

# DEFENCE AND DIPLOMACY

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IN PURSUIT OF NATIONAL SECURITY

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## DEFENCE AND DIPLOMACY

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## EDITOR'S NOTE

You will be glad to know that Defence and Diplomacy has been very well received and we are indeed grateful to our subscribers for making it possible and authors for their efforts and contributions. We look forward to your continued support in future.

This issue comes to you carrying the "Air Chief Marshal PC Lal Memorial Lecture" delivered this year by Shri Shivshankar Menon, the National Security Adviser, who lays special stress on the role of air power in India's national security in future. For more than a century since the heavier than air machines began to fly, air power has played a crucial role in national defence as well as in economic growth in the civil sector, not to talk of being the highest position it occupies in the level of technology available to any country. The experience of wars waged in the post Cold War era only reinforces the importance of long range precision strike air power, whether land-based or launched from aircraft carriers. Our own experience in 1971 four decades ago, the Japanese attack on Pearl Harbour on 7<sup>th</sup> December, 1941 and the historical "Hump Airlift" from India to China in Second World War stand out among the large number of major cases of successful employment of air power that changed the course of the war and history. The future, if anything, is likely to see more of what was experienced in the past with air power being the instrument of choice in the conduct of coercive and cooperative foreign policy.

**Jasjit Singh**

Director, Centre for Air Power Studies, New Delhi



# INDIA'S NATIONAL SECURITY: CHALLENGES AND ISSUES

(P. C. Lal Memorial Lecture, April 2, 2012,  
organised by the Air Force Association)

**SHIVSHANKAR MENON**

Marshal of the Air Force Arjan Singh,  
Chief Marshal P.V. Naik, President, Air Force Association,  
Air Chief Marshal N.A.K. Browne, Chief of the Air Staff,

Ladies and Gentlemen

I am deeply honoured to be asked to deliver the P.C. Lal memorial lecture this year. The topic selected is a very wide one, as it should be for a lecture in memory of someone like Air Chief Marshal (ACM) Lal. His contributions to the nation were wide-ranging and manifold, ranging from national security to Indian air power and doctrine to defence industry to civil aviation and to allied subjects. After his education in St. Stephens College and King's College, London, he had a distinguished war record in World War II, displayed his command of air strategy in the 1965 and 1971 Wars, and made major contributions to building up Hindustan Aeronautics Limited (HAL) as Managing Director (MD), and to civil aviation as Chairman and MD of Air India and Indian Airlines simultaneously.

His autobiography and his seminal 1975 USI National Security lecture on "Some Problems in Defence" are well worth reading even today. They remind us of his eminent good sense, his strategic vision

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Shri **Shivshankar Menon** is the National Security Adviser to Prime Minister Dr. Manmohan Singh.

and his systems approach, optimising available resources. Dipping into ACM Lal's autobiography, one is reminded of the importance of thinking for ourselves, given the uniqueness of India's situation. In the 1965 and 1971 Wars, we saw the results of his systems approach, of making the best of what we had, with brilliant results for the Indian Air Force. But you know this better than I do.

Air Chief Mshl Lal's USI National Security lecture spoke of "responsible planning", of "thinking purple" or jointness, of military officers in the Ministry of Defence, and of the proposal for a Chief of Defence Staff, which Gen Chaudhury had raised before him. It is worth reminding ourselves today of what Air Chief Mshl Lal advocated. He said, "Clear political direction, intelligent cooperation between the civil and the military authorities and close collaboration among the three Services" were what was needed. He never made Trenchard's claim of "substitution" between one Service and another or between civil and military. Instead, he was an advocate of all three Services, and the civil and military authorities, working together in the most productive way, and he lived his life by his principles.

He was truly a leader who lived a full and integrated life, whose work and writings are still relevant and bear repeating.

Ladies and Gentlemen,

A few days ago a young colleague of mine sent me an article by K.M. Panikkar, from the journal *International Affairs* of January 1946, about the defence and security of India. He distinguished between the defence of India (i.e., its internal organisation, the structure and maintenance of our armed forces, and so on) and the security of India. Panikkar said, "The Indian security sphere covers the entire Indian Ocean area. India's interest in the security of the Persian Gulf, the integrity and stability of the Persian Gulf and Afghanistan, the neutralisation of Sinkiang and Tibet and the security of Burma, Siam and the Indo-Chinese coastline, apart, of course, from Malaysia and Singapore, is obvious enough to all". Panikkar believed and argued that for its security, India must become the pivot of an organisation meant to preserve peace in this large area, with the primary security responsibilities remaining with Britain, and with defence as India's responsibility. It was his view that that India's defence should be based on a "ring-fence concept". What Panikkar said about the

ring-fence was really no different in substance from what Hastings, Dalhousie and Curzon had said before him, and he admitted as much with some pride.

Very soon after Panikkar wrote the article, developments in India, (partition and independence), the founding of the People's Republic of China, the Cold War, the state of the post-War world economy, and several other factors made his ideas and plans academic, influenced as they clearly were by the colonial after-effect on Indian minds. Fortunately for India, we had in Nehru someone who saw things much more clearly. He chose and persuaded India to follow a strategy of non-alignment instead. The happy results of that choice are evident in the degree of strategic autonomy that India now enjoys.

Re-reading the 1946 article I was struck by how today we still hear echoes of a similar mindset, and by what an inaccurate prediction and solution it offered to the national security challenges that the Indian republic actually faced in its sixty plus years. One can think of many reasons for this. In the last sixty years, Indian capacities have been transformed, the world around us has changed radically, technology has developed at an unprecedented pace, and there have been at least two revolutions in military affairs.

But the most important change, to my mind, has been in how we define India's interests, how that definition has grown, and in our ability to begin to think for ourselves and to strive for strategic autonomy. To a very great extent, we owe the basis for this to Nehru and his generation of leaders, but each subsequent generation, from every party, has contributed to this process. Our definition of security has gradually expanded over time from the defence of our territory to include providing the necessities for our existence and growth such as energy and water, and to larger issues of global and regional security. We now speak of traditional and non-traditional security and even of human security, as if there were any other kind.

One other way in which Panikkar's 1946 article was inaccurate in its view of our national security was the way it underestimated the air and maritime imperatives that face us today, and the increasing role of air and technology in our national security calculus. (In saying so, I take outer space and our use of it as a natural extension of our reach into the air.)

So how should one think about the national security of a country like India, a subcontinent, with a unique geography, with plurality in every respect, which faces 21<sup>st</sup> century challenges in cyber space and primeval tribal insurgencies at the same time?

Let me state my bias or assumption at the outset.

Hard security, or external defence and internal security as traditionally defined, are core and are essential conditions for India to be able to transform itself and seek prosperity and opportunity for its citizens. This is true no matter how new challenges and technology may have changed the tests that face us. We must not confuse purpose (such as welfare) with means (such as law and order) or the situation. Take, for instance, energy security. That is a goal, and, like absolute security, is probably an unattainable one in absolute terms or in isolation from others. Among the means to reach that goal are security of energy sources, of sea lanes of communication, and so on, and they require hard power instruments and the willingness to use them.

Let us now consider the sort of national security challenges that India faces today. (I do so in the certain knowledge that fifty years from now, someone will read this and say how wrong we were in anticipating the real challenges of the next fifty years.)

My starting point is that thanks to what our predecessors like P.C. Lal achieved, India today does not face an existential threat. But it does face several internal and external threats and challenges that could prevent us from realising our potential and our goal of building a strong and prosperous nation where each citizen has the opportunity to fulfil his potential.

## **MAIN CHALLENGES**

Even with an expanded definition of national security, I would suggest that today our national security challenges are in five main areas.

### *Internal Security*

National security begins at home, even as today the distinction between internal and external challenges is increasingly blurred.

For a nation undergoing social and economic change at a rate unparalleled in its long history, and where aspirations are rising

exponentially, India as a society is remarkably at peace with itself. It is hard to think of other societies at comparable stages of development with such low levels of violence. It may not seem so in the face of the daily drumbeat of sensational and horrific stories in the media. But the facts bear this out.

Let us look at the facts.

Communal violence is lower in the last five years than before.

Left Wing Extremism (LWE) took fewer lives in 2011 than in 2010.

Insurgencies in the northeast have taken their lowest toll in the last two decades in the last five years.

And Jammu & Kashmir (J&K) had a relatively peaceful year in 2011. The record turnout in the Panchayat polls shows the overwhelming desire of the people of J&K to lead normal fulfilling lives and be in democratic control of their own futures.

But these figures hide two major challenges.

Some of our instruments of internal security are in disrepair. China spends more on internal security (US\$ 111 billion in the last budget) than she does on external defence (US\$ 106 billion) by the official count. We spend less than one-third of our defence budget on internal security. And that too is far less than comparable states with our diversity and geographical spread spend on internal security and policing.

Add to this our reliance on 19<sup>th</sup> century laws and police structures inherited from a colonial power. Some progress has been made in our attempts to reform and modernise them; other efforts are thwarted by the bogey of freedom or federalism in danger or on other grounds of local expediency.

Secondly, the threats that we face are much more potent than those that our structures were designed to cope with. Look at the firepower that the Mumbai attackers brought with them. And think of what state sponsored terrorists could have access to, up to, and including, weapons of mass destruction such as chemical, biological and radiological weapons.

Counter-terrorism is one area where we have made considerable progress since the Mumbai attack, establishing and strengthening our intelligence capabilities with the MACs and NATGRID, amending

the Unlawful Activities (Prevention) Act (UAPA), establishing and empowering the National Investigation Agency (NIA), and undertaking the modernisation of police forces by assisting the state governments. But when it comes to giving practical effect to the amendments to the UAPA to be able to counter terrorism, we are still to achieve clarity on the establishment of the National Counter-Terrorism Centre (NCTC). I would only hope that a reasoned and informed debate will enable us to move forward to take the practical steps that are necessary.

### *A Peaceful Periphery*

There is no question that we need both a peaceful periphery and a supportive external environment if we are to transform India. For most of independent India's existence, both have been in short supply. But, in the last two decades or so, we have seen an improvement in both situations, with the situation in our neighbourhood stabilising and improving, and the global economic and geo-political situation conducive to our rapid economic change.

South Asia and the Indian Ocean region are our home and immediate neighbourhood. We have a stake in the peace, stability and prosperity of our neighbours, whether across the waters or on our land borders.

But by stating this, we raise the issue of how active we should be in bringing about the desirable outcome of a peaceful periphery. Do we hope that it will come about on its own? Or do we actively work with our neighbours who share our approach? We certainly should not interfere in others' internal affairs, even in the name of spreading peace or enforcing peace. But to what extent do we respond to requests for security assistance and commitments? These lines are not self-evident in the face of events on the ground. Can or should India be a net provider of security in the region and, if so, to what extent? India's role as a regional security provider would not be a new role, historically speaking. These are serious questions, even if my manner of posing them is not subtle enough to frame the issue properly, and I think that it is time that we debated them for ourselves.

When we look around our periphery today, we witness historic shifts and changes of unprecedented magnitude. West Asia, which

is home to 6 million Indians and is critical to our security in so many ways, is in turmoil. The rise of radical and extremist elements, the prospects of proliferation of nuclear weapons, and the effects of the turmoil on energy security and markets make the rapidly changing situation in West Asia and North Africa a security concern for us and other powers.

While intent is the stuff of diplomacy, the national security calculus must include, and prepare to deal with, the capabilities we see around us. Today, the larger region in which we are situated is also that part of the world where the balance of power is shifting most rapidly. In Asia, there are several rising and established powers in a crowded geo-political space. Asia is in the midst of one of the most impressive arms races in history though, in the Asian manner, we are too polite to say so in public. Some calculations suggest that for the first time in several centuries, Asia's spending on defence is poised to overtake Europe's. Whether this is modernisation or a strategic arms race is a matter for professional debate. But the net effect is to pose new issues for our conventional defence.

### *The Defence of India*

The third national security challenge is, therefore, our conventional security, or the defence of India.

Apart from the complex situation that surrounds us, there are also rapid changes in the very nature of warfare.

Last year marked the centenary of the first use of an aircraft as an instrument of warfare. After one hundred years, Italian pilots were bombing Libyan targets all over again. But the difference was apparent. In the century of aircraft as an instrument of war, the capabilities of air power have grown exponentially. (The first attack, dropping grenades on a remote camp, produced a few non-combatant casualties and had no significant military effect. That is not true of the air campaign over Libya last year which had significant military and political effects and large-scale civilian casualties.) Over the last hundred years we have seen ever increasing faith in the ability of air power to achieve a set of discrete military and political missions.

[Interestingly, the potential of air power was recognised long before it became reality. In 1907, the major powers signed the

Annexes to the Hague Convention which prohibited air attacks on towns, villages, churches and hospitals, even though the technology to do this did not exist at the time! I suppose it is easier to ban what does not exist.]

And we have expanded the way in which we think of air power to include several new aspects. On September 11, 2001, terrorists used air power for their ends, proving that air power is no longer exclusively with the state. The nuclear domain was originally entirely a matter of aircraft, later expanded to missiles and submarines.

Today, the very instruments of power are undergoing change as a result of technological development. You know best how information technology has changed your platforms and empowered both state and non-state actors.

Technology has opened up new domains of contention in cyber space and outer space, and this contention takes unusual or unexpected forms.

In West Asia, since the beginning of 2011 we see the use of cyber space through a new cocktail of Non-Governmental Organisations (NGOs), social media, saturation TV and Special Forces to arouse people and target regimes. We have seen that virtual reality, working with people's aspirations and hopes, can have kinetic effects, even effecting regime change in certain conditions.

In the last few years, we have made a beginning in India to put in place a series of measures to enhance our cyber security. India is fortunate to have most of the necessary cyber skills, people and knowledge available within our own country. What we need is the coordination of national effort across the private and public sectors, new ways of organising ourselves, and new habits of working. We are now working on a national cyber security architecture which will enable us as a nation to step up security in this important new domain.

These are domains that require new learning and new national security structures and doctrines, integrating the instruments of national power across sectors.

### *An Enabling Global Environment*

I mentioned earlier that the external environment is no longer as supportive of the transformation of India as it has been for the last two

decades. This extends from the prolonged global economic downturn, to the turmoil in West Asia, to the shifting balance of power in Asia, and the consequential increasing tension around regional hot-spots like North Korea, Syria and Iran.

The financial crisis in the major Western capital markets of 2008, followed by a prolonged downturn in these former drivers of the world economy, has had geo-political consequences. To some extent, they have accelerated previous trends, such as the relative rise of China and some of the other emerging economies, and the shift in the geo-political centre of gravity to Asia. During this decade, the majority of the world's economic growth will take place in the so-called developing world for the first time in over two centuries – driven in large part by China, India and other Asian economies.

The economic downturn in the developed countries, combined with the global rise in commodity prices, has given an edge to the natural competition for energy and the resources necessary to sustain economic growth and activity, and for access to markets. We already see the protectionist tinge in developing country rhetoric, and their actions speak louder than their words.

Interestingly, both our dependence upon, and our influence in, the external world have grown exponentially in the last two decades. Today, the external sector accounts for a little over 40 percent of our Gross Domestic Product (GDP), almost twice what it did in 1991, (and half the same proportion for China today). Our access to external markets and resources (including technologies, capital goods and raw materials), therefore, becomes critical not just to the health of our economy but to our national security itself. If we are not able in the years to come to provide the jobs and skills that our young population needs for India to reap the demographic dividend, it will have profound consequences on our internal security.

All in all, we face an external environment where managing uncertainty will form a much larger part of our national security strategy.

### *Creating National Security Capabilities*

We clearly have an ambitious and growing national security agenda flowing from the challenges we face. This naturally raises questions

about the adequacy of our institutions and national security structures in dealing with such challenges.

Recognising this, the government has set up a high level task force to review our national security structures, ten years after the report of the Group of Ministers on the national security system after the Kargil conflict began to be implemented. We expect them to report to the government soon, basing their recommendations on the widespread consultations that they have carried out in the country.

The task is to create the appropriate structures or adapt existing national security structures so as to deal with the new challenges. This will not be easy, or necessarily smooth, as the NCTC experience shows, for we are now in uncharted waters. And the barometer is dropping. I would, therefore, argue that creating national security capabilities is our fifth major national security challenge.

Equally, it is essential that our existing capacity performs up to its potential. This is particularly so for our defence industrial base, which is in need of review, upgrading and would benefit from modern management and efficiencies.

But most important is the need to integrate the instruments of national power to deal with the national security challenges that we now face in cyber and outer space, in energy security, and in internal security. That, it seems to me, is what these challenges demand of us.

## **FEATURES AND LESSONS**

What conclusions can one draw from this broad brush review of our main national security challenges? Two features of these challenges should cause us to question and rethink our strategies and to learn new lessons.

One is preemption or prevention.

Interestingly, in the new domains (of cyber and space), prevention or even preemption can often appear to be the only real and effective response. Reacting after the event or inflicting subsequent punishment does not seem a satisfactory response any more, unlike past military conflicts and situations.

We have already learnt to deal with nuclear conflict and competition differently from conventional conflict. In the nuclear

domain, an elaborate doctrine of deterrence and balance has been evolved to eliminate the temptation to preemption. Assured and massive retaliation is what prevents the use of nuclear weapons as war-fighting weapons. In effect, we, and the nature of the weapons themselves, have made the consequences of their use too horrific to contemplate.

But this issue also arises today in relation to terrorism or cyber attacks, where the consequences of waiting for an attack are very serious and sometimes too great to bear. These are also domains where there is a temptation to act before rather than after the event. Here too, we need to evolve doctrines and capabilities and strategies to prevent unacceptable levels of damage. This would require us in India to create capabilities which in themselves will dissuade or deter threats, and will cause our enemies to desist. Increasingly, what we are called to deal with, and develop, are preventive or avoidance strategies.

This is not a theoretical debate though it may sound like one. In the UAPA amendments after the Mumbai attacks, we recognised the need for counter-terrorism to prevent the commission of terrorist acts before they occur. The Act, as passed by Parliament, said in Section 43 that we would do so. But when, almost three years later, we tried to operationalise this provision in the Executive Order establishing the NCTC, there has been considerable debate, to put it politely, about the NCTC taking preemptive action when there is clear evidence that a terrorist act is contemplated. We need to come to a national conclusion on this debate, for events will not wait upon our cogitations.

If prevention and preemption are necessary in counter-terrorism, cyber space and new domains where the speed of operations or scale of damage make traditional responses too tardy, we must also answer questions about the command and control of these functions. Are we being led by technology into more unpredictable actions and hair-trigger reactions just when our complex economies and societies require predictability and steadiness more than ever before? Looking around the world, it certainly appears that while we have managed to keep the nuclear peace, in cyber space, the traditional restraints are no longer operating, and command and political control is tenuous at best.

I must confess that I have no simple solution to offer to these questions. But these are issues that we must think through, and I cannot think of a better audience to pose them to.

Secondly, technology is both the problem and the solution.

It is clear that while empowering the state in its security functions, technology has also empowered non-state actors. We have seen the use of the internet for terrorist recruitment and to radicalise youth, the kinetic effects that manipulating virtual reality can produce, and the sheer lethality that technology places in the hands of individuals.

And as our society gets more complex, advanced and integrated, we are increasing our vulnerabilities and creating platforms for those who want to do us harm. Equally, as it requires more predictability, our society has more to lose if we fail to deal with these challenges. In our search for predictability, we must now plan for the unplanned (like natural disasters), and think the unthinkable (in domains like nuclear war). The scope of what we consider relevant to the defence of India has grown as India has progressed and grown more complex.

The answers to these challenges, whether in cyber space or elsewhere are also to be found in technology.

And to use technology as the solution we must have in India the people with the necessary skills and training to enable us to deal with each of these challenges. We need to invest in our own people, not just by giving them the opportunity to learn and develop the necessary skills but by giving them the careers in this area that would attract them.

## CONCLUSION

By listing these challenges and issues, many of which sound like threats, I do not wish to create alarm or leave the impression that we are in peril. I am acutely conscious of this because doubts have been raised in public recently about our defence preparedness and acquisition process. Debate on these issues within the government is necessary and can be healthy. But public debate on such sensitive issues must have some limits. When it affects national morale and gives comfort to our enemies, it crosses the limits of the acceptable and must be held accountable. We all want more and desire the best for the nation's defence preparedness. But we must not allow personal

prejudice, selfish interest or frog-in-the-well perspectives to lead us into error, creating doubts in the minds of our own people.

Is India secure?

My answer is yes. India is as secure as the dedicated service of generations of us in the military and civil services and in public life can make her. And this will certainly improve in the future. If there are gaps in our preparedness, they are being addressed and will be filled. No one should be misled by partial revelations or individual views into underestimating this country's capabilities and determination. There is no cause for defeatism or the ill-informed comments recently seen in motivated leaks and stories in the media.

The fact is that the average annual growth of defence capital expenditure during 2001-11 was 12.8 percent. Its share in total defence expenditure has increased from 25 percent in 2000-01 to 40.3 percent in 2010-11. The pace of capital expenditure has also improved over the decade. Since 2002-03, over 97 percent of the revised estimates for the defence capital acquisition budget has been spent each year, and major qualitative enhancements in our defence capabilities are underway.

Ladies and Gentlemen,

I said at the outset that fifty years from now, someone will read what I have said and think how wrong I was. I certainly hope that it will be so. If not, it would mean that fifty years from now, our successors will still be facing the same challenges as us! And that would mean that we had failed to deal with these challenges or had been overwhelmed by them. If they have the luxury of thinking how wrong we were, it would mean that we had dealt with the challenges and threats that we know and foresee today, and that life has moved on.

That there will be new threats and challenges is inevitable. How we deal with them is up to us.



# OPENING THE ARCTIC'S BOX WITH ENVIRONMENTAL CHANGE

**DHANASREE JAYARAM**

This is posturing. This is the true north – strong and free, and they're fooling themselves if they think dropping a flag on the ocean floor is going to change anything. There is no question over Canadian sovereignty in the Arctic. We've made that very clear. We've established - a long time ago - that these are Canadian waters and this is Canadian property. You can't go around the world these days dropping a flag somewhere. This isn't the 14th or 15th century.

— Peter MacKay, Foreign Affairs Minister, Canada  
commenting on the Russian act of planting its  
flag at the bottom of the Arctic Ocean in the  
North Pole

Geopolitics, in true sense of the term, is nothing but an amalgamation of geography and politics. Politics was never constant but what many analysts failed to understand was that geography could also be changing. History reveals that maps have been drawn and redrawn because of innumerable crises but the environment was always kept

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Ms **Dhanasree Jayaram** is a Research Associate at the Centre of Air Power Studies, New Delhi

out of the equations as politics took precedence over nature. A time has come when rapid environmental change has started to impact all these factors; this, in turn, brings the whole international community to acknowledge Kautilya's words which emphasised that power, time and space are not exclusive – they are mutually dependent. This also brings into focus the current geophysical changes in the Arctic that are affecting not only the regional geopolitics but also the global political arena. The shrinking of the ice cap and the thawing of the permafrost have resulted in the possibility of exploration of natural resources as well as opening up of new shipping lanes, which has already given rise to conflicting claims and tensions with regard to maritime territories and exclusive economic zones.

Countries that lie in the Arctic region have not wasted too much time contemplating over the future of the region, and have taken the plunge in terms of claiming their share. Countries like the People's Republic of China that are not in the Arctic region, are increasingly showing their intention of gaining international dominance by spreading their wings all over the world, including the Arctic, which holds immense potential; these countries have been stressing on the neutrality of the region by declaring it as a common heritage like the Antarctica. The paper would explore the various geophysical, geopolitical and geostrategic challenges emanating from environmental change in the Arctic. It would also lay special emphasis on the growing role of China in the region besides exploring the options and opportunities for India.

### **PATTERNS OF ENVIRONMENTAL CHANGE IN THE ARCTIC**

In the last fifty years, the rise in annual average temperatures in parts of the Arctic, has gone up to 3 degree Celsius,<sup>1</sup> and the warming is happening at twice the global rate. In 2007, the Arctic ice extent reached a record low. Predictions by various models say that the summer-time Arctic sea ice will disappear completely by 2050, and possibly decades sooner.<sup>2</sup> The thawing of the permafrost adds to the problem of global

1. Sarah Murty, "Arctic Changes," *POST note* (June, 2009), no. 334, p. 1, see <http://www.parliament.uk/documents/post/postpn334.pdf>, accessed on February 13, 2012.
2. "Naval Operations in an Iceless Arctic: April 17-18, 2001," see [http://www.star.nesdis.noaa.gov/star/documents/2007IceSymp/FinalArcticReport\\_2001.pdf](http://www.star.nesdis.noaa.gov/star/documents/2007IceSymp/FinalArcticReport_2001.pdf), accessed on February 13, 2012.

warming by emitting Green House Gases (GHGs) such as methane, a more deadly GHG than even carbon dioxide, and its levels have been predicted to double by the end of this century.<sup>3</sup> By 2050, the permafrost is expected to decrease by 20 per cent!<sup>4</sup> These changes have also had an adverse impact on the sea levels and the ecosystems; for example, the melting of the inland ice, the Greenland ice sheets in particular, has been contributing an estimated 0.5 mm to the annual rate of sea level rise of 3.2 mm since 2000.<sup>5</sup>

### **THE EMERGING OPTIONS AND OPPORTUNITIES IN THE ARCTIC**

There are two major sea routes in the Arctic: the North West Passage (NWP) adjacent to the northern coastline of North America, and the Northern Sea Route (NSR) along the northern coastline of Eurasia, and primarily controlled by Russia. The NSR was used by the Soviet Union until 1991, after which, it was opened to the rest of the world. With the retreat of ice in the past five years, this route has been the focus of international attention. The Russian ships mostly use it for a short period (of about two and a half months) in the summer<sup>6</sup> when it is open; however, there is an increasing number of internationally flagged commercial ships using the route with Russian escorts. This essentially shortens the voyage from Europe to East Asia by one third as compared to the route through the Suez Canal. The NWP consists of a series of routes meandering through the spaces between the islands of Northern Canada, which is more difficult to traverse in comparison to the NSR; this route may not be used in the near future unless the ice either retreats to dismal levels or completely. Yet, it again shortens the voyage from the American East Coast to East Asia

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3. Murty, n. 1, p. 3.

