.<sup>34</sup>

As stated in the Japanese Annual White Paper on Defence (2012), the level of cooperation between military branches has advanced the most in the naval area, no surprise considering one is a peninsula and another an island nation, with the Japan Maritime Self-Defence Force (JMSDF) taking part in the Indo-US Malabar Exercises in 2007 and 2009, and the Indian Navy and JMSDF carrying out their first-ever bilateral combined training exercises off Sagami Bay in Japan in June 2012. Also, the JMSDF and the Indian Navy, in activities in the Gulf of Aden off Somalia, have exchanged schedules for the escort of civilian vessels to ensure the safety and security of Sea Lanes of Communication (SLOCs) that is basic to the economic

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34. HS Prabhakar, "Thrust to India-Japan Relations", June 5 2013, available at <http://newindianexpress.com/opinion/Thrust-to-India-Japan-relations/2013/06/05/article1620208.ece>

**Indian bilateral trade with Japan for 2012-13 worth \$14 billion is dwarfed by Japan-China trade (\$68 billion) and India-China trade (\$66 billion). Despite China being the largest trade partner for both India and Japan, China stands at a crossroads with both India and Japan.**

development of both countries. The Japan Ground Self-Defence Force (JGSDF) has also worked with the Indian Army, forming a logistics battalion in the UN Disengagement Observer Force (UNDOF) in the Golan Heights. The Japan Air Self-Defence Force (JASDF) is also reinforcing its relationship with its Indian counterpart, with the JASDF chief of staff having paid a visit to India in November 2012, on the heels of the 2010 visit to Japan by the Indian Air Force (IAF) chief of staff. In October 2012, the second vice-ministerial "2+2" meeting was held after a hiatus of two years, in which the two sides

discussed maritime and outer space security, and agreed to hold an Indo-Japanese Cyber Dialogue.

Indian bilateral trade with Japan for 2012-13 worth \$14 billion is dwarfed by Japan-China trade (\$68 billion) and India-China trade (\$66 billion).<sup>35</sup> Despite China being the largest trade partner for both India and Japan, China stands at a crossroads with both India and Japan. 2013 itself has seen Japan facing off China in the East China Sea and India facing Chinese incursions in Ladakh. Relations between China and Japan continue to be wracked by war memories and territorial disputes that inhibit close diplomatic relations. India's border disputes with China in Arunachal Pradesh and Aksai Chin, in addition to Delhi's hosting of the Dalai Lama, create friction in its relationship with China.<sup>36</sup> As China rises with its aggressive behaviour in pursuit of both economic and diplomatic power, observers of Asian affairs turn to India and Japan as potential sources of stability in the region. A strategic partnership between Asia's largest and richest democracies creates a formidable defence, lending structural security to the region. India and Japan share similar liberal-democratic values and are both closer to Washington than they are to Beijing. The positive effect of trilateral cooperation among the US, India, and Japan will bolster regional multilateralism through institutions

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35. Ibid.

36. Ankit Panda, "India and Japan Come Together", October 1, 2012, at <http://thediplomat.com/indian-decade/2012/10/01/india-and-japan-come-together/>.



such as the ASEAN Regional Forum, the East Asia Summit, and the Regional Cooperation Agreement on Combating Piracy and the still in talks Trans-Pacific Partnership.<sup>37</sup>

Under pressure from the Bush Administration, the Nuclear Suppliers Group, including the US, Britain, France, Germany and Japan, had decided to allow exports of nuclear power technologies and equipment to India. In turn, India pledged a unilateral and voluntary moratorium on nuclear weapons tests. The Indian call for insertion of a clause in a Japan-India nuclear pact to ensure it would not hamper India's nuclear weapons

programme, besides the right to reprocess spent nuclear fuel from Japanese generation equipment continue to be points of difference. India and Japan have agreed to accelerate talks to conclude a pact to facilitate Japanese firms to export nuclear power generation technologies and equipment to India. Such a pact is problematic because India is not a party to the NPT. India plans to build about 20 nuclear power plants to increase the share of nuclear power in supply from the current 4 to 25 percent by 2050. The worth of India's nuclear power market is estimated at \$150 billion.<sup>38</sup>

Relations between Japan and India are progressive and hold scope for stronger ties, as evidenced by Japan's image of India. According to a 2013 BBC World Service Poll, 42 percent of the Japanese people view India positively, with only 4 percent expressing a negative view.<sup>39</sup> With liberal economic policies and friendly US-India ties, Japan now views India as more than just a populous, poverty-ridden South Asian nation besieged by territorial issues with Pakistan; rather, as one whose alliance is critical to counter a growing China and will be a deciding factor in the East China Sea. India has a strategic geographic position that is significant in maritime

**As China rises with its aggressive behaviour in pursuit of both economic and diplomatic power, observers of Asian affairs turn to India and Japan as potential sources of stability in the region.**

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37. Ibid.

38. "PM Leaves for Japan, Says Trip to give New Meaning to India's 'Look East' Policy", *Indian Express*, 2013, at <http://www.indianexpress.com/news/pm-leaves-for-japan-says-trip-to-give-new-meaning-to-indias-look-east-policy/1121191/>.

39. "Views of China and India Slide in Global Poll, While UK's Ratings Climb", *Globescan, BBC*, at <http://www.globescan.com/commentary-and-analysis/press-releases/press-releases-2013/277-views-of-china-and-india-slide-while-uks-ratings-climb.html>.

traffic, connecting the Asia-Pacific region with the Middle East and Europe and, hence, it is important from the viewpoint of maritime security. Japanese Minister Koichiro Gomba has reiterated the geopolitical significance of India as it lies on the SLOCs linking West Asia with Japan. Japan plans to step up the maritime security in the region to maintain the security of the SLOCs and facilitate unhindered trade by the sea routes. Japan is looking at India to expand cooperation in counter-piracy operations off the coast of Somalia and the Gulf of Aden as well.<sup>40</sup> In a recent June 2013 visit, Indian Prime Minister Manmohan Singh described Japan as a “key regional and global partner for India and maintained that there is a growing congruence in the interests of both countries<sup>41</sup>. India is at the centre of Prime Minister Abe’s security thinking, as articulated by his new security diamond consisting of India, Japan, Australia and the United States — a reincarnation of his failed first-term quadrilateral security framework.<sup>42</sup>

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40 “India and Japan Join Hands to Increase Maritime Security in Asia Pacific”, *DefenseNow*, available at <http://www.defencenow.com/news/658/indian-and-japan-join-hands-to-increase-maritime-security-in-asia-pacific.html>

41. “PM Leaves for Japan, Says Trip to Give New Meaning to India’s ‘Look East’ Policy”, *Indian Express*, 2013, at <http://www.indianexpress.com/news/pm-leaves-for-japan-says-trip-to-give-new-meaning-to-indias-look-east-policy/1121191/>

42. Purnendra Jain, “Japan–India Summit Boosts Bilateral Ties”, *EastAsiaForum*, 2013, at <http://www.eastasiaforum.org/2013/06/06/japan-india-summit-boosts-bilateral-ties/>

# RUSSIA'S POLICY TOWARDS CENTRAL ASIA IN POST-COLD WAR ERA

CHANDRA REKHA

## INTRODUCTION

The geopolitics of the Eurasian landmass was restructured with the collapse of the Soviet Union and the formation of newly independent states. This also led to the security objectives and political discourse being redefined in the post bipolar world. The fledgling states, on the other hand, formulated their respective foreign policies in order to adapt to the new world order.

