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EDITORIAL

Policy formulation is a complex task. Its periodic review is equally important. After the end of the Cold War, the United Kingdom undertook a Strategic Defence Review (SDR) to reassess defence and security needs. It was published in July 1998. The lead article in this issue of the Journal is titled "Managing the Strategic Defence Review" by His Excellency Mr Geoffrey Hoon, the UK's Secretary of State for Defence. It has been excerpted from the talk he delivered at the USI. A principal outcome of the Review was the restructuring of the UK Defence Forces to enable them to successfully meet emerging challenges. One way of achieving this is through greater joint working between the three Services, which makes both operational as well as financial sense. A number of new joint organisations have been created. The Review also covered aspects of defence procurement and the needs of Service personnel.

India has launched a bold diplomatic initiative by inviting General Pervez Musharraf for talks in New Delhi. Pakistan's Chief Executive has accepted the offer to 'walk the high road to peace'. In an article titled "The Vajpayee and Musharraf Meeting : An Agenda", Maj Maroof Raza gives a brief overview of the Jammu and Kashmir problem in Indo-Pak relations. He does not expect the parleys to yield much, given the absence of a viable middle ground between the contending positions. He also feels that the leaders in New Delhi, Islamabad and Srinagar do not have the ability to make major concessions.

Lt Gen Chandra Shekhar, PVSM, AVSM (Retd) has written an article on the need for indigenisation of defence production. He has adapted it from a study report on Defence-Industry Partnership, which he had headed earlier while serving as the Vice Chief of the Army Staff. Pointing out that only 30 per cent of our defence equipment needs in 1995 were met by indigenous production, he highlights the constraining effects of such dependence on the country. In addition, the increasing restrictions being placed by industrialised countries on technology transfers make it imperative

that India persists with the goal of self-reliance in defence production. He also makes the case for the involvement of the private sector in national defence. Lt Gen Chandra Shekhar has identified eight tenets that should make up the strategy for achieving self-reliance in this vital sphere.

One issue that has exercised the minds of most Service personnel over the last few months is the corruption scandal exposed by *Tehelka.com* recently. Focusing on corruption in the arms trade, Admiral R H Tahiliani points out how it is perpetuated under the prevailing norms. For manufacturers, getting an order can make the difference between survival and closure, which sometimes even leads to foreign governments getting involved in *pushing* the products of *their* industries. Admiral Tahiliani has made recommendations for reducing the scope for corruption in defence deals. He points out the advantages of having two separate sets of teams in the acquisition process, one to carry out technical evaluation and the other to negotiate the price. Providing for nominated agents and middlemen interacting with designated officers would also help to make the process transparent. He also recommends the incorporation of integrity pacts – a concept evolved by Transparency International – into defence procurement contracts, which bind both the buyer and the seller to desist from corrupt practices.

Managing the Strategic Defence Review

HIS EXCELLENCEY GEOFFREY HOON

For over 40 years, the strategic environment, particularly in Europe, was fairly certain. From a defence perspective we knew who and what to plan for. The end of the Cold War and collapse of the Berlin Wall changed all that. Certainty has been replaced by uncertainty with new security threats. This in turn brought about a need for a major reassessment of the UK's strategic priorities for defence and security policy, and led to the Strategic Defence Review, published in July 1998. The review was foreign policy-based and involved full and open consultation with a wide range of opinion from defence, wider government, academia, non-governmental organisations and the public. As a result we are undergoing the most fundamental change to the structure and capabilities of our Armed Forces for decades.

The Review recognised that the previous structures established and to train and equip our forces during the Cold War were no longer operationally right or cost effective. It confirmed three fundamental principles:

- (a) Firstly that a strategic attack by Russia was a sufficiently remote possibility and that we no longer needed to retain large armed forces, specifically to defend against that contingency.
- (b) Secondly, that in the new strategic environment following the end of the Cold War, the international community needed to be prepared to respond to a crisis quickly rather than wait for it to develop into a larger problem. This requires forces which are flexible, agile and widely deployable and could conduct multiple operations at smaller scales of effort, under

Excerpts of the talk delivered at the United Service Institution of India on 11 December 2000.

His Excellency Mr Geoffrey Hoon is the Secretary of State for Defence of the United Kingdom.

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either UN (United Nations), NATO (North Atlantic Treaty Organisation), EU (European Union) or national auspices. In order to do this we recognised that improvements were needed in key enabling capabilities such as command and control, communications, strategic lift, logistics support and medical services.

(c) Thirdly we recognised that, although our forces were often likely to be engaged in operations other than war, in order to be effective in operations of all kinds, they still needed to be trained and equipped to take part in the most demanding missions. It is possible, as we have seen in the Balkans, East Timor and Sierra Leone, for forces with warfighting skills to carry out lower level operations. This same does not apply in reverse.

The Strategic Defence Review (SDR) confirmed, and enshrined formally, the British Government's desire to act as a force for good on the international stage. As a permanent member of the UN Security Council, we take seriously our international responsibilities. And like India we want to make a special contribution to peacekeeping and humanitarian operations beyond our immediate backyard, even where our national interest may not be directly engaged. The UK public, motivated by immediate and graphic media coverage of crises, increasingly expects us to tackle crimes against humanity and contribute effectively to disaster relief and humanitarian assistance operations.

The SDR was not a cost-cutting exercise. But it soon became apparent that, if we were to achieve the desired improvements to our capabilities, we were going to need to spend our budget as effectively as possible. Or, as we have said "to make every pound count for defence". At the same time, in the absence of a strategic threat, and with increased expectations of government in other areas, we needed to present a better case for devoting resources to defence. Otherwise that money might be allocated to more immediately visible areas such as health, education or transport.

One of the principal outcomes of the SDR, therefore, was—the restructuring of our forces so as to meet the challenges of

today, and not those of the past – the rationalisation of all aspects of defence activity. One of the ways in which we are working towards achieving both these aims is through greater joint working between the three Services. This not only makes operational sense, but also makes financial sense.

We have therefore created a number of new Joint organisations. The newly established pool of Joint Rapid Reaction Forces achieved initial operational capability in April 1999. This provides a pool of forces, which can be drawn on as situations and circumstances require. It will typically consist of around 20 major warships, 22 other vessels, 4 brigades, 110 combat aircraft and 160 other aircraft. They can be deployed quickly around the world and deliver real punch when they arrive. The bulk of this force has been made available to the United Nations; it allows us to contribute quickly with a leading battalion arriving in seven days and a brigade within fifteen days.

We have also created a Joint Harrier Force, to bring together all of our Harrier aircraft into a co-ordinated force able to operate from land or from carriers. We demonstrated this capacity off Sierra Leone in May 2000. Other organisations include a Joint Helicopter Command to bring together support helicopters from all three Services into a more flexible combined fleet; a Joint Doctrine and Concepts Centre to foster strategic thinking between the Services; and a tri-Service Defence Logistics Organisation.

Operations over the past months have validated these changes to our force structures and confirmed the conclusions of the Review. British forces continue to play an essential role in peace operations in Bosnia and Kosovo. Elements from the Joint Rapid Reaction Forces have seen action in support of UN peacekeeping in East Timor and Sierra Leone. The Joint Harrier Force has proved its worth in the Gulf and the Joint Helicopter Command in disaster relief in Mozambique where helicopters arrived within four or five days.

A very important area that we examined as part of the Review was our approach to nuclear weapons. Since the end of the Cold

War the United Kingdom had already taken decisions to give up its nuclear Lance missile and artillery roles, its maritime tactical nuclear capability, and all its air-launched nuclear weapons. This reflected our conclusion that nuclear weapons have no role on the tactical battlefield. The Review concluded that we needed only one nuclear system, the submarine-based Trident missile with only one Trident submarine on deterrence patrol at any time and at a reduced state of alert. We decided that it should carry 50 per cent fewer warheads than the previously announced ceiling. And, of course, all our Trident missiles remain de-targeted. We indicated that, when satisfied with progress towards our goal of the global elimination of nuclear weapons, we will ensure that British nuclear weapons are included in negotiations. With this prospect in mind, we have been more open than before about our holdings of nuclear weapons and fissile materials.

Russia and the US have also been busy implementing the reductions required by START I (Strategic Arms Reduction Talks) treaty. And all five Nuclear Weapons States reiterated their commitment to nuclear disarmament at the Nuclear Non-Proliferation Treaty Review Conference in May 2000 in unequivocal terms. An important part of making progress towards nuclear disarmament is putting an end to all nuclear explosions and to the production of fissile material for nuclear weapons. For our part we have not carried out a nuclear explosion since 1991; we announced in 1995 that we had ceased the production of fissile material for explosive purposes; and we ratified the Comprehensive Test Ban Treaty in 1998.

Naturally we wish others to follow suit. We are therefore very much encouraged by India's statement that it will continue its voluntary moratorium on nuclear explosive testing until the Comprehensive Test Ban Treaty comes into effect. And we hope this statement will soon be reinforced by India's signature and ratification of the treaty. We are also encouraged by India's support for the earliest possible start of negotiations in Geneva for a Fissile Material Cut-off Treaty. I believe India and Britain should work together to persuade other countries to let these negotiations begin without linkage to work in the Conference on Disarmament on other topics.

Another area to undergo significant overhaul as a result of the SDR has been defence procurement. The through life costs of defence equipment account for almost 40 per cent of our defence expenditure. It is therefore vital that the equipment budget is spent in the most effective way. The record in the past has not always been good. While much of our equipment is excellent, too often sub-standard products have been delivered to our Forces late and over budget.

A central part of the SDR was therefore the Smart Procurement Initiative. This looked at our acquisition structures, our likely challenges and our requirements from first principles. It was the vehicle for new and sometimes radical thinking. Through the Smart Procurement Initiative we sought to deliver savings that would help finance the new capabilities identified by the SDR as necessary. But more importantly, through Smart Procurement we aimed to develop an acquisition process that was the equal of the Forces we are building as a consequence of the SDR. An acquisition process that delivers better kit, faster and cheaper. And an organisation that supports that equipment efficiently and effectively in the fast moving world in which we must operate.

This first phase of implementing Smart Procurement – that of making the key changes to our procurement organisation and processes – effectively came to an end in May 2000. Since then, we have renamed our new approach Smart Acquisition. The word "acquisition" recognises that it is not only procurement practice which we are seeking to re-energise and transform but the whole acquisition process from beginning to end. Planning the equipment programme, setting requirements and sustaining equipment once in service are just as important and have been equally affected.

It is hard to overstate the breadth or depth of what has been achieved in a remarkably short space of time. We have formed a Defence Procurement Agency with shortened lines of responsibility. We have created a single Defence Logistics Organisation from the previous single Service logistics commands. For the first time there is now a single organisation – the new central Equipment Capability Customer – with responsibility for planning, specifying and funding the equipment capability programme.

We now have some 130 Integrated Project Teams (IPTs) spread across the Defence Procurement Agency and Defence Logistics Organisation. The IPTs are responsible for setting and trading off requirements to ensure that we secure the best possible value from the £ 11 bn we spend on stores and equipment for our Forces each year, by balancing time, cost and performance. Each team is responsible to a clearly identified internal customer. Each has a leader who has been empowered so that he or she really can lead their team and he/she reports directly to the Board of the Defence Procurement Agency. Clearer, shorter lines of accountability, new training and clear objectives all allow the teams and their leaders to bring the very best out of themselves and from the industry. Currently, industry is closely involved with over 80 per cent of the teams. This is already paying dividends. Industry now understand our requirements better than ever and are taking the initiative to propose mutually beneficial solutions.

As well as creating Integrated Project Teams, the formation of the Defence Procurement Agency has involved a radical transformation of its corporate structure. Management layers have been removed to allow a sharper focus onto the Project Teams. In parallel the Defence Procurement Agency has at the same time reduced its operating costs by over 10 per cent in the past two years and has met the key targets for equipment quality and cost set in its first year. Keeping to time is still a problem, but I am confident that we are in a position to make progress there too.

The Defence Logistics Organisation (DLO) has also introduced a huge programme of business change. Logistic support is crucial to our Forces' ability to fight and win. Getting our Forces to a crisis is not enough. We need to be able to supply and sustain them. But we need to do this as cost effectively as possible. The new organisation has been up and running since April 1999, under a Chief of Defence Logistics. It provides logistics support across the board – everything from ships to guided missiles to ration packs, and spending around £5 bn a year. Bringing together logistics functions provides an opportunity to capitalise on economies of scale and to conduct a much wider rationalisation of support to the front line than could ever have been possible under three separate

logistics organisations. This allows us to release more resources for investment in front line capability.

The DLO's strategic goal is to achieve a 20 per cent reduction in output costs by 2005. To do this, it has established an innovative Business Change programme. The key benefits of the programme include a smaller, leaner, single defence inventory shared with industry; a reduced number of direct suppliers, consistent with best commercial practice; a focus on the reduction of through-life whole support chain costs rather than buying equipment simply on the basis of the lowest acquisition prices; and the maximum application of e-commerce. The first priority of the DLO remains the provision of logistics support to the Armed Forces. This has continued uninterrupted throughout the transition to the new organisation and alongside these major business changes. The new arrangements have been tested – and found to work well – in operations in the Balkans, Sierra Leone and elsewhere.

We are already seeing the results of the new unified approach to logistics. For example, we have formed a Defence Fuels Group, a Defence Catering Group, and a Defence Munitions Group which serve all three Services thus eliminating duplication in the inventory and reducing overheads. There is more to come. The rationalisation of the Naval Bases and Supply Agency and the Ship Support Agency into a single organisation, the Warship Support Agency, from 1 April 2001, will deliver cost and operational benefits in the management of support to front line ships.

The DLO will not stop there. It is working on initiatives to revise the principles of supply chain management. The aim is a step change in stockholding and repair and maintenance practices which will reduce the volume, value and complexity of the inventory, in turn reducing storage requirements. Greater commercial involvement in support and the increased use of Private Public Partnerships will improve the delivery and reduce the cost of both logistics and engineering support.