4. J. H. Christensen, et al., "Regional Climate Projections," in Solomon S., D. Qin, et al. eds., *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (UK and USA: Cambridge University Press, 2007), p. 663, see <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter11.pdf>, accessed on February 13, 2012.

5. Murty, n. 1, pp. 2-3.

6. R. O'Rourke, "Changes in the Arctic: Background and Issues for Congress," *CRS Report for Congress* (August 8, 2011), no. R41153, pp. 13-14, see <http://www.fas.org/sgp/crs/misc/R41153.pdf>, accessed on February 18, 2012.

by one-fourth as compared to the route through the Panama Canal.<sup>7</sup> There has been a spike in international shipping through these routes. In 2009, two German commercial ships, accompanied by icebreakers, passed through the NSR from Vladivostok to the Netherlands.<sup>8</sup> Besides, the thawing of the permafrost would render the ground unsuitable for building or maintaining durable infrastructure such as pipelines, which, in turn, makes shipping the more reliable option for transporting oil and natural gas from the Arctic.

**Fig 2: Map of the Arctic – New Shipping Routes**



Source: <http://www.arcticprogress.com/2011/02/arcs-of-progress/>

As far as the emergence of new resources is concerned, according to the US Geological Survey, the Arctic accounts for about 13 per cent of undiscovered oil, 30 per cent of undiscovered natural

7. O. C. von Roeder, "Cold War" at the North Pole," *AARMS*, vol. 9, no. 2, September 15, 2010, see <http://www.zmne.hu/aarms/docs/Volume9/Issue2/pdf/13.pdf>, accessed on February 17, 2012.
8. C. K. Ebinger and E. Zambetakos, "The Geopolitics of Arctic Melt," *International Affairs*, vol. 85, no. 6, October 26, 2009, p. 1216, see [http://www.brookings.edu/~media/Files/rc/papers/2009/11arctic\\_melt\\_ebinger\\_zambetakos/11\\_arctic\\_melt\\_ebinger\\_zambetakos.pdf](http://www.brookings.edu/~media/Files/rc/papers/2009/11arctic_melt_ebinger_zambetakos/11_arctic_melt_ebinger_zambetakos.pdf), accessed on February 18, 2012.

gas, and 20 per cent of the undiscovered natural gas liquids in the world. Together, they account for almost a quarter of the world's hydrocarbon energy reserves. Multinational companies – BP and Shell – have already purchased hydrocarbon exploration blocks in the Chukchi and Beaufort Seas.<sup>9</sup> Additionally, the Arctic seas are among the most productive in the world employing 0.6 to 1 million people and accounting for 7 mt of fish worth US\$ 15 billion.<sup>10</sup> These are exactly the reasons why every country in the region has been claiming territory in the Arctic.

### THE GEOPOLITICAL REALIGNMENTS IN THE ARCTIC

The two factors – opening up of new sea routes and resource deposits – have opened up a gamut of a opportunities for the littoral states as well as sparked off rivalries between them. Under a declaration signed in 2008 at Ilulissat (Greenland), the five Arctic littoral states (including the US), which are yet to ratify the UN Convention on the Law of the Sea (UNCLOS), committed to following the UNCLOS framework to establish their continental shelf limits.<sup>11</sup> Russia was the first Arctic nation to submit its claims to the Commission on the Limits of the Continental Shelf (CLCS) in 2001, in which it claimed almost half of the area of the Arctic; however, it was not accepted due to lack of sufficient scientific evidence.<sup>12</sup> Other littoral countries are Canada, Norway and Denmark.

The area around the North Pole has been claimed by all the five Arctic nations.<sup>13</sup> A Russian scientific expedition made headlines in 2007 by planting a Russian flag at the bottom of the Arctic Ocean in

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9. K. Dodds, "A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean", *Global Policy*, vol. 1, no. 3, October 2010, p. 306, see <http://www.queensu.ca/sps/canuk/2010/Dodds-PolarMediterranean.pdf>, accessed on February 13, 2012.

10. O.A. Anisimov, et al., "Polar Regions (Arctic and Antarctic)," in M.L. Parry, O.F. Canziani, et al. (eds.), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (UK: Cambridge University Press, 2007), p. 659, see <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter15.pdf>, accessed on February 13, 2012.

11. von Roeder, n. 7, pp. 6-11.

12. "Scuffling for Arctic boundaries," *Rianovosti* (July 30, 2010), see <http://en.rian.ru/analysis/20100730/160005624.html>, accessed on February 17, 2012.

13. n. 8, p. 367.

the North Pole.<sup>14</sup> Such a unilateral move ruffled the feathers of the rest of the Arctic nations besides raising concerns over the possibility of unjustifiable and inflated claims. Not only territory, even sea routes have been claimed by countries, which has rendered the Arctic a hotspot for conflicts. The NWP is regarded as territorial waters by Canada, and an international strait by the US and European Union (EU).<sup>15</sup> Similarly, the NSR is claimed by Russia as its sovereign waters, thereby giving it the right to collect transit fees through international shipping. However, the rest of the countries deem this route as part of the free international waters.<sup>16</sup>

With these conflicting claims and counter-claims, the nation states have also taken actions to step up their military presence in the region as it is a matter of not only controlling the existing resources, but also protecting sovereignty, prestige and geostrategic value. Canada has been in the process of constructing new icebreakers and ice-strengthened ships besides announcing a plan to build a military training base in Resolute Bay in the high Arctic, and even launching the RadarSat-2 satellite in 2009 for surveillance in the Arctic. In 2008, Russia announced that it would send its Northern Fleet navy to patrol the Arctic; this was for the first time since the end of the Cold War.<sup>17</sup> Russia deployed 8,000 strong Arctic brigade in April 2011 to defend its oil and gas reserves in the region.<sup>18</sup> Russia is currently having twenty icebreakers, and is further expected to increase the size by adding nine new ships by 2020.<sup>19</sup> In 2011, the US Northern Command (USNORTHCOM) was given the sole responsibility of the Arctic under President Barack Obama's directions.<sup>20</sup> The US Coast Guard has currently two heavy icebreakers and a medium icebreaker. Norway

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14. Pavel Baev, "Russia's Race for the Arctic and the New Geopolitics of the North Pole," *The Jamestown Foundation Occasional Paper*, October 2007, pp. 4-5, see [http://www.jamestown.org/uploads/media/Jamestown-BaevRussiaArctic\\_01.pdf](http://www.jamestown.org/uploads/media/Jamestown-BaevRussiaArctic_01.pdf), accessed on February 13, 2012.

15. Ebinger and Zambetakis, n. 8, p. 1221.

16. n. 7, p. 365.

17. *Ibid.*, p. 370.

18. A. Osborne, "Russia Employs Arctic Brigade to Defend Oil and Gas Reserves," *Rianovosti* (April 01, 2011), see [http://en.rian.ru/valdai\\_foreign\\_media/20110401/163317516.html](http://en.rian.ru/valdai_foreign_media/20110401/163317516.html), accessed on February 16, 2012.

19. n. 8, p. 1220.

20. "NORTHCOM Takes Sole Responsibility for Arctic Region," *Stars and Stripes* (April 8, 2007), see <http://www.stripes.com/news/americas/northcom-takes-sole-responsibility-for-arctic-region-1.140441>, accessed on February 13, 2012.

has shifted its military base from Jatta in its south to Reiter in the north. Denmark is planning to establish an Arctic military command structure, including a special force to “boost oil and gas drilling”, to “claim sovereignty of the North Pole”, and to “conduct operations under the extreme Arctic conditions”.<sup>21</sup> In February-March 2010, the Norwegian and North Atlantic Treaty Organisation (NATO) forces conducted a joint military exercise called ‘Cold Response’<sup>22</sup> to enhance their combat capabilities in the harsh winter conditions.

Three other major trends have surfaced due to environmental change in the Arctic and the consequent geopolitical changes in the region: (1) Russia, which had limited access to the seas, can now step in to the maritime realm that could facilitate its resurgence in the global geopolitical environment; (2) the Bering Strait could become the focal point of conflict in future with the US and Russia facing off at the future strategic chokes point in maritime traffic. Currently, any ship could move through the strait without any inspection; and (3) trans-national actors have become prominent in the Arctic discourse at least with seeming greater autonomy and role in the region’s policy-making for the indigenous Arctic people.

### **CHINA AND INDIA IN THE ARCTIC**

After looking at the stakes of the regional players, it is equally important to analyse the role of extra-regional players such as China and India; the former’s role has been dominant while the latter is yet to spearhead a clear-cut policy as far as the Arctic is concerned. China’s interests in the Arctic can be classified into three categories: economics, energy and science. First, as discussed earlier, the voyage through the northern routes being shorter, would make the Chinese goods cheaper; thereby, increasing their global competitiveness. Second, it would also reduce China’s reliance on the Indian Ocean, the Strait of Hormuz and the Strait of Malacca through which China’s energy supplies (from West Asia and Africa) as well as manufactured

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21. “Denmark’s Response to Arctic Change,” BarentsObserver.com May 26, 2011, see <http://www.barentsobserver.com/denmarks-response-to-arctic-change.4925423-58932.html>, accessed on February 13, 2012.

22. K. Dodds, “A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean,” *Global Policy*, vol. 1, no. 3, October 2010, p. 306, see <http://www.queensu.ca/sps/canuk/2010/Dodds-PolarMediterranean.pdf>, accessed on February 14, 2012.

goods (from China) pass through. This region has a strong presence of the US and India that has been a source of concern for China over the years. Third, China's scientific undertakings in the region could help it understand its own climate vulnerabilities besides the fact that its concept of Comprehensive National Power (CNP) closely links scientific prowess at the high frontiers such as the Polar regions to strategic supremacy.

Although China does not have any stated policy on the Arctic, it has been very active in terms of expanding its exploration activities in the region (especially since 1995 when a group of Chinese scientists and journalists undertook an expedition to the North Pole by foot to conduct scientific research).<sup>23</sup> Since then, China had led four scientific expeditions to the region – in 1999, 2003, 2008 in the Bering and Chukchi seas<sup>24</sup> and in 2010, they went as far as 120 nautical miles short of the North Pole by ship. In July 2004, China established an exploration base, the Huanghe research station at Ny-Alesund in the Spitzbergen Island. China's one and only icebreaker ship had been bought from Ukraine, and its indigenous icebreaker is expected to become operational by 2013.<sup>25</sup> In terms of political forays, China had applied for a membership in the Arctic Council in 2008.<sup>26</sup> However, in 2009, China's application was turned down along with that of the EU, Italy and South Korea. The decision over China's bid for observer status in the Arctic Council will be made in the 2013 ministerial meeting in Sweden.<sup>27</sup> Yet another interesting development that infuriated the Arctic nations was when a former Chinese government official showed interest in buying 300 sq km in Iceland to invest in

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23. L. Jakobson, "China Prepares for an Ice-Free Arctic," *SIPRI Insights on Peace and Security* (2010), no. 2, see <http://books.sipri.org/files/insight/SIPRIInsight1002.pdf>, accessed on February 15, 2012.

24. F. Lasserre, "China and the Arctic: Threat or Co-operation Potential for Canada?," *CIC China Papers* (June, 2010), no. 11, p. 3, see <http://www.opencanada.org/wp-content/uploads/2011/05/China-and-the-Arctic-Frederic-Lasserre.pdf>, accessed on February 13, 2012.

25. "China's 1st Icebreaker to be Completed in 2013," *China Daily* (October 25, 2011), see [http://www.chinadaily.com.cn/usa/china/2011-10/25/content\\_13976000.htm](http://www.chinadaily.com.cn/usa/china/2011-10/25/content_13976000.htm), accessed on February 15, 2012.

26. n. 24, p. 3.

27. "Denmark Wants China Near AC," *Arctic Portal* (November 01, 2011), see <http://www.arcticportal.org/news/arctic-portal-news/denmark-wants-china-in-ac>, accessed on February 17, 2012.

a tourist centre on the site; it was later blocked.<sup>28</sup> This led to fears within certain quarters of a potential setting up of listening posts by the Chinese in Iceland, a policy they have implemented in the Indian Ocean Region and the South Pacific Region.

Another facet of China's policy on the Arctic can be discerned through a statement made by Rear Admiral Yin Zhin, who at the third session of the 11<sup>th</sup> Chinese People's Political Consultative Conference on March 05, 2010 opined that the UNCLOS (known as the Law of the Sea Convention), the North Pole and surrounding area are the common wealth of the world's people and do not belong to any one country, and that China must play an indispensable role in Arctic exploration as it has one-fifth of the world's population.<sup>29</sup> The "shared heritage of mankind" has been greatly advocated by the EU and probably to some extent by the US, which goes against the wishes of Canada and Russia. Moreover, the Arctic issue is being considered an international issue due to climate change and international shipping.

India's first Arctic expedition was held in 2007 – on July 30, 2007, India established its own scientific research station at Ny-Alesund, Spitzbergen called the 'Himadri'. India has so far undertaken seven expeditions to the Arctic, and is expected to get an icebreaker by 2012 for its expeditions. Presently, India does not have any policy towards the Arctic; its activities are restricted to mere scientific exploration. Shyam Saran has argued that the "Arctic Ocean is as much a global commons as the Antarctica". According to him, India should even reconsider its reported application to join the Arctic Council as a permanent observer in order to question the sovereign rights of its members over the Arctic Ocean.<sup>30</sup>

India could capitalise in the region by using its wealth of resources. India's expertise in oil exploration and extraction activities could be used to gain a part of the stakes in hydrocarbon fields, especially the

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28. Peter Ford, "Iceland Blocks Chinese Businessman from Buying Land," *The Christian Science Monitor*, November 28, 2011, see <http://www.csmonitor.com/World/Asia-Pacific/2011/1128/Iceland-blocks-Chinese-businessman-from-buying-land>, accessed on 19 February, 2012.

29. J. Spears, "A Snow Dragon in the Arctic," *Asia Times*, February 8, 2011, see <http://www.atimes.com/atimes/China/MB08Ad01.html>, accessed on February 10, 2012.

30. Shyam Saran, "India's Stake in Arctic Cold War," *The Hindu*, February 01, 2012, see <http://www.thehindu.com/opinion/op-ed/article2848280.ece>, accessed on February 18, 2012.

ones in Russia, which Moscow has found difficult to develop due to insufficient experience so far. Moreover, India already has experience in collaborating with the Russians in Siberia, such as in the Sakhalin energy field. This presents India with a unique opportunity to pursue close energy ties with Russia as an alternative to China in the joint exploration of the Arctic oil and gas fields. India could also make inroads into Russia by utilising its expertise in the safe extraction of gas hydrates from the offshore deposits that could become unstable as the oceans warm.<sup>31</sup>

### **AS THE ICE MELTS**

The so-called Cold War in the Arctic is here to stay, and environmental change has not only opened up sea routes and natural resources, it has also initiated a great game of geopolitics between the regional players as well as extra-regional ones. One question that could linger is whether the Arctic is a regional issue or a global one. Whichever is endorsed by the international community, the regional players are, at present, involved in a struggle for supremacy in the region. Although there is a move by the extra-regional players to declare it as a common heritage, that is a distant dream with countries such as Russia and Canada actively pursuing their interests in the region strategically. China has realised it, which is the reason why even though it is speaking rhetorical language in the public domain, it is increasing its influence in the Arctic region by not only enhancing its own capabilities but also forging ties with the regional players as well as the autonomous bodies. India also has to come out of the rhetoric mode and take the leap in order to establish itself firmly in the Arctic. India may not have the technological or financial resources to do so but it certainly has the scientific expertise, knowledge base and human resources to compensate for their lack. Furthermore, Russia could act as a bridge for India's entry into the Arctic in order to realise its energy and investment interests. India's environmental diplomacy, coupled with foreign policy towards the countries in the Arctic region, need to be realigned in such a fashion that global peace and stability are in consonance with its own national interests.

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31. Interaction with Cleo Paskal, Associate Fellow, Chatam House, in New Delhi, on February 13, 2012.

# JOINT TRAINING: KEY TO SYNERGY

**S. S. DHANKHAR**

The Indian military Services have established numerous and distinguished academies across India for the purpose of training professional soldiers in new generation military science, warfare command, and strategy and associated technologies. The Indian government has taken many such steps to educate, prepare and attract young talents towards armed forces. For this, many schools like the Rashtriya Indian Military College (RIMC) at Dehradun, Rashtriya Military Schools at Ajmer, Bengaluru, Belgaum, Chail and Dholpur, were set up. Later, the Sainik schools, which are a joint venture of the centre and state governments, were established in the states basically to broaden the recruitment base, and remove a perceived regional imbalance in the officer's cadre of the Indian defence forces. All these were set up with an aim to provide necessary preliminary training for Indians wishing to become officers in the Indian armed forces. These institutions serve as feeder institutions to the National Defence Academy (NDA) now.<sup>1</sup> There are a large number of individual Service training institutes, which focus on single Service training, and there are quite a few joint training or inter-Service training institutions like the NDA, DSSC (Defence Services Staff College), CDM (College of Defence Management), NDC (National Defence College) and AFMC

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1. [www.wikipedia.org/wiki/military\\_academies\\_in\\_India](http://www.wikipedia.org/wiki/military_academies_in_India), accessed on February 22, 2012.

(Armed Forces Medical College), which focus on joint training. Though India was one of the few countries which started these joint institutions fairly early, the progress in developing synergies and maximising combat potential has been rather slow.

We are all aware that future wars would be highly technology-intensive, fairly complex, fast paced and would require seamless tri-Service effort. These wars are likely to be short and not give any time to evolve any strategy or doctrine, which will have to be done during peace time with earlier experiences. There is hardly any chance of a single Service conflict in the future, and the wars are likely to encompass land, air, sea, medium of space, sub-surface and cyberspace. It is essential to recognise the core competencies, capabilities and limitation of each individual Service. The dynamics of the technological environment, in which the armed forces shall operate, would require multi-disciplinary and multi-dimensional joint approach in synergising combat power to achieve force multiplication effect at the strategic and tactical levels. Achieving jointness in war would require a high degree of synchronisation, and inter-workability, which will result in synergy and integration, and that has to be honed up by training in peace-time. Such training would lead to mutual confidence-building, understanding of each other's capabilities and limitations, enhancing inter-operability, standardisation of procedures, and would train commanders and staff to function in a joint environment. Thus, the joint training will form the bedrock of preparedness for wars by the armed forces in the future. Hence, it is essential that the defence forces are trained jointly to facilitate optimal utilisation of existing resources, and are prepared to conduct operations across the full range of military operations.

In the recent international joint exercises, the Indian armed forces have done extremely well. They have been praised by all the participating forces and noticed by most of the developed armed forces of the world. A large number of countries are now keen to participate in joint exercises with India. This itself is an example of the level of integration, which we already have achieved in our armed forces. Everyone understands the importance of joint training but due to lack of experience and knowledge, the desire to cover more turf at the cost of others, fiscal constraints, and a tendency to resist change,

there is delay in its practical implementation. The future battlefield, with its high-tech weapons and support systems, would be best exploited by joint operations, and for that, all the three Services will have to act together in a joint manner to synergise individual Service capabilities. To achieve this synergy of capabilities among the three Services, it is essential that the defence forces are trained together. Once an adequate level of joint training is achieved, we should hold more joint exercises to refine our joint plans and doctrine so that tri-Services joint operations are jointly conceived, jointly planned and jointly executed to succeed in achieving the mission objectives.

### **TRAINING OF MINDS**

There exists a good level of joint training in our armed forces by virtue of the already existing training structures in the country. There is definitely a requirement to further modify and upgrade the existing training establishments, and may be, add a few more joint training models to meet the challenges of modern and hi-tech warfare. But the most important and essential of all the issues is the training of minds, specially of the senior lot, Principal, Directors/DDG equivalent, and above all, the three Services. We need to train to change our mindsets, to achieve trust, which is based on knowledge and confidence, that one would get the support one needs at the right time, and this needs to be inculcated and driven home. It is difficult to comment on the perceptions and mindsets of the senior officers but the fact remains that while everyone propagates jointness and joint training in the three Services, no one takes concrete steps to implement the joint training effectively and remove the hurdles.

We all know that the major hurdles are the fear of losing vacancies, resources and power; the apprehension of the smaller Services about its turf to the bigger Service, fiscal constraints, etc. At times, attitudinal issues prevent the participation of troops/assets from one Service in an exercise of the other where joint war plans are being tested, and we miss out on a priceless opportunity of joint training. There is a tendency to protect individual Service interests first, and then try to fit, if possible, in the joint model. Also, there is great reluctance among our seniors to accept modern war and victory requirements. The bigger force has to accept the lethality, extended

ranges, and swift impact on conflict resolution with minimum collateral damage by air power and the capability of maritime forces to project and protect vital trade and energy interests. We need to have a joint training model that would build mutual confidence, take into consideration each other's strengths and limitations, enhance inter-operability, and train the commanders to use synchronised application of combat power. The Joint Training Committee (JTC) looks after the joint training aspects of the three Services but there is a general perception that it is biased towards existing inter-Service institutions and courses, and hardly takes the initiative to evolve new concepts or suggest new joint training requirements. Structures can only facilitate enforced development of cooperation and synergy; they cannot remove established mindsets. The first priority should, therefore, be to institute processes that assist in dismantling mindsets; only then, the joint structures would become meaningful. There is an urgent need to change the mindsets at all levels to achieve synergy in training and placing the war objectives and national interests above individual Service requirements.

### **FORMATION STAGE OR INDUCTION PHASE**

Keeping in mind the rapid advances in technology and the ongoing Revolution in Military Affairs (RMA), we need to look at it from a different perspective, where we can build joint war-fighting capabilities from the early years of Service. The NDA is the first institute in which cadets of all the three Services train together for three years. The training syllabus makes no distinction between any Service for the initial five terms, and Service specific training is imparted in the sixth term. The NDA is primarily an academic institution with slant towards physical fitness, military discipline and development of officers-like qualities. The stress is on educating the cadets jointly and they are not exposed to inter-Service rivalries. It develops bonding and camaraderie, which come naturally as an outcome of living, studying and training together.<sup>2</sup> A large proportion of the intake of the officer's cadre in our armed forces has been from the NDA but this intake has drastically reduced in the past few years

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2 Tri-Services Committee Report on Joint Training, "Optimising Joint Training: Responses and Strategies," New Delhi, July 06, 2001, pp. 4-6.

as the NDA is not able to attract talent. As a result, a large number of officers in the fighting arms of the three Services come through various entry schemes, and are exposed to very little joint training until they meet their counterparts at the DSSC. At the DSSC, the joint training syllabus comprises 60 per cent of the total syllabus as per the Chief of Staff Committee (COSC) Directive of 1997, and the balance syllabus is individual-Service specific. But on perusal by the Tri-Service Committee, the joint training syllabus content was found to be less than 25 per cent of total syllabus and no variance was noticed in single Service training. It was recommended to set up a 'Joint Training Wing', with a Chief Instructor of 2-star level to promote joint training and jointmanship. This, however, was not agreed upon as it would create a perception that jointness can be achieved only where a separate organisation has been set up specifically for that purpose. However, it is strongly recommended that we have a body to monitor strict implementation of the COSC Directive on the joint training syllabus content.

There is a strong need to expand the NDA, and to ensure that all officers joining the armed forces come through the NDA. This will not be easy but the modalities will have to be worked out jointly to implement such a plan. The officers of the other entry schemes, including technical entry schemes, must go through a joint Services capsule course at the NDA prior to commissioning. The present syllabus at the NDA can be suitably modified with more joint Service academic content to meet the joint training requirement. Also, after an officer passes out from the NDA and completes 2 to 3 years of commissioned Service, he should be made to do a joint Young Officers (YOs) course with syllabus from both single Service and joint Services. The selected officers, after these courses, may be sent on cross attachment at battalion, squadron and warship levels for practical exposure, with a defined mandate, and on completion, they must be made to present their experience gained for the benefit of others who could not attend due to the limitation of vacancies.<sup>3</sup>

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3. AVM A. Subramaniam, "Training and Mindset-Key to Synergy," DSSC Paper, pp. 2-5.