Parallel with the event of disintegration of the Soviet Union, the countries of Central Asia became independent entities and occupied a pivotal status in international affairs with their rich natural resources, post the 9/11 terror attacks. Central Asia-Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan are situated at the cross-junction of cultures and civilisations. Since ancient times, the important travel and trade route connecting Asia with Europe—known as the Silk Route—passed through this region.

Central Asia also shares its border with Russia. Hence, the geographical proximity and the possession of Central Asia and Transcaucasia brought Moscow very close to the warm waters of the southern seas and enabled it to make its influence felt in the vast Eurasian 'heartland' where the writ

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of Moscow ran.<sup>1</sup> Russia has been interested in the area's rich natural gas and oil resources, and viewed Central Asia as a buffer zone against foreign incursions. Post 9/11, security in Central Asia has been a key factor in the broader calculus of Russia, China, and American interests.

Russia's policy approach towards Central Asia during the Tsarist regime, Soviet Russia and the Russian Federation reflects the strategic relevance of the region which is also emphasised in Mackinder's "Heartland Theory" as the "pivot area". The theory mainly constituted Central Asia and the Caspian Sea. Mackinder, in 1919, summarised the relevance of the "Heartland Theory" as:

- Who rules East Europe, commands the heartland.
- Who rules the heartland, commands the world-island.
- Who rules the world-island, rules the world.<sup>2</sup>

Fig 1



Source: Darbishire & Stanford. Ltd The Oxford Geo Institute

- Pivot Area: wholly continental.
- Outer Crescent: wholly oceanic.

1. Jyotsna Bakshi, "Russian Policy Towards Central Asia-I", *Strategic Analysis*, vol. XXII, no.10, January 1999, pp. 1582, 1584.  
 2. H.J. Makinder, "The Geographical Pivot of History", *The Geographical Journal*, vol.23, no.4, April 1924, pp. 421-435.

- Inner Crescent: partly continental and partly oceanic.

This paper, therefore, aims to study the implications of the policies pursued by Russia in the post-Cold War era to achieve its vital national interests in Central Asia. It also focusses on the political discourse and the parameters in understanding how military instruments, structures, economic strength and political judgment are employed to achieve the goals set by the grand strategy of Russia towards Central Asia.

**The Central Asian region also led to the arrival of the ‘great game’ which was the strategic rivalry between the two colonial powers—the British Empire and the Russian Empire—during the industrial revolution.**

## **HISTORICAL BACKGROUND**

Russia in the 18<sup>th</sup> century explored regions in search of warm-water ports. The “Eastward Policy” of expansion of Peter the Great, the demand for natural resources and cheap raw materials during the industrial revolution and the construction of the railroad that connected Russia motivated Moscow to occupy the region. Russia intended to control the Turkish Straits, India, Caucasus, Central Asia and Iran and establish its hegemony over the Black Sea, Mediterranean Persian Gulf and, lastly, the Indian Ocean<sup>3</sup>. Russia aimed to play a vital role in world politics and to control these main world trade routes. The Tsarist government used its colonies for strategic and economic benefit, much as the other European powers did. The Russian Empire occupied and annexed Central Asia to overcome the drawbacks of its geographical proximity. The government turned Central Asia into a captive market for Russian industrial products by setting high tariffs for foreign goods.<sup>4</sup> Hence, the Turkestan region fulfilled such Russian demands with its huge amounts of oil and gas reserves and since then, the influence of Russia had been very great over the region until the collapse of the Soviet Union.

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3. “Geopolitical Importance of Central Asia: The Soviet Period and Post Cold War”, <http://www.emu.edu.tr/~eefegil/geopolitical%20importance.htm>, accessed on September 24, 2013.

4. Daniel Pipes, “The Third World: Premises of U.S Foreign Policy”, in W. Scott Thompson, ed, *Institute for Contemporary Studies* (San Francisco, 1978), pp. 155-174.

The Central Asian region also led to the arrival of the 'great game' which was the strategic rivalry between the two colonial powers—the British Empire and the Russian Empire—during the industrial revolution. Russia's fear of the penetration of British colonial power into Central Asia from the Indian subcontinent and the British desire to do so led both colonial empires to create Afghanistan as a buffer state that stopped the incursion of colonial powers into the region. Therefore, the great game between the Russian and British Empires comprised an imperial rivalry to control the large reserves of oil and gas of Central Asia and was not just merely for control of territory.<sup>5</sup>

### **SOVIET CENTRAL ASIA**

Under the banner of Communist International, the 1917 October Revolution resulted in the overthrow of the Tsarist rule and the Bolsheviks constituted the new state i.e. the Soviet Union. Based on the "nationalities policy" introduced by Stalin, the Turkestan region or Central Asia was declared as National Republics and, thus, became territorial political entities of the USSR.

The republics that were created were as follows:

- Uzbekistan SSR and Turkmenistan SSR in 1924.
- Tajikistan SSR in 1929.
- Kyrgyzstan SSR and Kazakhstan SSR in 1936.<sup>6</sup>

These republics were given some powers, territorial rights, and privileges that included full-fledged citizenship to their people. Unlike the European colonies, the republics of Central Asia enjoyed better status and benefits from the Soviet rule.