I would like to say a few words about Public Private Partnerships, or PPP. Our overriding aim is to make best use of

the private sector's skills and resources to improve defence support. But our approach to achieving this is not dogmatic. There is no preference for the private sector over internal options or vice versa. We will use industry where it can provide the services we require at best value, and our own resources where we can undertake activities more efficiently. PPPs can take various forms. Contracting out services; partnering with industry through long-term contracts based on shared risks; and the Private Finance Initiative where the private sector is responsible for financing, providing and operating the assets necessary to meet our requirements. These offer new ways of doing business more efficiently. As well as making use of the private sector's capabilities, PPPs make best use of our own skills and resources by concentrating them on providing activities that we really *do* need to undertake ourselves.

In recent years we have undertaken 35 Private Finance Initiative deals. These involve the investment of £1.8 bn of private sector capital expenditure in defence. They have included office and Service family accommodation, utilities, information systems and simulators for training, such as the aircrew training facilities for Medium Support and Attack helicopters and for Hawk and Tornado aircraft. We are keen to do more. Some 50 further projects with an estimated total capital value of up to £12 bn are in procurement or being considered. These include projects ranging from the provision of water and sewerage services to defence facilities, to satellite based communications systems.

In taking forward all of this we are clear that our overriding objectives must be to ensure the delivery of services and maintain our military capability. Our partnership with the private sector has one aim : to make the best use of available resources to support our Servicemen and women in undertaking their vital roles.

What counts is the real impact this has on the provision of equipment and other services to our Forces. Here, Smart Acquisition is already having a real and measurable positive impact. For example, on the Challenger 2 Main Battle Tank programme the integrated project team has identified ways of saving nearly £ 200 million over the life of the project by working closely with industry

on innovative ammunition procurement and improved design for maintenance techniques. In the case of the Nimrod aircraft IPT, we expect to reduce the costs of supporting the Royal Air Force (RAF) Spey aero-engines and accessories by up to £ 16 m through a Total Support Package contract. The aim is to use this as a pilot for future Total Support contracts of this nature and extend it to other aircraft platforms. That will increase the potential savings.

These are real benefits that are happening now. They show that with a modern, imaginative approach, great things are possible. In the early days of the Smart Procurement initiative in 1998 we set out to reduce acquisition costs by £2 bn over the next 10 years. We are confident of achieving this. But it has always been about more than achieving savings. We are seeking significant improvements in the timeliness and performance. Targets include no average increase cost in-year, and no more than about a week's slippage on new projects. These are demanding targets indeed; but we are determined to hit them.

We also recognised in the SDR that, our most important asset is our people. And that is why we have made a range of improvements to the personnel dimensions of the Armed Forces. For example we have greatly improved support to deployed personnel and have substantially expanded their allowance packages. We have improved the provision of education and training to include civilian recognised qualifications which are more transferable when the Service man or woman leaves the Armed Forces. And we have set up the Service Families Task Force and Veterans Advice unit to deal with the specific problems faced by Service personnel and their families. What all of this means, ultimately, is that the soldiers, sailors and airmen who we ask to risk their lives on our behalf, will face their tasks better equipped and better able to deal with the challenges of operations.

A key dimension of this modernising agenda, is a greater international co-operation at every level, from the industrial to the operational. Of course part of the reason for this are the pressures on defence budgets. It makes financial sense to pool expertise where we can.

First the international context. When considering defence acquisition it is not sensible – or even possible – to do so in splendid national isolation. Our personnel must have the best possible equipment to do the job. And in any case, the defence equipment industry is increasingly global. Our principal suppliers are international businesses with interests worldwide. We therefore seek to collaborate on equipment projects where it makes financial and military sense to do so. We know of many areas where India has industrial strengths and I am looking forward to visiting Bangalore tomorrow to see some of them. Aerospace and Software are obvious examples; and we hope to see an expansion of exchanges and co-operation in these fields. Defence Minister Fernandes and I have initiated exchanges on defence technology – other areas such as aerodynamics and human sciences. I was delighted by the UK/Indian Defence Industrial Seminar in London (in 2000) attended by 50 UK companies and their Indian counterparts resulting in 20 MOUs (Memoranda of Understanding) for further co-operation. The economies of scale which can be achieved through collaboration in equipment procurement are also increasingly significant. Take Eurofighter. It will be the world's finest fighter aircraft. And it is the result of the combined efforts of four nations. As a result we will get it at a lower price and with more advanced technology than if we had done it alone. And there will be huge operational benefits from four NATO nations using the same aircraft, many of the same weapons, and much of the same ground equipment. If the UK went alone down that path Eurofighter would cost us much more and would be much less capable.

One focus of recent efforts of course at the policy end of the spectrum has been the development of new arrangements for European security and defence. This initiative has attracted a great deal of interest and, in the UK at least, heated debate. Regrettably, the rhetoric has often hidden the facts. Our aims are quite simple. We want to develop a security and defence dimension in the European Union, in order that the EU can undertake crisis management operations where NATO is not engaged. It is only sensible that the EU should also have the capability to respond to those few hard cases when the normal instruments of our common foreign policy – trade, economic relations, political relations and diplomacy – are not enough.

Crucially, we also want to strengthen European military capability, so that European crisis management options will be credible. At the Helsinki European Council in December 1999, EU Member States made a commitment to improving their military capabilities, by signing up to a specific target known as the Headline Goal. This states that, by 2003, EU nations should be able to deploy rapidly and sustain for at least a year up to 60,000 troops capable of undertaking the full range of crisis management tasks. At a Capability Commitment Conference in Brussels in November 2000, EU Member States and other European countries earmarked forces that could be used for EU-led crisis management operations. More importantly, we identified shortfalls in our capability and committed ourselves to take measures to ensure European armed forces are more deployable, more readily available and more sustainable.

I want to emphasise that we are not creating a standing reaction force, and certainly not a European Army. We have simply identified a pool of capability from which forces can be assembled on a case-by-case basis for particular operations – as we do for the UN or NATO.

A stronger Europe will mean a stronger NATO. And EU involvement in a crisis will open up access to areas, such as aid and development. In time I would hope that better European forces will also allow a better contribution to United Nations operations. Our contribution will need to play on our strengths and avoid our weaknesses. We have moved to rapidly deployable high intensity forces capable of intervening rapidly in support of the UN or national objectives. But because of the size of our armed forces we are not able to sustain commitments for any long periods and need to work in partnership with countries that have such a capacity.

The Defence Minister of India and I have initiated deeper exchanges on peacekeeping which will help us explore how to work more closely together in these areas. I should like to pay tribute to the long and impressive history of India's contribution to UN peacekeeping reflecting her deep commitment to world peace that is admired internationally. This is not always an easy task for

either of us. Britain has been critical sometimes of the poor quality of support and direction provided by the UN Headquarters in New York for the deployed forces. We wait to see the important reforms proposed by Mr Brahimi implemented; the most valuable of these are organisational and do not require extra resources.

But it is not just within Europe that co-operation is important. My commitment to Multinational Defence Co-operation is also driven by our awareness that virtually all future operations will be conducted in coalition, and that these coalitions may not always reflect existing alliances. Look, for example, at Cyprus. Over many years where our forces have worked there successfully under the UN including three distinguished Indian generals. Co-operation can enhance the interpretability, and commonality of doctrine and operating procedures, of forces who may be engaged in such operations. Put bluntly, Multinational Defence Co-operation can help to provide better capability.

I am proud of citing the UK and Netherlands Amphibious Forces as an example where the sum of the whole is greater than that of the very impressive parts. The European Amphibious Initiative, which I launched with France, Italy, Spain and the Netherlands in Brussels in December 2000 will enhance that co-operation.

To conclude : UK defence is undergoing unprecedented change. Our Strategic Defence Review is a long-term programme. The last Review decision will not take effect until 2020. But, already, almost half of the key SDR measures have been implemented. At the same time we have been engaged in crises in the Gulf, Kosovo, East Timor and Sierra Leone.

Whilst the SDR was in many respects a step change in the way we do business, it cannot be viewed as a once and for all answer to the challenges facing defence. We have established strategic planning process which builds on the SDR and adapts its judgements and conclusions as necessary in the light of subsequent developments, both domestic and international.

The starting point of this process is an analysis of the future

"strategic context". By this I mean analysis of likely trends and developments in the political and military spheres, but also of developments in other areas which will have an impact on defence activity. These include areas such as environmental and demographic trends. This then forms the baseline for constructing our Defence Strategic Plan which sets out the key strategic and long term aims and priorities of the Department. The next challenge is to translate strategy into action, allocate resources in line with strategic priorities, and ensure that our plans and performance management processes are optimised to deliver results in line with our strategy.

I believe that through the changes I have outlined today, the UK will be well placed to provide its Armed Forces with the tools it needs to continue to act as a Force for Good in the world in the years ahead. Our defence policy is deeply grounded in co-operation with other countries. Today over 25 per cent of our Armed Forces are committed to operations mandated or run by the United Nations. We share these and many other interests with India. Our defence co-operation with India is widening and deepening. My purpose in coming to India is to give that process a strong push. I am delighted to be here to discuss the important issues I have highlighted and hear your perspective on them.

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The Vajpayee-Musharraf Meeting : An Agenda

MAROOF RAZA

Having been taken by surprise by Mr Vajpayee's invitation to General Musharraf for talks, the Pakistani establishment is now busy painting itself into a corner again over the Kashmir issue. Sadly enough, Pakistan has never quite risen above its obsession with Kashmir. In fact, given the kind of factionalism that exists across Pakistan's Islamic groups today, it is clear to any observer that Islam does not hold Pakistan together anymore, but anti-Indianism does. And its obsession with Kashmir is Pakistan's best bonding adhesive. Therefore, realistically speaking, New Delhi must learn to live with a Pakistan that will be hostile to India, and any talks without Kashmir is meaningless for Islamabad.

High Commissioner Jehangir Qazi was only echoing this sentiment in his recent statements to the media. It is about time that South Block reminded Pakistan that the UN Resolution on Jammu and Kashmir (J&K) was binding on both India and Pakistan. But by repeatedly parroting the assertion that India must hold a plebiscite in J&K, Islamabad has been trying to absolve itself of any responsibility for implementing the UN Resolution of 13 August 1948. This UN Security Council resolution was to be implemented in three part as follows:

- (a) It called for a cease-fire (between Indian and Pakistani troops in 1948);
- (b) It had asked Pakistan, as the aggressor, to withdraw all its forces (both regular and irregular) from the entire territory of Jammu and Kashmir. The resolution, however, accepted that India could retain a part of its troops in Kashmir. *And only if this clause was implemented by Pakistan, would the final*

Maroof Raza is the author of *Wars and No Peace Over Kashmir* (Lancers).

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part of the Security Council Resolution become binding on India;

(c) That the further status of Jammu and Kashmir shall be determined in accordance with the will of its people."

It was Pakistan that refused to withdraw its forces on the ground that India could manipulate the results of the plebiscite. Consequently, the UN resolution has remained un-implemented; and not because of India. Also, it needs to be emphasised that 'plebiscite' was India's idea, because the best chance that Pandit Nehru's government had of securing a Kashmiri vote to join India was in the immediate aftermath of the Pakistani aggression in 1947, when the rape and plunder by its forces had left Kashmiris disgusted.

Moreover, it can be argued that the decision of successive leaders of Kashmir – from Sheikh Abdullah onwards – to remain within the Indian Union, indirectly reflects the choice of the Kashmiri people, since it is they who gave their mandate to these leaders. The fact that New Delhi has mishandled its relations with the people of the Valley, over the years, is another matter altogether.

There are in fact two related issues about Kashmir and Indo-Pak relations that must be understood. One, that given the choice, most Kashmiris would opt for independence and not for India or Pakistan. Those who insist otherwise are simply deluding themselves. The other is that the prospect of peaceful co-existence with India is anathema to the Pakistani establishment. Those who hope that Track-II diplomacy and the good will these initiatives generate truly reflect the Pakistani pulse, are wrong and have little sense of reality. Because, Pakistan's agenda is to contest India. And the cease-fire had in fact helped only in legitimising its hardline *jehadi* outfits.

Pakistan's insistence that India must include the Hurriyat leadership in any dialogue over Kashmir should be countered by

New Delhi with the insistence that India would like to invite the dissenting leadership of the Northern Areas and of Pakistan-occupied Kashmir (PoK). Apparently, former J & K Chief Minister G M Shah arranged for some forty such leaders to come over to India to participate in the talks; but they were denied visas by New Delhi. India has been so obsessed with those in the Valley that it has failed to capitalise on the simmering discontent in the Northern Areas following Pakistan's Kargil (mis) adventure. Moreover, India will do well to ask for autonomy for these people – citing the views of Pakistan's courts on the matter – and link it to any autonomy for the Kashmir Valley. That would put Islamabad on the defensive and ensure that the Hurriyat is destined for the dustbin of history.

Besides, as General Musharraf and his team have been reminding the world since the Pokhran-Chagai nuclear tests that the region is a nuclear flash point, there is a need to put in place a viable conflict prevention mechanism between the world's two newest nuclear powers. For the hawks in Pakistan who are of the view that the nuclearisation of the subcontinent has provided the strategic space for another Kargil-type military action without the conflict escalating into a full-fledged war, India needs to spell out its "threshold of patience" against the escalation of tensions along the Line of Control or against repeated terrorist attacks. It is possible to target some terrorist camps within PoK by air- and shoulder-fired missiles, without violating Pakistan's air space or crossing the border. India's recent military manoeuvres in Rajasthan – Exercise *Poorna Vijay* – where troops practised military responses to a possible Pakistani nuclear strike conveyed India's determination to deal with Pakistani threats.