### **DEVELOPING STAGE OR MIDDLE YEARS**

With the DSSC, the mindsets are developed and joint concepts are more in theory and less in practice, with single Service concepts dominating the minds of the future commanders. The present courses in the three Services like the JCC, APKC, specialisation courses, etc. should be combined into one joint course for selected officers from combat arms of the three Services with about 5 to 9 years of service, having with both individual and joint Service training content in ratio as approved jointly. These selected officers of the three Services, who would undergo such joint courses, will have a change of mindset and appreciate joint operations better, and later on, should contribute to design, develop and refine joint war-fighting tactics, strategy and doctrine with more experience. Only those officers who successfully clear their YO's and JCC level courses should be selected or be eligible for writing the DSSC exam. The middle years comprise the time in the career of the Service officers when they can spend time discussing and understanding the war-fighting tactics jointly at the DSSC, and then at the three Higher Command courses. In case we create joint models of training in the early, years as suggested above, prior to the staff course, then the officers would be in a better position to support and promote joint tactics and joint operations. There is an urgent need to revisit the syllabus at both the DSSC and Higher Command level and make it truly joint in nature. There is a need to focus more on operational art, strategy and doctrine as against the present 'tactical heavy content', which has already been taken care of at junior command and unit level. Similarly, during the Higher Command course, there is a necessity to give more exposure on other Service capabilities and limitations, visits by faculties of the sister Service colleges and exposure to war games against each. The time duration of joint capsule of the three war colleges or the JOCAP needs to be increased, and there is a requirement for setting up of a new Joint Training Institute by initially co-locating the three war colleges and later by creating a new Joint Training Institute, renamed as College of Joint Warfare (CJW).

### **THE JOINT TRAINING AT SENIOR STAGE**

The question often asked is whether there is any need to train our senior officers who already have undergone very tough screening,

and put in enough Service to gain the necessary experience. This necessity has been felt because there is no formal operational joint training beyond the rank of a colonel and equivalent, and there is a distinct reluctance to accept the pace, uncertainty and nature of modern hi-tech warfare. There is also an apprehension of losing control and power, the desire cover more turf at the cost of others, and the fear of losing vacancies to the other Services. These are also the impediments in the progress of a large number of joint training initiatives. Once an officer is promoted to the rank of Brigadier and equivalent, there is a steep rise to the higher ranks where the officers are expected to take decisions on strategic issues at national and international levels. Some of the officers may be posted and busy conducting operations at the tactical level. In the context of galloping technology-driven doctrinal shifts, frequent exposures are considered necessary to help senior level officers to update their knowledge base. Hence, there is an inescapable requirement to ensure systematic joint training.<sup>4</sup> Some of the joint training courses recommended by the Tri-Service Committee for senior level officers are the Joint Training Capsule at the DSSC to train senior officers of the three Services for dedicated work at joint Headquarters (HQs) encompassing force structuring, integrated joint training and doctrine implementation. This capsule has started for Colonel and Brigadier equivalents for a duration of three weeks at the DSSC. The Senior Officers Advance Strategic Programme at the National Defence College (NDC) has been considered for Major General and equivalents for a duration of four weeks, encompassing strategic planning, budgetary considerations, integrated activities to include Command, Control, Communications, Computers, Information, Intelligence (C4I2) and logistics; and the Formal Orientation Capsule at the NDC/USI for senior leaders/defence managers and senior defence and civil administration officers engaged in the task of national security. The course would encompass national security concerns, functioning of the government including various ministries, international relations, media interaction structure, and functioning of Service HQs and related defence organisations, for example, the Defence Research and Development Organisation

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4. Brig Balbir Pama, *Paradigm Shift in Training in Army* (New Delhi: Knowledge World 2005), pp. 177-178.

(DRDO), Directorate General of Civil Aviation (DGCA), and Public Sector Undertakings (PSUs).<sup>5</sup>

### **EXPERIENCE OF OTHER COUNTRIES**

The Joint Military Education Programme of the US is well documented and is the basis of their entire military training. The US carried out substantial changes to their training programme because of the Goldwater-Nichols Department of Defence Reorganisation Act (GNA) of 1986. In order to retain inter-operability, almost all North Atlantic Treaty Organisation (NATO) countries, including France, have restructured their defence forces for enhanced combat effectiveness, with corresponding changes in structured and non-structured training. The UK Ministry of Defence undertook force restructuring to achieve jointness in operations and carried out a review of the joint training along with the Australian Department of Defence, which is considered to have better experience as far as joint military training is concerned. The Japanese Self-Defence Forces initiated joint training in 1994 with the underlying aim to prepare the armed forces for joint war-fighting requirements, which encompasses identification of training requirements, developing of plans, execution of training events along with an evaluation, and assessment system for future training improvement.<sup>6</sup> The Canadian model of joint training did not succeed as individual Service sensitivities were disregarded, whereas the South African Defence Forces joint training model which followed 'centralised planning' and the 'decentralised implementation' approach achieved notable results and was successful. In all the countries, joint exercises also provide a medium for joint training, and are scheduled and conducted to train for emerging operational requirements, often in coordination with, or participation by, foreign forces.

### **CONSTRAINTS OF JOINT TRAINING**

Over the last six decades in India, each Service has grown and developed its training infrastructure as per the perceived operational and training requirements. Due to varying deployment and operational tactics,

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5. n. 2, "Training for Jointness", (Appx-B, para. June 09-27, 2001).

6. Pama, n. 4, pp. 164-165.

there are differences in the training in each Service in spite of having common equipment. The training schedules in the Army run from July 01 to June 30, in the Air Force from April 01 to March 31, and in the Navy from January 01 to December 31. There could be individual Service compulsions to this but it does not appear to be very serious, and probably could be modified to suit the joint training model once formalised. The language of training for officers is English but for Personnel Below Officer Rank (PBOR), there is no commonality of language for training; the Air Force and the Navy use English as the medium of training, and the Army uses Hindi as its main medium of communication. There is a large number of training establishments in the three Services, which provide training on similar lines. Though avoidance of duplication in training establishments is desirable, need to there is a deliberate on how much jointness can be achieved without creating any unacceptable turbulence. The cost of creating additional facilities at common institutes, and resultant underutilisation of infrastructure so vacated, may not be the ideal option. The creation and vacation of infrastructure will have a financial implication, but notwithstanding that, it may cause administrative inconvenience. The Navy, for example, would prefer to have its gunnery training in Kochi, whereas the Army would not find it convenient to send hundreds of its personnel there.<sup>7</sup>

### **EXPLORING AREAS FOR JOINT TRAINING**

There is a large number of areas, wherein each Service has excelled in its own way. It is, therefore, essential at this stage to utilise the infrastructure created for single Service requirements by expanding and it using it for the benefit of the other Services. The present defence-training infrastructure is quite vast, and has evolved at considerable cost. We, therefore, need to identify the commonality of training requirements of the three Services to reduce costs and optimise the use of such infrastructure. The problems, which need to be addressed, are the ability of one Service to take on the load of joint training and assistance it requires in terms of staff, funds, etc. The other aspect would be to identify the lead Service, that is, the one which possesses the core competencies and is capable of taking on

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7. n. 2, pp. 2-5.

the task. The disciplines where some progress has already been made in planning, and some, which need to be considered for joint training to enhance jointness, are:

Sl. No.	DESCRIPTION
1.	NBC Warfare Trg
2.	Air Defence (C&R)
3.	Unmanned Aerial Vehicles (UAV)
4.	Basic Helicopter Trg
5.	ATC Trg
6.	Bomb Disposal
7.	Provost
8.	Disaster Management
9.	Military Law
10.	Meteorology
11.	Sports and PT
12.	Foreign Language
13.	MT Trg
14.	Military Band
15.	Cooks and stewards
16.	B Tech – Technical Entry
17.	Joint Higher command course
18.	Special forces
19.	Int, Satellite Imagery and Photo Interpretation
20.	IT and Information Warfare
21.	Trg of Aviation and Technical staff
22.	Electronic Warfare

Future conflicts will be short, technology-intensive, fast paced, and require a very high degree of synergy among the three Services. Inter-operability and synchronisation will be essential for the multi-dimensional and multi-disciplinary joint approach for a combined response to military situations. To achieve this, it is necessary that the armed forces are trained operationally, doctrinally and intellectually together to be able to work in a joint environment. We have to learn from the progress other countries have made in joint training and pick up

points, which suit our environment. Joint training will help in building mutual confidence, enhancing inter-operability, understanding each others' capabilities and limitations, and standardisation of operating procedures. The capabilities and limitations of each Service have to be factored into our joint philosophy, doctrines and concepts, and have to form an integral part of our joint training, joint war games and joint exercises. The commanders have to accept the importance of joint training to achieve synergy to meet the challenges of future wars. The importance of reach, lethality and swift impact of air power on conflict resolution and the capability of maritime forces to protect our vital energy and trade interest need to be appreciated by the Army. There is an urgent need to address the turf battles and mindset, which act as the major impediments to joint training. The fear of losing vacancies, control and power, protecting individual Service interest first and then only fitting in the joint training model are also responsible for the slow progress of joint training. One of the important goals of joint training is to produce officers who would not be influenced by the colour of the uniform or Service loyalties but be driven solely by the idealism of operational objectives and the higher directions of war.<sup>8</sup>

Separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all Services, as one single, concentrated effort.

— President Dwight D. Eisenhower,  
Special Message to Congress

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8. n. 2, "Attitudinal Changes", pp. 2-6.



# PEARL HARBOUR: AS VIEWED THROUGH A DIFFERENT LENS

V. PEREIRA

At 0749 hours on Sunday, December 07, 1941, the Japanese launched the first of two waves of attacks against American facilities at Pearl Harbour, Hawaii; the second wave of aircraft arrived at 0900 hours. The first wave consisted of 183 Japanese dive/torpedo bombers accompanied by 'Zero' fighter escorts, whilst the second wave consisted of 168 aircraft similar in nature/composition to the first wave. Eighteen operational warships, including four battleships, were sunk or badly damaged, 188 aircraft were destroyed, 2,403 Americans were killed (including civilians) and 1,178 were wounded.<sup>1</sup> Although it could be said that the Japanese achieved local and tactical surprise, the American losses in the attack could have been much worse had it not been for the fact that three aircraft carriers were not in port, nine cruisers and virtually all of the destroyers remained afloat, and none of the fleet's submarines was lost. The possible extent of American losses were further limited by the fact that Adm Nagumo, the commander of the Japanese task force, refused to authorise a third wave of attack that could possibly have led to the calamitous destruction of the naval dockyards and oil storage tanks; the loss of which would have placed severe restraints on the use of Pearl Harbour as a forward base for

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1. [http://www.ihr.org/jhr/vii/vii\\_p431\\_Lutton.html](http://www.ihr.org/jhr/vii/vii_p431_Lutton.html), accessed on February 17, 2012.

counter-offensives against Japanese advances towards the Philippines, Malaya and the Dutch East Indies. The attack solved President Franklin D. Roosevelt's most pressing problem at the time – how to overcome American public opposition to involvement in a war that was ongoing in Europe for the previous year and a half. It is a known fact that over 80 per cent of the American population (at least on the eve of Pearl Harbour) was not in favour of the US entering the war as an active participant. Roosevelt obtained overwhelming majority support when he asked Congress for a 'declaration of war' against Japan after the attack on Pearl Harbour. Yet, even if it is an accepted fact that the American public rallied behind and united to support Roosevelt and Churchill in the war effort, serious questions are often raised about the genesis, provocation and actual nature of the attack that brought America into this worldwide conflict. Questions about accountability of the bureaucracy, the political leadership and the military commanders were raised, with serious implications regarding accountability, responsibility and more importantly, whether the Japanese attack on Pearl Harbour was avoidable. A corollary to this is: why did the Japanese attack Pearl Harbour? May be because there had been some serious American provocation or breakdown of diplomatic negotiation. Another most intriguing aspect of the fallout of the attack on Pearl Harbour was that the able Navy and Army Commanders, Adm Husband E. Kimmel and Gen Walter Short, were supposedly caught off guard, and were then quickly retired under unusual circumstances. In order to deflect public or Congressional criticism, Roosevelt appointed a special commission to investigate the attack; the commission was headed by the Supreme Court Justice Owen J. Roberts (a leading supporter of the pro-interventionist Committee to Aid America by Aiding the Allies) whom the President trusted would not do anything to compromise the spirit of unity that prevailed in the country. Justice Roberts completed his report on Friday, January 23, 1942 and the Administration released it for public consumption in time for the Sunday newspapers. Key members of the Washington political and military establishment were absolved of any blame the fault pointed out by the report lay squarely with Admiral Kimmel and Gen Short. Yet, all were not convinced and thus was born, what is termed as the 'Revisionist' movement, and one of the first such critics

was John T. Flynn who, in September 1944, published a booklet "The Truth about Pearl Harbour" in which he argued that Roosevelt and his cronies had been plotting war against Japan at least since January 1941.<sup>2</sup> The Administration continued to needlessly provoke the Japanese government throughout the year and on November 26, 1941, delivered a diplomatic ultimatum that no government could possibly accept.<sup>3</sup> Flynn has also suggested that Adm Kimmel and Gen Short were given wrong – and at times – delayed inputs from Washington, thus, preventing the taking of effective measures at Pearl Harbour. But, before delving into the issues put forth by the 'revisionists', it would be worthwhile to delve into the reasons why Japan attacked Pearl Harbour in the first place.

James Bradley, an op-ed contributor to the *New York Times* wrote in December 2009, "Sixty-eight years ago", Japan attacked the American Naval Base at Pearl Harbour. In the brutal Pacific War that followed, millions of soldiers and civilians were killed. My father – one of the famous flag raisers on Iwo Jima – was among the young men who went off to the Pacific to fight for his country, so the war naturally fascinated me, but I always wondered, why did we fight in the Pacific? Yes, there was Pearl Harbour, but why did the Japanese attack us in the first place? In search of an answer, I read deeply into the diplomatic history of the 1930s about President Franklin D. Roosevelt's policy on Asia and his preparation -- or lack thereof -- for a major conflict there. I discovered that I was studying the wrong President Roosevelt. The one who had the greater effect on Japan's behavior was Theodore Roosevelt – whose efforts to end the war between Japan and Russia earned him the Nobel Peace Prize".<sup>4</sup> When Theodore Roosevelt was the President, some three decades before the World War II, most of the powers at that time were focussed on the contest for control of North Asia that was being played out as the Russo-Japanese War. President Theodore Roosevelt was an outspoken critic of the Russians and, in fact, went on to write in August 1905, near the end of the Russo-Japanese War, No human beings, black, yellow or white, could be quite as untruthful, as insincere,

2. Ibid.

3. The high handed Hull Note of November 26, 1941, demanded Japan's withdrawal of all its troops from China. This was a final blow to the moderates in Japan's government who still hoped for diplomatic negotiations.

4. James Bradley, "Diplomacy that will Live in Infamy," *The New York Times*, December 04, 2009.

as arrogant – in short, as untrustworthy in every way – as the Russians. The Japanese, on the other hand, are a wonderful and civilised people, entitled to stand on an absolute equality with all the other peoples of the civilised world”. “He knew that Japan had deep designs and wished to occupy the Korean Peninsula to use it as a springboard for its Asian expansion strategy. Way back in 1900, he had written, “I should like to see Japan have Korea,” yet, when in February 1904, Japan broke off relations with Russia, President Roosevelt said publicly that he would “maintain the strictest neutrality”, but privately he is supposed to have written, “The sympathies of the United States are entirely on Japan’s side.” In June 1905, Roosevelt, apparently on his own initiative, invited both the nations to attempt negotiations to end the war. Herein lies another tale that is contained in Roosevelt’s letter to his son in which he wrote, “I have, of course, concealed from everyone – literally everyone – the fact that I acted in the first place on Japan’s suggestion. Remember, that you are to let no one know that in this matter of the peace negotiations, I have acted at the request of Japan and that each step has been taken with Japan’s foreknowledge, and not merely with her approval but with her expressed desire”.

Many years later, a Japanese emissary to Roosevelt paraphrased the then President’s comments to him, “All the Asiatic nations are now faced with the urgent necessity of adjusting themselves to the present age. Japan should be their natural leader in that process and their protector during the transition phase, much as the United States assumed the leadership of the American continent many years ago and by means of the Monroe Doctrine, preserved the Latin American nations from European interference. The future policy of Japan towards Asiatic countries should be similar to that of the United States towards their neighbours on the American continent”. In July 1905, as per Bradley, Roosevelt sent a secret cable to Tokyo in which he approved the Japanese annexation of Korea and agreed to an “understanding or alliance” among Japan, the US and Britain “as if” the US were under treaty obligations. The “as if” was the key phrase bearing in mind that the Congress was much less interested in North Asia than Roosevelt was; so he came to this agreement with Japan in secret, purportedly an unconstitutional act. Towards this end, Roosevelt cut off relations with Korea, turned the American legation in Seoul over to the Japanese military and

deleted the word 'Korea' from the State Department's Record of Foreign Relations, and placed it under the heading of 'Japan'.

An important but less publically known document that merits close examination is the so called "McCullum Memo" scripted by Lieutenant Commander Arthur McCollum of the Office of Naval Intelligence.<sup>5</sup> The memo detailed an eight-step plan to provoke Japan into attacking the US; President Franklin D. Roosevelt apparently, over the course of 1941, implemented all of the eight recommendations in the memo and following the eighth provocation, Japan attacked, and America entered World War II. A summary of the memo is:

- The United States is faced by a hostile combination of powers in both the Atlantic and Pacific.
- British naval control of the Atlantic prevents hostile action against the United States in this area.
- Japan's growing hostility presents an attempt to open sea communications between Japan and the Mediterranean by an attack on the British lines of communication in the Indian Ocean.
- Japan must be diverted if British opposition in Europe is to remain effective.
- The United States naval forces now in the Pacific are so capable of containing and harnessing Japan as to nullify her assistance to Germany and Italy.
- It is in the interest of the United States to eliminate Japan's threat in the Pacific at the earliest opportunity by taking prompt and aggressive action against Japan.
- In the absence of United States ability to take the political offensive, additional naval forces should be sent to the Orient and agreements entered into with Holland and England that would serve as an effective check against Japanese encroachments in South-Eastern Asia.
- Capt Knox added that it is unquestionably to our general interest that Britain be not licked – just now she has a stalemate and probably can't do better, we ought to make certain that she at least gets a stalemate; for this she will probably need from us

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5. The memo was submitted to Navy Captains Walter Anderson and Dudley Knox on October 07, 1940. They were two of President Roosevelt's most trusted military advisors.

further substantial destroyers and air reinforcements to England. If England remains stable, Japan will be cautious in the Orient; hence, our assistance to England in the Atlantic is also protection to her and us in the Orient.

It was John T. Flynn, who in September 1945, issued a report "The Final Secret of Pearl Harbour" in which he concluded that President Franklin Roosevelt was to blame for diplomatic mismanagement, for keeping the Pacific fleet stationed at the insecure Pearl Harbour base, and for stripping Pearl Harbour of the much needed defensive equipment. With respect to the diplomatic activities that were a prelude to the attack, it was pointed out that President Franklin Roosevelt did his best to undermine the position and status of the Japanese moderates, and in doing so, ensured the unfolding of events leading to Gen Tojo and the 'war agitators' taking centre-stage in Tokyo. Despite various provocations, it became clear that Germany was not going to declare war against the US; with this as the background, Flynn concludes, Roosevelt decided to turn the screws on the Japanese. In fact, President Roosevelt was actually seeking an 'incident' to use as a convenient factor to unify public opinion behind an all-out war against Japan.

As early as October 1940, President Roosevelt had considered blockading Japan; this was manifested in different ways and one of the most significant ones was that just days before the attack on Pearl Harbour, President Roosevelt personally ordered the dispatch of three small naval vessels from the Philippines into the path of Japanese warships, then steaming towards Southeast Asia. This was no doubt intended to provoke an 'overt' Japanese attack on American ships that could serve as the 'incident' needed to bring the US officially into the war. For many years before Pearl Harbour, President Roosevelt had talked of peace, but in fact, he had schemed for war. George Morgenstern, working for the *Chicago Tribune* as an editor, listed the chain of events from Roosevelt's October 1937 "quarantine the aggressors" speech to his arming of the British at the expense of the US armed forces, and the so-called "undeclared war" he waged in the Atlantic. Morgenstern went on to put forth the theory that the US had no great economic or political interests China, which was at war

with Japan; indeed, while China accounted for less than 3 per cent of US foreign trade, Japan was America's third best customer. If Japan was a 'threat' to any interests, it was those of Britain, France and the Netherlands – holders of vast Asian colonies. As Morgenthau put it bluntly, "Diplomacy failed because diplomacy was not employed to avert war, but to make certain it's coming. Premier Konoye's sincere peace proposals were spurned by President Roosevelt leading to Konoye's replacement by General Tojo, who pledged to do whatever was necessary to break the economic stranglehold America had inflicted on Japan, since the summer of 1941".

A concurrent resolution of Congress brought into being the Joint Congressional Committee on the Investigation of the Pearl Harbour Attack. The Administration hoped that the committee (which had a majority of Democrats) would satisfy public curiosity whilst safeguarding the standing of the political party in power. The committee sat from November 15, 1945 to May 31, 1946, and the Democratic majority managed to steer the hearings in such a manner as to deflect as much criticism as they could from the late President Franklin Roosevelt. One of the interesting aspects of the Joint Congressional Hearings was that they brought out the great extent to which American cryptographers managed to read secret Japanese diplomatic messages. This 'MAGIC' (as it was called) enabled Washington to know what the Japanese had in mind and more importantly, what their timetable was for the ongoing diplomatic efforts, the failure of which would inevitably lead to military action.<sup>6</sup> By November 14, 1941, Roosevelt knew that war was inevitable if negotiations collapsed, and on November 19, 1941, Tokyo warned that a complete breakdown was near, and in a special message to its Washington embassy, issued the famous "Winds" instruction. This instruction provided guidelines and initiators in case of an emergency such as cutting off diplomatic relations and international communications; it took the form of coded warnings that would be inserted into the daily Japanese language short wave news broadcast and were as follows:

- In the case of Japan-US relations being endangered: *Higashi no kaze ame* (east wind, rain).

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6. n. 1.

- In the case of Japan-USSR relations being endangered: *Kita no kaze kumori* (north wind, cloudy).
- In the case of Japan-British relations being endangered: *Nishi no kaze hare* (west wind, clear).

On the early morning of December 04, 1941, at a US Navy radio monitoring station in Cheltenham, Maryland, about a half hour drive south of Washington D.C., a senior radio operator tuned into a Japanese station and monitored what appeared to be nothing more than a regional weather forecast. This operator, Ralph Briggs had worked with the US Naval Intelligence, and amongst the radio operators, he alone knew the significance of what he monitored. The phrase that caught his attention was casually spoken during the regular news and the weather feature from Radio Tokyo, Japan was – “east wind, rain”; this was one of the three possible ‘execute’ messages, which the Japanese diplomats around the world had been alerted to begin listening for since November 19. They had been told to monitor the regular news and weather broadcasts from Tokyo, just as they always did, but also pay careful attention to the phraseology employed to describe the weather.<sup>7</sup>

Briggs immediately teletyped the message to Washington D.C. Just a few miles away from the Cheltenham radio-monitoring station, at the Japanese embassy, Chief Petty Officer Kenici Agemoto was also listening out for the weather report; when he heard that fateful phrase, he rushed into the office of the naval attache, Capt Yuzuru Sanematsu and shouted, “The winds blew”. It galvanised the workers at the embassy to begin destroying their cryptographic equipment, codebooks, and all secret documents. Supposedly, the commanders in Hawaii were kept in the dark about the worsening diplomatic situation with Japan, and were supplied with much less than the total information available to the Administration that it had obtained through the ‘MAGIC’ decrypted intercepts.

After V-J Day, President Harry Truman permitted the release of the separate army and navy investigations of the Pearl Harbour attack. The Navy Court of Inquiry headed by Adm Orin Murfin met from July 24 – September 27, 1944. They concluded that Adm Harold

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7. Kevin Alfred Storm, “East Wind, Rain: Treason at Pearl Harbour,” *Free Speech*, vol. I, no. 1, January 1995.

Stark, the Chief of Naval Operations, had failed to provide Adm Kimmel all of the information possessed in Washington D.C., thereby, denying the Hawaii-based commanders a truly complete picture of the rapidly unfolding situation. In the event, Adm Kimmel appears to have been exonerated; his plans were judged 'sound' but were dependent on "advance knowledge that an attack was to be expected". Given the limited military resources available to him, Adm Kimmel had conducted long-range aerial reconnaissance appropriate to the intelligence he had been given, and the number of aircraft available. Lt Gen George Grunert chaired the Army 'Pearl Harbour' Board, which met from July 20 to October 20, 1944 and collected evidence in Washington D.C., San Francisco and Hawaii. While the Board was critical of Gen Short, for the first time, attention was focussed on Gen George Marshall and the War Department in Washington. Gen Marshall was censured for failing to keep Gen Short fully apprised of the deteriorating state of US-Japanese relations, and of failing to correct the "sabotage alert' preparations at the Pearl Harbour".<sup>8</sup> Gen Leonard Gerow, the Chief of the Army's War Plans Division, was also reproved; the Board concluded that he had failed to keep the Hawaiian Command informed about the Japanese moves that were known in Washington D.C. and failed to make the November 27 warning clear and concise, and to see that joint army-navy plans were properly effected.