### ***The Political Structure During the Soviet Rule***

As Central Asia was controlled by centralised Soviet rule, it came under one common authority with a common entity. The people of Central Asia

5. Margaret Scott and Westenley Alcenat, "Revisiting the Pivot: The Influence of Heartland Theory in Great Power Politics", May 2008, [http://www.creighton.edu/fileadmin/user/CCAS/departments/PoliticalScience/MVJ/docs/The\\_Pivot\\_Alcatat\\_and\\_Scott.pdf](http://www.creighton.edu/fileadmin/user/CCAS/departments/PoliticalScience/MVJ/docs/The_Pivot_Alcatat_and_Scott.pdf), accessed on October 10, 2013

6. Shirin Akiner, "Islam, the State and Ethnicity in Central Asia in Historical Perspective", *Religion, State and Society*, vol.24, nos. 2/3, 1996, pp. 93-96.

enjoyed legal equality and no distinction was made during recruitment in the army. However, Moscow enjoyed privileges in terms of the foreign policy decisions of the region, and the powers of the legislature, judiciary, and control over the military vested in the hands of the Soviet rulers. Moreover, the elites of the regions never challenged Moscow's authority and the populations loyally followed the Soviet leadership's directives.<sup>7</sup>

### *Economic Structure*

One positive justification for the Central Asian masses to support the Soviet Union rule was that they derived large and genuine benefits from the Soviet system. They enjoyed a better standard of living than the majority of Muslims elsewhere in their neighbouring regions. They enjoyed superior medical care, education, and social benefits as compared to the citizens of Egypt, Iraq, or Afghanistan. Similarly, the Soviet system was comparatively meritocratic, and ambitious Central Asians could "dream big". Even some talented women were able to move upward. Specialised research institutes were established in Central Asia, and republican Academies of Sciences were established later. The brightest students were able to pursue their studies in Moscow and other major research centres in the Soviet Union, and through this channel, to become members of the international academic community.<sup>8</sup>

**Table 1: Literacy Rates of Central Asia During Soviet Rule in Percentage**

NATIONALITY	1897	1926	1959
Kazakhs	1.0	25.0	97.0
Kyrgyz	0.6	4.5	95.0
Tajiks	3.9	2.3	96.0
Turkmen	0.7	7.8	95.4
Uzbeks	1.9	3.6	98.0

Source: <http://www.oxuscom.com/lang-policy.htm#table%202>

7. Martha Brill Olcott, "Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Central Asia: Confronting Independence," Centre for International Political Economy and the James A. Baker III Institute for Public Policy of Rice University, Texas, April 1998, pp. 4-10

8. Ibid., pp. 5-6.

### *Cultural Dimensions*

As Central Asia was a Muslim populated region, the Soviet Union regarded Islam with hostility and suspicion. During Stalin's regime, Muslims were subject to countless secularisation campaigns and the Islamic identity was replaced with the ethnic identity. The Soviets also suppressed any public manifestation of Islam and, thus, did not desire to create an "Islamic Turkistan".<sup>9</sup>

Despite the region being under the Soviet rule for 70 years, the Central Asians insistence on preserving the union was a well-founded result of several realisations.

- The level of national self-awareness throughout the region was quite low. Not only did the Central Asian states have no history of previous statehood, their boundaries and even the people for whom they were named were, to a great extent, political creations of the Soviet period.
- The chequered demographic and religious make-up of the new entities forebode the difficulties associated with the integration of all communities into a single nation.
- The region constituted a common geopolitical, cultural, and religious space and the leaders recognised the great challenges that interdependence and dependence on the former metropolis would pose to the new sovereign states.<sup>10</sup>

Moreover, the Soviet policy, during the Cold War period originated with core Soviet interests that reflected geography as much as ideology and power politics. Eastern Europe was considered as a base and political laboratory, a military and ideological buffer zone by the Soviets against the West, and it protected socialist power and Soviet influence over the rest of Europe.<sup>11</sup>

Therefore, through ideology and the establishment of national republics, Soviet Russia justified its permanent rule over non-Russians. However, the Central Asian Republics (CARs) benefited from the Soviet political

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9. Akiner, n.6, pp. 93-96.

10. Olcott, n.7, pp. 4-10.

11. Bulent Gokay, *Soviet Eastern Policy and Turkey 1920-1991: Soviet Foreign Policy, Turkey and Communism* (London: Routledge Publishers, 2006), p.78.



structures, dramatic economic policies and the great education system and, hence, fared better during the Soviet rule.

**POST-SOVIET CENTRAL ASIA:  
DISINTEGRATION AND INDEPENDENCE**

After the collapse of the Soviet Union, the Newly Independent States (NIS) emerged as a strategic relevant region in the new world order due to their rich oil and gas resources, ethnic conflicts, the events of 9/11, the declaration of the war on terror and the penetration of the US led North Atlantic Treaty Organisation (NATO) alliance into the region. The region not only became a contested zone for Russia but also for the European Union (EU), America, and China, with the coming of the 'new great game'. In addition, the CARs comprise the only region in the world where the impact of four nuclear powers comes into play: Russia, China, India and Pakistan.<sup>12</sup>

**The CARs comprise the only region in the world where the impact of four nuclear powers comes into play: Russia, China, India and Pakistan.**

With independence, the CARs began to define their political orientation through national consolidation, political alliances and independent foreign policies that were more exploratory in nature. Although the republics maintained cordial relations with the Russian Federation, they developed close ties with other regional and extra-regional actors and signed various multilateral and bilateral agreements.

However, the CARs, after their breakaway from Moscow's centralised power, lacked the experience that comes from independent statehood. Until 1991, Central Asia was simply considered an appendage of the Soviet Union's domestic preoccupation and faced two alternative developmental paths:

- Either integrating into a common space with Russia; or
- Distancing themselves from the former hegemonic country.<sup>13</sup>

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12. Ibid., p. 81.

13. Leonard A Stone, "Research and Eurasia: Geopolitical Contours", *Journal of International Affairs*, vol. VI, no. 1, March-May 2001, p. 4

As for Russia, it had been the dominant player in Central Asia for nearly a century and a half, and although its presence is waning, it is far from ready to disappear from the scene completely. The first five years of the CARs' independence can be viewed as Russia's attempt to retain the benefits of the economic and military control that it enjoyed during the Soviet period without having to pay the social and political costs which had, in large part, driven the Soviet Union to collapse.<sup>14</sup>

### *Energy Dimension*

For the fossil-fuel-rich Kazakhstan and Turkmenistan, Russia holds two important levers--its position on the status of the Caspian Sea and the Central Asians' absolute dependence on the Russian pipeline network. Kazakhstan and Turkmenistan have offered Russia's major oil and gas firms Lukoil, Rosneft and Gazprom equity ownership stakes in some key deposits and refineries in order to mollify the objections of the Russian government to the sectoral division of the Caspian Sea. During the Soviet period, Kazakhstan and Turkmenistan were provided with Siberian oil and gas for their internal consumption, but each country has only a few pipelines all of which connect the two newly independent states with Russia. In Kazakhstan, the main outward routes are the Atyrau-Samara pipeline, the Transneft pipeline, and an almost complete Tengiz-Novorossiisk pipeline, all of which take Kazakh oil to Russia. Existing Turkmen gas pipelines also take the country's resources to Russia via Kazakhstan and Uzbekistan.<sup>15</sup>

Currently, Kazakhstan accounts for approximately 40 percent of Lukoil's proven reserves; projects in Kazakhstan provide over 90 percent of oil and over 40 percent of natural gas produced by Lukoil outside Russian territory. Rosneft, operating in Kazakhstan under the "RN-Exploration" brand, has been less successful in Kazakhstan so far. And it has to be said that Russia's share in Central Asian oil sales overall remains modest. Despite a rapid rise since 2003, trade in the hydrocarbon sector is still below the Soviet-era levels.<sup>16</sup>

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14. Olcott, n.7, pp. 21-23.