What can we realistically expect from the parleys between Mr Vajpayee and General Musharraf or from the meetings that will follow this ? Not much, really. New Delhi wants to retain the Kashmir Valley with perhaps a border along the Line of Control as an acceptable solution. But the Pakistan establishment would be left rudderless if the Kashmir issue was so easily resolved, and Pakistan being left with only what it already holds!

Furthermore, it must be highlighted that any worthwhile concessions that could lead to an eventual solution over the Kashmir issue, would require strong leaders in all the three centres concerned – New Delhi, Islamabad and Srinagar. Political leaders who can take tough decisions – which could be challenged as a sell out – and still survive the negative political fallout of this decision. The last time there were such leaders was in the mid-sixties, when Nehru, Ayub and the Sheikh were all alive.

Apparently by 1953 Nehru had decided on a plebiscite over Kashmir even if it meant that India would lose the Valley; and by 1956 he had publicly offered a settlement along the Cease-fire Line (now the Line of Control). And on 23 May 1964, Nehru sent Sheikh Abdullah – following the Sheikh's release from prison – to meet Ayub Khan in Rawalpindi, in an effort to resolve the Kashmir imbroglio.

Though Sheikh Abdullah's references to India's secularism were a disappointment to Pakistani Generals and civilians alike, and his idea of a confederation for Kashmir was dismissed by Ayub Khan, the Pakistani leader agreed to a summit with Nehru, to be held in June 1964. This message was urgently telegraphed to Nehru on 26 May. But just as Nehru's consent reached Karachi on 27 May, the world also learnt that Nehru had died in his sleep. And with that a major opportunity for a peaceful solution had also been lost. Will such an opportunity come again? To be honest, one is not sure if Mr Vajpayee, General Musharraf or Farooq Abdullah have as yet attained the stature to make major concessions.

Indigenisation of Defence Industry

LT GEN CHANDRA SHEKHAR, PVSM, AVSM (RETD)

Introduction

A nation's military strength is determined by its economic might. Industry provides the wherewithal to fight a nation's wars.* As a nation, India has for too long depended on foreign industries for its military hardware. The fact that India's defence equipment needs are being met largely by imports, confirms the existence of a gap between its requirements and the ability of indigenous industry to meet them. This gap is substantial.

Base for Indigenous Production

In 1995, only 30 per cent of our total defence equipment needs were met through indigenous production. Most of this came from Ordnance Factories (OFs) and Defence Public Sector Undertakings (DPSUs). These statistics, though useful in assessing the actual efficiency of indigenous production, should not prevent us from recognising the effort put in by the government in establishing a base for indigenous production. Much has been achieved in creating a large infrastructure for defence production in the government sector. The 39 OFs, eight DPSUs, and over 40 Defence Research and Development Organisation (DRDO) laboratories are a testimony to this effort.

Need for Self-Reliance

Despite the desire to achieve self-reliance, the constraints of technology and resources have prevented the process from fructifying to the extent desired. The strategic implications of the dependence on foreign sources became overtly critical only after the break-up of the Soviet Union and the foreign exchange crunch in the early 1990s. Other developments in the last decade – the disruption in military imports due to the break-up of the Soviet Union; the demonstration of advance technologies in the Gulf War;

*This article is an adapted and abridged version of a study report on Defence-Industry Partnersip, which the author headed during his tenure as the Vice Chief of the Army Staff.

and the concerted efforts of developed countries to impose restrictions on technology and weapon transfers, have only highlighted the need for self-reliance.

The establishment of the Self-Reliance Implementation Council (SRIC) in 1995 was a direct outcome of this realisation. While there have been a number of committees and task forces which have suggested various measures to improve the system, implementation by the government has been less than whole-hearted. To translate this realisation into perceivable results, it is essential to work out a well-thought out strategy and implementation plan. This is especially relevant if the indigenous industry's share – as planned – is to be increased from 30 to 70 per cent over a ten-year period by 2010.

Role of Private Sector

In a rapidly expanding military-technology environment, the government supported research and development (R & D) and manufacturing facilities are proving increasingly inadequate to meet our requirements. Imports continue to dominate our defence procurements, in value as well as volume. Private industry, which could not participate in defence production earlier, has grown in size and reach. It has acquired modern manufacturing capabilities and the resources to compete with OFs and DPSUs. *It is thus time that the private sector merited a rightful role in national defence.*

Participation of the private sector is especially relevant in a climate when there are positive signs of a vibrant economy. It is now upto the Nation to harness these energies. The way forward is to involve the civil industry in defence technologies and manufacture in a manner very different from what we are used to so far. The starting point is to build a partnership between Industry and Defence – a partnership that is of a permanent nature.

Partnership with Civil Industry

To 'partner' is to share.* Partnership is not just interaction. It is a joint effort to achieve higher goals; a sharing of ideals and goals. The Defence-Industry partnership cannot be viewed only

*Chambers Twentieth-Century Dictionary.

from the viewpoint of defence production. A much larger perspective, vision and goal should be the motive for this partnership – much beyond procurements and profits. Such a vision should be to create a self-reliant defence industrial base for the country, which will place India in league with leading military-economic powers by the middle of the 21st Century.

How is such a partnership to be forged? As a first step, what is required is a transformation in the traditional approach and attitude towards Civil Industry. The attitudinal changes warranted are :-

- (a) Recognise that "Defence is everybody's business", Industry's as much as that of the Military and the government.
- (b) Recognise that as Defence looks for quality products, Industry expects reasonable returns on its investments.
- (c) Recognise that in any relationship, natural trust and benefits form the bedrock on which partnerships are built and nurtured.

Following from these attitudinal changes, the second step would be to identify existing strengths as well as lacunae. Equally important in the context of larger growth is to envisage and take positive advantage of hitherto untapped potential. The fact that there does exist a network of widely distributed units that cater for defence requirements can be, with care, turned into an asset. The present scenario of India importing defence requirements can also be turned on its head, by planning a future scenario when India *exports* defence items. Lessons can be learnt from successful examples in other nations, which are largely to do with common-sensical first principles.

To establish a long-term partnership between Defence and Industry, it is necessary to identify the requirements of the Defence Services. Thereafter, Industry's capabilities to meet these requirements, in the present as well as the future, need to be established. The requirements of defence will include military technologies, weapon systems, equipment, and supplies of all types. Industry's capabilities will encompass its R&D, manufacture and product support facilities as well as its financial, infrastructure and

human resource base. In brief, a vision of a mutually enriching partnership may be achieved by a combination of the following :-

- (a) Capitalising on defence industrial base and relevant PSUs that have already been established.
- (b) Increasing participation by the civil industry with a view to capturing the vast export market.
- (c) Developing advanced technologies through a distributed research/MNC (Multi-national Corporation) participation.

Strategy for Achievement of Goals of Indigenous Production

Keeping in mind the past performance of improvement efforts, a clear strategy should be enunciated to achieve this vision and that of the national goal of self-reliance in defence systems – namely, the objective of 70 per cent indigenisation by 2010 AD. The basic tenets of such a strategy should be rooted on the following directions.

- (a) **Substantially increase application of the dual use philosophy.** Wherever possible, we should design, develop and use dual use equipment, components, subsystems and services.
- (b) **Adopt commercial standards, specifications, and protocol for subsystems and components.** We need to meet our needs mainly from commercial off-the-shelf products (COTS) to whatever extent possible, keeping in mind that defence-specific products are peculiar to each of its sectors (ships, aircraft, tanks, ammunition, electronics, etc.) as well as keeping sight of the strict standardisation requirements.
- (c) **Acquire necessary technology** – current as well as emerging. This should be done through joint and distributed research. Thus, Defence should support R&D in Industry and academia in certain identified specific areas. Similarly, government intervention and facilitation of financial support is

essential to initiate the private sector into the production of defence equipment. At the same time, a firm commitment must be obtained from Industry.

(d) **Invest to save.** This can be done in the long-term through import substitution. The investment towards modernising OFs and DPSUs can be obtained at least partially by generating funds through accruals from selective disinvestment.

(e) **Create healthy competition between all sectors of Industry.** OFs, DPSUs, and Private Sector should be given equal opportunities.

(f) **Utilise all available national assets optimally.** This may be done by giving incentives and concessions for integration and sharing of infrastructure facilities as well as information, human resources and expertise. For this, it is imperative to create a network-focused database of all information.

(g) **Carry out procedural reforms.** We need to turn these procedures into guidelines rather than rigid rules; and make them simple, transparent and efficient. An important step towards transparency would be to introduce an electronic procurement process, and gradually move towards e-commerce in step with developments in the corporate world.

(h) **Create consortia of industries to focus on collective responsibility.** To prevent unnecessary backtracking and speed up operations, institutionalise nodal points for direct and frequent interaction of Industry with the Services and the Ministry of Defence.

Conclusion

This strategy and the progress of its implementation would naturally need to be monitored and adapted creatively to actual conditions. Finally, we have to remember that unless a conscious effort is made to change in a deliberate manner now, we will be forced to change in a less methodical way later. *Commitment to change is a prerequisite, to build a long-lasting partnership that can transform the existing relationship.*

Corruption in Arms Trade

ADMIRAL R H TAHILIANI, PVSM, AVSM (RETD)

Introduction

The Tehelka tapes have sent shock waves through the ruling establishment. The resulting political storm has forced the resignation of the Defence Minister who attributed the sting operation to intelligence failure! Presidents of the two most important political parties of the NDA coalition had to resign and no one believes their protestations of innocence that they were merely collecting party funds. The working of Parliament has been paralysed. The principal opposition party sees an opportunity to even the score for having been voted out of power in the aftermath of the Bofors episode. People at large are convinced that all politicians, with some notable exceptions, are corrupt. One scam is followed by another in quick succession. The Chairman of the Central Board of Excise and Customs has been arrested on charges of corruption. The citizen who is the every day victim of petty bribery in every single Government Department, has no doubt in the wisdom of the old Sanskrit saying "*Yadha Raja Thadha Praja*" (What the king does, the people copy). The rot starts at the top. What is required is determined and rigorous action to root out political corruption. The arrests of the odd Inspector or even a top bureaucrat are no substitutes.

From the ramparts of the Red Fort, Prime Ministers of different ideological persuasions have condemned corruption in the strongest terms and promised urgent corrective measures to the nation. Yet, the Lok Pal Bill, first recommended by the Administrative Reforms Committee way back in 1966 and first introduced in the 4th Lok Sabha and subsequently on five different occasions, has still to see the light of day. Could the people be blamed for thinking that there is a concert of interest amongst all politicians not to rock the boat? Will the reforms come at an excruciatingly slow pace and great cost as a result of people voting out of power corrupt Governments every time they get a chance or can one hope that enlightened elements in all sections cutting across party lines will

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band together to ensure legislation which will provide for the appointment of the Lok Pal, citizen access to information, declaration of assets, debarring the corrupt and criminal citizens from contesting elections, etc.? We shall have to wait and see.

Ministry of Defence

One Ministry which requires the most urgent attention is the Ministry of Defence. Unlike other areas of the nation's activity where corruption slows down decision-making and adds to costs of projects, in the defence sector precious lives of officers and jawans are at stake. No great imagination is required to figure out what must have gone on in the minds of young officers who have been witness to their comrades in arms making the supreme sacrifice in Kargil, when they saw on television a senior officer sipping scotch whisky while stuffing wads of currency notes in his pocket. Could the widows, parents and children of the *shaheeds* be blamed for thinking that a cleaner and more responsible structure in the Ministry could have minimised the loss of life in Kargil by ordering critically needed equipment which the Army had been wanting? For their failures, our leaders end up blaming the Intelligence agencies or systems. As if our leaders have no responsibility for the proper functioning of either! While Kargil will remain a monument to the dedication, bravery and patriotism and sacrifice of the young officers and jawans, it is a permanent blot on the political and senior uniformed fraternity that no one felt the need to accept moral responsibility and resign.

Characteristics of Arms Trade

The arms trade has certain characteristics that make it particularly vulnerable to corruption. At the suppliers end, the industry is plagued by over capacity, more so after the end of the Cold War. Orders for defence equipment are few, large and randomly distributed both geographically and over time. For manufacturers, getting an order can make the difference between survival and failure. This makes each order crucially important and adds greatly to the pressures on companies to succeed. Political pressure, in addition to bribes, is frequently brought to bear by the seller country to ward off business shut downs and consequent unemployment. In our country, we are well aware of instances where such political

pressure was brought to bear on our Government in the last two decades.

From the buyer country's viewpoint, this is an ideal way to raise resources for the maintenance of political parties, fighting elections, feathering private nests, etc. The trade in arms is always opaque. Procurement procedures are frequently obscure and accountability for decision-making sometimes diffused. Technically sophisticated products lead to heterogeneous, incomparable contracts. The commercial packaging of these contracts is too complicated to reveal the actual price relationships. Transactions in arms are always shrouded in secrecy, providing a ready cloak under which all kinds of corrupt practices escape scrutiny.

The Role of Agents and Middlemen

Agents play an important role in international arms contracts. Companies use local agents to avoid the costs involved in establishing a local office, which is the alternative means of acquiring the necessary local contacts and day-to-day information about the ongoing procurement process as well as for the important task of gathering intelligence on competitors. Agents can also play an important role in providing producers with a better understanding of the buyers' precise requirements and the local operating conditions for the equipment in question. There always exists a risk that the agent could act as an active instrument in attempts to corrupt the procurement process. For the buyer, the first step in the entire exercise starts with the formulation of qualitative staff requirements (QRS). A resourceful and well-connected agent can get involved at this stage itself to ensure that the QRS are so tailored as to lend weightage to the product which his principals are trying to market. Then follows the shortlisting of potential suppliers, invitation of bids, visits by our experts to the factories of suppliers, getting the sample equipment in India for trials in our operating conditions etc., all as a prelude to negotiating the final contract. An active agent is involved in all these pre-contract stages and can and does offer inducements to ensure that his product passes through all these stages successfully.