December 07 is marked every year as the anniversary of the Japanese attack on Pearl Harbour; over the years, 'the day of infamy' has become a classic reference point for rallying patriotic sentiment in America. In fact, in the wake of the September 11, 2001, terrorist attacks on America, frequent analogies to Pearl Harbour were made; but despite its central place in America's collective memory, Pearl Harbour remains little understood.<sup>9</sup> Why did Japan initiate such a seemingly self-destructive war in the first place? Was America the purely innocent aggrieved party that it made itself out to be? Were the field commanders in Hawaii solely and entirely responsible for

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8. Gen Short had been warned by Washington to guard against sabotage and so the US aircraft were bunched up wing tip to wing tip. Had he been alerted to a possible air attack the aircraft would have been scattered and sheltered in revetments, to guard against bomb blasts.

9. Eri Hotta, "Understanding Pearl Harbour," *The Guardian*, December 07, 2008.

the lapses that led to loss of aircraft, ships and casualties at Pearl Harbour? These are some of the issues that have been examined. There is no doubt that arguments can be advanced to substantiate either point of view on the issues raised, but it is still worth a pragmatic examination.

The decision to attack Pearl Harbour was reached after five months of deliberations that included numerous diplomatic engagements albeit conducted in the backdrop of various provocative steps by both sides. It was a gradual process, and some analysts are of the opinion that a more sympathetic, albeit firm, US approach might have helped sway Japan in perhaps a different direction. In fact, the Japanese government's opinion was apparently so divided at that time that it is surprising how it was able to come to some consensus in the end – perhaps goaded by certain American actions. Most of the Japanese establishment initially regarded the Soviet Union as the main threat facing their nation; others saw the US as the primary enemy, yet others were concerned with more abstract/ideological enemies such as 'Americanism' and the menace of the 'white race' (including Japan's allies Germany and Italy) against the 'yellow race'. There were even those who preferred not to fight any enemy at all, particularly the US whose long-term war waging potential was appreciated by Japan as far surpassing its own; strangely enough many dispassionate Japanese decision-makers subscribed to this school of thought. The tactical mastermind of the Pearl Harbour attack, Adm Isoroku Yamamoto, was one of them. During the summer of 1941, events unfolded in a manner that slowly but inexorably pushed Japan into a confrontation with the West; but even then, Pearl Harbour was in no way an inevitable event. Germany's attack on the Soviet Union in July 1941 compelled Japan to make plans, and see how it could take advantage of the European conflict and gain a foothold in the European colonies of Southeast Asia. The Japanese thrust into Southeast Asia led President Franklin Roosevelt's Administration to impose sanctions, an example followed by the British and the Dutch. When Japan responded by taking over the southern French Indo-China, the US retaliated by imposing an embargo on oil exports to Japan. Rather than telling Japan that the US was determined to try to seek a diplomatic solution, the American action conveyed

to the Japanese that the US was an arrogant and conceited enemy. Moreover, by transferring its Pacific Fleet from San Diego to Pearl Harbour, the US encouraged the Japanese understanding that the US fully anticipated war with Japan. There were certainly some legitimate historical reasons for Japan to feel humiliated on the eve of war, some of which were the gunboat diplomacy that resulted in the opening up of Japan and the many unequal treaties forced upon it in the mid-19th century. Closer in time to the outbreak of war was the Great Depression, and the subsequent compartmentalisation of the world that worked to the disadvantage of Japan, this economic hardship was further compounded with instances of racial prejudice in the US, that aimed at preventing Japanese immigration. But no matter how strong and historically justified such grievances may have been, high handedness, tough talk and military actions alone are inadequate responses; they only serve to further humiliate those who already feel humiliated, and alienate those who might otherwise proffer a more moderate voice.



# CRUDE POLITICS: IS IT REALLY WORTH IT?

**SANJAY KULSHRESTHA**

Energy is the basic necessity for all living beings to survive on planet earth, and no one knows this better than human beings. We also know that energy reserves in the world are not infinite. The data on the quantum of energy reserves in different parts of the world, based on scientific research, and other reliable methods is, in one way, one of the factors, which can influence the concern of any nation on the availability of this resource, which is so crucial for the sound economic growth, and development of human beings. Those who possess this wealth in abundance as of now may not be concerned about its availability, but those who do not have in abundance, or who have very limited energy resources, or have sufficient resources but not enough to fuel the fast pace of growth and economic development and are hungry for more, are now more concerned about the affordability and security of energy reserves both within their own country as well as in nations which are the producers of this vital resource.

When we talk about 'crude politics', it does not mean something that is crude in nature. In other words, crude politics is about how a nation uses its power and influence to ensure energy security, which now occupies a crucial place in ensuring the comprehensive national security of a nation. Hence, the words 'crude politics' should not

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be taken in a negative sense; they should be taken in the right spirit and played accordingly. It's a game that is to be played by applying different tactics and strategies:

- Diplomatic efforts
- Power projection (both military and economic)
- International cooperation
- Good governance
- Economic interdependence
- Huge domestic market for energy consumption
- Responsibility towards regional peace and contribution towards world peace

Oil politics is still the same game, sometimes competing, sometimes cooperating among governments, government-owned enterprises and multinational corporations, to achieve goals that are sometimes in harmony and sometimes in conflict with others.

History is replete with situations where nations have entered into conflicts and confrontations of varied scale to ensure availability of energy. Here, we will not go into the past, though it impacts the future. Instead, we will try to examine the causes, circumstances and fears, which can possibly result in potential energy conflicts.

## **POTENTIAL ENERGY CONFLICTS AND FEARS**

- **The Militarisation of Energy Security**

Today, it is difficult to imagine realistic scenarios of conventional conflict along the lines of the World Wars. But this does not mean that violent conflict will cease to trouble the world community. Warfare associated with the fragmentation of states, clashes among warlords and other shadowy contestants for political and economic influence, and attempts by the developed world to suppress dangerous behaviour by states, which operate outside international norms – all these remain familiar in the present, and likely in the future. Since 1945, war has been fought by or against inferior powers and revolutionary insurgencies with limited military potential. Although the results have often been appalling in terms of human life, the impact of such violence on the global order has been far

below what would be expected of a general war, or required to incite one.

The Cold War provided many opportunities to the US and the Soviet Union to fight each other. They never did, preferring instead to underwrite proxy wars conducted on terms calculated to limit the impact on the superpowers' bilateral relationship. Even when the Soviet Union was breaking-up, it did not attempt to save itself by rolling the iron dice of war, an expedient well known among the doomed regimes of the past. There is little doubt why this happened: the World Wars had demonstrated, beyond the illusions of even the most ideologically befuddled statesmen, that the consequences of modern war between advanced societies dwarf any prospective benefits. The spread of nuclear weapons has strongly reinforced this conclusion. One area of international life where conflict is likely is 'energy security'. It is in the energy sector that major powers can reconsider their reluctance to use force against each other. 'Energy security' has now become so central to 'national security' that threats to the former are liable to be reflectively interpreted as threats to the latter. In a world in which territorial disputes, ideological competition, ethnic violence, and even nuclear proliferation all seem capable of being normalised in ways that constrain the actual use of military force, a crisis in the global energy supply is more likely when the moment comes to hypothesise worst-case scenarios.

Since wars over energy have been limited in the past, there is good reason to be cautious about estimating their likelihood in the future. However, there is also a trend now whereby the force structure and doctrine are being shifted towards irregular warfare, counter terrorism and constabulary operations. But there is also a trend to justify preservation of heavy conventional forces, which consume the major chunk of defence spending, to fight wars to defend or seize energy resources. This is true for naval building programmes, which are presumed to secure the Sea Lines of Communication (SLOCs) which connect producers and the consumers of energy.

It can be said that the developed as well as the developing nations have strongly linked energy security to military planning and budgeting, which shows that this issue is a significant one, even if there are less probabilities of wars over energy. Both the developed

and the developing nations, that are dependent on energy for political and social development, would definitely prefer to avoid or prevent such a conflict. But there is no denying the fact that the most potent threat which is facing the international system today is definitely the possibility of war or conflict over access to energy resources.<sup>1</sup>

When we talk about the possibility of a large-scale war or conflict over energy issues, we can presume that there would not be any catastrophic situation, but there would be a situation, which would require strategic intervention on some scale by nations that are largely dependent on energy imports. The possibilities of such a situation can be:

- Seizure of energy assets by military means or destruction of such assets to deny its use by rivals.
- Serious competition among nations to exploit energy resources, leading to military confrontation in the high seas, where legal claims of sovereignty are absent. Such areas are in Southeast Asia where they are routinely contested among nations of that region, or in the Arctic and the Antarctic, where they are subject to treaty regimes whose resilience has not been seriously tested.
- Indirect control of energy assets through the creation of puppet states.
- Protection of, or attacks on, energy production centres and the transportation routes like oilfields, pipelines, refineries, etc.
- Active military control of international straits through which energy assets move.
- Creating exclusive energy trading blocs, which existed before 1945, during the imperial period.
- Transfer of military assets to energy producing nations with a view to control the market or to enable such states to impose themselves upon neighbouring states.

It is safe to assume that war by a major power over energy resources will have serious consequences for the world economy, which will in turn have its impact on the collaborators and potential enemies as well. Therefore, militarisation of energy security needs to be envisioned

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1. Daniel Moran and James A. Russel, Energy Security and Global Politics, *The Militarisation of Resource Management*, (New York: Routledge, 2009), pp. 1-2.

within a context of strategic anxiety and severe economic stress. Such conditions have occurred in the past in the 1930s. However, today the West and the developed nations possess sufficient military resources to intervene in the energy market, should they wish to do so. However, developing nations have the least leverage in the energy markets, but it may also force them to use the military option in moments of despair. But the oil-producing states always have the option to approach the major consumer states in times of crisis. The emergence of such commercial relationships, in anticipation of a deteriorating energy market, is one of the more likely ways in which the militarisation of energy security may unfold.

- **US Interests in Energy Market**

Unlike other non-military aspects of security, energy security has had the most direct connection with the military concept of security. During World War I, Winston Churchill's readiness "to shed a drop of blood for every drop of oil" remains the most quotable quote to illustrate the point. A few decades later, President Jimmy Carter enunciated what came to be known as the "Carter Doctrine". In a State of the Union message in 1980, he said, "An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the USA and will be repelled by any means necessary, including military force". The implementation of the doctrine saw the creation of the 1,10,000-strong fast-moving, hard-hitting Rapid Deployment Force. Churchill intended to secure energy during war-time using military means. Carter was prepared to secure energy in peace-time by military means.<sup>2</sup>

The US, in late 2006, convened a policy group the Council of Foreign Relations. This group did a study and concluded: As the world market for oil relies on increasingly distant sources of supply, often in insecure places, the need to protect the production and transportation infrastructure will grow. In such a situation, it was felt by the US that the regionally deployed US forces, especially the US naval forces, will have to provide such protection".

The US is the world's leading consumer of energy, so it is natural for the US to express concern over the uninterrupted flow of energy

2. Gulshan Dietl, "New Threats to Oil and Gas in West Asia: Issues in India's Energy Security", *Strategic Analysis*, vol. 28, no. 3, (Institute of Defence Studies and Analyses), July-September 2004, p. 374.

supplies. In fact, other nations like China, Russia and Japan are also thinking on similar lines. For example, both China and Japan have stated that they would not shy from using military to secure offshore gas fields in the East China Sea. Hence, reliance on military instruments to ensure access to energy sources and to guarantee their safe delivery is a concern not exclusively of the US, but one which is shared by many energy consuming nations.

Today, it is a fact that petroleum is a finite source. If it was sufficient to fulfill the requirements of the consumers, then there wouldn't have been the issue of using the military for such protection. In fact, use of military instruments would be considered an unnecessary impediment to the efficient operation of the market, so the same would be discouraged. But policy-makers around the world are getting pessimistic about the sufficiency of petroleum supplies and unimpeded delivery, and it is from this anxiety that pressures for militarisation of energy security arise.

In a testimony before the Senate Foreign Relations Committee in 2005, the US Secretary of Defence and Energy, James R. Schlesinger, identified some of the components of this pessimistic outlook that underlies the militarisation of energy security:

- The global output of petroleum will reach its peak beyond which it will not recover.
- Not only the US but the entire world will be affected by this turnaround in production.
- Whatever remains of the global oil reserves will be in the Middle East and other areas of volatility, thereby increasing the risk of disruption.
- The result would be systemic insecurity, thereby colouring relations between all major powers.<sup>3</sup>
- Competitive arms diplomacy.

At present, the US is the only nation which possesses the capacity to conduct infrastructure protection and access-assurance operations on a global basis. There are a few nations like Russia, China, India and Japan that possess limited capability to protect the sea-lanes and oil infrastructure in neighbouring seas and countries, but they do not

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3. Moran and Russel, n. 1, pp. 39-40.

possess the ability to project power to protect distant oil producing nations in the Persian Gulf and West Africa. However, most of these nations are now increasing their capacity to engage in competitive arms diplomacy, including arms transfers and military aid, as a tool of influence in pursuing foreign oil supplies, a practice most evident in Africa and the Caspian Sea basin.

The US and China both have provided military assistance to Nigeria, Sudan, Kenya, Sierra Leone, Tanzania and other African states. These transactions include delivery of military hardware, vehicles, ammunitions, communication gear, and so on. In the Caspian region, the process of military support is at a much higher, advanced and dangerous level, whereby all three nations viz. the US, China and Russia have provided military inducements to gain access to the vast energy reserves of Kazakhstan. Though the military inducements are often touted as a boon for security cooperation, these also have a tendency to heighten traditional suspicions and rivalries that plague the region, thus, increasing the risk of future crises and conflicts with the major powers directly or indirectly involved.<sup>4</sup>

- **Inadvertent Escalation**

A full-scale war or conflict among major powers over energy is a remote possibility. But there is a possibility which still exists, whereby, in their relentless struggle for dwindling energy stocks, the major powers will engage in provocative behaviours that will erode the firewall between peace and war, increasing the possibility that a minor incident may trigger something far more explosive. This will be a situation of 'inadvertent escalation' where none of the actions taken by one side would be intended to provoke a military action by the other parties, but it will be a cascade of such actions, each more severe than the one preceding it, that would eventually lead to eruption of war. In today's world, it is this sort of scenario, and not the deliberate initiation of hostilities that poses the risk of great-power conflict over energy.

- **Energy Resource Mercantilism**

Some of the most significant policy problems associated with the militarisation of energy resource management are posed by the deepening engagement of the world's most important rising powers,

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4. Ibid.

China and India, with the world's most important energy producing regions. Although the US has enjoyed hegemonic status in the Middle East, both China and India have intensified their economic, political, strategic and diplomatic ties to the energy producing states. This strategy of pursuing energy security may be termed as 'resource mercantilism' – the use of economic and foreign policy instruments by national governments to help their state owned energy companies secure access to overseas energy resources on more privileged basis than simply supply contracts based on market prices. There are strategy analysts who feel that there is a potential for Sino-Indian conflict over access to the Gulf's energy sources. Such scenarios are often used to bolster the US-India strategic cooperation to contain the growing influence of a rising China.<sup>5</sup>

- **Analysis**

The major factors, which would influence the supply and demand of oil and gas in the future, are:

- Power politics and intense competition for energy among major players would acquire different dimensions of varied interests. The US policy of securing its energy requirements in the energy producing nations, especially the Persian Gulf, and the interests of major powers in the South China Sea as well as in the Central Asian region would be an important factor for energy security in the world. Oil politics is still the same game, sometimes competing, sometimes cooperating among governments, government-owned enterprises and multi-national corporations, to achieve goals that are sometimes in harmony and sometimes in conflict with others.
- The Persian Gulf region would remain the major source for the world for future energy requirements. This region would become more important in the future, both as a percentage of total production and exports as well as a player in influencing the oil prices. And the importance of this region for Asia will grow with China, India, Japan and South Korea increasingly hungry for energy to sustain their growth. Potential conflicts in key energy rich areas and disruption of transportation routes in the seas can have serious consequences for the

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5. Ibid, p. 2.

energy hungry nations, especially those dependent on high-energy imports, like India, Japan and China.<sup>6</sup>

- Energy is the main thread in the economic, political and national security priorities throughout Asia. Japan, China and India are the giants of consumption; Russia, China and Indonesia are those of production. The nations of the region are certainly nationalistic, each subject to contrary domestic trends of energy internationalism and political autonomy.
- History demonstrates that nations will pursue policies and take action, including military action, which might seem counter to economic logic, if deemed necessary in the pursuit of national security. Hence, as an exemplar of Asian energy issues, and one of the dominant, and the most expansive of the region's nations, China, in its aggressive and expansive approach, may well hold the key to the role that the pursuit of energy security will play in future Asian developments. And India is fast approaching this line of China in its pursuit of national energy security policy, and is even exploring the energy sources in the South China Sea, along with Vietnam, which China claims as its integral part. Of course, the area is still under dispute between the nations bordering the South China Sea.

Crude politics is a reality; it has existed for so many years, and would continue to influence the foreign policy of any nation, which regards energy as a vital ingredient for sound economic growth and development. And India has, so far, played its cards pretty well. This realisation on the part of India about the importance of energy to fuel its demand for rapid economic growth is not something, which has come suddenly. In fact, it has been there for a long time. The only difference is that, in the past, India has performed its role in oil politics, rather less actively or, may be it was in keeping with its requirement for normal economic growth. But, today, India has been a rapidly growing economy for almost a decade. It is in the process of carving its suitable place in the world economy. And the world,

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6. Air Cmde Jasjit Singh, *Oil and Gas in India's Security* (New Delhi: Knowledge World, 2001), pp. 20-21.

especially the major powers, have come to understand this reality. Even oil-producing nations have now underscored the energy appetite of India to fuel its economic growth. The recent reaction of India to assert its need for energy requirements from Iran despite trade sanctions from the US and the EU on Iran, is an example which reflects India's quest for a dignified place in the comity of nations, which would go a long way in sustaining its sound economic growth. Of course, there would be obstacles in following this path, but these, in any case, have to be overcome with astute diplomatic efforts and clever crude politics. Here, it would not be out of place to highlight some positive attributes of India, which is proving to be an example of a mature and a responsible nation looking for a dignified place in the comity of nations:

- India is a vibrant democracy. It has proved to some of its immediate neighbours in particular, and the world in general, that democracy, despite its weaknesses, is the best system of governance, which can guarantee all round comprehensive development of its citizens.
- India believes in peaceful coexistence with its neighbours. This is a crucial principle of India's foreign policy. It is reflected in the way India has strived to resolve outstanding disputes with both Pakistan and China.
- The policy of non-alignment, which India adopted after its independence, was the best option during that time when the Cold War was on between the US and the erstwhile Soviet Union. Such a policy indicated non-alignment with both the superpowers to preserve not only India's dignity and sovereignty, but also its autonomy in decision-making. In fact, with non-alignment as the founding pillar of India's foreign policy, the world has come to acknowledge India's rise and the bigger role it can play in maintaining regional peace in the immediate future, and world peace in the long-term.
- India has always exercised strategic restraint in the past, which has prevented the threat from Pakistan and China from escalating to dangerous levels. This was India's approach during the four wars with Pakistan but, perhaps, it was not so visible to the world due to its preoccupation with the Cold War, and may be because

of various other reasons. In fact, India's strategic restraint is a great contribution towards peace in the South Asian region. And the world has rightly come to recognise this or perhaps it has become more visible to them now than in the past.

- Today, India has nuclear deterrence capability. This reality has already been accepted by the world, especially the major powers. But the world also knows that a 'nuclear India' will treat its position responsibly.
- India is rising as an economic power. There are issues of economic inequalities and inequitable distribution of wealth, but India is ready to take on the task of inclusive growth and comprehensive national development to ensure a reasonably good standard for all its citizens. The rising India is now beginning to have its 'say' in the global politics.



# REVISITING THE 1971 WAR

**NISHANT GUPTA**

Forty years ago, India won the 14-day Bangladesh War in an unprecedented and unambiguous manner. The war culminated in the dismemberment of Pakistan, and Bangladesh was born as the eighth most populated nation with 78 million people.<sup>1</sup> It is pertinent to revisit the war and study the politico-military aims and objectives in conjunction with the diplomatic challenges.

War is an extension of diplomacy. War aims are dictated by political mandates and are guided by the national grand strategy, which is an outcome and interplay of several complex issues, including national philosophy and mindset; prevailing geo-political situation; domestic economic, political and military set-up; and, of course, the threat perception and the desired end state. Moreover, politico-military aims and objectives are dynamic in nature, and are required to be reviewed and modified with time.

## **BACKGROUND**

The repression of the Bengalis had been continuing all along and enunciation of the six-point programme presented by Sheikh Mujibur Rehman in February 1966 was an important landmark in the emergence of the struggle against the autocratic and feudal leadership of West Pakistan. The strained relations between East and West Pakistan further

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1. TIME Magazine, "Bangladesh: Out of War, a Nation Is Born", December 20, 1971.

worsened with the trumped-up 'Agartala Conspiracy Case' in June 1968, wherein the Sheikh and Awami League leaders were arrested for anti-national activities, and a nationwide student strike mushroomed into a general uprising, which forced Gen Ayub Khan to retire and handover the power to Gen Yahya Khan, the Army Commander-in-Chief.

Thereafter, the political crisis intensified with the December 1970 elections wherein Mujibur Rehman's Awami League secured absolute majority by winning 167 out of 169 seats in East Pakistan. However, instead of honouring the independent adult franchise and inviting Mujibur Rehman to form a democratic government, the West Pakistan elite postponed the formation of the National Assembly and attempted to retain political power through the use of brute force, in line with their presumed ethnic superiority. The crisis worsened on March 25 with the arrest of Mujibur Rehman coupled with a military crackdown in East Pakistan. The very next day, the Awami League formed the Provisional Bangladesh Government in Exile at 'Mujibnagar' and declared the independence of Bangladesh from West Pakistan. India's primary concern was the trail of refugees who were pouring in from East Pakistan to escape the genocide and ethnic cleansing perpetrated by the Yahya Khan regime.

### **WAR OBJECTIVES**

Having stated that, let us study and analyse the aims and objectives of the 1971 War. Any political action or policy can be interpreted in many different ways, and a variety of inferences can be drawn about the intentions behind it. The same subjectivity holds good for the war aims and objectives. With regards to the 1971 War, in place of presuming hidden agendas and motives behind it, which would vary with individual perceptions, it is better to start with the well defined official military objectives. The Indian military objectives were articulated some time in October 1971:<sup>2</sup>

- To assist the Mukti Bahini in liberating a part of Bangladesh, where the refugees could be sent to live under their own government.
- To prevent Pakistan from capturing any Indian territory of

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2. S.N. Prasad, *History of Indo-Pak War, 1971* (New Delhi: History Division, Ministry of Defence, 1992), p. 279.

consequence in Jammu and Kashmir, Punjab, Rajasthan or Gujarat. This was to be achieved by offensive-defence and not by merely passive line holding.

- To defend the integrity of India from a Chinese attack in the north.

A detailed analysis of these military objectives will help us in interpreting the political war aims and objectives.

### **RESETTLEMENT OF REFUGEES**

Due to the politico-military perpetrated atrocities, the influx of refugees kept on rising, and their number increased to an alarming figure of around 9 million. The enormity of the refugee crisis had several dimensions, including the economic, social, communal, security and political. Let us consider the social and political concerns:

- **Security**

Pakistani agents and spies had also infiltrated in the guise of refugees and in retaliation to the activities of the freedom fighters, the Pakistan Army was frequently intruding into Indian territory. Fortunately, the Inter-Service Intelligence (ISI) had not yet gained significant stature and did not play any major role.

- **Political**

- **Domestic Pressure:** There was a tremendous domestic pressure on the newly elected government to take stern action to resolve the crisis and the general public opinion was to grant recognition to Bangladesh and its Provisional Government in Exile. On March 31, one of India's great strategic analysts K Subrahmanyam, Director, Institute of Defence Studies and Analyses (IDSA) stated during a symposium: "What India must realise is the fact that the break up of Pakistan is in our interest, an opportunity the like of which will never come again".<sup>3</sup> But political leadership did not recognise Bangladesh in isolation without garnering adequate international support. Therefore, tremendous restraint was exhibited despite severe domestic pressure to recognise Bangladesh and dismember Pakistan. Nevertheless, Pakistan felt that IDSA had played a great role

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3. Maj Gen Sukhwant Singh, *India's Wars Since Independence: The Liberation of Bangladesh* (Delhi: Vikas Publishing House, 1980), p. 93.

in strategising the conflict and liberation of Bangladesh.

- **Leftist Movement:** The underground Naxalite and extreme leftist movements were on the rise in India; even today, Naxalism is termed as *the greatest threat to the nation*. The possibility of strengthening of this anti-government movement was possible as certain likeminded groups of East Bengal were present amongst the refugees.<sup>4</sup>
- **Pakistan's Agenda:** East Pakistan constituted nearly 60 per cent of the country's population.<sup>5</sup> The huge, unending exodus of refugees was serving the Pakistan interest in many ways:
  - The Majority of East Pakistan over West Pakistan would be reduced or eliminated.
  - Voting patterns would alter in the favour of West Pakistan.
  - The Hindu refugee exodus would help in making the population of Pakistan more homogeneous or 'Islamic'.
  - The refugee population would induce financial, social, political and communal turmoil for India for an indefinite period.