15. Ibid., pp. 25-27.

16. Craig Oliphant, "Assessing Russia's Role in Central Asia", Foreign Policy Centre, Saferworld, (London, October 2013), p. 8.

As one of the world's single most important energy producers, Russia plays a central role in international energy markets. Russia's investment and regulatory decisions have a profound impact on global energy supplies, particularly in the light of its ageing energy infrastructure and limited investment in future production opportunities.<sup>17</sup> Hence, Central Asian oil and gas resources are very important for Moscow and are invaluable for the revival of the Russian economy. Oil, natural gas and the gold industry are the most attractive areas for foreign investment and also serve as a potentially valuable transit corridor to Russian energy markets.

Russia's economic engagement with Central Asia is more multifaceted, encompassing sectors such as mining, construction, the military-industrial complex, telecommunications, transport, and agriculture. Overall trade turnover in 2011 stood at \$27.3 billion. Russia's main exports to the Central Asian countries are primarily manufactured goods, namely, foodstuffs, machinery, textiles, and transportation equipment. The main products exported from Central Asia to Russia are natural and agricultural raw materials, as well as chemicals.<sup>18</sup>

The CARs have begun to pursue foreign policies based on pragmatic concerns that include economic necessities, demand for stability, reducing nuclear weapons, and so on. Therefore, most of these states have wanted to create a "new international system" based on the concepts of global cooperation, territorial integrity, non-interference in their domestic affairs, mutual respect and peaceful coexistence.<sup>19</sup>

In order to pursue its interests in the economic sphere, Moscow has initiated a number of economic institutions –the Customs Union (CU); Eurasian Economic Community (EurAsEC); Eurasian Development Bank (EDB); Anti-Crisis Fund; and CIS Free Trade Zone (FTZ) Agreement, among others. For its part, the Eurasian Economic Union (EAEU) is mooted to be launched in 2015.<sup>20</sup>

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17. Graham Allison, et al, "Russia and U.S. National Interests: Why Should Americans Care?", Belfer Centre for Science and International Affairs and Centre for the National Interest, (Washington, 2011), pp. 7-10.

18. Oliphant, n.16, p.10.

19. "Geopolitical Importance of Central Asia: The Soviet Period and Post Cold War", <http://www.emu.edu.tr/~eefegil/geopolitical%20importance.htm>, accessed on October 19, 2013.

20. Oliphant, n.16, pp.6-9.

As Russia continues to depend heavily on supplies of raw materials from the Central Asian states, disengagement from the region is not economically desirable either. Losing its monopoly of regional transport and communications, oil and gas pipelines will lead to the loss of direct access to the region's rich natural resources and strategic minerals. Consequently, several areas have remained a matter of profound interest and vital concern for Russia in the post Cold War era. Russia has been actively pursuing a policy to reestablish the economic, political, and military control over Central Asia that it lost with the collapse of the USSR.<sup>21</sup>

### **CENTRAL ASIA: RUSSIA'S SECURITY CONCERNS**

#### *Ethnic Crisis*

The aftermath tremors of the Soviet disintegration left many of the republics ill-prepared for independence. Central Asia became a fragile zone which came in the form of economic difficulties, rise in Islamic fundamentalism, border disputes among countries, ethnic clashes, and inter-state conflicts that posed a great threat to regional instability. These NIS also faced an unprecedented task of having to adapt to the new economic systems and political institutions, especially with the transfer of power from Soviet rule.

Though the post-Soviet states agreed to honour the existing borders, with the overlapping populations, there is considerable potential for future claims and cross-border ethnic issues and for the spread of conflicts from one country to another. Due to the Soviet policies, each of the republics had significant minority populations. Ethnic Russians comprised approximately 35 percent of Kazakhstan's population, and 20 percent of Kyrgyzstan's. There are over 500,000 Uzbeks living in Kyrgyzstan and over one million in Tajikistan. In return, approximately one million Tajiks and just under a million Kazakhs live in Uzbekistan. Outside the borders of the Commonwealth of Independent States (CIS), there are over one million Uzbeks in Afghanistan, some 500,000 Turkmen each in Afghanistan, Iran,

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21. *Ibid.*, p. 11.

Iraq, and Turkey, and about 2 million Tajiks in Afghanistan.<sup>22</sup>

Moreover, the Uzbek population in Tajikistan and Kyrgyzstan called for a union with Uzbekistan, motivated not only “by ethnic ties, but also by Uzbekistan’s growing economic and strategic importance”. Coupled with Uzbekistan’s self-image as the centre of “Greater Turkestan”, these calls have caused considerable unease among neighbouring countries. In a similar fashion, extreme Russian nationalists in Kazakhstan argued that the northern territories should be simply ceded to Russia. Although, most of the Russians in Kazakhstan seem to favour preservation of the *status quo*, this could change in the longer term if it becomes economically more convenient to join Russia or if ethnic Kazakh nationalism becomes a burden for them.<sup>23</sup>

There are many disputes among the Central Asian Republics, according to studies conducted by the “Atlantic Council of the United States”; some of them are mentioned below<sup>24</sup>:

**Table 2**

Kazakhstan	Vostochnyy Kazakhstan	Ethnic Russian separatists call for independence in southern border	Occasional Incidents
	Eastern Border	Uighur separatist support for compatriots in Xinjiang	Active
	Southern Border	Skirmishes and tensions in Uzbekistan	Active
Kyrgyzstan	Batken and Lailek	Periodic guerrilla activity	
	SW border/ Fergana	Tensions skirmishes with Uzbekistan	Active (at intervals)
Tajikistan	Civil War	Government Vs United Tajik Opposition	Ceasefire since 1997

22. Mustafa Aydın, “New Geopolitics of Central Asia and the Caucasus: Causes of Instability and Predicament”, Centre for Strategic Research (Ankara, 2000), pp. 9-11.