From the time Rajiv Gandhi became Prime Minister, the use of agents was banned and the Government embarked on the laudable course of dealing directly with the suppliers in order to

save costs and obviate some of the risks involved in having agents. However, the agent did not disappear and merely went underground, so to speak. Instead of designated agents for known companies, it became a free for all. Earlier, the agent was allowed to deal with officers so nominated. Now he could approach anyone who could influence any of the stages before the final contract and who was worth bribing. The middlemen who earlier got involved towards the tail end now had their work cut out for them at all stages, as was brought out so vividly by the Tehelka exposé. Till the mid-eighties, the big bribes went to the politicians or political parties. The junior lot of Service officers received some hospitality or the odd gift from the agent. Today there are allegations of very senior officers having shared the loot, probably a minor share, with their political masters and bureaucratic colleagues. This bodes ill for the future unless the rot is stemmed urgently and with vigour. Corrupt armies are notoriously unbattleworthy.

A Possible Solution

A reorganisation of the entire procurement machinery where the first part, the technical evaluation, and the second, the financial contract negotiations, are handled by different teams, would be the first step. Something on the lines of the Procurement Executive in the British Defence Services would serve us well. Allowing designated and authorised agents with specified responsibilities and access to named officers to function would on balance seem to be a better solution than the current ban. The agents' fees would be known to the buyers. An interesting devise for ensuring honesty and absence of bribes worked out by the Transparency International is the Integrity Pact. These have been used successfully in a number of projects, the most important of which is the large infrastructure project. An example is the construction of the new Hong Kong Airport. These integrity pacts are legally binding agreements that protect specific contracts from bribery. The pact is established between all parties involved in the bidding process, guaranteeing that no bribes will be asked or paid. The implementation of these integrity pacts can serve as a formidable public relations instrument for our corruption-ridden Government.

International Environment

Till a few years ago, all seller companies in Europe could

United Service Institution of India
Centre for Armed Forces Historical
Research (USICAFHR)

At the instance of the three Service Headquarters, a Centre for Armed Forces Historical Research has been established under the aegis of the United Service Institution of India. The aim of this Centre is to encourage objective study and research into the history of the Indian Armed Forces.

To this end, through the Jan-Mar 2001 issue of the Journal, the USI has invited proposals from serving as well as retired officers, desirous of undertaking research projects. Needless to say, the prospective scholars will rely on old records, documents, and interact with veterans of the various operations undertaken by the Indian Armed Forces.

To assist them in this effort and in furtherance of a long term aim of making the Centre a repository of material on the subject, we would very much appreciate assistance from all of you. You are requested to kindly make available to us any documents, papers, tapes, photographs, diaries and other materials representing military service from all eras to the Centre. It is intended that all donated items will be properly catalogued, inventoried, stored, cross-referenced and preserved as an important contribution to our Nation's military heritage.

We look forward to an early response from you.

FORECAST OF EVENTS AT THE USI FOR THE PERIOD 01 AUG 2001 TO 10 OCT 2001

Date and Day	Time	Event	Subject and Guest Speaker	Remarks
01 Aug 2001 Wednesday	1100	Talk	"Evolving Pakistan-Iran Relations" by Shri SK Singh, IFS (Retd).	
03 Aug 2001 Wednesday	1100	Talk	"Command and Control of Indian Nuclear Forces" by Lt Gen PK Pahwa, PVSM (Retd).	Members only
07 Aug 2001 Friday	1100	Talk	"National Regeneration Movement" Dr Acharya Sachidanand.	
09 Aug 2001 Wednesday	1030	Panel Discussion	Presentation by <i>J&K Study Group</i>	Members only
05 Sep 2001 Wednesday	1030	Panel Discussion	Presentation by <i>WMD Study Group</i>	Members only
12 Sep 2001 Wednesday	1100	Talk	"India's Nuclear Forces" By Col Gurmeet Kanwal	
17 Sep 2001 Monday	1100	Talk	"Vietnam's March into the 21 st Century" By His Excellency Mr Pham Sy Tam, Ambassador of the Socialist Republic of Vietnam	
20 Sep 2001 Thursday	1800	Col Pyara Lal Memorial Lecture	"Role and Responsibility of State Civil and Armed Police in National Security Management" By Shri N N Vohra, IAS (Retd).	
26 Sep 2001 Wednesday	1100	Talk	"Indo-Russian Relations in the First Quarter of the Twenty First Century" By His Excellency Mr Alexander M Kadakin, Ambassador of the Russian Federation	
03 Oct 2001 Wednesday	1100	Talk	"The President of Pakistan in the 21 st Century" By Maj Gen Vinod Saighal, VSM (Retd).	
10 Oct 2001 Wednesday	1100	Talk	"Indo-Japanese Relations" By His Excellency Mr Hiroshi Hirabayashi, Ambassador of Japan	

charge off bribes paid as tax-deductable business expenditure. Only the US had enacted laws which made bribing of foreign public officials an offence within the United States. This had been brought about after the Lockheed Bribery Scandal in the seventies. After persuasion from Transparency International, in 1997 the OECD (Organisation for Economic Co-operation and Development) countries framed a convention on combating the Bribery of Foreign Public Officials. Most OECD countries and some others have ratified this convention and framed legislation within their respective nations to give effect to these provisions. India's image would improve immeasurably if we were to also adopt this convention and frame laws on the lines of the US Foreign Corrupt Practices Act.

First information relating to kickbacks in the HDW Submarines and Bofors Howitzer contracts emanated from the seller countries. Investigations into the former and court cases for the latter have started but no one has been brought to book yet. This speaks volumes for the Government's commitment to clean up the procurement process.

Conclusion

In Transparency International's first corruption perception index, India was perceived to be less corrupt than China. Since 1999, it is the other way round. Whereas China has improved somewhat, we have gone further down the ladder. We have only ourselves to blame if India attracts a measly three billion dollars a year of foreign direct investment compared to China's forty billion. Full benefits from globalisation of our economy can come about when the international community perceives India as a good and honest place for business, in addition to being a huge market. There is no doubt that corruption is the biggest single cause why thirty per cent of our countrymen are still unlettered and live below the poverty line, fifty four years after independence. The Defence sector has dedicated, patriotic and upright uniformed fraternity with some civilian counterparts. Reorganised and reenergised with good leadership and systems, this sector can and must show the way to the rest of the country in combating corruption.

Indo-Bhutan Relations

HIS EXCELLENCY LYONPO DAGO TSHERING

Bhutan is located between China and India. Many visitors to Bhutan sometimes wonder how the 600,000 Bhutanese feel secure between these two giants! My response is simple. We feel well insulated and particularly now as both the giant neighbours are nuclear powers. Bhutan is situated on the southern slopes of the Himalayas and therefore is a part of South Asia. All our trade and contacts are with countries in South Asia.

We do not have trade and diplomatic ties with China. However, the Tibet region of China is our immediate neighbour in the North with whom we share a long border. Since 1984, we have held 14 rounds of border-related meetings. In 1998, we signed an agreement to maintain "peace and tranquility" along the borders. We continue to hold border-related discussions annually, alternating between Beijing and Thimphu.

History

Bhutan is a land-locked Buddhist Kingdom. Buddhism has played a large role in the lives of the Bhutanese. Buddhism of the *Vajrayana* school is the basis of our history, philosophy and cultural heritage. According to experts from the London Museum and the Museum of Ethnology in Osaka, who examined artifacts unearthed from different parts of the kingdom, a mesolithic culture existed in Bhutan as early as 4000 years ago.

Unfortunately, written historical records are available only from the 7th Century with the founding of monasteries like Paro Kichu, Jampa and Kujei Lhakhangs in Bumthang Valley. In the 8th Century, Guru Padma Sambhava and many other Buddhist teachers came from India to Bhutan and they have left a wealth of material on the history of Bhutan in their biographies and hagiographies.

Excerpted from the talk delivered at the USI on 13 December 2000.

His Excellency Lyonpo Dago Tshering is Bhutan's Ambassador in India.

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Bhutan remained a theocratic polity until 1907. According to the agreement signed by all elders, Ugyen Wangchuck was unanimously accepted as the first hereditary monarch on 17 December 1907, which has since been observed as our National Day.

The history of Bhutan would not be complete without touching on the British India period. Bhutan's political relations with British India started when Warren Hastings sent a mission to Bhutan in 1772 after a conflict between Bhutan and Cooch Bihar. Relations between Bhutan and the British became strained when the British tried to impose hegemonism on an unwilling Bhutan. Consequently, Bhutan had no choice but to adopt a policy of isolation in order to safeguard its sovereignty and independence. This policy served its purpose, and Bhutan was never colonised. It was only during the first monarch Ugyen Wangchuk's reign (1907 to 1926) that relations with the British improved as Ugyen Wangchuk successfully mediated between the British and the Tibetans during Younghusband's Expedition to Tibet in 1903 and 1904. The policy of self-imposed isolation thus lasted for more than a century until India gained independence in 1947. In 1949 we signed the Treaty of Friendship with newly independent India, formalising relations between the two sovereign nations.

The Foundation of Modern Bhutan

The third monarch, the late Jigme Dorji Wangchuck, ascended the throne in 1952. During his rule Bhutan emerged from isolation and began the process of development and joined the comity of nations. During the reigns of the first two kings, Bhutan was more engaged in safeguarding its territorial integrity and there have not been much changes in the political structure of Bhutan.

The Late King introduced many social, legal and constitutional changes and geared Bhutan for development and modernisation. The National Assembly, with 150 elected members and a nine-member Royal Advisory Council, was established in 1953. Serfdom was abolished and land reforms with a ceiling of land holdings of 25 acres, was promulgated. The separation of the Executive from the Judiciary and the Legislature was also introduced. Planned economic development was launched in 1961. In 1971, Bhutan

became a member of the United Nations. Thus the Third King came to be known as the father of modern Bhutan.

Bhutan-India Friendship and Co-operation

The Third King, Jigme Dorji Wangchuck, paid a state visit to India in 1954 and Pandit Jawaharlal Nehru visited Bhutan in 1958. The two leaders developed a warm personal rapport and together built a strong and durable foundation of friendship, which successive leaders of the two countries strengthened further. The spirit of the Indo-Bhutan relationship was eloquently articulated by Pandit Jawaharlal Nehru when he addressed the Bhutanese public in Paro in 1958. He said,

"Some may think that since India is a great and powerful country and Bhutan a small one, the former might wish to exercise pressure on Bhutan. It is, therefore, essential that I make it clear to you that our only wish is that you should remain an independent country, choosing your own way of life and taking the path of progress according to your own will. At the same time, our people should live with mutual goodwill. We are members of the same Himalayan family and should live as friendly neighbours helping each other. Freedom of both Bhutan and India should be safeguarded so that none from outside can do harm to it."

Pandit Nehru's historic visit to Bhutan was a landmark event in Indo-Bhutan friendship and co-operation. Immediately after his historic visit construction of a motorable road was initiated. The First Five Year Plan financed by India was launched in 1961. Indeed much good will and help continued from India.

Even at present while multilateral and bilateral assistance account for a substantial part of our development funding, India continues to be the most important development partner of Bhutan, providing more than 50 per cent of external assistance. There is also a growing network of contacts and co-operation between India and Bhutan, both in the public and private sectors. These growing contacts include government officials, businessmen, tourism, cultural exchanges, trade and transit facilities and air service.

Besides, there are hydro-power projects like Chukha, Kirichu (to be completed by 2001) and Tala (by 2004). All together Bhutan would be producing and supplying close to 2000 MW of power to India by 2004 or 2006. A few larger projects are still under consideration. According to a survey, Bhutan has the potential of producing 30,000 MW of hydro-power.

Another important area of co-operation between our two countries is reflected in the assistance of the Indian Army in imparting training. IMTRAT in Bhutan continues to do a good job. We also send officers to training institutes like the National Defence Academy (NDA) Khadakwasla, Indian Military Academy (IMA) Dehradun, the Infantry School and the College of Combat in Mhow, and to the Defence Services Staff College Wellington. As a result there is close co-operation between our two Defence Service establishments. The exchange of visits by our senior military personnel continues to strengthen the good co-operation existing between the two organisations.

DANTAK, a border road construction organisation of India, has rendered good service in construction of roads in Bhutan. Of our present 3461 kms of roads, DANTAK has built over 1000 km in difficult terrain.

Five Year Plans and Changes in Bhutan

So far Bhutan has completed seven Five Year Plans. We are now in the fourth year of the Eighth Plan. Within a span of 39 years, Bhutan has achieved progress in all spheres of economic and social development. There is now a marked improvement in the living standards of the people.

- Today, the life expectancy is 66.1 years.
- Infant mortality rate is 7.07 per cent.
- The recorded health coverage is 90 per cent.
- Literacy rate has increased to 54 per cent.
- Per capita income is US \$ 600.
- The forest coverage has increased from 65 to 72 per cent.
- Annual growth rate is 7 per cent.

These developments are a tribute to the vision of the Fourth King, His Majesty Jigme Singye Wangchuck, who has not only raised the profile of the country in regional and international spheres but also symbolises the aspirations of the people of Bhutan.

Political Reforms

The present King, whose coronation was held in 1974, has strengthened political institutions by initiating a process of decentralisation and people's participation in the decision-making process. He strengthened the National Assembly by encouraging deliberations not only on major national issues but also on development needs of every district and village.

In order to make it more effective, His Majesty established 20 district development councils in 1982. All the council members are elected by their local constituencies and there are 572 members of the District Development Committee (DYT). Thereafter, in 1992, 202 block level committees were set up with 2,614 locally elected members. Such decentralisation or participatory democratic process was instituted to empower and strengthen people's participation in the process of nation-building. It is entirely in keeping with His Majesty's belief that the destiny of the nation lies in the hands of the people. The devolution of executive powers to the directly elected local councils is a significant step in restructuring political institutions.