Thus, the primary political aim was resettlement of the refugees in their homeland.

### **OWN BANGLADESH GOVERNMENT (SENSITIVE TO REFUGEES)**

All along, India was looking for a political settlement. Under the international pressure, the Pakistani military ruler had announced a 'transfer of power', and had taken some steps to bring about some cosmetic changes in the constitutional and administrative set-up. On May 21, 1971, President Yahya Khan claimed restoration of law and order and normalisation of life, and welcomed the bonafide Pakistani citizens back home.<sup>6</sup> But the army-imposed Constitution was nothing but an eyewash, and the genocide continued. Therefore, setting up

4. Prasad, n. 2, p. 808. East Bengal had many left wing Communist Parties like East Pakistan Communist Party (Marxist and Leninist), East Bengal Communist Party. Moreover, the Mukti Bahini also had some dedicated left groups like Abu Tahar, Ziauddin and the secret Jatyo Samajtantrik Dal (JSD).

5. Jasjit Singh, *Defence from the Skies* (New Delhi: Knowledge World, 2007), p. 122.

6. Prasad, n. 2, p. 125.

of an independent government, sensitive to the refugees, was an inescapable requirement. Moreover, India's interest was to establish a friendly government, which is not inclined towards China.

### **ASSISTANCE TO MUKTI BAHINI**

India preferred to employ minimum military force to achieve political objectives. Initially, the military was not involved and para-military forces (Border Security Force) gave tacit support to the Mukti Bahini. However, gradually, the quantum of support increased and turned from tacit to active. Finally, as a last resort, the military was also involved. The war aim to 'assist the Mukti Bahini' suitably vindicated India's political stand that the Bangladesh problem was Pakistan's internal problem and not an Indo-Pak issue—rather, India had got sucked into it.

**Liberating a Part of Bangladesh:** The aim was restricted to liberation of a part of Bangladesh and not Dhaka.<sup>7</sup> Why? The political agenda was to create a base to shift the Provisional Government of Bangladesh in Exile to its homeland from where political negotiations could be initiated with West Pakistan to arrive at a mutually acceptable solution to the crisis. Workable options like, confederation of Pakistan or full integration with equal rights could be explored. The military reason for opting for a considerably conservative war aim was the likelihood of an early international intervention. The past experience of the UN intervention in the Kashmir War was not encouraging as Kashmir continues to be the oldest item on the United Nations agenda, which remains unresolved even today.<sup>8</sup>

Hence, the strategy was to capture sufficient area bordering the Brahmaputra and Meghna river lines, while the thrust lines in Bangladesh were to isolate and by-pass the Pakistani forces through a lightning campaign rather than addressing Dhaka, which would take time.

### **DEFENSIVE POSTURE**

The second military objective highlights the defensive posture

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7. D.K. Palit, *War in High Himalaya* (New York: Lancer International, 1991), p. 432.

8. S. Paul Kapur, "India and Pakistan's Unstable Peace", *International Security*, vol. 30, no. 2 Fall 2005, p. 143.

adopted on the Western Front. The aim was to defend own territory without any territorial aspirations over West Pakistan. There were many reasons for adopting this posture.

- **Moral High Ground:** It emanates from India's rich cultural heritage. Historically, India has neither attacked any nation nor had any aggressive policies. The use of force has always been a last resort that too for a just cause.<sup>9</sup>
- **Past Experience:** After the 1965 War, all the territorial gains were returned on the negotiating table. Rather, the war aims themselves mandated occupation of only the minimum Pakistani territory necessary to foil Pakistan's attempts to grab Kashmir by force. This was to be vacated after the satisfactory conclusion of the war.<sup>10</sup>
- **International Posturing:** The nation had to aptly demonstrate to the world that it did not have any intention to occupy Pakistani territory on the Western Front.
- **Public Reaction:** The fear of loss of morale and panic reactions of public over the initial military reverses could not be ruled out. Due to similar fears, combat air power was not employed in 1962, and the Indian Air Force (IAF) was not permitted to open up the Eastern Front in 1965.
- No loss of territory was mandated to deny any bargaining advantage to Pakistan in the post-war negotiations.

**Military Handicap:** The aim was to defend the western borders, and the military objectives were even more conservative than those of the 1965 War. However, this restriction became a great handicap for the armed forces as it tied their hands and inhibited aggressive planning and bold initiatives. Since on the Western Front the opposing forces were in comparable strength, the enemy could be defeated only by superior planning and strategy.<sup>11</sup> With the mandate of no loss of Indian territory, the planners and commanders were constrained to spread out the troops evenly along the entire front, and to hold back

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9. Leonard Cheshire, during a lecture at USI, Delhi in 1972, stated that the Bangladesh War had been the only just war in recent history.

10. R.D. Pradhan, *Debate to Revival: YB Chavan as Defence Minister 1962-1965* (New Delhi: Orient Longman, 1998), p. 262 defines Indian war objectives of 1965 War.

11. The numerical superiority of the Indian military was just about 1.5:1, which was nowhere near the classical 3:1 superiority required for a successful attack against a well-defended army.

at every level sufficient reserves to counter attack and regain territory quickly in case of enemy incursions.

On the other hand, the Pakistani commanders did not have any such restrictive mandate and were free to regroup their forces freely and conduct their operations as per the military requirements; rather, the Pakistan strategy was to defend the East through West.

## CHINA

The China-Pak-US Axis was going strong and posed a great security threat to India. Earlier, Henry Kissinger, the US Secretary of State, had been assuring India that in the case of a Chinese military intervention, the US response would be pro-India and it would be as strong as it had been in 1962. But after Pakistan mediated a secret visit to China in summer 1971, he did a volte-face, and told the Indian Ambassador, L.K. Jha that the US would not intervene in any conflict between India and Pakistan even if China intervened in support of Pakistan. Thus, in pursuit of establishing good relations with China, the US took a pro-Pak stand.

Zulfikar Ali Bhutto also visited China in early November 1971 as the head of a politico-military delegation and met Chinese Prime Minister Zhou Enlai on November 07. Pakistan claims that its government was assured of resolute support in its “just struggle” to defend its integrity;<sup>12</sup> however, in view of its military deployment at frontiers with the erstwhile Soviet Union and the frozen Himalayan passes in winters, the likelihood of a military intervention was extremely limited. Hence, the aim was to contain the Chinese threat diplomatically; if the diplomatic efforts were to fail, the military had be prepared to safeguard the northern borders.

**Soviet Union:** Compelled by the US-Pak-China nexus, India reached out to the erstwhile Soviet Union and signed a 20-year Indo-Soviet Treaty of Peace, Friendship and Cooperation on August 09. The trigger for the treaty was Nixon’s announcement of July 15 regarding his visit to China. The treaty was concluded within about three weeks. Mostly, it was a treaty for mutual peace, friendship and cooperation with some security provisions under which, if either of the countries were faced with the threat of an attack, it would immediately enter

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12. Gen A.A.K. Niazi, *The Betrayal of East Pakistan* (Delhi: Manohar Publishers, 1998), p. 97.

into *mutual consultations* to remove such a threat. India exercised precautions, exhibited a balanced approach by avoiding any specific provisions for military cooperation, and made provisions only for 'mutual consultations'. Thus, India continued with the policy of non-alignment and just leaned towards the erstwhile USSR.

### **INTERNATIONAL DIPLOMACY**

In geopolitics, international opinion is of great significance. To find a diplomatic solution to the crisis, the Indian diplomatic machinery worked in full force and Mrs. Indira Gandhi made a 3-week-long 6-nation tour in November 1971. But international community just paid 'lip service' and the diplomatic efforts failed to avert war. However, the efforts immensely helped the UN, and despite seven draft ceasefire resolutions, India was able to avoid the UN intervention during the prosecution of war.<sup>13</sup>

### **THE CONDUCT OF WAR**

Despite all diplomatic measures, the possibility of a war was being considered since March 1971, which gave the nation the luxury of nine months of preparatory time.<sup>14</sup> On December 03, following the concept of defence of the east lies in the west', Pakistan declared war against India by attacking airfields on the western borders, attempting to imitate the Israeli strategy of the 1967 Arab-Israel War. Due to low serviceability, poor planning and bad execution, the force of attack was not enough to make any impact on the well prepared IAF.

On the eastern front, total air dominance was achieved by the IAF within the first two days of the war.<sup>15</sup> Thus, the Army freely operated without any interference from the enemy air, and IAF employed more resources towards Army and naval cooperation. Army operations were expedited through heli-bridging and the Tangail para-dropping, and Dhaka fell in just fourteen days.

On the western front, an offensive-defence was maintained. Because of unforeseen success in the East, some forces were moved

13. TIME Magazine, "The World: India: Easy Victory, Uneasy Peace", December 27, 1971.

14. Air Marshal C. V. Gole, "Air Operations in the Western Sector During 1971 Indo-Pak War," *The Journal of the United Services Institution of India*, July-September 1990, p. 276.

15. During a personal interaction, an Army war veteran has accepted the dominant role of the IAF during the war.

from the Eastern sector to the Western sector during the war. During the course of the war, the military ended up occupying 5,139 sq miles of Pakistani territory, which was returned subsequently.<sup>16</sup>

### THE US INTERVENTION

In 1971, the US Ambassador in Delhi, Mr Kenneth B. Keating, had opined in mid-April itself that Pakistan was probably finished as a unified state.<sup>17</sup> The US Administration followed a pro-Pakistan path chosen by Nixon and Kissinger. Nevertheless, Kissinger, during one of his visits to India, conveyed to Air Cmde Jasjit Singh, Director, IDSA, that the US and India had a common goal to see Bangladesh as an independent country.<sup>18</sup> Then why did the US support Pakistan? Probably as per the US calculations, the Punjabi politico-military set up was more willing to toe the US line than Bengali majority Pakistan government.

The US showed its military presence in the region by positioning the US Task Force 74, spearheaded by the nuclear powered aircraft carrier, the USS *Enterprise*, in the Bay of Bengal on December 15 under the guise of contingency planning for evacuation of some 47 Americans who voluntarily remained in Dhaka.

The Indian military objectives did not cater for any US military intervention since it was not anticipated. Nevertheless, India did not find the US reasoning logical and took it as an attempt to evacuate Pakistan troops to the West. To prevent such evacuation, the IAF was ordered to destroy all ships in the Bangladeshi harbours; to keep all East Pakistani airports under constant attack to deter helicopter landings; and to prepare to sink any Pakistani troop ships attempting to link up with the US Task Force. Thus, India effectively and fearlessly handled the US attempt to deter the nation militarily. However, the US actions in the UN were a greater cause of concern.

### UNILATERAL CEASEFIRE

On December 16, the war on the Eastern front ended with the fall of Dhaka, and the surrender of Gen A.A.K. Niazi at a public ceremony.

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16. Dennis Kux, *India-Pakistan Negotiations* (Washington D.C.: United States Institute of Peace, 2006), p. 36.

17. Air Chief Mshl P. C. Lal, *My Years with the IAF* (New Delhi: Lancer International, 1986), pp. 333-334.

18. Personal interaction with Air Cmde Jasjit Singh.

India had an option to capitalise on the victory in the East and the high morale of the forces, and strengthen its military operations in the West. Nevertheless, India preferred strategic restraint and ended the war at the earliest by declaring a unilateral ceasefire in the West immediately after the military surrender in the East. In addition to strategic restraint, the factors that must have contributed to the decision of unilateral declaration of the ceasefire, are:

- **Low Risk-taking Capability:** Unlike the US, the nation has a low risk-taking capacity. Initial losses in the war might have led to a public outcry.
- **Chinese Threat:** India was not willing to test Chinese patience any more. At the UN Security Council meetings, the Chinese delegate, Mr Huang Hua, insisted that India was interfering in the internal affairs of Pakistan and demanded an immediate ceasefire.
- **US Intervention:** By positioning the USS *Enterprise* in the Bay of Bengal, the US had given a strong signal to India. In the UN Security Council meeting, Mr. George Bush, the US delegate, had even branded India as an “aggressor”.
- **UN Resolutions:** In spite of various attempts by the US, Pakistan and China, the UN intervention was kept at bay. However, with an offensive posture in the West, it could have become a difficult proposition.
- **Soviet Insistence:** The Soviet diplomatic and military support was crucial for India. Prolonging the avoidance of the US military involvement, and the UN’s intervention might have become difficult for the erstwhile Soviet Union.

## CONCLUSION

The Indian war aims and objectives were limited in nature and, generally, limited aims result in limited gains. However, in the Eastern front, complete air dominance and exceptionally favourable circumstances led to an unexpected and unforeseen comprehensive victory, leading to the liberation of East Pakistan. Despite an undisputed military victory in the war, the political fruit was not as satisfying as expected. One of the important political aims of having friendly relations with the government of Bangladesh could

not be sustained beyond the honeymoon period, and relations remained problematic and frequently tense. In the West, the Simla Agreement neither solved the Kashmir problem nor reduced the threat from Pakistan. Rather, some analysts have argued that the dismemberment of Pakistan simplified its security problems from a strategic perspective.<sup>19</sup>

A democratic and peaceful subcontinent would always be in India's interest. A political solution to the Bangladesh crisis would have been much better, for which India should have aggressively pursued mediation between the Bengali leadership of East Pakistan and the Punjabi politico-military leadership of West Pakistan. A workable political breakthrough could have avoided the war and the resulting opinion of many Pakistanis that the war was intended to 'undo partition' and fragment Pakistan.

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19. John H Gill, *An Atlas of the 1971 India-Pakistan War: The Creation of Bangladesh*, (Washington D.C.: National Defense University, 2003), p. 66.



# IMPERATIVES OF SPACE SECURITY

YEON JUNG JI

In January 2012, the Obama Administration was reportedly sketching a new space arms control initiative that would broadly contain the European Union (EU) draft Code of Conduct.<sup>1</sup> Reportedly, it is an attempt to outline the international norms and connote commencement of the obligation for non-threatening activities in space. It aims at encouraging transparency among nations that have space programmes and diminishing the damage caused by hazardous debris, and generally makes an international call for space security considerations. However, this announcement implies the possibility of an arms control treaty, which following the space policy unveiled last year, is completely averse to the US unilateral stance supported by the Bush Administration. Obama's new plan is domestically facing tremendous critics, and there are concerns over the US space military capability and dominance cornering into limitation. Russia and China, who proposed a joint draft treaty in 2008 on the Prevention of the Placement of Weapons in Outer Space and the Threat or Use of Force against Outer Space Objects (PPWT), declined to comment.<sup>2</sup> Though there is a common understanding on preventing placement of weapons in outer space, it seems to be difficult to construct a

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1. Bill Gertz, "New Space-Arms Control Initiative Draws Concern", *The Washington Times*, January 16, 2012.
2. "Obama Reverses Bush's Space Policy", *The New York Times*, June 28, 2010.

universal norm owing to strategic calculations on space control.

Apparently, the ambition of space dominance would inevitably boost an arms race and technology proliferation with respect to air, ground, naval, and nuclear capabilities, despite the increasing global concerns.<sup>3</sup> Space programmes from many countries are closing the gulf of asymmetric space military capability. This also sketches a potential framework of space militarisation regarding the proliferation of military technology, most likely within the current linkage of technological collaboration (if others can challenge this in cost-effective ways), and aerospace command. Simply put, experts presume that the renewed perception of an arms race will be noticed in space warfare, though the traditional arms race was symbolised by nuclear weapons on the earth during the Cold War.<sup>4</sup> Interestingly, the pattern that is constructed by global powers anticipating their future space dominance through developing space warfare capabilities, seems to be similar to when nuclear groups were divided into the 'haves' and 'have-nots'.

### **ALARMING SPACE ARMS RACE**

In general, the weaponisation of space seems to be an inevitable option among states.<sup>5</sup> Indeed, it may be tough to balance between 'space assurance' in a defensive posture and 'space dominance' in a more offensive way if adversarial states decide to develop, test, and deploy various types of Anti-Satellite (ASAT) weapons or other weapons in outer space.<sup>6</sup> In the pursuit of dominance in space warfare, the development of space weapons would portend changing strategic calculations that would be difficult to predict the actual operating range of these weapons.<sup>7</sup> While a number of countries like the US

3. Michael Krepon and Michael Katz-Hyman, "Space Weapons and Proliferation", *The Nonproliferation Review*, 12(2), 2005, pp. 323-341.

4. Ibid.

5. Anton Saviliev, "The Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force", *Celebrating the Space Age: 50 Years of Space Technology, 40 years of the Outer Space Treaty-Conference Report April 02-03*, (Geneva, Switzerland: United Nations Institute for Disarmament Research, 2007), pp. 113-117.

6. Michael Krepon, *Space Assurance or Space Dominance? The Case Against Weaponizing Space* (Washington: The Henry L. Stimson Center, 2003), p. 28.

7. Anton Saviliev, "The Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force", *Celebrating the Space Age: 50 Years of Space Technology, 40 years of the Outer Space Treaty-Conference Report April 02-03*, (Geneva, Switzerland: United Nations Institute for Disarmament Research, 2007), pp. 113-117.

are building a Ground-based Midcourse Defence (GMD) system, Russia and China are already known to have developed anti-satellite weapons; the US-China military space relationship pays more attention to security dilemmas than other competitors like India and the European countries.<sup>8</sup> Both the US and China have expressed pessimistic views about the military space relationship and arms control in the future.

The space superiority, in particular, was openly underlined by the US government for the sake of protecting space assets, and increasing the defence system against attack.<sup>9</sup> The US proclaimed its outlook for 'full-spectrum dominance', including space, through Joint Vision 2020 released in May 2000. In 2001, the US action to withdraw the Anti-Ballistic Missile (ABM) Treaty marked the US space strategy for space superiority.<sup>10</sup> In the same year, Donald Rumsfeld, Chairman of the Commission to Assess US National Security Space Management and Organisation, reemphasised the importance of space dominance and weapons capabilities to ensure national defence, including probable deployment of weapons in space to defend and deter attacks, if necessary.<sup>11</sup> Michael W. Wynne, former Air Force Secretary, again reiterated the position in 2007: America's domination of the space domain provides an unrivalled advantage for our nation.<sup>12</sup> And after China tested its ASAT capability to destroy satellites, the US also launched a missile to target an outdated spy satellite. Though at present the US approach to prevent militarisation of space seems to be reversed in the Obama Administration, it does not reduce the importance of space-based weapon capabilities and it is unclear if Obama's new agenda will be successful in dissuading domestic criticism. Rather, based on the current speed of technological development, it would be impossible to envisage future warfare scenarios owing to the unpredictability and dramatic change of

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8. Baohui Zhang, "The Security Dilemma in the U.S-China Military Space Relationship", *Asian Survey*, 51(2), 2011, pp. 311-332.

9. Krepon, n. 6.

10. Kiran Nair, "Putting Current Space Militarisation and Weaponisation Dynamics in Perspective", in *Celebrating the Space Age* (Geneva, Switzerland: United Nations Institute for Disarmament Research, 2007), p.102.

11. "Weaponisation of Space", <http://www.nuclearfiles.org/menu/key-issues/space-weapons/basics/introduction-weaponization-space.htm>.

12. Michael W. Wynne, "Space: The Ultimate High Ground Creating Strategic and Tactical Conditions for Victory", *High Frontier* 3:4, 2007, p. 4.

weapons' capabilities. It subsequently leads to a preemptive scenario to arouse the space arms race due to the current international reality where more competitors are expected to rescind uncertainty against sudden use of space weapons.

On the other hand, Chinese leaders appear to believe that China's readiness should be prepared, and all possible steps for space weaponisation taken, until an agreeable international regime is established.<sup>13</sup> China believes that it has to overcome its asymmetric space posture to counter US space dominance, which is reflected in China's military space agenda. China's military space aim was proven by China's successful satellite intercept test against a weather satellite in 2007. The hugger-mugger test conducted by China inflamed vehement critics from several Western countries, and it especially alarmed the US strategic community on the subject of space security and space command. The negative response from the West seemed to be a turning point in China's engaging in the weaponisation of space. China's posture on space security was reasserted at the end of 2009, maintaining that the militarisation of space contains a historical inevitability.<sup>14</sup>

In responding to China's anti-satellite test carried out by a ballistic missile in early 2007, India seems to perceive the necessity of joining the space race seriously and accelerating its plan toward protecting its space assets, directed by the Indian Space Research Organisation (ISRO) and the Defence Research and Development Organisation (DRDO). Since 2006, DRDO has conducted seven trials of the interceptor missile that intends to achieve anti-satellite technology by completing a two-layered ballistic missile defence shield.<sup>15</sup> The Indian Air Force (IAF) endeavoured to draw up a plan in which India must integrate its space assets into the defence architecture to counter the attack from space through Defence Space Vision 2020, and formulate an Aerospace Command to utilise space in the event of a war.<sup>16</sup> Russia is another major stakeholder to obtain anti-satellite

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13. Zhang Hui, "Space Weaponization and Space Security: A Chinese Perspective", *China Security*, 2(1), 2006, pp. 24-36.

14. Baohui Zhang, "The Security Dilemma in the U.S-China Military Space Relationship", *Asian Survey*, 51(2), 2011, p. 311.

15. "Interceptor Scores a Direct hit on Target Missile", *The Hindu*, February 10, 2012.

16. IPCS, "Why Does India Need an Aerospace Command?-Analysis", *Eurasia Review*, February 01, 2012.

weapons. Its endeavour to pursue ASAT missions has been tracked by the Soviet military space activities so far. In 2011, Gen. Valentin Popovkin confirmed that Russia had acquired some key elements of such technology, impressing that Russia's position to oppose a space arms race is still valid; however, it would be responsive to other parties' moves.<sup>17</sup>

Technically, though deployment of Weapons of Mass Destruction (WMD) in outer space is prohibited by the Outer Space Treaty of 1967, a number of space weapons, including space-based kinetic kill vehicles, Space-Based Lasers (SBL), hypervelocity rod bundles, space-based radio frequency energy weapons, space manoeuvre vehicles, and so on are desired by these countries.<sup>18</sup> In addition, whereas the concept of a space weapon is largely represented by ASAT weapons, based on surface-to-space and air-to-space missiles, the future scenario is far more refined and has been expanded to space-to-space weapons and space-to-earth weapons by military strategists and academics. Presently, a realistic scenario of a space defence system is planned by adopting powerful missile defence interceptors and long/medium-range ballistic missiles. Some also argue that space has already been weaponised by flight-testing weapons intended to attack satellites disclosing certain military capabilities and goals.<sup>19</sup> These plans and conceptualisations of preparation on space warfare are subject to territorial-based designs, yet their capability and actuality can be shifted depending on international political polarity and technological monopolies, as high dependence of military operations on satellites adds to technological dominance in outer space.

In addition, military proliferation to marginalise the opponents' air power capabilities is, in fact, not a new trend. Despite the delineation between the policy goals on national security and the international collaboration, the lines of space military technology that separate military and civil technologies would become even more blurred, since the development of these gadgets is likely to encourage

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17. "Russia Building Anti-Satellite Weapons", *The Independent*, March 05, 2009.

18. Zhang Hui, "Space Weaponisation and Space Security: A Chinese Perspective", *China Security*, 2(1), 2006, pp. 24-36.

19. Michael Krepon and Michael Katz-Hyman, "Space Weapons and Proliferation", *The Nonproliferation Review*, 12(2), 2005, pp. 323-341.

the temptation of proliferation.<sup>20</sup> International instability is likely to be caused by the leaking of sophisticated military space technologies and dual-use commercial equipment outside of borders.<sup>21</sup>

According to recent research, the competition in various satellite industries, for example, the launch service industry, is increasing tremendously because of improved cost-affordability to access and develop a space system. Contrary to the past, states are no longer constrained to earmark the defence budget to access smaller and lighter satellite systems to prepare for space warfare. Reducing the cost variable enables a changing atmosphere that will increase the dependency on satellites for military operations and reduce the inherent vulnerabilities.

Furthermore, obtaining advanced space military technology is anticipated to be a new tool of diplomacy in responding to security crises. Without space leadership cannot be produced and an enhanced international framework on the use, deployment, and testing of military space technology, it will be difficult to neutralise the tensions between space rivals in the future.

### **SPACE POLITICS ON ARMS CONTROL**

At the Conference on Disarmament (CD) on the subject of outer space issues, each party reached a common understanding on ensuring a legal framework on the prevention of threats from/to space, but international collaboration is still lacking. Though there were some suggestions by the US, the EU, Russia and China regarding the ongoing concerns about space congestion and ASAT testing, the current political confrontation is turning into a melee to create and accept new leadership, mainly supporting international ASAT arms-control initiatives.

This issue is also rooted in governance of space in the future, making it necessary to bind space-based issues in treaties and agreements. Despite inciting arguments, the UN endeavours to prevent the placement of weapons in space have thus far been unsuccessful, as the major powers are reluctant to discuss any kind

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20. Matthew Hoey, "The Proliferation of Space Warfare Technology", *Bulletin of the Atomic Scientists*, December 11, 2008.