23. Ibid., pp.7-9.

24. Bahram Amirahmadian, “Geo-political, Geo-strategic and Eco-strategic Importance of Central Asia”, *International Politics*, vol. 1, no.1, Winter 2008, p. 6.

	Khujand	Tensions skirmishes with Uzbekistan	Active
	Ghorno-Badakshan	Separatist activity for Islmai'lis	Potential/ Latent
Turkmenistan	Chirag (Caspian)	Demarcation dispute with Azerbaijan	Active
Uzbekistan	Eastern, Northern and Southern borders	Incidents with neighbours/ skirmishes with guerrillas	Active
	Kara Kalpakstan	Separatist activities	Potential/ Latent

*Source:* Strategic Assessment of Central Eurasia, January 2001, p.18.

The relative lack of tension could be attributed to the fact that all of the current heads of state in the region, again excluding Tajikistan, have provided short-term stability which is not an adequate basis to ensure long-term stability. In fact, some of Central Asia's authoritarian regimes, seen as helpful for regional stability, may actually be concealing fundamental problems, allowing the seeds of future conflicts to grow.<sup>25</sup>

These ethno-national and religious identities of Central Asia as a variable pose a greater threat to Russia's backyard after Islam became the main source of cultural identity in the post Soviet period. Hence, Russia has redefined its security policies, marking a departure from the general notion of Soviet-style Communism to a policy that emphasises on creating a security zone in the countries which the Soviet Union perceives as its zone of "privileged interests".

### *Rise of Islam*

Although Central Asia did not suffer repression during the Soviet rule, unlike other colonies under European empires, the long periods of Russian imperial rule indoctrinated the Soviet-era atheistic system since it viewed Islam with suspicion and hostility. The Soviets realised that as a Muslim dominated region, Islam comprised an influential element in the conduct of

25. Sergey Radchenko, "The Soviet Union and Asia, 1940s-1960s", Slavic Research Centre, (Sapporo, Japan), no.9, July 2012, pp. 91-95.

not only the individual's but also the collective identity of the population of the republics. But, after the Soviet incursion in Afghanistan, the region of Central Asia which was completely cut off from the outside Muslim world was exposed to the Islamic way of life. Since then, Islam became a politicised mechanism for the rise of extremism in the region.

Moreover, the programme of nation building throughout the region since independence has been represented by largely secular elites which soon realised that Islam remained an important part of the region's social and cultural life, and, if exploited as a political tool, offered various advantages to them. Thus, Soviet educated leaders considered "an appeal to Islamic symbols and traditions" useful in their effort to reinforce their legitimacy, as "Islam and the values it espoused were attractive" to the people, who had "little else to define themselves by".<sup>26</sup>

Gorbachev's policies of *Perestroika* and *Glasnost* relaxed the years of Soviet suppression of religious identity in Central Asia during the Soviet rule. Furthermore, the penetration of the Taliban from Afghanistan into the region further aggravated religious fanaticism in Central Asia. Under such circumstances, Russia perceives its presence in the region as an act of 'insulating its own backyard' after its two key military interventions against militant Islamists during the Chechnya conflict.

Political Islam (as opposed to a purely cultural interest in the religion) has yet to make a significant mark in the region. Even in the context of the Tajik conflict, "while religious ideology was part of the conflict", it was "not the source of the civil war". Instead, it was a political power struggle for supremacy between various competing provinces and groups, with the flair of Islam on the sidelines. "Thus, the role of Islam was [rather] symbolic,

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26. Aydın, n.22, pp. 13-14.

**Gorbachev's policies of *Perestroika* and *Glasnost* relaxed the years of Soviet suppression of religious identity in Central Asia during the Soviet rule. Furthermore, the penetration of the Taliban from Afghanistan into the region further aggravated religious fanaticism in Central Asia.**

providing an ideological [justification] for anti-government forces".<sup>27</sup>

When Uzbekistan and Russia intervened militarily in support of the Tajik government in 1993, they were motivated by the fear that if the "Islamist" opposition in Tajikistan succeeded in overthrowing the government, the repercussions of Islamic fundamentalism might be felt throughout Central Asia and even in Russia. However, it is ironic that, though at the time the Islamic opposition lacked the capability to establish an Islamic state in Tajikistan, outside intervention and their forced exile in Afghanistan only served to further 'Islamicise' them. Since then, Islamic political parties have returned to Tajikistan as part of the peace accord, signed in June 1997, under Russian sponsorship. It remains to be seen whether they will be able to coexist with the present political and social system.<sup>28</sup>

With Islamic extremism taking hold of neighbouring Afghanistan and movements like Wahhabism emerging in both Central Asia and the North Caucasus, Islam might become a destabilising force throughout the region. Whether the threat of Islamic fundamentalism is real or perceived, Islam as a cultural phenomenon remains a potent force. Therefore, it is conceivable that in the future, it may yet come to play an important social and political role. Above all, if the development of secular democratic institutions and channels of popular expression are blocked and the current governments fail to improve their people's living conditions, "Islam may emerge as the only vehicle for the expression of grievance and dissent."<sup>29</sup>

### *Economic Inequality, Poverty and Corruption*

Uneven development patterns are a significant potential source of instability in Central Asia. Differences in the natural resource bases have provoked economically driven migration, polarised ethnic groups and caused increased tensions. This, combined with widespread unemployment, has created the potential for conflict. Furthermore, regional competition for

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27. Shahrbanou Tadjbakhsh, "Central Asia and Afghanistan: Insulation on the Silk Road, Between Eurasia and the Heart of Asia", Peace Research Institute Oslo (Greenland, 2012), p. 9.

28. *Ibid.*, pp. 9-11.

29. Sara E. Thannhauser, "Russia Resurgent? Challenges and Consequences of Shifting Geopolitical Dynamics in Eurasia", Institute for the Study of Diplomacy (Washington, Spring 2009), pp. 7-9.



control over the Caspian Sea and the oil resources that lie beneath its seabed offer special challenges.<sup>30</sup>

The redistribution of wealth within societies is another potential source of conflict if mismanaged, and which, in the extreme poverty found in parts of Central Asia, can destabilise the region. The rapid economic and social changes since the collapse of the Soviet Union left many people with a lower standard of living than they previously enjoyed, especially without the social safety net that the Soviet regime provided. Thus, the rapid changes and economic pressures have led to a marked increase in personal corruption and, consequently, a negative impact on regional stability.