In order to streamline the civil service, the government has taken numerous initiatives to enhance efficiency, transparency, and accountability. To make it more responsive to the interests and needs of the people, the decentralisation process was taken to the village and the Royal Audit Authority was strengthened. Today, the Royal Auditors are the highest paid civil servants with 30 per cent more pay than other civil servants with a view to keeping the system clean and transparent. Bhutan's approach to a system of good governance is based on the principles of decentralisation, representation, transparency and people's participation.

In June 1998, His Majesty called for even greater people's participation in the decision-making process. For the first time in

the history of Bhutan, the Cabinet was dissolved. Since then the National Assembly has been empowered to elect the members of the Council of Ministers by way of secret ballot. The initiative emanated from the King. In doing so, it has given power and responsibility to elected representatives of the people.

His Majesty also proposed in a written edict to register a vote of confidence by the National Assembly whereby a two-thirds vote of no-confidence shall require the King to abdicate in favour of the next in line of succession to the throne.

Have There Been Changes in Bhutan-India Relations?

Today, Bhutan-India bilateral relations are closer, warmer and more broad-based than at any time during the past 51 years. This happy state of affairs is due to the far-sighted vision of His Majesty King Jigme Singye Wangchuck and of the leaders of India. In spite of our differences in size, population and stages of economic development, we work and co-operate with each other in order to strengthen our common interests as close neighbours.

At regional and international fora, we continue to work together to realise our common interest. In the fast changing regional and international situation, we believe a stable and economically strong India would serve the best interests of our region for peace, stability and economic well-being of the people. India, being the largest and most populous country in South Asia, also deserves to be a permanent member of the Security Council.

With regard to our bilateral relations, I would like to share a message from His Majesty to Prime Minister Atal Behari Vajpayee. It was sent in April 1998 after the Pokhran nuclear tests;

"we share the satisfaction and joy of the people of India at this great technological achievement. I may mention that as a small peace-loving country, Bhutan in principle is not in favour of nuclear proliferation. However, we appreciate the fact that every country has the sovereign right to protect and promote its own national interests, in which security is a key factor. India is Bhutan's closest friend, ally and neighbour, and for us a stronger India means a stronger friend of Bhutan."

I am confident that the strong relationship between India and Bhutan will endure and prosper in the future. Economically, we can only come closer for strengthening our common interests and mutual advantage from working as development partners. Politically, the two countries share a common world view and are committed to the maintenance of peace and stability in South Asia. Culturally, there are much shared values and traditions. Both our countries not only work together for a better life of our respective people, but also with vision for a better life for all the people in the SAARC (South Asian Association for Regional Co-operation) region.

The Task Ahead : Bhutan's Vision for 2020

Although we have achieved much progress in the past decades, we realise that the process of development would be entering a new phase in the 21st Century which could be more complex and daunting than in the past. Therefore, the Planning Commission has outlined the main directions that will guide us in maintaining the distinctive Bhutanese path of development in a hand-book titled "Vision 2020".

There are *six guiding principles* which would reinforce, safeguard and promote our interests. These are identity, unity and harmony, stability, self-reliance, sustainability and flexibility. These guiding principles are to complement a single unifying concept of development, namely the Gross National Happiness (GNH) as opposed to Gross National Product. This concept of GNH was propounded in the late 1980s by His Majesty who places the individual and the people at the centre of all development efforts. It recognises that individuals have material, spiritual and emotional needs. The concept of GNH lends itself to the many priorities that would give directions to the kingdom's long-term development.

There are also *five priorities* for steering the process of change. These are human development, culture and heritage, balanced and equitable development, governance and environmental conservation. These priorities which we aim to achieve give tangible expression to the central tenets of GNH.

After reviewing the document containing Bhutan's vision for 2020, I have arrived at seven wishes. If we can achieve the priorities

and objectives we can be certain that Bhutan by 2020 will be quite different from the Bhutan of today, as a result of the logical consequence of the programmes and the policies.

Bhutan would in 2020 :

- (a) Be a secure state at peace with itself and with the neighbours.
- (b) Enjoy modernisation yet maintain a distinct Bhutanese identity.
- (c) Maintain a sustainable rate of population growth through a good education system and health care.
- (d) Generate resources by hydropower for more development and maintenance, while keeping its environment and natural endowments intact.
- (e) Have the institutions strengthened.
- (f) Have the private sector more broadly based and be a magnet for employment with professionalism.
- (g) Have the process of decentralisation completed, with people taking over development planning and management at local levels.

Finally, until our principles, priorities and dreams are realised, the immediate goal of the nation would continue to be three-fold. These are, as pronounced by His Majesty the King:

"First, we are committed politically to a strong and loyal sense of nationhood to ensuring the peace and security of our citizens and the sovereign territorial integrity of our land. Secondly, to achieve economic self-reliance and the capacity to begin and complete any project we undertake; and thirdly to preserve the ancient religions and cultural heritage that has for so many centuries strengthened and enriched our lives."

Prabhakaran as Leader of the LTTE

BRIG (DR) S P SINHA (RETD)

How does one evaluate Prabhakaran? The mystique of the man is phenomenal. The Sri Lankan Tamils regard him as a great freedom fighter possessing motivation, fighting skills and courage the world has rarely seen. On the other hand, he is seen by his detractors as a reviled terrorist, a megalomaniac with a "Pol Potist" streak. Whatever may be the verdict of posterity, Prabhakaran today controls the destiny of Tamils in Sri Lanka. His role in the Tamil insurgency is central. In assessing an as enigmatic a personality as Prabhakaran, one is likely to stray into streams of factors and constructs and in the process the result may get diffused. To facilitate the evaluation, I have used the structured framework recommended by Bard O' Neil in his book *Insurgency and Terrorism*. The framework is designed to bring together factors that have critical bearing on the progress and outcome of insurgent conflicts. The strategic factors which have a profound bearing on the outcome of any insurgent movement are the Environment, Popular and External Support, Organisation and Unity, and Government Response¹.

Before taking up each of the above factors separately for analysis in the context of the Tamil insurgency, it will be useful to clarify the goals, techniques and strategies of Prabhakaran's insurgent war. It must be said about him that he has spelt out his goal in unambiguous words – the creation of an independent Tamil Eelam in the North and East of Sri Lanka. To achieve his goal Prabhakaran has used all three forms of warfare, namely, terrorism, guerrilla warfare and conventional war, with skill but with diminishing returns. In the early years of the insurgency in the 1970s, the LTTE (Liberation Tigers of Tamil Eelam) carried out low-level guerrilla war characterised by the typical "hit and run" tactics. The

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targets of guerrilla attacks during that period were mostly Tamil policemen and officials considered government sympathisers and informers. The anti-Tamil riots of 1983 brought about a paradigm shift in the type of violence used by the LTTE. It now used a mix of guerrilla warfare and terrorist attacks on Sinhalese civilians. In one of the first acts of terrorism carried out by the LTTE on 14 May 1985 in Anuradhapura, 146 civilians, many of them Buddhist monks, were killed in cold blood. The LTTE displayed brutality on an unprecedented scale. In consequence the moral superiority of the Tamil campaign lay in shambles after a series of brutal killings of Sinhalese civilians as well as rival members, mainly by the LTTE.²

In recent years, the LTTE has acquired long-range artillery and heavy mortars, many captured from the Sri Lankan Army (SLA), which has enabled it to carry out some spectacular conventional attacks. The Battle of Ponneryn in Kilali lagoon crossing point South of Jaffna was a brilliant operation. 400 LTTE cadres attacked a fortified SLA complex on the night of 11 November 1993, after wading through a mile or so of mangrove swamps, and captured it killing hundreds of soldiers. The capture of the Elephant Pass in April 2000 was another example of the LTTE's ability to launch conventional attacks on well-fortified defences with its trademark emphasis on mobility and surprise.

We will now turn to strategic factors that are central to the outcome of any insurgency and show how in many of these areas Prabhakaran's leadership has been a dismal failure in exploiting the advantages with which he started his struggle to gain an independent Eelam.

THE ENVIRONMENT

Terrain

Although Eelam is the ancient Tamil name for the island of Sri Lanka, modern Tamil separatism is confined to the territorially contiguous Tamil-dominated Northern Province, which includes the Jaffna Peninsula (96 per cent Tamil), and the Tamil majority Eastern Province including Trincomalee, Batticaloa and Amparai districts. The Northern mainland of Wanni comprises the districts of Mullaitivu, Mannar, Killinochi and Vavuniya. Jaffna Peninsula is criss-crossed

with lagoons that hamper movement, and is thus ideally suited for guerrilla warfare. It is however very vulnerable to a naval blockade. The only land route from the South to Jaffna Peninsula is through the Elephant Pass. The scrub jungles of Vavuniya and thick tropical forests of Mullaitivu and the eastern seaboard are ideal as guerrilla bases, and this is where Prabhakaran's main bases are located.

Jaffna Peninsula is separated from the Indian mainland by a string of islets 35 kms long and known as Adam's Bridge. Vadaraniyam and Point Calamere on the Thanjavur coast are the nearest points from Jaffna and are only 35 minutes sailing across the Palk Strait in high powered boats. Prabhakaran has used the terrain to great advantage. The LTTE has established a wide network of landing points and contacts all along the Thanjavur coast. It has the advantage of using the fishing fleet as cover for its clandestine movement.

Demography

Tamils are a majority in the Northern Province. In the Eastern Province they are only 33 per cent of the population in Trincomalee, but taken together in Trincomalee and Batticaloa they are 42 per cent. Demography has a profound effect on the status of insurgency and the type of warfare. Whereas the overwhelming number of Tamils in the North would like to secede from Sri Lanka, the same is not the case in the Eastern Province. Despite speaking the same language, the Tamils of Sri Lanka are not a homogenous lot. There are differences between Jaffna Tamils, Ceylon Tamils and Eastern Tamils. Jaffna Tamils consider themselves superior and look down upon Ceylon Tamils. Eastern Tamils are suspicious of Jaffna Tamils. Then there is a substantial Muslim population in the Eastern Province (33 per cent in Trincomalee) whose support for a unified North and East is crucial. We will take up the Muslim dimension in our discussion on popular support.

Prabhakaran has cleverly considered the implications of the demographic distribution in selecting the type of violence in the North and South. Most of the terrorist and suicide attacks on civilian targets by the LTTE have been in the Sinhalese majority South, particularly the capital Colombo. But the terrorist attacks in the

South have left Tamils living in Sinhalese majority areas vulnerable to reprisals. In the North, Prabhakaran has preferred guerrilla warfare. In choosing the South for terrorist attacks, Prabhakaran has shown that he is prepared to leave the Tamil population in the South at the mercy of Sinhalese marauders. However, it must be admitted that in recent years there have been hardly any large-scale reprisals against Tamils in retaliation against acts of terrorism by the LTTE in the South.

POPULAR SUPPORT

Prabhakaran started his fight against the Sri Lankan Government with a groundswell of popular support. In the early 1970s, when he was engaged in organising low-level guerrilla warfare, Tamil support for the militants was passive. But as the government responded to guerrilla attacks with senseless and indiscriminate violence against innocent Tamil civilians, it began to turn active. Young Tamils were now ready to make sacrifices by either joining the militant groups or providing intelligence information. The main separatist group, the LTTE, captured the imagination of the Tamil masses by its resistance to the Sri Lankan Armed Forces and were seen as the protectors of Tamil interests and a shield against government brutalities.

The training and support provided to Tamil militant groups by India consequent to the 1983 anti-Tamil riots had a profound effect on Tamil insurgency. There was a mad rush to join the militant ranks. At one level the Indian support was a boost to Tamil insurgency, but at another it proved counter-productive. The increasing primacy given to the cult of violence produced contempt for law and established norms. As the militant ranks swelled, personal ambitions of insurgent leaders came into the open and a straight-forward struggle for supremacy ensued. In this struggle, Prabhakaran became convinced that it was his destiny to become the sole representative of Sri Lankan Tamils. This obsession resulted in the massacre of hundreds of Tamil Eelam Liberation Organisation (TELO), Peoples Liberation Organisation of Tamil Eelam (PLOTE) and Eelam People's Revolutionary Liberation Front (EPRLF) cadres by the LTTE.

Bloody internal feuds coupled with "lamp post killings" – summary punishment meted out to alleged criminals by tying them to electric poles and shooting them to death – produced revulsion amongst the Tamils. The mood of a large section of Tamils is best articulated by an ex-TELO member who agreed to fight for the LTTE when the SLA was getting the better of the LTTE during Operation Liberation in May 1987:

"The reason I fought for LTTE was not because of any love for the Tigers. In fact I hate them. But we – I and my friends – did not want Tamil people to suffer at the hands of the SLA."³

Clearly, Tamil support for Prabhakaran was on the wane. Gone were the days of adulation; now there was fear. The intelligentsia was alienated, the Muslims had become suspicious and no longer trusted the LTTE, forced conscription of women and children had left deep scars on the Tamil psyche, and the suicide culture amongst LTTE cadres was more a symptom of their traumatised childhood and manipulation of their minds than any indicator of their abiding commitment to Prabhakaran's vision of the future. The emphasis on death and sacrifice has become an integral part of the LTTE psyche and raised to the level of religion. We will discuss the adverse effects of each of these on popular support in some detail.