21. Matthew Hoey, "Global Space Warfare Technologies: Influences, Trends, and the Road Ahead", *Cryptome*, January 14, 2010. <http://cryptome.org/0001/space-war-tech.htm>

of verifiable space arms-control agreement. In 1967, the UN Treaty on the Principles Governing the Activities of States in the Use and Exploration of Outer Space, including the Moon and Celestial Bodies, also known as the Outer Space Treaty, was outlined as the first international diplomatic principle of the peaceful use of outer space, declaring that member parties are not to deploy any WMDs.<sup>22</sup> This international endeavour has been more visible since the Prevention of an Arms Race in Outer Space (PAROS) was initiated. Broadly, it was a rough roadmap, requesting member states not to provoke, space arms race with the anticipation of formulating an international agreement. It does not seem to be widely accepted by the major space competitors. The US government has either voted in opposition to the annual resolution of PAROS or abstained as it did during the Bush Administration as well as the Obama Administration.<sup>23</sup> Russia and China seem to adhere to PPWT, which was rejected by the US for being an uncompromisable stance. Practically speaking, the UN endeavour to establish an international regime is not significantly regarded as preventing the weaponisation of, and the arms race in, outer space, as it is limited in its abilities to carry out full compliance when being violated.

The US government changed its attitude toward the EU Code of Conduct this year, with the Obama Administration expressing its credence to a Code of Conduct for responsible states. Currently, the debate on space arms control is highly centred on whether or to what extent the US is willing to adopt such an agreement, and what is implausible in the Code.<sup>24</sup> In 2007, the EU started to draft a broad agenda on space activity that is aimed specifically at banning weapons and warfare in space. It covers a number of aspects to prevent irresponsible behaviour in space, including an attempt to reduce space debris orbiting the earth, and seeks wide collaboration in various goals such as space exploration, observation, telecommunications,

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22. Allison Kemp, "Is Anti-Satellite Arms Control Feasible" The Potential Impact of an International Space Code of Conduct, Center for Strategic & International Studies, February 03, 2012. <http://csis.org/blog/anti-satellite-arms-control-feasible-potential-impact-international-space-code-conduct>.

23. "New Prospect for Space Arms Control", Space War, July 21, 2010. [http://www.spacewar.com/reports/New\\_Prospect\\_For\\_Space\\_Arms\\_Control\\_999.html](http://www.spacewar.com/reports/New_Prospect_For_Space_Arms_Control_999.html)

24. Michael Krepon, "Complaints about the Code", February 05, 2012, Arms Control Work, <http://krepon.armscontrolwonk.com/archive/3343/complaints-about-the-code>

and navigations. The US government initially did not support it, as the Bush Administration emphasised the importance of the US military interests in space. Domestically, arguments stemmed from different places; critics from the right asserted that the US strategic posture should not be minimised by agreeing to the initiative, while the left focused on the verifiability and effectiveness of the treaty. Another point of debate is over the feasibility of the international space Code of Conduct to include space-faring nations and newly rising space powers like India, and to prevent Ballistic Missile Defence (BMD) tests from creating hazardous debris. Nevertheless, the US experts express pessimism about collaboration with China and Russia, largely expecting that both will not abide by the regulations that the US establishes.<sup>25</sup>

On the other hand, a joint diplomatic front on space weapons between Russia and China clearly portrays the different steps of space arms control.<sup>26</sup> In 2008, Russia and China jointly submitted a draft of the PPWT at the Conference on Disarmament in Geneva that proposed to prohibit the placement of weapons in outer space instead of sticking to PAROS.<sup>27</sup> In spite of rejection from the US, Moscow and Beijing continue to call for its adoption. According to them, PPWT seeks to enhance outer space security by non-weaponisation of outer space without space-based weapons, or the use of force against outer space objects; yet, it is unverifiable and allows ASATs not in terms of deployed weapons in outer space.<sup>28</sup> Washington has firmly opposed the points raised; the PPWT does not forbid the development or testing of ground/sea/air-based ASATs, and proponents may have motives not to limit their current weapons that would be positioned in space.<sup>29</sup>

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25. Ibid.

26. Michael Krepon and Michael Katz-Hyman, "Space Weapons and Proliferation", *The Nonproliferation Review*, 12(2), 2005, pp. 323-341.

27. Baohui Zhang, "The Security Dilemma in the U.S-China Military Space Relationship", *Asian Survey*, 51(2). 2011, pp. 311-332.

28. Michael Iistener, "An Exercise in the Art of War: China's National Defense White Paper, Outer Space, and the PPWT", April 25, 2011. <http://www.thespacereview.com/article/1828/1>.

29. James Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*, (California: Stanford Security Studies, 2008), pp. 309-310.

## CONCLUSION

A glimpse of the competition among major stakeholders reminds us that outer space is another battlefield to mobilise maximum space military superiority. The cacophony emerging from the major powers lies on the strategic choice between space assurance and space dominance. It probably is natural that any affluent and powerful state is likely to go for domination in outer space in an effort to deepen its levels of economic and scientific power. Setting up an enforceable and effective global space regime raises concerns over future scenarios of space warfare. Currently, the gap between technological development and establishment of an international agreement has not been closed. Nevertheless, from the optimistic side, counter-productive militarisation cannot be extended limitlessly, and would turn into building a legally-binding agreement as military power in space cannot be achieved without compromising an common interests, as has been noticed in other cases dealing with the use of weapons. However, to get ahead of the present arms race to establish a new regime, the world community may need to find some points to suggest a better path. There is certainly no easy solution on disarmament in space.



# IRAN-US RELATIONS AND THE NUCLEAR IMBROGLIO

**M. R. KHAN**

Prior to World War II, the US involvement with the Persian Gulf was minimal as it was regarded as a British preserve. However, during the war, a US Middle East Command was created to oversee the supply route of war material to the Soviet Union through Iran and it consisted of some 30,000 personnel. But after the war, it was reduced to a small contingent stationed at Jufair and Bahrain under an arrangement with the British. The task of containment of the Soviets in the huge arc from the Suez to the Malacas was also left to the British. When the UK decided to withdraw from the region in 1968 due to financial constraints, Washington was in no position to fill the so-called vacuum due to its heavy commitments elsewhere, especially in Vietnam.

When the Nixon Administration took over in 1969, they revised the US foreign policy to implement what came to be known as the "Nixon Doctrine". The gist of it was a greater reliance on security cooperation with regional states to protect the US interest rather than the direct commitment of forces. For the Gulf, this policy was given a nomenclature of "The Twin Pillars Policy" and the regional states involved were Iran under the Shah, and Saudi Arabia. But the

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real pillar was Iran as it was the major military power in the region. Accordingly, a security pact was agreed between the two countries during President Nixon's visit to Tehran in 1972, under which the US supplied some of the most sophisticated weapon systems to Iran and increased the number of uniformed advisors. Tehran, on its part, was expected to protect the US interests in the Gulf.<sup>1</sup> These interests included, besides containment of Communism mentioned above, access to oil, its availability at low prices and the security of Israel. During that era, while Washington imported only a limited amount of oil from the Gulf, its close allies in East Asia and Europe were almost entirely dependent on the Gulf oil. This dependence and its impact on the world economy were further highlighted during the oil crisis of 1973.

The 'Twin Pillar Policy' arrangement continued until 1979 when an Islamic Revolution overthrew the Shah's regime. This event surprised Washington no end as the Central Intelligence (CIA) assessment even a few months before the occurrence was that the Shah was in firm command.<sup>2</sup> The new leader of Iran, a cleric, Ayatollah Khomeini, was deeply anti-US as he believed that it was the US support that allowed the Shah to last that long, and unleash a reign of terror in his final years to suppress the people's aspirations. The hostage drama towards the end of 1979, when a revolutionary group of students, with the connivance of the revolutionary regime, occupied the US embassy in Tehran and held 52 American diplomats hostage for 44 days, led to further deterioration of relations between the two countries.

The Iranian revolution, along with the other geopolitical events occurring in the region at that time, such as the Soviet invasion of Afghanistan, the conclusion of the Soviet-Ethiopian treaty in November 1978 and the invasion of North Yemen by the pro Soviet South Yemen, led to a firmer posture by Washington towards the Gulf. This policy came to be known as the "Carter Doctrine" in allusion to President Carter's State of the Union address of January 23, 1980, wherein he stated: "An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests

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1. See "United States And The Persian Gulf" in, ed., *The Persian Gulf in History* Lawrence G. Potter (New York: Palgrave Macmillan, 2009), p. 296.

2. *Ibid.*, p. 297.

of the United States of America, and such an assault will be repelled by any means necessary, including military force." But it remained a posture till under the Reagan Administration, the Rapid Deployment Joint Task Force was reorganised in 1983 into the US Central Command, with earmarked forces totalling some 2,30,000 military personnel from the four Services with an aim "to assure continued access to Persian Gulf oil and to prevent the Soviets from acquiring political- military control directly or through proxies".<sup>3</sup>

In spite of the contingency planning, the Reagan Administration primarily relied on a strategic balance of power between Iraq and Iran and believed that their preoccupation with war against each other would keep their hegemonic tendencies towards the smaller oil rich states of the Gulf in check. This obsession with the balance of power theory led to what came to be known as "Iran Gate"; when the Reagan Administration felt that the balance of war may shift in favour of Iraq, an effort was made to supply spares and war material to Iran through Israel. But later, Iran, with its zeal to export its Islamic resurgence, and its continued hostile posture towards Washington, was considered a greater threat to the US interests in the region. Therefore, towards the end of the Iran-Iraq War, the US policy decisively tilted in favour of Iraq. The Bush I Administration conformed to this policy while exploring the possibility of using relations with Iraq to contain Iran, until Saddam surprised them with the annexation of Kuwait. The resultant First Gulf War and Iraq's subsequent expulsion from Kuwait greatly altered the geopolitical picture in the region. The UN sponsored sanctions and the US imposed two no-fly zones, in the north and the south, which virtually crippled Iraq and eroded its sovereignty. In 1996, the senate to formalise sanctions against these two countries, the Senate passed the Iran-Libya Sanctions Act (ILSA). But the policy of "Dual Containment" followed by the Clinton Administration against Iran and Iraq was far more detrimental to Iraq than Iran, as Washington could not enforce the UN sanctions against Iran and the EU, Japan and its other allies continued to do business with Iran, ILSA notwithstanding.

The US invasion of Iraq in 2003 was a boon for Tehran. Iran, throughout its history, has suffered invasions either from the west or

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3. Ibid., p. 299.

the north. The last episode of this historical narrative was the Iran-Iraq War. Therefore, it perceived the elimination of the old foe to the west was to its advantage, while posturing to condemn the US invasion to gain leverage in the Muslim world, and in accordance with the doctrine of Islamic solidarity enshrined in its Constitution. Nevertheless, the quick end of Iraq and its ruler as well as awesome demonstration of the US military power had a salutary effect on Tehran, and it began to soften its belligerent stance towards Washington. It temporarily gave up its aspirations to make a nuclear weapon, and in December 2003, agreed to sign the Additional Protocol over and above the Nuclear Safeguards Agreement, which it had signed under the Nuclear Non-Proliferation Treaty (NPT) and provisionally implemented it during the period 2004-06.

However, as Washington was increasingly mired in Iraq, Tehran began to breathe easy and started asserting itself. It was also well aware that whichever government came to power in a democratic Iraq, post-US withdrawal, it would not be outright pro-Tehran. The reason for this belief was the substantial influence the Iranian government has over the Iraqi Shiite Islamist parties, in particular the SCIRI, which was actually founded in Iran. The leaders of the other important party, al Dawa – Prime Minister Nouri al Maliki, Ibrahim Jafferi, and al Sadr of Jaish al Mehdi – have had a long association with the Iranian institutions. Further, the political and military advantage of a friendly Iraq, of course, sans the US presence, adds to the demographic advantage of Tehran of an overall Shiite majority in the Gulf region.<sup>4</sup> These advantages, when taken into consideration along with the other geopolitical factors in Iran's favour, such as its historical links with the Central Asian Republics and increasing influence after the collapse of the Soviets, its leverage with the Northern Alliance and the Shia minorities of the Hazaras and the Qizilbashs in Afghanistan, especially in the Herat region,<sup>5</sup> excellent and long lasting relations with the two major Muslim powers, Syria and Turkey, as well as influence with the Hezbollah in Lebanon and the Hamas and Islamic Jihad in Palestine, clearly make it a significant

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4. The Shia world community is only about 15 per cent of all Muslims, but with 65 per cent in Iraq, 90 per cent in Iran, 60 per cent in Bahrain, and some 50 per cent in the Eastern province of Saudi Arabia, they far outnumber Sunnis in the Gulf region.

5. *Foreign Affairs*, July-August 2009, p. 57.

power in the region. Its enormous hydrocarbon reserves of 150 billion barrels of oil and 26.5 trillion cubic metres (cu m) of gas are comparable with Saudi Arabia's in terms of barrels of oil equivalent.<sup>6</sup> With this background and a large military establishment, though admittedly a bit obsolete, to back the political clout, it is but natural that Iran wants its primacy in the region to be acknowledged. It is the American refusal to do so, for whatever reason, which is at the heart of the antagonism between the two countries. Mohsin Rezai, a former commander of the Revolutionary Guard puts it in perspective when he stated: "It is our principal and indisputable right to become a regional power, and the United States would like to prevent us from such a role."

The US stated position continues to be that Iran is a threat to the stability of the region because of its alleged quest of nuclear weapons, its support to the terrorist outfits of the Hezbollah in Lebanon and Hamas and Islamic Jihad in Palestine and its opposition to the Arab-Israel peace process as well as its threatening attitude towards Israel. Since the ultra-conservative Ahmedinejad became President in 2005, relations have further deteriorated. The real power in Iran lies with the Supreme Leader Ali Khamenie, who is convinced that the US desires nothing short of a regime change in Tehran, hence, good relations with Washington are not possible. This mutual distrust is the cause of the present impasse between Washington and Tehran. The attitude of the Gulf Cooperation Council (GCC) members or the Southern Gulf Arab states is ambivalent towards Iran. While wanting good relations with Tehran to achieve peace, stability and economic development, the rulers of these countries also do not want to offend the prime guarantor of their security in the region. This geopolitical contradiction is termed as the 'security dilemma' of the GCC. The GCC, and especially Saudi Arabia, also feel vulnerable because of Iran's tendency to directly speak to the 'Arab street' over the heads of their rulers, questioning their legitimacy by portraying them as lackeys of Washington, and upstaging them on the Palestinian issue through provocative rhetoric and support to such groups as Hamas, Hezbollah and Islamic Jihad.

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6. Ibid., p. 53.

**Iran and the Nuclear Issue:** Iran's nuclear imbroglio can be summed as hype versus bellicosity, hype on the part of the West, and bellicosity from Iran. The US and its allies have been emphasising since the 1990s that despite being an NPT signatory, Tehran is making a nuclear bomb. As early as 1998, a number of reports appeared in the Western media with reference to intelligence inputs that Iran might be able to make a nuclear device within five years. More than a decade later, information on Iran's nuclear programme continues to be muddled and controversial. The 2007-11 National Intelligence Estimate in the US reported that while Iran may ultimately want a bomb, the country halted work on weapon design in 2003, and there is no indication that it has restarted it; to conclude, the US intelligence agencies have not changed this officially even now.<sup>7</sup> All that the UN inspectors have confirmed is that Iran is in possession of an estimated 2,600 kg of low enriched uranium (4-5 per cent), which Tehran does not deny but insists is for use as fuel for its power generation reactors, which incidentally are functioning well below their designed capacity. Iran has enriched part of this uranium to 20 per cent for its Tehran reactor, which produces isotopes for medical use. This is still well short of some 90 per cent enrichment required for weapons.

America and its allies want Iran to stop the entire uranium enrichment process forthwith and they promise to supply the fuel for its power reactors as they do not trust Tehran's intentions. They quote UN Security Council resolutions demanding that Iran cease all enrichment because of its effort to hide its activities, the discovery of an undeclared nuclear facility north of Qum in September 2009 and its refusal to cooperate with UN inspectors, in support of their arguments. Further, they also cite damaging reports by the inspectors in May 2010 and November 2011, raising doubts about Iran's intentions, but furnishing no concrete proof.<sup>8</sup> Iran, on its part, insists that its nuclear programme is for peaceful purposes, that it is entitled to enrich uranium to fuel grade under the NPT, considers its denial an infringement of its sovereignty, and maintains that it was not required to declare the Qum facility as it is still under construction. A compromise formula was worked out at

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7. "West Debates Capability of Iran Nuclear Programme", *International Herald Tribune*, Front page, September 30, 2009.

8. *International Herald Tribune*, June 02, 2011, p. 8

Vienna in October 2009, under which Tehran had agreed to send its stockpile of uranium out of the country, but later rejected it on the ground that it may not get it back. The real reason may have been the domestic politics of Iran, where some conservative opponents of Ahmadinejad, under whose guidance the deal was worked out, saw it as an opportunity of getting back at him, and vehemently opposed it. These included Ali Larijani, the Speaker of the Majlis.

Later, when the UN nuclear agency demanded that Tehran cease work on the Qum facility, Iran, in an act of defiant bellicosity, declared that it will construct 10 more such plants. But situation on the ground is that its main enrichment facility, which began a decade ago, has installed less than a tenth of the 50,000 centrifuges it is designed to handle.<sup>9</sup> The Qum plant, under construction for four years, is still incomplete and may take another couple of years. There have been serious reservations expressed by experts about the Iranian ability to convert enriched uranium into fuel rods, leave alone enriching uranium to the required level for a bomb and preparing a warhead design. The probability that Iran can surreptitiously obtain further technical knowhow any time soon, from another nuclear power, can also be ruled out in view of the intense scrutiny the issue is under. The hype on Iran's nuclear ability appears to be a mirror image of Iraq's Weapon of Mass Destruction (WMDs).

Under pressure from Washington and the other major European countries, the UN Security Council passed its 4th round of sanctions against Iran in June 2010. The diplomats from Turkey and Brazil, which had attempted to negotiate with Iran a month earlier to send some of its low enriched uranium abroad in exchange for access to fuel for the medical reactor in Tehran, voted against the sanctions. The two had hoped that Washington would also agree to the deal, and the situation would be diffused and sanctions would not be required. Like in the earlier three rounds, Iran sought the help of China and Russia in dilution of the severity of sanctions. But this time, because of the greater diplomatic effort from the Obama Administration and a stronger European consensus for the sanctions, Tehran received only lukewarm support from the two countries; even then, they insisted that sanctions should not be so harsh as to

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9. <http://www.global.nytimes.com>, February 10, 2010.

affect the life of the common Iranian. No concrete proof of Iran's intentions to make a bomb has so far been furnished and the evidence is at best circumstantial. A welcome development in Washington is that some intellectual opinions are veering to the view that instead of the punitive approach, the US should seek a broader strategic realignment with Iran, keeping its legitimate aspirations in mind. This is because there is an appreciation in the moderate quarters that a fair amount of convergence in the interest of the two nations exists towards achieving stability in Iraq and Afghanistan, and maintaining peace in the Gulf. But these sane voices are getting drowned in the anti-Iran clamour driven by the compulsions of the US domestic politics and the year-end presidential election.

The latest International Atomic Energy Agency report released on November 18, 2011, is much harsher on Iran but the bulk of the evidence furnished by it to prove that Tehran has either acquired, or is attempting to acquire, equipment and skills required to make a nuclear weapon, is as before, circumstantial and based on its quest for technologies which could be termed dual purpose. The IAEA admits, between the lines, that its conclusions are largely derived from intelligence reports submitted by the other unnamed members of the organisation and only some of them are based on its own analysis. Without going into the technical details, it is apparent that there is no way to ascertain the veracity of these reports and their objectivity is suspect in view of the ongoing geopolitical tussle between Tehran and the West as well as the past experience of Iraq's WMDs. Therefore, to a neutral observer, there is no clinching evidence to prove that Iran is hell bent on getting nuclear weapons.

Despite the US intelligence community maintaining its stand that it has not seen anything to prove Iran has reversed its decision of 2003 not to make a bomb, President Obama signed a wide ranging defence bill at the end of 2011, which included as an amendment, sanctions against Iran's Central Bank and companies dealing with it. He expects that this act would hit Tehran where it hurts most, meaning its oil exports. Israel on its part has been urging Washington to take urgent precipitate action as it is convinced that Iran is very close to making a bomb, which it considers an existential threat, and believes that sanctions would not deter Iran. Tel Aviv has also been threatening

to carry out unilateral air strikes against Tehran's nuclear sites if Washington fails to take action any time soon. When Gen. Martin E Dempsey, Chairman of the Joint Chiefs of Staff, during a recent CNN interview advised Israel that a strike now would be destabilising, as Iran has not yet decided to build a weapon, the Israeli Prime Minister Netanyahu called him a servant of Iran. Apparently, Israel is determined to undertake an early strike because it believes that the window to halt Iran's nuclear programme is closing. Washington seems ambivalent, sometimes pretending to restrain Israel and on other occasions, declaring that all options are on the table.

As the war clouds gather over the Gulf, anxieties are building up in the neighbourhood. India has historical ties with Iran and views it as a close friend and an important source of energy. Its crude imports alone from Tehran are worth US\$ 12 billion a year, which it cannot easily substitute from elsewhere. It also has other long-term investments in Iran. Lately, India has been facing difficulties in making payments against its oil imports due to the latest US sanctions. Besides, New Delhi considers Tehran an important strategic neighbour, and is a partner in the development of its Chabahar port. It has also built the Zaranj-Delaram highway in the hope that it can access Afghanistan without going through Pakistan. Additionally, India's interests in the Central Asian region dictate that it continues to be friendly with Tehran. Therefore, New Delhi has a hard task ahead in not only trying to ward off a crisis in the region, but also balancing its relations between the US, Israel, and the EU and, in a way, the GCC too, on one side, and Tehran, on the other. Perhaps a more proactive effort by New Delhi in diplomatic mediation between the two antagonists may bear fruitful results and prevent a crisis, which is likely to adversely affect India's economy as well as its large diaspora in the Gulf.



# CHINA'S AIR POWER: CAPABILITIES AND STRATEGY

J. V. SINGH

In accordance with the general goal of building informatized armed forces and being able to win an informatized war, adhere to the strategic demand of the integration of the air and space and acquiring both defensive and offensive capabilities, constantly increase the reconnaissance, early warning, air strikes, antimissile air defense, strategic airlift and airdrop capabilities.

— PLAAF Commander General Xu Qiliang  
November 2009

## INTRODUCTION

The Chinese military modernisation effort is guided by the strategy of fighting local war under informationised conditions, which refers to the People's Liberation Army's (PLA's) ongoing effort to develop a fully networked architecture capable of coordinating military operations on land, in the air, at sea, in space and across the electromagnetic spectrum.

Today, China is beginning to assert itself and has all but declared its intention to build up its aerospace power. In 2004, the PLA Air Force (PLAAF) promulgated a Service specific aerospace operation "being

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prepared for simultaneous Offensive and Defensive operations". The new aerospace strategy emerged from Hu Jintao's December 2004 call for the historic missions of the military in the new period of the new century, for the PLA, which include defending China's international interests. China is building an air force intended to be commensurate with the nation's emerging status as a world power and the equal of any other air force on the globe.<sup>1</sup>

The PLAAF in particular is shifting from being a campaign air force for theatre level wars in cooperation with the army, navy and second artillery missile force, to a strategic air force increasingly capable of independent action farther from home. It is undergoing a series of major transitions and significant changes. Today, the PLAAF is more operationally capable than at any time in its past, and is enjoying the fruits of years of focussed and sustained reform and modernisation.<sup>2</sup> The PLAAF is seen as a major national capability to contain and win wars, playing a significant role in strategic deterrence and a desire for the capability to win high-tech local wars with air power. Also, the PLA has been provided with a mandate to think beyond conventional war-fighting scenarios and engaging in Military Operations Other Than War (MOOTW).<sup>3</sup>

China is determined to develop modern military aerospace capabilities. It is actively developing new generation fighters, large transport aircraft, and air-launched long-range precision weapons, and is continuing to strengthen its missile defence system and Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) infrastructure, in the hope of gaining air superiority. Further, its new generation fighters are gradually being equipped with various long-range precision strike weapons, and improved early warning and battlefield control capabilities.

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1. Annual Report to Congress: Military Power of the People's Republic of China 2006, US Department of Defence, p. 34.
  2. DOD, Annual Report to Congress: Military Power of the People's Republic of China 2009 (Washington, DC: Government Printing Office, 2009), VII. p. 206.
  3. China's National Defence in 2010. Information Office of the People's Republic of China. Downloaded from URL:<http://www.china.org.cn/government/whitepaper/node.7114675.html>, on March 31, 2011.

## PLAAF TRANSITION

The PLAAF was founded on November 11, 1949. In the 1960s and 1970s, the air force formed the guiding principle of giving priority to the development of air defence forces, and gradually grew into an air force for territorial air defence. Since the 1990s, the air force has been in a phase of rapid development.<sup>4</sup> After nearly six decades of development, it has developed into a strategic Service with capabilities to execute long-range precision strikes and strategic projection operations.

**Structure and Organisation:** The air force practices a leadership system which consists of air force headquarters, air commands under military area commands, corps-level, division-level command posts, divisions, brigades and regiments. Under each air command at the military area command level, there are many divisions – aviation, ground-to-air-missile divisions’ brigades and regiments, anti-aircraft artillery brigades’ regiments, radar brigades’ regiments, Electronic Counter-Measure (ECM) brigades’ regiments and battalions, and other specialised service units. In key areas, there are also corps—or division—level command posts.<sup>5</sup> The airborne forces are organised into corps, divisions, regiments, battalions and companies.