Another problem connected with the regional economic downturn is drug trafficking and the related criminal activities. Although it has not yet played a very substantial role in regional politics, the rate at which drug trafficking is spreading in Central Asia, is staggering and brings with it corruption, arms dealing and the possibilities of conflict.

Astronomical profit margins combined with the sharp economic downturn and collapse of the social safety net have lured many people into the opium trade.<sup>31</sup> The people generally involved are those whom the social security system protects the least and they turn to the narcotics trade as a matter of survival. The drug trade has many negative effects on the region, such as the influx of small arms, which often accompanies drug smuggling.

## INTERNATIONAL DIMENSIONS OF INSTABILITY

### *Afghanistan*

Central Asia is linked to Afghanistan geographically and shares important demographic ties with the region. Afghanistan is an ethnically diverse country, with more than a dozen ethno-linguistic groups represented

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30. Kathleen Collin, "The Political Role of Clans in Central Asia," *Comparative Politics*, vol. 35, no. 2, January, 2003, pp. 171-190, accessed on February 13, 2013.

31. Jim Nichol, "Central Asia: Regional Developments and Implications for US Interests", *Congressional Research Service*, January 2013.

**While Soviet Russia succeeded to a large extent in suppressing the Islamic identity, much to its dismay, the Soviet invasion of Afghanistan from 1979 to 1989 resulted in direct interaction between Soviet Army personnel and their ethnic cohorts in Afghanistan.**

substantially in the country's population.<sup>32</sup>

As mentioned earlier, during the great game, Afghanistan was viewed as a buffer zone in order to prevent expansion of either the Russian or British Empire during their colonial rule. In addition, the Soviet policies towards Central Asia also ensured that the region remained completely isolated from any contact with the rest of the Muslim world as the Soviets feared that the spread of Islam in the region would result in instability and radicalise the Muslim populated region. While Soviet Russia succeeded to a large extent in suppressing the Islamic identity, much to its

dismay, the Soviet invasion of Afghanistan from 1979 to 1989 resulted in direct interaction between Soviet Army personnel and their ethnic cohorts in Afghanistan during the Soviet military operation there as a large part of the Soviet military consisted of Tajiks, Uzbeks and Turkmen.

Moreover, Afghanistan consists of three major ethnic groups: Pashtuns, Tajiks, and Uzbeks. Since Tajiks and Uzbeks were also present in the Soviet Union Army, there was significant unrest in the Asian Soviet Republics about the war against people of the same ethnicity. Furthermore, the war was perceived by these republics as a Russian war being fought by Central Asians against other Central Asians, and the invasion of Afghanistan was viewed by the republics as a war for an alien cause.<sup>33</sup>

However, the withdrawal of the Soviet Army and the rise of the Taliban in Afghanistan coincided with a number of significant developments in Central Asia. Central Asia faced immense economic and political challenges as Russia withdrew subsidies, and the Soviet military-industrial complex with which the Central Asians were so integrated also collapsed. For

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32. George Voskopoulos "Central Asia and Afghanistan: A Tumultuous History", *Startfor Global Intelligence*, September 2013.

33. Rafael Reuveny and Aseem Prakash, "The Afghanistan War and the Breakdown of the Soviet Union", *Review of International Studies*, vol 24, no.04, November 1999, p. 694.

instance, Tajikistan descended into civil war almost immediately, when groups from the Kulyabi and Khujand regions known as the Popular Front were pitted against an array of opposition elements including Islamists, democrats and the Pamiri clan from the east, collectively known as the United Tajik Opposition.<sup>34</sup> Outside groups got involved in the civil war, supporting the different sides along political and ideological lines. Russia and Uzbekistan supported the secular and neo-Communist Popular Front, while many Tajiks in Afghanistan supported the United Tajik Opposition, particularly the Islamist elements of the Islamic Renaissance Party of Tajikistan.<sup>35</sup> One of the groups that joined in the fighting alongside the United Tajik Opposition and the Islamic Renaissance Party of Tajikistan was known as the Islamic Movement of Uzbekistan (IMU). From 1999 to 2001, the Uzbek militant movement conducted a series of attacks in Uzbekistan and in Uzbek enclaves in southern Kyrgyzstan in the Fergana Valley. The Taliban gave refuge to the IMU in exchange for the Uzbek group's participation in Taliban offensives against the Tajiks, Uzbeks and Hazaras in northern Afghanistan.<sup>36</sup>

The rise of the Taliban ended with the United States' invasion of Afghanistan following the September 11 attacks by Al Qaeda in 2001 and with the subsequent declaration of the 'war on terror'. Russia jumped onto the bandwagon during the invasion that was facilitated by the support of the Northern Alliance and, hence, was able to displace the Taliban from Afghanistan.

### *Pakistan*

Since the dissolution of the Soviet Union, Pakistan considered Central Asia as a significant region not only due to its close cultural linkages but also for its rich energy reserves in the region. During the Soviet rule, Central Asia had no direct contact with Pakistan. Moreover, during the Soviet invasion of

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34. "Central Asia and Afghanistan: A Tumultuous History," *Startfor Global Intelligence*, September 2013.

35. n. 27.

36. Ahmad Rashid, "The Taliban: Exporting Extremism", *Foreign Affairs*, November-December 1999, p. 11

**The rise of the Taliban in the 1990s was seen as an opportunity for the Pakistani foreign policy consideration of a land transit route to Central Asia. Pakistan also officially recognised the Taliban government in Kabul.**

Afghanistan, Pakistan served as the logistical support for the Afghan Mujahideen in the region. The rise of the Taliban in the 1990s was seen as an opportunity for the Pakistani foreign policy consideration of a land transit route to Central Asia. Pakistan also officially recognised the Taliban government in Kabul.

Unlike the other main players in the region, including Russia, China, India, Iran, Turkey and the US, Pakistan's political conditions and fragile economy have prevented it from engaging with Central Asia. The unrest in Afghanistan has also affected Pakistan's ties with the CARs. In the context of Pakistan's ties with the CARs, Afghanistan's security situation is of immense significance as it offers the most direct access for the Central Asian region to the ports and markets in South Asia and the Persian Gulf. Afghanistan can also be the conduit for Central Asian oil and gas to South Asia and Iran.<sup>37</sup>

As for Russia's approach towards Pakistan, Islamabad never had good relations with Russia, especially due to Pakistan's support for the Mujahideen during the Soviet-Afghan War. Post 9/11, Moscow's ties with Islamabad, however, improved after Pakistan dramatically altered its policy with Afghanistan, downgrading its ties with the country and closing its border. These factors have led to warming of the latter's relations with the CARs while Russia considers Central Asia its strategic backyard and is very sensitive to any factor that might impact the region.<sup>38</sup> Moreover, Russians comprise a major ethnic group in Central Asia. Hence, Russia's priorities towards the region are also justified in protecting its ethnic groups. Therefore, Pakistan must be vigilant in its stance on Afghanistan.