Support of the Intelligentsia

The support of intellectuals is crucial for insurgents' success because they provide strategic vision to the movement. Prabhakaran's strategic approach has been military-focused, which makes political action subordinate. His disdain for the intelligentsia was evident even in the formative years of his life as a guerrilla. When people argued that it is necessary to prepare people before they are asked to take up the gun, he is reported to have commented, "You (armchair) intellectuals are afraid of blood. No struggle will take place without killings."⁴

The LTTE has systematically eliminated an entire generation of Tamil intellectuals, politicians and dissenters. Amrithalingam and Yogeshwaran were shot dead in cold blood on 13 July 1989 in

Colombo. Amrithalingam was the leader of the opposition and a moderate TULF (Tamil United Liberation Front) leader. Yogeshwaran was the Member of Parliament from Jaffna. Both were killed because they opposed the LTTE and held pro-India views. In a sensational massacre in the heart of Madras, K Padmanaba of the EPRLF and 13 of his colleagues were shot and killed by a LTTE hit squad in June 1990. Padmanaba had supported the IPKF (Indian Peace-Keeping Force) in Sri Lanka. Other prominent Tamil leaders killed were Sam Sambimuttu, MP from Batticaloa (June 1990), V Yogasangri, MP from Jaffna (June 1990), Ganeshlingam, Provincial Minister for North East (January 1990), K Kangaratnam, MP from Eastern Province (15 July 1990), two TULF Mayors of Jaffna, Mrs Sarojini Yogeshwaran and Pon Sivapalan in May and September 1998, respectively.⁵ The latest Tamil moderate leader to fall prey to a LTTE suicide bomber was Neelan Tiruchelvam (July 1999). Dr Tiruchelvam had taught at Harvard in the USA and was the Director of the International Centre for Ethnic Studies and a Member of Parliament. Sri Lanka's Foreign Minister Lakshman Kadirgamar, while making an obituary statement, commented: "[LTTE] should pause to consider whether their cause can be truly advanced by eliminating these men and women who carry aloft the banner of community's history, culture and achievements."

Conscription of Women and Children

There have been many reports about child conscription by the LTTE. University Teachers Human Rights (UTHR), in one of their more important reports, have revealed the recruitment of children by LTTE to fight the SLA. The veracity of the report has not been questioned. The United Nations Special Representative on Children and Armed Conflict, Mr Olara Otunnu, visited Sri Lanka in 1998 in the context of a finding in an UN-sponsored study – *The Graca Machel Report* – that the LTTE was known to recruit children as young as 10 years. Although the LTTE promised to stop recruiting child warriors, its pledge has been treated with scepticism.⁶

The LTTE is perhaps the first rebel group with cadres drawn mainly from children. An assessment of the LTTE fighters that have been killed in combat reveals that 40 per cent of its force are, both male and female, between nine and 18 years of age. Adele

Balasingham in her book *Women Fighters of Liberation Tigers* gives credit to Prabhakaran for the creation of the women's unit, "the most fierce, highly disciplined and courageous women combatants the world has ever produced." According to her, Prabhakaran claims "that the birth, growth and expansion of the women's military wing is a remarkable achievement of our liberation struggle." But the fact that women's participation in combat has been sought in the absence of a sufficient number of male fighters is ignored. Anna Branchley's review of Adele Balasingham's book postulates, "If there were to be an Eelam state governed by the LTTE, there is no reason at all to believe that women, once they were no longer required as cannon fodder, would not revert to their previous status, where they were punished by whipping for deviating from the LTTE's Ten Commandments for women (no western clothes, no short hair, no riding bicycles, no going about unchaperoned, no leaving off the pottu), which was challenged by Jaffna's Mothers Front in 1985."⁷ The conscription of women and children has outraged Tamils of all sections of society, but their protests have been muted due to fear of reprisals.

The Suicide Culture

The suicide culture was adopted in the LTTE ranks in the early 1970s to escape arrest or to erase vital evidence. The first militant to commit suicide by swallowing cyanide was Siva Kumar in 1974. The trend came into prominence when 13 LTTE cadres, who had been arrested at sea in 1987 by the Sri Lankan Navy (SLN) and were about to be flown to Colombo for interrogation, swallowed cyanide capsules and died. The masterminds behind Rajiv Gandhi's assassination, Sivarasan and Subha, killed themselves along with five others when Indian Commandos stormed their hideout near Bangalore in August 1991. Sivarasan chose to shoot himself in the head but the others with him consumed cyanide. Unfortunately, this trend was seen by many as something of a heroic act and a manifestation of their commitment to the cause of Eelam.

The LTTE is also known for its suicide attacks on enemy targets. The first such attack was made in July 1987, when Capt Miller of the LTTE drove an explosive-filled truck into an army

camp near Jaffna. The LTTE is not the only group to indulge in suicide attacks. Other groups with such capability are the Palestine Islamic Jihad and the Hamas in Palestine, the Hezbollah in Lebanon, the Kurdistan Workers Party of Turkey, to name a few. Among the contemporary terrorist groups, the LTTE has committed the largest number of suicide attacks.

It must, however, be conceded that suicide attacks by Black Tigers (LTTE suicide bombers have been formed into a group named Black Tigers; the Naval wing is called Sea Tigers) have been used to deadly effect. Rajiv Gandhi, R Premadasa, Gamini Dissanayake and Ranjan Vijeratne were all killed by suicide bombers. The LTTE, however, has not accepted responsibility for their killings. By adopting this position it wants to send a signal that it is a liberation movement and not a terrorist organisation. Other than political leaders, the country's economic and cultural infrastructure have been damaged by suicide attacks. Suicide bombers have destroyed the Joint Operation Command of the military, the Central Bank and the World Trade Centre at Colombo, the temple of the Tooth Relic, a revered Buddhist shrine, and oil storage installations in Kolonnawa. The mindset behind these attacks is best understood by a reported Prabhakaran statement: "With perseverance and sacrifice, Tamil Eelam can be achieved in 100 years. But if you conduct Black Tiger operations, we can shorten the suffering of the people and achieve Tamil Eelam in a shorter period of time."⁸

The LTTE suicide bomber is motivated by many factors. It will be too simplistic to assume that the motivation comes primarily from the commitment to the cause or loyalty to Prabhakaran. The death and disappearance of Tamils, many when in SLA's custody and fake encounters, have left deep scars on the psyche of Tamil youth. Young boys and girls scarred by such personal losses and tragedies see self-immolation as a form of revenge and martyrdom.

Muslim support

Muslims constitute a considerable percentage of the population of Sri Lanka – nearly 7.1 per cent. The majority are concentrated in the Eastern Province. Although Muslims, they speak Tamil. There is a sharp divide on the merger of the North and the East along

ethnic lines. While the Northern Province is entirely Tamil-dominated, the Eastern Province has a considerable Muslim population. In Trincomalee district Tamils, Sinhalese and Muslims have each a population share of around 33 per cent. Muslim support is obviously crucial for the merger. According to Lt Gen Depinder Singh, who was the Overall Force Commander of IPKF in 1987, "in the event of a referendum, the Sinhalese were expected to vote against the merger, the Tamils for and Muslim community was expected to vote with Tamils... Logically Tamils should have been expected to woo the Muslims assiduously to keep them on their side. In fact the opposite appeared to happen as terrorists purporting to be LTTE started terrorising the Muslims and a few were massacred, resulting in alienation of Muslims from Tamils."⁹

In an incident on 30 January 1990, the LTTE abducted nearly 80 Muslims from predominantly Muslim areas of Kalmunai, Kattankuddy and Sammanthurai as they were suspected to be supporters of the Sri Lanka Muslim Congress (SLMC). The Muslim population is today so alienated from Tamils that they now demand a separate provincial council for themselves.

ORGANISATION AND UNITY

Organisation

Here we are talking of organisation in the sense of the skills an individual or a group displays in the effective use of people to organise functions for a long drawn out struggle; functions such as logistics, medical care, finances, information, diplomacy, etc. The record of the LTTE in some areas has been exceptionally effective whereas in many fundamental areas its performance is dismal. The LTTE's strategy being military-focused, it has displayed a remarkable innovativeness with weaponry and has started to manufacture hand grenades, claymore mines, mortars and improvised explosive devices. Its cadres have also acquired excellent proficiency in signal communications.

The LTTE's record in creating a parallel political and administrative hierarchy has been uninspiring. It consciously worked to undermine the structures of Tamil self-government and the merger of the North and the East, which have been the major

demands of the Tamils since the days of Chelvanayakam. By allying itself with Premadasa to precipitate the withdrawal of the IPKF in March 1990, the LTTE ensured the collapse of the North-East Provincial Council headed by Varadaraja Perumal, which had been painstakingly set up through the Indian diplomatic effort. The North-East Provincial Council which embodied the administrative unity of the Northern and Eastern Provinces was eventually dissolved, bringing the region under Colombo's authority once again. The withdrawal of the IPKF also ensured the marginalisation of the only power that could ensure the structure of Tamil self-government.

For nearly five years (1990-94) the LTTE had *de facto* control over Jaffna but did little to develop a parallel hierarchy of political structures and institutions to administer Jaffna and other pockets of territory under its control. It could have made use of the existing state and local structures to perform various administrative functions, but chose to destroy the existing ones. In Jaffna, the IPKF had left behind the structures of the organisation called "The Town Commandant, Jaffna," which could have been exploited to administer the Peninsula. But all the LTTE did was to raise money by taxing people. "Interestingly, the Sri Lankan Government never stopped paying civil servants and teachers working in the North, although there was not a shadow of doubt that by so doing it was supporting the LTTE."¹⁰

Unity

Tamil insurgency has been marked by hostile rivalry between militant groups, not on any ideological grounds but to gain supremacy. Lack of unity has many deleterious effects on the insurgent movement. For example, it gives the government opportunities to infiltrate the groups, dissipate resources and undermine external support. Prabhakaran's antipathy for other militant groups is well known. We have already noted how the LTTE emerged as the most important insurgent group by eliminating or silencing its opponents through brutal force and intimidation. The rivalry between the LTTE and other militant groups enabled the Special Task Force to employ their cadres in covert operations against the Tigers.

In order to mitigate the effects of group rivalries and to foster a modicum of co-operation, an umbrella organisation called the Eelam National Liberation Front (ENLF) was formed in April 1984 with the blessings of India's external intelligence service, the Research and Analysis Wing.¹¹ The ENLF was not a unified command but a platform that gave the feuding groups a sense of strategic direction. After the massacre of TELO cadres by LTTE in April-May 1986, the organisation broke up. Prabhakaran never felt comfortable in this organisation. Disunity amongst the militant groups provided the government an opportunity to infiltrate the rival groups. The government's infiltration of PLOTE is a case in point. Prabhakaran's ambition and his fascist tendencies were the main causes of disunity among the major Tamil militant groups.

EXTERNAL SUPPORT

India's Support

External support is one of the decisive factors for the success of an insurgency. It is all the more important when the struggle is long. India's support for the Tamil insurgency in Sri Lanka is crucial. Prabhakaran had a great advantage in securing India's support for the struggle against Sinhalese hegemony. Tamilnadu, the Indian state closest to Sri Lanka is home to 55 million Tamils who have a natural sympathy for Prabhakaran's fight for the legitimate rights of Sri Lankan Tamils. Unfortunately some of Prabhakaran's actions have caused dismay and revulsion towards the LTTE in India. Developments such as the LTTE fighting the IPKF and the support given by LTTE to some of the militant organisations in North-East India and in the state of Andhra Pradesh have dismayed all Indians. The brutal assassination of Rajiv Gandhi by a LTTE suicide bomber caused revulsion in Tamilnadu and resulted in the total loss of sympathy for it. The recent complicity of LTTE sympathisers in Tamilnadu in the kidnapping of Karnataka film star and icon, Rajkumar, by the bandit Veerappan has also outraged Indian public opinion.

Changing Pattern of India's support

In the early days of insurgency, in the 1970's and the early

1980's, Tamil guerrillas could flee to Tamilnadu to escape arrest by the Sri Lankan police. Prabhakaran himself took refuge in India to escape arrest on several occasions. LTTE cadres were even helped by a Tamilnadu politician to obtain Indian passports to travel abroad for training in Lebanon by the PLO.¹²

The nature of Indian support for Tamil militants underwent a profound change after the 1983 riots. Prior to 1983, Tamil insurgents found a safe sanctuary in Tamilnadu, but post-1983 the Indian Government decided to give moral, political, material and military support to the insurgents. The training of Tamil insurgents by India started in 1984 and continued till the Indo-Sri Lanka Accord was signed in July 1987.

The Indian Government intervened directly on the side of Tamil insurgents when they were fighting against a massive SLA offensive (between January and May 1987), preceded by the economic blockade of Jaffna, which forced an exodus of refugees into Tamilnadu. The outcry in Tamilnadu and demand for direct Indian intervention to save the Tamils of Sri Lanka from genocide forced the Indian Government to send an unarmed flotilla of small sea craft with supplies and medicines. When these craft were challenged by the SLN, transport aircraft of the Indian Air Force escorted by fighter aircraft dropped supplies over Jaffna.

The motivations for India's intervention in Sri Lanka in 1987 were two-fold. In the short term, it could not overlook the overwhelming public opinion in Tamilnadu against the killings of Tamils in Sri Lanka. In the long term, it was concerned about Sri Lanka seeking support from a number of countries to provide training facilities for its armed forces and the possibility of Trincomalee port being made available to the USA. The Indo-Sri Lanka Accord, therefore, sought to achieve the territorial integrity of Sri Lanka, while at the same time ensuring autonomy to the Tamils and preserving Indian security interests. Clearly, the Indian motivation for providing support and Prabhakaran's aim of an independent Eelam were incongruent. The dilemma of the Indian Government was accurately illustrated "when India allowed its southern state of

Tamilnadu to provide all four types of support to Tamil secessionists in Sri Lanka while the central government in New Delhi actually opposed the goal of secession (because its achievement could lead India's Tamils to pursue a similar aim at some point). When it appeared that the short term political benefits of placating the population of Tamilnadu might be outweighed by Tamil success in Sri Lanka, the Indian government accepted an invitation to deploy peace keeping forces in Sri Lanka, which ended up conducting counter-insurgency operations against Tamil insurgents."¹³

Prabhakaran failed to grasp the crucial role of India's support for the attainment of his aim. The repudiation of the Indo-Sri Lanka Accord, his temporary allying with Premadasa to compel India to withdraw the IPKF from Sri Lanka and, finally, the folly of assassinating Rajiv Gandhi cost Prabhakaran his greatest asset – the sympathy and goodwill of Tamils in India. Even more disastrous was the loss of sanctuary in Tamilnadu.