**Force Building:** To meet the requirements of informationised warfare, the air force is working to accelerate and increase its capabilities for carrying out reconnaissance and early warning, air strikes, air and missile defence, and strategic projection, in an effort to build itself into a modernised strategic air force. China has adopted a three-step strategy to transform its air force. These steps include developing advanced aircraft and integrating them with effective support systems, conducting offensive and defensive operations against ground and sea-based targets, and relying heavily on informationalised systems to employ air and space power effectively.

Chinese aviation units are transitioning from older generational aircraft to new aircraft with significantly improved capabilities.

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4. John W., Lewis, and Xue Litai, "China's Search for a Modern Air Force," *International Security*, vol. 24, no. 1, Summer 1999, pp. 64-94.
  5. "PLA Air Force Organisation," in James C. Mulvenon and Andrew N. D. Yang, eds., *The People's Liberation Army as Organisation: Reference vol. v1.0* (Santa Monica, Calif.: RAND Corporation, CF-182-NSRD, 2002), pp. 346-457.

To raise its integrated support capabilities, the air force attaches importance to the development of logistical and equipment support systems. It endeavours to improve the support facilities of airfields and positions; strengthen its logistical forces for rapid construction of air defence projects, create a storage and supply network for special-purpose materials; and build step-by-step bases capable of supporting multiple types of aircraft.

The PLAAF has begun reorganising its air logistics and maintenance systems to support deployed units for the conduct of mobile offensive operations. PLAAF airfields are moving toward microwave landing systems, automated meteorological observation and sounding systems, and secondary radar systems to increase their capabilities to support a variety of aircraft types under all weather conditions.<sup>6</sup>

**Training:** For the improvement of the capabilities and quality of its personnel, the air force follows the path of personnel development, which takes new and high-tech talents as the driving force, makes breakthroughs in critical areas and aims at overall improvement. Taking into full account the preparations for combat and its own transformation and development, the air force is exploring training systems and methods tailored to the development of the latest generation of weaponry and equipment. It stresses technical and tactical training in complex environments, combined training of different arms and aircraft types, and joint training; conducts mission-oriented and confrontational training; and is increasing on-base, simulated and web-based training. It is working to optimise the tripartite pilot training system composed of flying colleges, training bases and combat units, and intensifying the training of aviation units in counter-air operations, air-to-ground attacks and joint operations.

**Rapid Response:** As part of the rapid response concept, the PLAAF has expanded its air-lift capability. To mobilise airborne and army troops, the PLAAF operates a good number of transport aircraft of which the majority are the Soviet era AN-12 transport aircraft. China has purchased IL-76 mainstay transports to enable heavy-

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6. Eric Lin-Greenberg, "Offensive Airpower with Chinese Characteristics: Development, Capabilities, and Intentions," *Air & Space Power Journal* 21, no. 3, Fall 2007, pp. 67-77.

lift capability. The PLAAF has a number of air bases all along the territory of China. There are more than fifty airfields in the Lanzhou and Chengdu Military Regions alone. China is also building new airfields in Tibet to improve the connectivity.

China has recently completed the construction of a 12,400-ft-long runway near Mandalay in Myanmar, and is reportedly upgrading the airfield at Pegu on the southern coast of Myanmar. Myanmar does not possess aircraft that need these long runways. So, the obvious conclusion is that China is extending its strategic reach into the Indian Ocean.

### **DEVELOPMENT OF CHINA'S AIR FORCE CAPABILITIES**

A visionary, long-term and time-bound approach to military modernisation, supported by a strong and innovative military industrial capability has transformed the PLAAF from an antiquated, derelict, poorly trained and over-sized force to a modern aerospace power with increasing proficiency to undertake its stated missions in the 21st century. By 2050, China would accomplish its strategic goal of building informatised net-centric warfare-enabled armed forces capable of winning wars. Perhaps the unstated objective of the plan is to expand China's comprehensive national power beyond the existing regional status.

Modernisation of the PLAAF has been propelled by China's astounding economic growth, resulting significant improvement over the past 10 years. China has reduced the overall size of its air forces, with the PLAAF alone cutting down approximately a quarter of the force and halving the size of its fighter force. The number of second- and third-generation fighters in China's inventory has been reduced, and the number of fourth-generation fighters has more than quadrupled. Many of China's fighters are now capable of carrying Beyond Visual Range (BVR) missiles, China operates at least a dozen Airborne Early Warning and Control (AEW&C) aircraft, many strike aircraft are now equipped with Precision-Guided Munitions (PGMs), and China's Electronic Warfare (EW) capabilities have improved substantially too.

China now produces a single-engine fighter, the J-10, that is comparable in performance to the F-16. In the pantheon of

contemporary fighters, the J-10 occupies a similar niche to the agile European lightweights, the Dassault Rafale, Eurofighter Typhoon, and SAAB Gripen. It is, however, a unique design with a delta plan form derived from evolved J-7 variants, an imported Russian Al-31F engine from early model Flankers and unique chin inlets and fuselage design. The J-11B Flanker B is an improved version of the Russian Su-27, and substantially more combat effective, with better avionics and defensive systems. China now also produces AEW&C aircraft comparable to the E-2 Hawkeye and E-3 Airborne Warning and Control System (AWACS) and is now in the process of developing a heavy airlift aircraft, which may explain why the PLAAF has not moved more aggressively to expand its airlift capacity by purchasing imported airlifters. Recently, China unveiled its fifth-generation fighter, the J-20, that represents a significant step in the evolution of the Chinese aerospace industry. The new aircraft displays stealth features and indicates a determination on China's part to shape new military capabilities in the period ahead.

#### **PLAAF AEROSPACE STRATEGY**

The Chinese military publications on air force operations are systematic and comprehensive. Few militaries in the world have such extensive published documentation on the employment of air forces. The concepts described appear to be realistic and practical, drawing on the experience of other air forces in recent conflicts, the PLAAF having had no significant combat experience since the 1950s, but remaining appropriate to the current and near-future capabilities of the PLAAF. Chinese military analysts are clearly engaged in a serious process of developing specific, practical concepts for the employment of China's air forces. Moreover, although the PLAAF has traditionally emphasised defensive operations, it will be an aggressive opponent in the event of a conflict.

The PLA clearly prefers to achieve air superiority by attacking its enemy on the ground or water. Especially at the beginning of a war, the PLA will endeavour to attack enemy air bases, ballistic missile bases, aircraft carriers, and warships equipped with land-attack cruise missiles before enemy aircraft can take off or enemy missiles can be

launched. These attacks, moreover, will be carried out not by China's air force operating in isolation but in coordination with the second artillery's conventional ballistic and cruise missiles. This would be a joint aerospace threat in which ballistic missiles would be a critical enabler for more precise land attack cruise missiles and PGMs carried by manned aircraft.

Offensive operations against China would be challenging as well, as Chinese military publications emphasise defensive operations even in an offensive air campaign. The PLA's concept of layered air defence, when combined with China's strategic depth, its highly capable fighter interceptors and mobile Surface-to-Air Missiles (SAMs) and its emphasis on hardening, camouflage, and concealment, would make strike operations over Chinese territory high-risk propositions. Hardened shelters and the large number of military airfields in China, moreover, mean that China's air forces cannot be easily destroyed on the ground.

Two critically important concepts that come up repeatedly in writings on air force employment concepts are the integration of air and space and preparing for both offensive and defensive operations. According to the *China Air Force Encyclopaedia*, these two concepts have been at the centre of the air force strategy since 2004 when the Central Military Commission (CMC) established the PLAAF strategy of integrated air and space, the Chinese concepts for the employment of air forces and preparing simultaneously for the offensive and the defensive.<sup>7</sup> Their identification as the essence of air force strategy reflects a significant shift as the PLAAF has moved toward trying to build a military that will integrate space-based information and operations, and a more offensive orientation.

China seeks modern air power as well as space power. In November 2009, PLAAF Commander Gen Xu Qiliang described this new strategy: "The air force will extend its reach from the sky to space, from defense of Chinese territory to attack of threats as well. We will improve the overall capability to strike a long distance target with high precision, fight electronic or internet warfare with back up from space and deliver our military strategic assets. China will become a world

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7. *Annual Report to Congress: Military Power of the People's Republic of China 2006*, US Department of Defence, p. 34.

power by the mid-21st century and its air force must be able to counter many forms of security threats."<sup>8</sup>

In addition to preparing for a Taiwan contingency, the PLAAF has been developing new platforms and capabilities that will extend its operational reach to address other concerns within the East and South China Seas, and possibly to the Indian Ocean and beyond the second island chain in the Western Pacific. In describing the modernisation tasks for each of the Service arms, China's Defence White Papers in 2008 and 2010 emphasised mobility and operations at greater distances from China's mainland. The PLAAF is developing longer-range versions of the B-6/BADGER bomber that, when equipped with a long-range land attack cruise missile, will enable strikes as far as the second island chain. The J-20 will eventually give the PLA Air Force a platform capable of long range, penetrating strikes into complex air defence environments.

### INTEGRATED AIR AND SPACE

The PLA clearly believes that having air, information, and space superiority is vital to winning campaigns and will be even more vital in future wars.<sup>9</sup> Related to the importance of having air, information and space superiority is the perceived need to improve command and control, which is viewed as increasingly vital for successful campaigns. PLA writings still stress the importance of the commander or command element as the key decision-maker and actor in campaigns.<sup>10</sup>

Current publications of the Chinese military focus on space-based information systems to support informationised warfare. However, whether the PLAAF will gain ownership of PLA space assets and missions is uncertain. The PLAAF's argument for the subordination of space to the air force may be less acceptable to other units of the PLA than the second artillery's preference for an independent Service. Also notable is the fact that some of the PLA's

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8. Kenneth W., Allen, Glenn Krumel, and Jonathan D. Pollack, *China's Air Force Enters the 21st Century*, (Santa Monica, Calif.: RAND Corporation), MR-580-AF. As of December 29, 2009.
  9. Cai Fengzhen, and Tian Anping eds., *Air and Space Battlefield and China's Air Force*, (Beijing: Liberation Army Press, 2004), p. 9.
  10. Liang Xiaolan, Deng Pan, and Guan Hua, eds., *The Study of Integrated Air and Space Operations*, (Beijing: Liberation Army Press, 2006), p. 3.

most prominent military scholars appear to side with the second artillery in this preference.<sup>11</sup>

### **PREPARING SIMULTANEOUSLY FOR OFFENSIVE AND DEFENSIVE**

According to this guiding thought for the PLAAF construction, the PLAAF should plan to build both offensive and defensive air power, ensuring capabilities in its force structure, organisation, training, Command, Control, Communications, Computers, and Intelligence (C4I) systems, weaponry and platforms, and support and logistics systems.

Aerospace power is the critical component of strategic power today. The linkages between shore, air and space power are the components of a comprehensive aerospace power, with speed, stealth, strike capabilities and manoeuvrability as the attributes of air force strength. The Revolution in Military Affairs (RMA) has led to phenomenal development of air and space capabilities for focussed strike, focused logistics and the full-spectral dominance and development of C4I2SR capabilities and roles that have transformed combat operations worldwide. These capabilities are now an intrinsic part of the rising powers' of the 21st century.

China has plugged critical deficiencies in technology very well in the last 20 years or so. Every great power has control over some critical technology, but one needs a leap-frogging strategy to plug the gaps, something that the Chinese have done very well. The Chinese have made great strides in military technology due to their relentless pursuit of key technologies. They are now making stealth fighters like the J-20, aircraft engines and carriers, which they were not capable of doing just 15 to 20 years ago.

The PLAAF missions now include air coercion, air offence, blockade and support to ground troops. The possibility of a surprise attack and first strike is integrated into the doctrine. The key point to note here is that since a global conflict is highly unlikely, there must be a capability to ensure quick victory in localised wars. The role of the PLAAF is vital in such a scenario. This involves use of PGMs, striking first using the second artillery, quick power projection using

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11. Ibid. pp. 15-16.

the PLAAF, and quick conflict resolution.<sup>12</sup>

According to the PLAAF, the use of air power has evolved with a new generation of informationised air force weaponry, which has advanced air force operational capabilities and created new concepts in air power. These concepts represent aspirations for the PLAAF and areas for future improvement. The PLAAF concepts for the uses of air power are:

- Executing strategic campaign coercion.
- Independent and concentrated use of air power.
- Conducting joint operations with the other Services.
- Strategic force delivery.
- Seizing information and electromagnetic superiority.

### **PLA AIR FORCE - FUTURE CAPABILITIES**

China is looking beyond a potential Taiwan contingency and is pursuing capabilities needed to become a major regional power.<sup>13</sup> Growing concerns over the PLAAF modernisation efforts in the fields of fourth generation fighters, air-to-air missile capabilities, and advanced airborne electronic attack technologies and test flight of the fifth generation fighter J-20, depict dramatic projections about China's foreign policy aspirations.

An offensive realist, China seeks to gain dominating status among the East Asian states to effectively ensure its security and its future prosperity. To accomplish this, the PLAAF is acquiring the capability and capacity to project sustained combat power beyond the second island chain. A defensive realist, China seeks hegemony over adjacent states, where practical. It will develop and demonstrate military capabilities that deter potential conflict, while exercising enough restraint to avoid a security dilemma.<sup>14</sup> This version of the PLAAF favours a strong air defence force and enough projection capability to thwart potential rivals without instigating a regional arms race. To support China's rise to a

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12. Cai Fengzhen, Tian Anping, et al., *Kongtian Zhanchang yu Zhongguo Kongjun*, "The Aerospace Battlefield and China's Air Force" (Beijing: PLA Press, 2004). p. 29.

13. Information Office of the State Council of the People's Republic of China, *China's National Defence in 2008* (Beijing: Foreign Languages Press, 2009), p. 11.

14. United States Department of Defence, *Annual Report to Congress: Military Power of the People's Republic of China 2009* (Washington D.C.: Office of the Secretary of Defence, 2009), p. 18.

dominating status, the PLAAF identified six major areas for modernisation (prioritised):

- Fighter aircraft must have the highest priority and there must be a certain proportion of bombers, especially strategic bombers.
- Reconnaissance aircraft, jamming aircraft, and AEW aircraft must be supplied in relevant proportions.
- Development of transport aircraft, which have a strategic capability of moving troops and supplies to be accelerated.
- Aerial refuelling capability to be enhanced as a force multiplier.
- China must pay attention to developing helicopters, especially armed helicopters.
- The air force must develop modern ground-based weapons systems, particularly air defence missiles, radar, and communications systems.

Using the offensive realist criteria to describe the PLAAF in the year 2010 and beyond, the PLAAF's evolution indicates acquisition and development of aircraft that could perform sustained operations out to the second island chain, including long-range bombers, tankers, and airborne command and control.<sup>15</sup> Additionally, the volume of in-flight-refuellable aircraft would need to increase to match the requirements of regional conflicts. It would sufficiently develop the PLAAF necessary to support simultaneous PLA and PLAN operations.

Major changes are likely in the PLAAF this year, with shifts in China's political and military leadership scheduled. If some or all of these changes occur, the already rising influence of the PLAAF will most likely climb higher. This will affect priorities, budgets, procurement of weapons, and assignment of senior leaders but it is not likely to break the traditional dominance of China's military forces by the army.

## CONCLUSION

From 1990 through 2010, specific to the PLAAF, the implications of a growing fleet of fourth generation fighter aircraft hold two potential meanings. For the strategic intentions of China, they

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15. *The Military Balance 2010*, (London: Routledge, ISIS, 2010).

represent natural replacements for 40-year old fighters that add to national prestige. To current military analysts, the increased lethality represents a force that can potentially skew the entire regional balance of power. The induction of more fourth generation combat aircraft, precision munitions and force enablers changes the range of strategic employment options available to the PLAAF.

Future developments in China's aviation capabilities certainly include a fifth generation fighter. The commercial jetliner and jet airlifter that China is developing could also form the bases for aerial refuelling aircraft, and the technologies that China will acquire in the course of these two programmes would support the development of a long-range, heavy bomber. Models of Unmanned Combat Aerial Vehicles (UCAVs) have been displayed at air shows. The rapid reaction forces and the reorganisation of the PLAAF have increased the central government's ability to respond to events in China and on its periphery.

The PLAAF is training and developing tactics to operate nationwide rather than just within individual Military Regions. Various exercises have demonstrated that the PLAAF's role has changed from support to ground forces to being able to conduct operations independently. The induction of AWACS allows the PLAAF command and control over 100 aircraft. The PLAAF aims to form several strike groups under the direction of the Beijing Military Region for offensive missions. It actively trying to imbibe better training programmes and has increased joint training with other air forces in the recent years.

However, after 20 years of modernisation efforts, the PLAAF is still unable to demonstrate a credible expeditionary capability that could destabilise the regional or global balance of power. The speed of Chinese air and space modernisation is likely to be constrained by the current technological limitations in the Chinese defence industry. Also, Chinese air and space transformation will continue to be tempered by inherent differences in the institutional cultures of the PLA ground forces and the PLAAF.

# CHALLENGES IN INDIA-PAKISTAN RELATIONS

K. N. TENNYSON

The politics of the Southern Asia region is mainly influenced by the political developments that take place in the two neighbouring Southern Asian countries, India and Pakistan. However, Indo-Pak relations have never been stable; rather, they have fluctuated from acrimony to cooperation and vice versa. Since the partition of the Indian subcontinent, relations between the two neighbouring countries have been defined by a host of post-partition political problems and crises like the border dispute, Kashmir dispute, water dispute, etc. The emergence of the Cold War politics in the Indian subcontinent further aggravated the acrimonious relations between India and Pakistan. The Pakistani leaders have never reconciled the grievances of the post-partition political problems, especially on the Kashmir issue; thus, they consider India as the 'biggest threat' to their existence.<sup>1</sup> Because of this fear psychosis, they joined hands with the US-led Western military alliance Southeast Asia Treaty Organisation (SEATO) and Central Treaty Organisation (CENTO), and manoeuvred Pakistan's policy towards the Muslim countries to develop 'power parity' with India, if not in economic terms, then through military technology. Surprisingly, Pakistan was the 'only Asian country' which had joined both SEATO and CENTO. The

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1. Marvi Menon, "Reorientation of Pakistan's Foreign Policy after the Cold War," *Pakistan Horizon*, vol. 47, no. 2, April 1984, p. 47.

former Pakistan's President, Field Marshal Mohammad Ayub Khan who made no secret of Pakistan joining the Western military alliances against India, wrote, "The crux of the problem from the very beginning was the Indian attitude of hostility towards us; we had to look for allies to secure our position."<sup>2</sup>

### **KASHMIR AS A FACTOR IN INDIA-PAKISTAN RELATIONS**

Territorial disputes, which are the most important of all disputes, arise among neighbours and create tension in [the good] relations between neighbouring states, opined the former President of Pakistan, Zulfikar Ali Bhutto.<sup>3</sup> The Afghanistan-Pakistan dispute over the Durand Line, India-Pakistan's perennial animosity over the Kashmir Valley, and the Iran-Afghanistan dispute on the status of the Helmand river delta are some of the few examples. The Valley of Kashmir became the 'bone of contention' right from the time of the partition of the Indian subcontinent. Since its establishment, "Pakistan and its leadership at the highest levels have been stating that Kashmir is the 'unfinished agenda of partition' of the Indian subcontinent".<sup>4</sup> They were inebriated by the theory propagated by Rahmat Ali and others who stated that Pakistan is a confederation of "the five Northern units of India, viz., the Punjab, North-West Frontier Province (Afghan Province), Kashmir, Sindh, and Baluchistan".<sup>5</sup> Thus, Pakistani leaders continued to propagate the idea that Pakistan would be incomplete without Kashmir. On the other hand, the Indian political leaders, from Jawaharlal Nehru, the then first Prime Minister of India, asserted that Kashmir is a legitimate part of India. This assertion was based on the fact that the Maharaja of Kashmir had signed the Instrument of Accession on October 26, 1947 with the Union of India.<sup>6</sup>

The Pakistani leaders not only promulgate the problem of Kashmir as a territorial and religious issue, but, also regard it as "a

2. Field Marshal Mohammad Ayub Khan, *Friends Not Masters: A Political Autobiography* (London: Oxford University Press, 1967), p. 154.

3. Zulfikar Ali Bhutto, *The Myth of Independence* (Karachi: Oxford University Press, 1976), p. 28.

4. Jasjit Singh, "The Kashmir Issue," in Air Cdr Jasjit Singh, ed., *Kargil 1999: Pakistan's Fourth War for Kashmir* (New Delhi: Knowledge World, 1999), p. 1.

5. Syed Sharifuddin Pirzada, *Evolution of Pakistan* (Karachi: Royal Book Company, 1995), p. 338.

6. Fahmida Ashraf, "The Kashmir Dispute: An Evaluation," *Strategic Studies*, vol. XIII, no. 4, Summer 1990, p. 66.

matter of life and death" for their survival, because, the rivers Indus, Chenab and Jhelum that flow from India into Pakistan pass through India's state of Jammu and Kashmir (J&K). Since Pakistan being the lower riparian, raised objections whenever the flow of the river waters decreased, alleging that India was controlling the river waters to have an adverse effect on Pakistani agriculture.<sup>7</sup> Pakistan's President Asif Ali Zardari, voicing one such statement, said, "The water crisis in Pakistan is directly linked to relations with India. Resolution could prevent an environmental catastrophe in South Asia, but failure to do so could fuel the fires of discontent that lead to extremism and terrorism."<sup>8</sup> Taking advantage of the strained relationship between India and Pakistan, Hafiz Muhammad Saeed, (the mastermind of the 26/11 attack on Mumbai) the leader of the Lashkar-e-Tayyeba (Pakistan's fundamentalist militant group), went to the extent of launching a "Movement for Saving Water Resources of Pakistan", and held a water rally, warning India that Muslims dying of thirst would drink the blood of India.<sup>9</sup>

Ironically, Pakistan's religious and political leaders not only blamed India for the water shortage in their country, but also for the natural calamities. For example, during the August 2010 flood the Pakistan government, supported by the UN, appealed to the world community for urgent financial and economic assistance, including helicopters to reach those "tens of thousands of Pakistanis marooned" by the calamity.<sup>10</sup> Ban Ki-moon, the UN Secretary General, called for global solidarity stating that it was "a global disaster, a global challenge".<sup>11</sup> India was ready to provide help that included sending

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7. Tafail Ahmad, "Water Disputes between India and Pakistan-A Potential Casus Belli," July 31, 2009, at <http://www.henryjacksonsociety.org/stories.asp?id=1230> , accessed January 12, 2012.

8. Quoted in Andrew Buncombe and Omar Waraich, "India is Stealing Water of Life, says Pakistan," March 26, 2009, at <http://www.independent.co.uk/news/world/asia/india-is-stealing-water-of-life-says-pakistan-1654291.html>, accessed October 01, 2011.

9. Quoted in "India to Pak: Don't Blame us for Water Woes," *Hindustan Times*, February 26, 2010; and Manawar Hasan, "Movement Against Indian Water Aggression," March 08, 2010, at <http://www.thenews.com.pk/TodaysPrintDetail.aspx?ID=227836&Cat=5&dt=3/11/2010>, accessed November 21 , 2011.

10. Chidanand Rajghatta, "Anti-Indian Mindset Hurting Pak Relief," *The Times of India* (New Delhi), August 26, 2010.

11. "General Assembly Hears Calls for Global Solidarity to Help Flood-hit Pakistan," August 19, 2010, at <http://www.un.org/apps/news/story.asp?NewsID=35670>, accessed December 22, 2011.

air force helicopters and medical aid, but the Indian aircraft remained idle in the Indian hangars as Islamabad refused to accept India's aid. Pakistan did accept US\$ 5 million contributed by India to the Pakistan government as aid for the flood relief work.

The Pakistan government had sent an SOS to the international community to save millions of flood-affected Pakistanis, but it refused to accept India's help because of the strong anti-Indian lobby in Pakistan. The *Hindustan Times*, an Indian daily, quoting an unnamed Pakistani paper, revealed this fact. In the editorial of the Pakistani paper, it was reported to have stated that it (India) has built dams to secure itself, and is releasing water into Pakistan's river as part of its design to devastate Pakistan, using water as a weapon. Sometimes, India uses the water to flood Pakistan, and sometimes, it restricts the flow to transform Pakistan into a parched desert as part of its conspiracy.<sup>12</sup> This kind of attitude of Pakistan is responsible for the strained relation between the two countries and lack of sound and economic progress in the region.

### **PAKISTAN'S INDIA POLICY**

Since Pakistan was formed on the basis of religious identity, that is to provide a 'homeland' for the Muslim of the Indian subcontinent, successive Pakistani leaders continue to look at India (the Hindu majority neighbouring country) with suspicion and animosity. What is more disheartening is the fact that Pakistan not only adopts a hostile policy towards India, its policy towards other countries of the region, especially on Afghanistan and Iran, too has been shaped on the basis of its relations with India. Thus, it maliciously observes India's policy towards the countries of the region for fear of India's influence increasing. Pakistani leaders were apprehensive that if India strengthens its relations with the countries of the region, Pakistan would be encircled, thus, weakening its economic, political and strategic interests.