The rise of Islamic extremism from Afghanistan and Pakistan will have a major impact on Russia's Muslim population (second largest population in Russia), especially the separatist movements among certain

37. "Russia and Afghanistan", Institute for the Study of War, 2013, <http://www.understandingwar.org/russia-and-afghanistan>

38. Ibid.

ethnic groups, and particularly the Islamic and separatist movements in Chechnya.<sup>39</sup> The Kremlin views these forces as a severe threat to the state, and, thus, willingly supported the US-led overthrow of the Taliban which was an irritant in Russia's security concerns. Outside its borders, Russia is concerned about the growth of Islamism and terrorism in its traditional sphere of influence or "near abroad"—the Balkans, the Caucasus, and Central Asia. Many militants from these areas have significant ties to the Taliban, Al Qaeda, or other groups in Afghanistan, and, therefore, Russia does not want to see a Taliban comeback in Kabul or a failed state emerge in Afghanistan. While the Kremlin may disapprove of NATO's presence along its southern frontier, it does not want to see Afghanistan become a safe haven for separatist, terrorist, or Islamist forces.<sup>40</sup>

Russia's policy towards this region is intended to prevent any sort of ethnic or inter-state conflict that could explode in the region since the Central Asian region is vulnerable to border disputes and ethnic conflicts.

## INTERACTION WITH GLOBAL POWERS

### *United States*

The declaration of the "war on terror" changed world politics and the global balance of forces, making diplomacy much more dynamic, complex and multi-dimensional. A plethora of attempts was made in redefining security objectives and perceptions by the West. The US has been in an advantageous position in the international community after the collapse of the Soviet Union as it helped the US establish itself as a leading power bloc to fill the vacuum in the Eurasian region. Based on the principles of the Truman Doctrine, the US began to provide both military and financial assistance to many of the newly independent states.

In order to preserve its hegemony as a superpower after the collapse of the Warsaw Pact, the US implemented its expansionist policies in Eurasia by a coordinated drive to prevent the emergence of a consolidated bloc led

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39. Collin, n.30, pp. 171-190.

40. n.37.

by the Russian Federation. Hence, the US policy incorporated in the region falls within two broad perceptions of analysis:

1. US policy is geopolitical and is motivated by a geostrategic effort to contain terrorism and the rise of a regional hegemon like Russia or China.
2. US policy is guided by geoeconomics in an effort to access the region's natural resources and decrease the political clout of Russia.
3. US policy towards the region is also aimed at
  - increasing the supply of energy to consumers;
  - preventing any one state from monopolising the energy supply;
  - enhancing the democratic process, which would ultimately ease these processes.<sup>41</sup>

In addition, during the initial years after their independence, the CARs' policy approach was mainly exploratory, tentative and largely reactive to external pressures. Although they maintained cordial relations with Russia, they also ensured strengthening of their sovereignty and independence by developing closer ties with other global and regional powers. Hence, within a relatively short period, the priorities and approaches to their foreign policies have increased. Participation in the Russian-dominated Collective Security Treaty Organisation, the US-dominated NATO's Partnership for Peace (PfP), and the Sino-Russia dominated Shanghai Cooperation Organization (SCO) is a clear reflection of their ambitions.<sup>42</sup>

In the post 9/11 scenario, US policy toward the Central Asian states has aimed at facilitating their cooperation with the stabilisation efforts in Afghanistan of the US and NATO, and their efforts to combat terrorism. States such as Kyrgyzstan, Tajikistan, and Uzbekistan have hosted their troops and also provided access to their air bases.

However, Uzbekistan rescinded US basing rights to support operations in Afghanistan in 2005 after the United States criticised the reported killing

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41. Scott and Alcenat, n.5, pp.8-9.

42. Alyson J. K. Bailes, et al; "The Shanghai Cooperation Organization", Stockholm International Peace Research Institute (Sweden, 2007), p.17.

of civilians in the town of Andijon. In early 2009, Kyrgyzstan ordered a US base in that country to close, allegedly because of Russian inducements and US reluctance to meet Kyrgyz requests for greatly increased lease payments. An agreement on continued US use of the Manas Transit Centre was reached in June 2009. The Kyrgyz leadership, however, declared that it will not extend the basing agreement when it comes up for renewal in 2014. In recent years, most of the regional states have also participated in the Northern Distribution Network for the transport of US and NATO supplies into and out of Afghanistan. Other US objectives have included promoting free markets, democratisation, human rights, energy development, and the forging of East-West and Central Asia-South Asia trade links. Such policies aim to help the states become what various US Administrations have considered to be responsible members of the international community.<sup>43</sup>

The event of 9/11 also led to the partnership between Russia and NATO based on common interests. In addition, for NATO and Russia, rebalancing their power politics in the region came mostly in the form of military engagement. The New Great Game, the growing competition for energy resources increased the importance of the geopolitics and strategic relevance of the Central Asian Republics for both Russia and the US.

### *China*

China shares borders with many of the CARs and since the collapse of the Soviet Union, the region has been an important element in the Chinese security perspective. The main driver for China's emphasis on security along its western borders is its concern over instability in Xinjiang. With Central Asia much closer to the ethnic-Turkic Uyghurs than the ethnic Han Chinese, the Xinjiang Uyghur Autonomous Region is seen by Beijing as vulnerable to separatism. This view is largely warranted by history, as the nearly six-year period of an independent, Uyghur-ruled "East Turkestan" was only incorporated into the People's Republic of China in 1950. There is also an active, although still marginal separatist Uyghur movement advocating an

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43. Jim Nichol, "Central Asia: Regional Developments and Implications for US Interests", *United States Congressional Research Service*, November 2008, p. 11.

**There has been periodic ethnic unrest in Xinjiang, which the Chinese have dealt with by using force. The Chinese are extremely agitated about the prospects of further instability spreading from, or being supported by, the newly independent states of Central Asia.**

independent “Turkestan”, the west of which falls within the territories of contemporary Uzbekistan and Kyrgyzstan. This group has been, according to China, linked to a series of anti-Chinese activities, ranging from local riots to a 1997 bombing in Beijing, and has some reported links to both Central Asian Islamist movements and Al Qaeda.<sup>44</sup>

Moreover, there are about two million Kazakhs living in the Xinjiang region of China, which is populated overwhelmingly by approximately 8 million Uyghurs, whose 250,000 kin are divided among Kazakhstan, Kyrgyzstan and Uzbekistan.<sup>45</sup> There has been

periodic ethnic unrest in Xinjiang, which the Chinese have dealt with by using force. The Chinese are extremely agitated about the prospects of further instability spreading from, or being supported by, the newly independent states of Central Asia.