The Effect of Globalisation on External Support

We have examined the centrality of India's support to the Tamil insurgency in Sri Lanka. The advent of globalisation has, however, detracted from this centrality. Peter Kloos has argued that there is far more than an Indian connection to Tamil insurgency. In his view transnational (rather than international) aspects are strategic for secessionist movements like the LTTE. He connects the resilience of the LTTE to the circumstances of its going beyond the boundary of Sri Lanka and becoming a transnational enterprise. While aiding the LTTE to become a transnational enterprise, globalisation has also exposed the true character of the LTTE as an extortionist, coercive and fascist organisation.

The July 1983 anti-Tamil riots in Colombo forced thousands of Tamils to leave Sri Lanka, mostly to Tamilnadu but also to Europe, Canada and Australia. Some young Tamils fled the country to avoid conscription by the LTTE, while others, especially Tamils from Colombo, fled because the Sri Lankan armed forces suspected them to be LTTE sympathisers and harassed them. The migrants were supportive of the LTTE and made spontaneous contributions. But the LTTE began to tax Tamils living abroad (as it did in Sri Lanka) to finance the struggle.¹⁴ Over a period of time spontaneous

contribution has turned to extortion. Many have relatives as well as property in Jaffna. "Given the proclivity of the LTTE to kill, it is regarded as risky to refuse requests to financially support the movement."

The LTTE is also neck deep in heroin trade. Tamil drug runners have been arrested in such places as Sri Lanka itself, Rome, Mumbai, Warsaw and Canada, confirming the existence of a large scale drug network.¹⁵ The money is spent on the acquisition of weapons, explosives, telecommunication equipment and even naval craft. The LTTE is said to possess six small freighters, one of which was sunk in 1993 by India. It is supposed to have contained \$ 1,00,000 worth of weapons. On 14 February 1996 another ship sank after an attack by the SLN. International maritime law comes handy for terrorist outfits like the LTTE to avoid punishment in international waters since their vessels could only be attacked when they enter the territorial waters of a country.

The LTTE has made use of global networks and regimes for extortion and propaganda. Tamil Co-ordinating Committees of the LTTE have a chain of offices in Europe, the USA, Canada, Australia, Sweden and Switzerland. These offices distribute propaganda material but the main aim is to collect money for the LTTE, preferably via contributions but increasingly through extortion. The LTTE has also made its appearance on the Internet over which governments have no control.

Peter Kloos who has researched the LTTE's operations abroad observes that "the outline and nature of transnational regime of (illegal) taxing, fraud, money laundering, drug and weapons trade, threat and killing that support the LTTE in Sri Lanka should be sufficiently clear. It seems likely that the LTTE would be unable to continue its operations in Sri Lanka without the financial support collected via the transnational regimes."¹⁶

The extortions and mafia-like operations of its activists in countries like Canada, the UK and Sweden have begun to tarnish the image of the LTTE amongst the expatriate Tamils. DBS Jeyraj, a Tamil journalist working in Canada, has exposed the misdeeds of LTTE front organisations like the World Tamil Movement in his Toronto-based Tamil weekly, *Muncharie*. *Muncharie* was

subsequently forced to close down as a result of intimidation and threats by LTTE operatives.¹⁷

Government Response

There is a long history of discrimination against, and betrayals of, Tamils by successive Sinhalese majority governments. Protest by Tamils against the discriminatory policies were seen by the government as rebellion and excessive force and repression were employed to silence them. These measures only gave an impetus to the sense of alienation among Tamils.

The Indo-Sri Lanka Accord of 1987 provided a window of opportunity to address the Tamil grievances. Had the Government of Sri Lanka devolved adequate legislative and financial powers to the North-East Provincial Council which was formed under the provisions of the Accord, the bloody ethnic strife would have been arrested. Unfortunately obsessive Sinhala suspicion of Tamils and the obduracy of Prabhakaran frustrated that bold attempt. Equally disruptive has been the role of the Buddhist clergy. Its belief that religious and national interests are coterminous has had a negative impact on the Sri Lankan polity. Lack of unity and consensus amongst various political parties of Sri Lanka even on national issues has checkmated President Chandrika Kumartunga in her attempt to devolve adequate political power to minority Tamils. These have combined to make Prabhakaran more implacable.

Conclusion

It is evident that Prabhakaran is losing support amongst Sri Lankan Tamils. In Jaffna, the populace, which was evacuated forcibly by the LTTE at the time of the SLA's advance in 1996, could not be retained in jungles and returned to their homes soon after the government established its control. An indisputable fact of the current situation is that Tamils are opting to live in the 'Sinhala' South – a phenomenon that is a blow to Prabhakaran's legitimacy. Equally disastrous has been his handling of the Muslim populace in the East, whose support is crucial for the unification of the Northern and Eastern Provinces.

The loss of popular support for the LTTE amongst the Sri Lankan Tamils is compounded by the loss of external support as

well. The assassination of Rajiv Gandhi resulted in the loss of support amongst Tamilians in India – a factor central to the success of the Tamil insurgency in Sri Lanka. The conscription of children and women, assassination of political leaders, involvement in heroin trade, gun running and manipulation of laws of many Western countries by its operatives for extortion and intimidation of Tamil expatriates have combined to give the "mafia" tag to the LTTE. The organisation is already banned in the USA, India and Malaysia. Recently, the LTTE has been placed on the list of terrorist organisations in the UK and is likely to be formally banned soon after the list is approved by the Parliament. The European Union is seriously considering similar action. Russia has labelled the "LTTE a threat to peace in South Asia."¹⁸ Notwithstanding the support from some fringe political parties of Tamilnadu, Prabhakaran and the LTTE are today isolated as never before in the international arena.

Today Sri Lanka is on the edge of an abyss. The LTTE under the leadership of Prabhakaran has destroyed all alternative Tamil leadership, both militant and moderate. There are voices, both in Sri Lanka and India, which say that there is no alternative to peace talks with Prabhakaran. But the past experience of negotiating with the LTTE has been discouraging. Peace talks have invariably been used by Prabhakaran to lull the other side and to consolidate his position. The only alternative for Sri Lanka is to hold out and work out a consensus for granting maximum autonomy to Tamils and hope that the escalating violence will lead to abandonment of Prabhakaran by the Tamils.

Notes

- ¹ Bard E O'Neill, *Insurgency and Terrorism: Inside Modern Revolutionary Warfare* (Brassey's Inc., 1990), pp. 160-64.
- ² M R Narayan Swamy, *Tigers of Lanka : Boys to Guerrillas* (New Delhi : Konark, 1994), p. 223.
- ³ *ibid.*, p. 5.
- ⁴ *ibid.*, p. 69.
- ⁵ For a more exhaustive list of Sinhala and Tamil leaders assassinated by the LTTE, see <http://reality.Lanka.com>.

- ⁶ P K Balachandran, "It's Crime to Recruit Kids, LTTE Told," *The Hindustan Times* (New Delhi), 1 June 1999.
- ⁷ Anna Brenchley, "Lady Macbeth in the Jungles of Eelam," *Frontline* (Chennai), 23 February 1996. *Pottu* is the Tamil word for the *tilak* on the forehead.
- ⁸ See Rohan Gunaratna, "The LTTE and Suicide Terrorism," *Frontline*, 18 February 2000.
- ⁹ Lt Gen Depinder Singh (Retd), *The IPKF in Sri Lanka* (Noida : Trishul), p. 73.
- ¹⁰ See Peter Kloos, "Secessionist Movement in an Age of Globalisation," in Nancy Jetley, ed., *Regional Security in South Asia : The Ethno Sectarian Dimension* (New Delhi, Lancers), pp. 403, 404.
- ¹¹ ENLF was formed in 1984 with TELO, EPRLF and PLOTE as constituents; LTTE joined it nearly a year later in 1985. Narayan Swamy, *op. cit.*, pp. 124, 143.
- ¹² *ibid.*, p. 66.
- ¹³ Bard O'Neill, *op. cit.*, p. 120.
- ¹⁴ Peter Kloos, *op. cit.*, pp. 389-406.
- ¹⁵ For LTTE's heroin connection and gun running, see *ibid.*, pp. 404-06.
- ¹⁶ *ibid.*, p. 406.
- ¹⁷ See D B S Jeyraj, "LTTE targets Independent Tamil Newspaper in Canada," *Frontline*, 31 May 1996.
- ¹⁸ P K Balachandran, "LTTE Threat to Peace in South Asia," *The Hindustan Times* (New Delhi), 5 May 2000.

The Nature of Aerospace Power in 21st Century : Implications for India

GP CAPT M MATHESWARAN, VM

Future historians will identify the dawn of the 21st Century with the emergence of a revolution of great scientific, technological, military and social significance; that is, the emergence of "aerospace power." This aerospace revolution will have far-reaching implications for the entire world, in all aspects of economic, political, social, and military fields.

Nations have used military power as an instrument for the use of force or the threat to use force. For the last five hundred years, since the invention of the gunpowder, military power has been characterised by a consistent method of warfare. Towards the end of Twentieth Century, the Gulf War signaled that the curtains have come down on the nature of warfare that the world had been used to since the time of the Renaissance. Those nations that have noticed this writing on the wall will be the ones that will become successful aerospace powers in their own right, or in alliance with a major aerospace power. The last quarter of the Twentieth Century has seen rapid developments in areas such as Computers, PGMs (Precision Guided Munitions), satellites, information technology, and the vast virtual world of software programming. These developments have introduced revolutionary concepts in weapon design, air and space platforms, and the means to exploit information through networking. All of these changes are affecting the nature of warfare in a revolutionary manner. This combination of air and space power, or aerospace power, has the potential of increasing a state's power manifold. Apart from its military dimensions, the economic and political dimensions of aerospace power are likely to have enormous impact on the nature of international relations in the 21st Century. It is inevitable that, in the 21st Century, aerospace power will become the most critical element of national power.

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International Order and Conflict

Conflict is an inherent part of civilisation. Since the dawn of history, man has used armed power to protect himself from his enemies or subdue them. Clashes of interest, the main cause of conflict, have existed from time immemorial between individuals, communities, societies and nations. These clashes of interest manifested as various forms of conflict. Conflict, therefore, will continue to be an integral part of the international system due to the latter's anarchic nature. Quite a few contemporary social scientists say that the concepts of nation-state and sovereignty are on the wane due to the impact of the information explosion. This, however, is not true as historical evidence points otherwise, and the Information Revolution has only made access to information far easier and universal. The Westphalian system of nation-states and the anarchic international system are not in danger for another 100 years. The noted political scientist Samuel Huntington emphasises that nationalism and ethnicism are on the rise and this could lead to even greater numbers of states and a more anarchic world.

So why do conflicts and wars occur? The cause of any war or conflict has been brought out most eloquently by the Greek historian Thucydides in his *History of the Peloponnesian War*. In analysing the reasons for the conflict between the two camps of Sparta and Athens, Thucydides says that two causes can be identified – the underlying cause and the immediate cause. The underlying cause is the real cause of the conflict, the fuse that waits to be ignited, and can be due to clashes of interest for a variety of reasons – economic, political, ideological, religious, and ethnic. The immediate cause is only the match that ignites it. Thucydides ascribes the cause of the Peloponnesian War to the rise in Athenian power and the fear that this caused in Sparta. The real cause, therefore, was the change in the balance of power in the Mediterranean and the fear that this created among the Spartans.

Changes in the balance of power among nations – or perceived changes – have been critical elements in generating

conflict throughout history and remain so today. The factors that contribute to this change in balance of power are essentially three:-

- (a) Wealth and territory.
- (b) Military power.
- (c) Technology (weapons technology and the tactics for exploiting it).

Wealth and territory have historically defined a nation's strength in a number of ways. Growth in wealth and territory can often change the perception of the balance of power among nations and thus help create conflict. Similarly, growth in military power directly influences the balance of power. Technology is the third factor that has influenced the nature of conflict from the earliest days. Aerospace power has the potential to simultaneously alter the levels of all three factors, and consequently affect the balance of power in a significant manner

In modern times the economic factor has a pervasive impact on the power of a nation and as a result the balance of power. With aerospace technologies, it is even more crucial as the world's economies are interdependent. Paul Kennedy, in his sweeping study *The Rise and Fall of Great Powers*, has brought out eloquently the interdependent role of economics and military strategy. Economic balance of power is even more critical today to prevent conflict. The Italian historian, Luigi da Porto, sums up in simple terms the economic relevance of conflict :-

"Peace brings riches; riches bring pride; pride brings anger; anger brings war; war brings poverty; poverty brings humanity; humanity brings peace; peace, as I have said, brings riches, and so the world's affairs go around."

Technology and Revolutions

Technology is always the basis upon which societies undergo change. Technology determines the way we fight and the way we

make wealth. As Alvin and Heidi Toffler have brought out, technology has been the basis upon which major changes or revolutions take place to transform societies. The Tofflers' wave theory is quite familiar. According to them, after the first two waves of agricultural and industrial revolutions, the third wave of 'knowledge revolution' is now underway. To understand the three waves one must understand the three levels of interaction in each wave. Technology and its application in all processes dominate the first level of any wave. In this the economy is central and politics inherent, as are social forms. The second layer deals with culture. The third and the deepest level are the foundational. This is the region that generates ideas, which lead to outcomes in other layers. Science, religion and superstition share this region. Paradigms originate at this level.