After independence, the Indian leaders followed a policy of peaceful coexistence and peaceful settlement of disputes with all the countries of the region including Pakistan. It was for this reason

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12. "Reject India Aid for Flood Victims," *The Hindustan Times* (New Delhi), August 15, 2010.

that the Indian government repeatedly urged Pakistan to sign “a joint no-war declaration and peaceful settlement of disputes”,<sup>13</sup> but these efforts have been in vain due to the lukewarm responses from Pakistan. The Pakistani leaders have never trusted India; instead of joining hands with India to find political solutions to the existing problems and crises in the region, they continue to nurture an anti-Indian intellectual and emotional mindset. The statement of Zulfikar Ali Bhutto, claiming that “[T]he Hindu majority [India] bitterly resisted the concept of Pakistan. Its leaders resorted to every device to ensure the defeat of a scheme that would have made the Muslims the masters of their own fate. The reason was the same old one: the desire to continue the economic, political and cultural enslavement of the Muslims”<sup>14</sup> is one such classic example. Similar statements were also made by many other prominent Pakistani scholars, diplomats, and political leaders on several occasions. Sajjad Hyder, Pakistan’s former High Commissioner to India, too had said, “The first determinant of [Pakistan’s] foreign policy is safeguarding Pakistan from India.”<sup>15</sup> Such false propaganda by the Pakistani leaders, led the people of Pakistan to have an anti-India mindset.

However, the local Kashmiris sympathising with the Islamic militants and drifting closer towards Pakistan was also due to India’s own wrong approach in dealing with the problems in its own state of Jammu and Kashmir. Instead of solving the problems of the Kashmiris through peaceful means, India responded with military might (brute force) to suppress, if not wipe out, the Pakistan backed Islamic militants from the state; in the process, it led to large-scale civilian casualties and strong resentment among the Kashmiris, which in turn, has provided opportunities to the militants and the Pakistan government to exploit the sufferings of the locals to strengthen their positions. The Indian policy-makers failed to address the very pertinent issue on which Lt. Gen Dr. D.B. Shekatker (Retd.) opined, “Success in counter-insurgency

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13 M.S. Rajan, *Studies on India’s Foreign Policy* (New Delhi: ABC Publishing House, 1993), p. 79.

14. *President of Pakistan, Z. A. Bhutto’s Speeches and Statements, April 1, 1972 - June 30, 1972*, (Karachi: Department of Films and Publications, Government of Pakistan), p. 22.

15. Quoted in Parminder S. Bhogal, “Pakistan’s India Policy: Shift from Zia to Benazir,” *Indian Quarterly*, 45 (1), January-March 1989, p. 35.

operations should never be quantified by the number of insurgents killed but by the number of people brought back to normal life and national mainstream."<sup>16</sup> The Indian government should accept the fact that counter-insurgency operations like those one in Jammu and Kashmir can never be won by brute force – they need winning the hearts and minds of the local people. One such way to win over the population is to provide them with a certain measure of security and strengthen local governance.

### **INDIA-PAKISTAN CRISIS: IMPACT ON REGIONAL POLITICS**

The countries of the Southern Asian region are geographically linked and share social, cultural and ethnic affinity. This provides a vast scope for the countries of the region to unite and develop the region collectively through cooperation. The South Asian Association for Regional Cooperation (SAARC) was formed with the aims to fulfill these objectives. With the objective of promoting "the welfare of the peoples of South Asia and to improve their quality of life", it also aims "to accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realise their full potentials".<sup>17</sup> However, SAARC has failed to move on the expected lines, mainly because of the India Pakistan acrimonious relations. To give one example, many Indian firms are keen to invest in Pakistan as they see great dividend in the economic relations between the two countries.<sup>18</sup> However, not all is well; many in Pakistan do not want India-Pakistan trade relations to prosper. Their argument has been that opening up Pakistan's market to India will be detrimental to their domestic economic interest. The imagined fears in the minds of the Pakistani leaders of being influenced or eliminated by India's market has contributed to the dismal economic relations between the two countries. One such fear is reflected by Dr. S.M. Koreshi, a former Pakistani Ambassador, in his book *Contemporary Power Politics and Pakistan:*

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16. Lt. Gen Dr. D.B. Shekatker (Retd.), "Genesis of Insurgency," *Defence and Security Alert*, vol. 1, issue 9, June 2010, p. 17.

17. "SAARC Charter," at <http://www.saarc-sec.org/SAARC-Charter/5/>, accessed March 22, 2010

18. "Indian Firms Keen to Invest in Pakistan," *The Hindustan Times* (New Delhi), February 11, 2012.

*An Ambassador's Reflection*. Koreshi writes: "Opening the floodgates to import of cheap and sub-standard Indian goods into Pakistan is a far more serious matter than even agreeing to the Indian terms of the nuclear programmes. It will cause mass closure of Pakistani industries, employment and giving up of defence production and self-reliance programmes."<sup>19</sup> It is because of the strong domestic pressure that the Pakistan government is unable grant Most Favoured Nation (MFN) status to India though India has grant the same to Pakistan as far back as 1996. It is not surprising that in the two largest economies of the Southern Asia region (India and Pakistan), inter-state percentage of trade has been recorded as the lowest. At present, the bilateral trade between the two countries "stands at [a mere] US\$ 2.7 billion, [though,] indirect exports to Pakistan from India through Dubai and the UAE are estimated to be about US\$ 7 billion".<sup>20</sup>

The conflicting political interest and rivalry amongst the countries of the region has not only hindered economic cooperation and coordination, but also resulted in stifling cooperation in other areas like fighting poverty, illiteracy, terrorism and natural calamities, etc.<sup>21</sup> Afghanistan, which is strategically located in Southern Asia, is in ruins; therefore, the country is in urgent need of peace and development. However, peace and development in Afghanistan are not likely until and unless the countries of the region cooperate and join hands to solve the political crisis in the war wracked country. Since Pakistan considers Afghanistan its legitimate sphere of influence, it tries to restrain other regional powers, especially India, from playing any active role in the rehabilitation and reconstruction work in Afghanistan. Besides, Pakistan has also actively campaigned with the world community to 'stonewall' India's involvement in the politics of Afghanistan. Because of such aggressive policies adopted by Pakistan, the countries of the region are unable play an effective role in the Afghan peace process.

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19. Dr. S. M. Koreshi, *Contemporary Power Politics and Pakistan: An Ambassador's Reflection* (Islamabad: Institute of Policy Studies, 1991), p. 93.

20. P. Vaidyanathan Iyer, "Pak Warms Up to Indian Delegation; Hopes for Better Trade Ties," *The Indian Express* (New Delhi), February 14, 2012.

21. Ashok K Behuria, ed., *South Asia: The Quest for Regional Cooperation* (New Delhi: Institute for Defence Studies and Analyses, 2009) p. 1.

## CONCLUSION

The politics of the region is in a flux. The political crisis has spread to almost all the countries of the region leading to serious policy problems for India. The Planning Commission of India has set the target of India's growth rate at 9.5-10 per cent in its 12th Plan to sustain India's socio-economic development.<sup>22</sup> However, to achieve this target, India needs peace and stability in the region. Peace and stability in the region become even more important because "India is already the world's sixth-largest consumer of energy resources. Its energy consumption [is expected to] rise to 27.1 quadrillion BTUs by 2025, up from 12.7 in 2000 – the largest expected increase in energy use after China... [Therefore,] India's domestic natural gas supply is not likely to keep pace with demand".<sup>23</sup> A Press Release of the Ministry of Commerce and Industry, the Government of India, confirmed that India's "[o]il imports during August 2010 were valued at US\$ 7,795 million, which was 12.4 per cent higher than oil imports valued at USD 6,936 million in [August 2009], and [o]il imports during April-August 2010 were valued at USD 40,736 million which was 31.7 per cent higher than the oil imports of USD 30,929 million in [April-August 2009]."<sup>24</sup> In April-December 2011, the quantum of crude oil imports increased to 125.6 mt valued at Rs. 4,69,993 crore as against imports of 121.5 mt, valued at Rs. 3,16,442 crore in April-December 2010. Though India's import of oil in quality terms increased by only 3.4 per cent, the increase in value terms was recorded to have been 48.5 per cent during 2011-12.<sup>25</sup> The reason being that crude oil prices continue to remain above the US\$ 100 a barrel mark, thus, one witnessed the brunt of the political crisis in the oil-producing region directly reflecting on India's economy.

Since the natural resources of the country of the Southern Asia are limited, it will be difficult for the countries of the region to achieve full

22. "9 Per Cent Growth Tough, but Must be Positive: PM," *The Hindustan Times* (New Delhi), October 23, 2011.

23. Cited in Pramit Mitra and Vibhuti Hate, "India-Iran Relations: Changing the Tone?" CSIS, *South Asian Monitor*, no. 92, March 08, 2006, at <http://csis.org/files/media/csis/pubs/sam92.pdf>, accessed August 02, 2011.

24. Government of India, Ministry of Commerce and Industry, Department of Commerce, Economic Division, "Press Release on India's Foreign Trade: August - 2010," New Delhi, October 01, 2010, at [http://commerce.nic.in/tradestats/indiatrade\\_press.asp](http://commerce.nic.in/tradestats/indiatrade_press.asp), accessed September 21, 2011.

25. "Boiling Oil: April-December Crude Imports up 49 per cent at 4,69,993 cr," *The Hindustan Times* (New Delhi), February 11, 2012.

self-reliance through indigenous production. Thus, one can conclude there is no alternative but to depend on imported natural resources to sustain the energy security for years to come, if not decades. Here lies the importance of peace and cooperation among the countries of the region, especially between India and Pakistan. Despite various problems besetting the two countries, India-Pakistan relations cannot be wished away, because, both the countries share historical and geographical links and are economically undeveloped. Therefore, it is in the interest of both to find ways to normalise their acrimonious relations.



# THE HUMP AIRLIFT: A SUCCESS STORY

ASHOK K. CHORDIA

## HAZARDOUS HUMP

The recent wars in Iraq and Afghanistan have underscored the importance of airlift as an element of air power. On display has been the formidable airlift capability of the US – the ability to deliver almost anything, anywhere, anytime. The foundation of this massive capability was laid during World War II. The fall of Rangoon to the Japanese, and the eventual blocking of Burma Road in March 1942 had disrupted the supply lines, leaving airlift as the only option to maintain the forces in China. Failure to supply would risk substantial Chinese territory to the Japanese and, more importantly, a defeat in China would relieve a part of the more than one million strong Japanese force, to cause havoc elsewhere in the Asia-Pacific region. The Hump<sup>1</sup> airlift stands out for the dogged determination of the aircrew who flew under extreme conditions and hauled tonnes of supplies, equipment, vehicles, arms, ammunition and thousands of personnel across the Himalayas from India to China. That airlift has relevance for India because (1) India's air maintenance in the eastern sector is over the same terrain and weather conditions; (2) military

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1. "The Hump" was a 550-mile route in the China-Burma-India theatre over the Himalayas.

operations on the eastern front are a possibility; and (3) since the sector is prone to natural disasters, relief operations through airlift are an occasional dire need.

The Hump airlift had all the ingredients of hazardous flights – unpredictable extreme weather; inhospitable mountainous and jungle terrain; sluggish aircraft; faulty or no radio and navigational aids; one way airfields and hostile natives to harass the bailed out crew of disabled aircraft; and the threat of encounter with the Japanese fighter aircraft on the prowl en route. There were frequent losses of aircraft on the Hump route. Ironically, the wreckage of many crashed aircraft strewn along the path guided the pilots flying in the region and earned the Hump route the unpopular epithet of *the Aluminium Trail*.<sup>2</sup>

## **TWO YEARS INTO THE AIRLIFT: TONNAGE, ACCIDENTS AND MORALE**

Commencing on April 08, 1942, during April-May 1942, the Tenth Air Force (AF) airlifted 308 tonnes of supplies. With gradual and meagre rise in tonnage, there was an alarming increase in aircraft accidents. By January 1944, the monthly capacity reached 13,000 tonnes. But then, there were nearly two accidents per 1,000 hrs flown – one aircraft lost per 200 trips. Three Americans were sacrificing their lives for every thousand tonnes being flown into China.<sup>3</sup> The mountainous and jungle terrain hindered the return of the bailed out crew to the bases. The high accident rate and the hopelessness of bailing out demoralised the pilots.

Living conditions were pathetic: life crammed in *bashas*; hot and humid weather; stock-outs at the PX's forcing men to remain unkempt; and shortages of necessities, leading to poor sanitation and hygiene. Pilots flew relentlessly to log flying hours necessary to make them eligible for postings out of the region.<sup>4</sup> For technicians and other support staff, there was no rotation policy. All these factors

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2. Richard R. Muller, "The Air War in the Pacific," in John Andreas Oslen, ed., *A History of Air Warfare* (New Delhi: Vij Books, 2010), p. 71.

3. Lt Gen William H. Tunner, *Over the Hump* (Washington D.C.: Office of AF History, USAF, 1985), p. 55.

4. A fixed rotation policy was in vogue. A pilot who flew 650 hours in the region was eligible to return home to the US for a break. Owing to the poor living conditions, pilots strived to log maximum flying hours; at times flying as many as 165 hours a month leading to fatigue related accidents.

contributed to turn the Hump into a haven for the undisciplined and the alcoholics. Men unwanted elsewhere were assigned to the Hump. It was a belief that no commander had risen in rank on leaving the region. A defeatist attitude and lack of everything was responsible for less tonnage and low morale, leading to accidents.

### **CHANGE OF LEADERSHIP**

Until November 1942, theatre commanders controlled the airlift operations. On December 01, Air Transport Command, with principal experience in transportation, took charge of the Hump operations. Then onwards, the tonnage showed slow and steady progress but the accidents continued unabated. Brig Gen William H. Tunner assumed formal charge in August 1944, with a clear mandate to:

- increase the tonnage;
- lower the accident rate;
- uplift morale.

Tunner knew that unheralded innovation in logistics and good Human Resource Management (HRM) was vital to achieve those aims. He handpicked some of his most trusted men in uniform, and some civilians, to form a team – ace pilots, a technician, an expert on communications, intelligence and public relations, a Production Line Manager (PLM), a statistician, a personnel manager and others. He then flew a sortie over the Hump to visualise the problems. During his familiarisation visit, he observed drooping spirits and a glaring absence of military discipline in the personnel of the region.

### **SYSTEMIC CHANGES FOR EFFICIENCY**

‘Lowering the accident-rate’ and ‘increasing the tonnage’ appear to be mutually exclusive propositions. Tunner disproved this hypothesis through simple changes. Some of these were:

- **New Rotation Policy for Aircrew:** The new rotation policy entitled a pilot to return for a break in the US after completion of 750 flying hours or one year of stay in the region, whichever was later. The average flying requirement came down to as low as 65

hrs per month<sup>5</sup> – lowering fatigue related accidents.

- **Rotation of Technicians:** Tunner realised that a fatigued and depressed technician working on an aircraft was a potential source of snags leading to accidents. So, he started rotating the other staff too.
- **Administration and Well-being:** Entertainment and sports opportunities were provided. Men were encouraged to work in vegetable gardens and farms as a hobby. This kept them occupied and rewarded them with fresh vegetables. Large quantities of DDT were sent to the region and mosquito proofing was done. Men were educated on health and hygiene and availability of clean water was ensured. Living rooms were provided with windows and fans. PX's were better stocked. Cigarettes, chocolates and toiletries were made available more readily. Men now had enough time and opportunity to rest and recreate.
- **Discipline:** After the initial and heavy dose of welfare, Tunner focussed on discipline – he commenced parades and inspection of living areas.
- **Competition:** Tunner incited and exploited the spirit of competition among his men. He published a daily bulletin listing the full achievements of each base in the previous period on the basis of capacities of each unit, and declared winners. A healthy competition raised morale and improved tonnage.
- **Maintenance:** With the implementation of effective production line management practices on all bases, the serviceability and availability of aircraft rose to a new high. He augmented the technical manpower by employing and training the locals on simple chores like cleaning the aircraft. Some of these natives were selected and gradually trained to take over more important tasks. This improved the availability of skilled technicians and enabled their rotation too.
- **Operations:** New pilots were inducted into operations through a laid down process of training, screening and indoctrination. Proper briefing and de-briefing became a permanent feature. Survival

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5. Earlier, the limit was 650 hours and the pilots were flying as many as 165 hours a month to complete their quota and to exit the region at the soonest.

training and centralised Search And Rescue (SAR)<sup>6</sup> became integral to operations lessening some of the qualms of the aircrew.

- **Flying Safety Programme:** With a strong belief in the dictum, '*accidents are predictable, therefore preventable*', the mission of the Flying Safety programme was to anticipate and promptly correct the conditions that caused accidents. The programme focussed on investigation and analysis of existing procedures and practices; statistical investigation and analysis; recommendations for overcoming faults and prompt action, and follow-up.
- **Innovativeness:** The Americans overcame the shortage of material handling equipment by using elephants to load the aircraft. An apparently simple innovation – stripping off the camouflage paint from the C-87s used by the *Fireball Express* – gave them an extra 5 mph of air speed.<sup>7</sup>
- **Fireball Express:** The promise of the American leadership to Chiang Kaishek for support to the Chinese war effort was at odds with the meagre resources available in the region. The *Fireball Express* began making weekly runs with spare parts from the Air Service Command depot in Fairfield, Ohio to India.<sup>8</sup>
- **Command and Control:** Initially, once the aircraft crossed the Hump, they were out of the control of the airlift commander. Commanders in China exploited them for intra-theatre duties affecting the operations over the Hump. Tunner instituted mechanisms to exercise control over the aircraft even after they crossed the Hump. This annoyed some commanders but then, Tunner had his way.

## OUTCOME OF TUNNER'S EFFORTS

The newfound cleanliness, hygiene, work ethos and, planned and organised operations increased efficiency. In July 1945, the tonnage touched 71,042 tonnes with a *low* accident rate of 0.239 per 1,000 hrs of flying. This was nearly a 700 per cent improvement on the accident

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6 SAR missions undertaken by Capt. John L. "Blackie" Porter and his men popularly known as "Blackie's Gang" turned into a well organised activity leading to the birth of "Pararescue" with their motto, "So others may live."

7. Correll John T., "Over the Hump to China" in *Airforce Magazine.com*, vol. 92, no. 10, October 2009, available at <http://www.airforce-magazine.com/Magazine Archive/Pages/2009/October%202009/1009hump.aspx> accessed on March 06, 2012.

8. Ibid.

rate of January 1944. In the last year of operation, the tonnage was 5,50,000 tonnes. Tunner's men celebrated the Army Air Forces Day, August 01, 1945, in a very special way. Rather than holding parties, they set out to establish a record. On that day, they airlifted 5,327 tonnes in 1,118 round trips without an accident – one aircraft crossed the Hump every minute and twelve seconds. A remarkable thing about the achievement was that it was accomplished without compromising the operations on the preceding days.

### **WHAT MADE IT POSSIBLE?**

Team building acquires special significance for crisis management. Tunner gave credence to capabilities when he selected his team – not all were from West Point or Harvard nor were all of them military personnel. Some civilians were given a commission after joining the team. All of them proved worthy; a large number of them moved on to join his team that handled the *Berlin Airbridge* later.

As a commander, Tunner was alive to his commitment to his men – to help them stay well. While the lower echelons worked wholeheartedly for the commander, he strived for them on all counts. The new HRM policies showed a dip in the beginning, but favourable results came by later. Tunner displayed courage of conviction in implementing some unpopular policies too.

Thirteen different bases in India and six in China worked the Hump. They operated several different aircraft. While credit may be given to the efforts of the men who performed way beyond the call of their duties, one of the factors that contributed to the eventual success was the induction of C-54 aircraft. The C-54, with greater payload capacity and higher speed than the C-46, turned out to be doubly efficient.

The marked rise in the tonnage towards the end is attributable to yet another factor – the widening of the air corridor. Initially, it was only 50 miles wide and allowed two-way traffic with a vertical clearance of 18,000 to 25,000 ft. Later, with reduced threat from the Japanese, the width became 200 miles, with maximum vertical clearance in the south, of 10,000 to 25,000 ft.

People attribute the success of the Hump airlift mainly to Tunner's efforts to provide improved living conditions and a

congenial working atmosphere. This may not be entirely so. Because most of them were *hygiene factors* and, an improvement that comes out of elimination of factors, absence of which causes dissatisfaction, is not sustainable over long periods of time.<sup>9</sup> In due course, men tend to devalue the worth of such elements. What actually worked was the sense of healthy competition, achievement and pride that was generated through the airlift. Men devoted themselves because they wanted to see their units topping the tonnage.

There was a yeoman contribution of the women pilots too. The need for the Hump airlift arose at a time when World War II was reaching a climax in the European theatre. There was a dire need of pilots for all purposes, including ferrying the newly manufactured aircraft from factories in the US to various locations in the US and, to some in Europe. While men were flying operational sorties in Europe, Asia and the Pacific, women were silently ferrying aircraft from factories to destinations all over. The 5,00,000 hours and 60 million miles flown by them up to October 1944<sup>10</sup> must have spared many of their male counterparts for the war effort in the China-Burma-India (CBI) theatre.

Some literature on the Hump gives the impression of a simmering rivalry among the theatre commanders, who sought to control the airlift operations, and the Air Transport Command. In the end, the mammoth task could be achieved, to a great extent, because the airlift resources were not frittered away in penny packets.

The Hump airlift proved, forever, the efficacy of air transportation. It proved that bases that are well run, clean, orderly and soldierly do better operationally. It is important to maintain the morale of men working in adverse conditions because pushed to limits of endurance; it takes very little to make men ineffective.

The pilots flew in adverse conditions with absolute disregard to personal safety and comforts. They achieved the task at heavy costs. A question baffles many an observer: why did the US support the Chinese war effort over the Hump at such a prohibitive cost in terms of American lives and aircraft? Tunner's explanation more than justifies the cost: just one of the accomplishments of the airlift made it

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9. Frederick Herzberg's Theory of Motivation.

10. Robert A. Slayton, *Master of the Air: William Tunner and the Success of the Military Airlift* (Alabama: The University of Alabama Press, 2010), p. 42.

militarily worth while: "By means of the Hump we enabled the Chinese armies to keep up their resistance, which, in turn, made it necessary for the Japanese to keep a well-trained and well-equipped force of up to million men in China. And every Japanese soldier tied down in China was one less Japanese soldier shooting at American soldiers, sailors and Marines in the islands of the Pacific."<sup>11</sup> A reason to live and die for is a great source of motivation.

### IN THE INDIAN CONTEXT

The conditions of weather and terrain in the eastern sector are the same as those encountered by the Hump pilots. There has been, however, a marked improvement in the airlift capacity and capability over the yesteryears – superior aircraft, better material handling equipment, better ground support, better living and working conditions. Aircraft, radio and navigational aids – all favour the operators of today. The morale of the men is high. As a result, what the Hump airlift achieved in the heyday of its operations (7,000 tonnes per month) may be possible in a much smaller timeframe. Lack of challenge differentiates the two: today, the target tonnage can be met relatively easily and there is a conspicuous absence of enemy threat in the routine sorties. This is a recipe for complacency. There is a need to remain eternally vigilant. What can then be done to ensure preparedness for contingencies of the future? Here are some points to ponder:

- There is a need to ensure availability of more material handling equipment, and trained men to use them on all bases. This assumes special significance in view of the planned induction of C-17 Globemaster with a massive airlift capability.
- It is essential to master the lowest turnaround timings. This activity must come as a second nature. All manpower and material resources must be exploited to achieve this end.
- For a personnel rotation policy to be effective, it is imperative that there is a large pool of trained manpower readily available for replacements. It is also important to learn new skills *fast*. Developing a work culture and ethics ensures this.
- A work environment must be developed which presents

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11. Lieutenant General William H. Tunner, *Over the Hump* (Washington D.C.: Office of AF History, USAF, 1985), p. 58.

challenges, and rewards individuals with a sense of achievement and encourages them to outdo their own performance, repeatedly.

- Willing involvement of personnel, officers and men both, in the station activities is a must to develop bonhomie that sees teams through tough times.
- Discipline and *hygiene factors* must be maintained at high levels.
- Ultimately, it is the will power of the men, who will fly, or support flying, that will overcome all odds. The ability to do so cannot be developed overnight. It must evolve.

Another major difference is that the Hump airlift entailed airlanded operations. Aircraft from thirteen bases supplied six airfields in China. In the Indian context, air maintenance depends mainly on paradrop and free drop over restricted drop zones. Airlanding is restricted to very few Advanced Landing Grounds (ALGs). There is a need to master precision dropping and to ensure preparedness of the existing bases to handle a large number of aircraft. Revival of the old abandoned runways and aircraft operating surfaces will provide more options during crises. A team that can create infrastructure at lightning speeds like the 'Seabees' will be a valuable asset. There is also a case for Vertical Take-off and Landing (VTOL) airlift capability of the V-22 Osprey and Chinook type.

An Australian firm has developed a giant airship<sup>12</sup> that can carry 150 tonnes over 2,000 km. They hope to carry rural hospitals and disaster relief centres to remote areas. Could this be a viable solution for some of our needs?

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12. "Giant Airship that can Carry Entire Buildings 2000 km," *The Times of India*, October 06, 2010, p. 21.



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