As for the economic implications of China’s policy in Central Asia, the rich deposits of natural resources comprise the major element in fostering greater economic growth of China and a main source for the growing energy demand in China. The economic and political growth in China is apparent in each of the four Central Asian SCO member states. Hence, the construction of a gas pipeline from Turkmenistan to China was completed in December 2009. Chinese investors are also present in strategically important sectors—energy, transport and telecommunications—of Uzbekistan’s economy. Uzbek President Islam Karimov, at an SCO Summit in Beijing, received a promise of Chinese investments and loans for a sum of \$5 billion and also signed a strategic agreement with the People’s Republic of China (PRC). Kazakhstan and China concluded a similar agreement in 2011. The two

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44. Mark Burles, *Chinese Policy Toward Russia and the Central Asian Republics* (Washington: RAND, 1999), pp.9-11.

45. Radchenko, n.25, p. 9.



countries are linked by strong economic ties, especially in the energy sector. The Atyrau–Alashankou pipeline, owned by the Kazakh Company, KazMunaiGaz, and the China National Petroleum Corporation, is a source of oil for the Dushanzi refinery in the Chinese province of Xinjiang. The share of Chinese capital in a number of Kazakh fuel companies' ranges from 50 percent to 100 percent. For this reason, the 2011 protests by oil sector workers in Kazakh Zhanaozen have not been treated with indifference by the government in Beijing. In recent years, China has been taking care of its image in Kazakhstan, implementing social and development programmes in areas where Chinese companies operate. Chinese investments are a major source of capital in Kyrgyzstan. Enterprises in China are expanding road connections between the two countries. For the PRC, the close proximity of Kyrgyzstan with Xinjiang is essential. In order to stabilise Xinjiang, Beijing wants to develop the economy of the province, link it with the rest of the country, and maintain security in neighbouring post-Soviet Central Asia and Afghanistan.<sup>46</sup>

The SCO was created in 2001 by Russia, China and four Central Asian republics—Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. For Russia and the PRC, it was also intended to be a tool to limit US influence in the region. Today, however, the SCO remains more a political factor in Sino-Central Asian approximation, which is a consequence of the growing economic importance of the PRC in Central Asia. Although the SCO itself is not a very active international alliance and fully-fledged institution, it remains hampered by the dominance of national interests over any sense of multilateral cooperation and sacrifice by its members. Despite the

**The five landlocked republics are India's extended neighbours which are of a great significance due to their geostrategic location, historical linkages and also rich natural resources. There is ongoing cooperation in the defence and security sector, with India providing training to Tajik forces to cope with threats.**

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46. Ibid., pp.11-13

rhetoric, the fundamental strategic goals of the organisation for countering terrorism, securing borders and bolstering regional stability are all shared by the United States. The SCO is seriously outpaced by the scale and scope of US engagement in the region.<sup>47</sup>

### *India*

The five landlocked republics are India's extended neighbours which are of a great significance due to their geostrategic location, historical linkages and also rich natural resources. There is ongoing cooperation in the defence and security sector, with India providing training to Tajik forces to cope with threats. Further, in collaboration with the Tajikistan Air Force, India has its first and only military air base outside its territory in Farkhor Air Base. In 2011, India gained access to the North Caspian Sea, a region rich in oil and gas resources. It is known for its uranium, and India signed a civil nuclear agreement with Kazakhstan in 2011 providing access to uranium from the Central Asian countries for Indian reactors. Uzbekistan, on the other hand, shares historical and cultural ties with India. It has allowed Indian participation in the development of its Karakal gas reserves and also in joint military participation. But there is also the aspect of interplay between internal and external factors. India's growing demand for energy supplies and Turkmenistan's quest for diversification of its energy exports has locked the two sides in a strategic embrace. The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline, which will begin from the Doveletabad gas field and end in Fazilka on the Punjab border, is touted as the backbone of the emerging relationship.<sup>48</sup>

Despite its status of an emerging global power, India has failed to play a major role in Central Asia although it initiated the "Connect Central Asia" policy. Furthermore, the Allied pull-out from Afghanistan this year and the emergence of political instability and penetration of terrorists' activities with the revival of the Taliban in the region would make India's security more vulnerable to terrorists' activities. India's geographical placement and

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47. Giragosian Richard; "The Strategic Central Asian Arena", *China and Eurasia Forum Quarterly*, vol. 4, no. 1, 2006.

48. Jyoti Prasad Das, "India's 'Connect Central Asia' Policy," *Foreign Policy Journal*, October 29, 2012 <http://www.foreignpolicyjournal.com/2012/10/29/indias-connect-central-asia-policy/>

its problematic relationships with China and Pakistan partly account for its reticence to play a major role in the region.

### **THE ROAD AHEAD**

Russia continues to view Central Asia as its periphery post disintegration of the Soviet Union and the creation of the Commonwealth of Independent States (CIS). Despite its economic problems and political fragility, Russia's aspiration to play a major role in Central Asia has not diluted, which has, in turn, led to Russia being sensitive to the growing influence of external global actors in the region, especially the US. Hence, apart from its foreign policy to reclaim its influential role in Central Asia, the economic policy of Russia has banked on the rich energy resources of the region as the growing demand for energy markets has revived the fragile economic condition of the Russian Federation after its disintegration.

The expansion of the role of external actors in the region, especially the United States, has been a cause of concern for Moscow as the existence of the US-led NATO is the key element in defining and rebuilding Russia's geopolitical status as a global power in the international arena. The other defining factor for Russia to play a central role in Central Asia is the protection of ethnic Russians in the region who constitute a major chunk of the population. The rise of Islamic fundamentalism and the US withdrawal from Afghanistan this year have been major concerns for Russia. Russia has been a soft target for terrorist attacks and, hence, would play a major role in curtailing the rise of terrorism in the region, and maintaining regional peace and stability.

While Russia sees the Central Asian region as its zone of influence, it is important to realise that the CARs have been independently pursuing their foreign policy relations with other external actors too although Russia has been the prime actor in the region. Its membership in the Partnership for Peace and Shanghai Cooperation Organisation apart from the Collective Security Treaty Organisation is evidence that the CARs have been cautious

in not allowing an individual external actor to monopolise the role in the region.

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