Table 1 : Civilisational Waves

Waves, Revolutions and Ages			
Layer	Waves		
	First	Second	Third
Application	Agricultural	Industrial	Information
Interpretative	Pre-modernism	Modernism	Post-modernism
Foundational	Faith	Reason	Intuition

The beginning of the Third Wave should be traced to the beginnings of space exploration. It took a certain amount of time for air and space technologies to mature before crossing over to the exponential growth pattern we are witnessing today. This happened in the eighties and nineties. There are many issues that need to be understood clearly. The third wave is essentially a revolution of aerospace technologies, information technology being a logical outcome of it.

The concepts of Revolution in Military Affairs (RMA), Revolution in Strategic Affairs (RSA), Military Technical Revolution (MTR), and Revolution in Warfare have been at the forefront of academic

and strategic discussions and studies for sometime now. Many observers have tended to see an RMA defined by the technologies demonstrated during the Gulf War: stealth, PGMs, advanced sensors, C⁴I², and use of real-time (or near real-time) space systems. Analysts have progressed further to connect this impact of technology on strategy and, finally, warfare. The latest to emerge from this approach is Information Revolution.

There is a semantic as well as conceptual flaw in the above approach. Most of these revolutions are, in essence, technological evolutions. An RMA is much more than clever technical innovation. The whole thing must be seen from the larger perspective of what a revolution is supposed to be. A revolution is an ongoing process, involving political, economic, social, cultural, and military aspects over a long period, and consists of many sub-revolutions or evolutionary changes. Revolutions, by definition, imply discontinuity and change. When seen from this basis, all the various revolutions being talked about originate from the aerospace revolution or aerospace power (see Figure 1). Aerospace technologies are the fusion of developments in aviation, space, computers and communications. Technological evolution has led to the integration of computers and communications, resulting in the evolution of information technology. The interaction and integration of information technology with aviation and space technologies has led to the emergence of the information revolution. The macro view, then, makes it clear that the drivers of the current revolution are aerospace technologies.

The technological explosion stemming from aerospace power has resulted in a paradigm shift that will have a major impact on the nature of future wars as well as international relations. Throughout history, wars and international relations have been conducted along the Newtonian paradigm of linearity. All developments and results were perceived to follow the principle of linear inputs and linear outputs. This approach was due, primarily, to the limitations of existing technology in computing complex inputs and outputs. Thus wars were planned and conducted based on linear increases in force structure. Outcomes of battles were studied and predicted in the same vein. However, with exponential improvements in

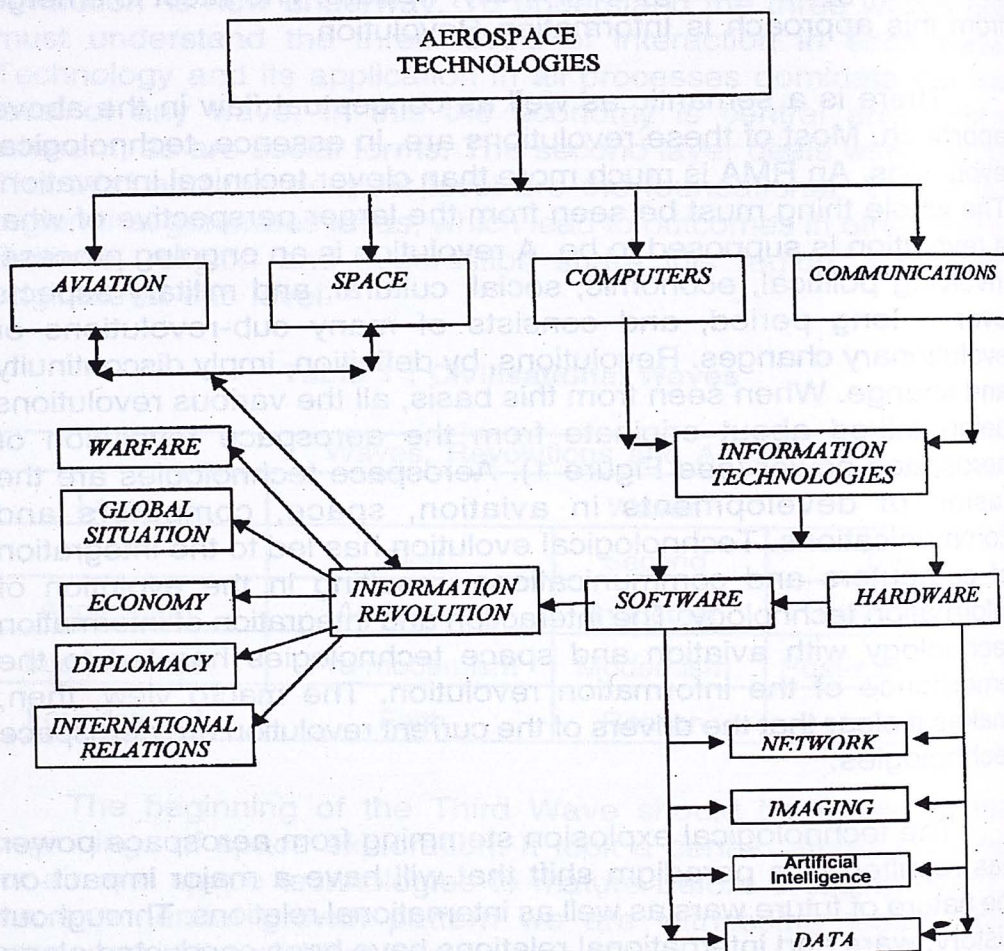


Figure 1 : Aerospace and Information Technologies

computing capability today, it has not only become possible but imperative to use the theories of chaos and complexity for rigorous analyses and predictions. It has made the science of simulation and modeling very accurate and reliable. In short, there is a paradigm shift – from the Newtonian paradigm of linearity to the paradigm of non-linearity or complexity. This new paradigm will make the application of complex solutions easier and fruitful.

What is the significance of this revolution for nations like India? As we shall see later, nations of India's size and potential cannot remain in the pool of technological obsolescence if they wish to be global players. Having missed the Industrial Revolution, we will be constantly chasing a mirage that will keep getting farther and farther. More importantly, this chase also ensures that our economic, political and military security is forever a few shades lower than that of developed nations, and worse dependent on their technology. The knowledge revolution, a result of aerospace and information technologies, gives nations like India the opportunity to leapfrog over many developmental processes and achieve considerable development economically, politically and militarily. More importantly, aerospace power will ensure that India retains its freedom of action, be it in space, air or ground.

The Nature of International Order and India's Position

The international order is characterised by its anarchic nature. As long as nation-states remain the principal actors in the existing international system and recognise no supreme authority above themselves, the concepts of nationalism, national security and national power will continue to be the core issue affecting relations amongst states. Power, therefore, becomes the most important motive for a nation-state as it strives to secure its 'core values' and enhance its status in the international order. This reality is best described by Hans J Morgenthau :- "international politics, like all politics, is a struggle for power. Whatever the ultimate aims of international politics, power is always the immediate aim." Any action or policy that maximised a nation's power is in its interest, and actions and policies that did not maximise power were not in the national interest.

The world is a ruthless place where power struggle is inherent in the international system. The struggle is always between the established or *status quo* powers who try to prevent any dilution or challenge to their hegemony, and the revisionist or the new developing powers who want to share the power in the world in a more equitable manner. India, as a developing power, will be seen as a revisionist power until the other powers accept its great power status as an inevitable reality. Some of the irrefutable facts of the international system are :-

- (a) The world is always dominated by major powers militarily, economically, technologically and politically.
- (b) Established powers are *status quo* powers and will resist any attempt at changing the established world order.
- (c) The *status quo* powers of today are the P-5, primarily in terms of military power, and the G-7 in terms of economic power.
- (d) This order is somewhat dominated by the USA in all the fields – economic, military, technological and political.

What are the implications for India? A few important factors are of great significance: -

- (a) India, as a nation-state, is only 53 years old. Given its size and potential national power, it needs to consolidate itself as an effective and strong state. The natural process of the development of a nation-state with its attendant threats is very much applicable to India as well. However, the need for her to cover wide ground in terms of development entails considerable pressure. The situation is quite similar to China's, except for the fact that China already has a long history of having been a unified state.
- (b) India, by virtue of various factors – geo-strategic, geo-economic, territorial, human resources, natural resources, etc. – is an emerging major power.
- (c) India's emergence as a peer power will be contested by established powers.

(d) India's threat analysis can be realistic only when it takes into account a global perspective, encompassing technological, economic, political and military factors.

Geo-strategic Factors

Is India an emerging power? An analysis of geo-strategic factors will indicate that India has no option but to accept its role as a major power and be ready to discharge its responsibilities accordingly. Using the analogy from Mackinder, the geographical pivot of history in the 21st Century will be the Asian land mass, more particularly the strategic triangle of India, China, and Russia. Some compelling reasons for this view are as follows:

(a) The world is already witnessing the fastest economic growth in Asia, and this will continue for a considerably long period. The growth patterns of India and China will have major impacts on not only Asia but also the world.

(b) The ongoing globalisation and Information Revolution will transform Asia into a vast dynamic economic market.

(c) The large populations of India and China will transform into massive human resource bases, primarily due to the easy access to knowledge and education enabled by information technology.

(d) Indian Ocean, as Alfred Thayer Mahan predicted, will be the ocean of the 21st Century. Nearly 70 per cent of maritime activities will pass through the Indian Ocean. It goes without saying that sea-lanes of the Indian Ocean are of great strategic importance, and their critical relevance to India is self-explanatory.

(e) India's sizable EEZ (Exclusive Economic Zone) is likely to become a potential source of conflict in future, as economic growth fuels fierce competition for oceanic resources.

(f) Asia's GDP (Gross Domestic Product) will overtake that of the West within the next decade. Rapid economic growth will lead to fierce competition for markets all over the world. This could be a source of conflict amongst major economies.

(g) Energy crisis is, probably, the gravest potential crisis looming over the world. India, China, Japan, and the US will be the largest consumers of fossil fuel by 2025. Energy crisis is a time bomb ticking away.

National Power and Military Power

From time immemorial military power has been seen to be synonymous with national power. This was because the primary, if not the sole, instrument of force for a state was military power. Historically, states have resorted to the use of force, or the threat to use force, to achieve their objectives. The Clausewitzian dictum that "war is not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means" was well-established. However, today the use of military power is no more seen from the prism of Nineteenth Century power struggles, but more as an instrument of power necessary to ensure a peaceful environment. The use of military power for achieving national objectives has become the absolute last resort. This has, however, not taken away the critical importance of military power in the calculus of national power. International relations understand only the language of power. Military power, therefore, remains in the background to provide depth and strength for other instruments to take effect and is ready to move to the forefront when necessary.

Over the last century many methods have been evolved to assess a state's national power. In the post-Second World War scenario, Klaus Knorr underlined his calculation based on nuclear capability. German, David Singer, Norman Alcock and Alan Newcomb evolved other variations. Among the more widely recognised indices of national power was the one devised by Ray S Cline in 1975. The elements that govern the perceived power of a nation in the international system are given by his formula as follows :-

$$P_p = (C + E + M) \times (S + W).$$

Where P_p = Perceived Power.

C = Critical Mass (Population + Territory).

E = Economic Power.

M = Military Power.

The above three are the tangible factors that can be measured effectively. The other two are:

S = Strategic Purpose.

W = Will of the nation to pursue its national strategy.

These two are intangible factors, and difficult to measure since they are largely subjective and depend on individual assessment patterns.

We are more concerned today with the three tangible factors, as we need to identify how aerospace power has come to influence them. Traditionally the three tangible factors have been seen as independent contributors to national power. C is composed of territory and population, both of which are becoming finite in today's world. As literacy rates improve, population growth begins to taper off. Although our nation had gone on the wrong side of the population curve, the emergence of aerospace technologies can turn this liability into an asset. Modern media and information technology will, in future, be able to reach out and influence much larger sections of the population faster and more effectively. Therefore, literacy rates will develop faster and the exponential growth of population can be turned towards a linear growth. More importantly, aerospace technologies will enable larger numbers of well-educated and skilled pool of human resource. Similarly, gone are the days when nations could plan to increase their resources by acquiring territory through conquest. Increase of resources from a finite territory, today and in the future, can only be done through use of high technology for the exploitation of land and oceanic resources in our EEZ.

The other two factors, economic power and military power, materially affect a nation in great measure. All through, technology has been the vehicle for a nation's growth. The Industrial Revolution, through mass production, fuelled rapid economic growth and, consequently, military power through technological innovation. The two have, however, been seen in exclusive terms. Economic growth was seen more as a means to enhance the state's military power. This made states view military power as the sole means of

representing national power. Therefore, many nations deviated from the wisdom of ensuring a balanced development of economic and military power, to a heavy focus on one of them with disastrous consequences. This was the case with the Spanish Hapsburgs in the 17th and 18th Centuries, as also with Japan, Germany and the USSR in the Twentieth Century. On the other hand, the British Empire in the 19th Century and the USA now are examples of achieving an optimum balance in the development of the two factors.

The need for cautious balancing was primarily because technology for economic growth and military power tended to operate exclusively. For example, if defence industries stopped producing tanks or guns, it would have had no impact on the automobile or steel industries. Similarly, the linkage between naval forces and merchant marine was minimal. A nation with the largest navy was not necessarily the largest merchant marine nation. This is evident from the cases of Japan and Korea, which are the world's leading merchant marine states but their navies are small, while the world's largest naval power, the USA, is not among the larger merchant marine states. Similarly, right up to the end of the Second World War, economic connectivity of air power was minimal.

It was only in the second half of the Twentieth Century and, more specifically after space power had matured, that the change towards a closer interdependence of economics and military power began to take shape due to aerospace technologies. The growth of aerospace power and its generation of information technology have massive economic and military dimensions. Thus, in the 21st Century's calculus of national power, aerospace power will encompass all three tangible factors: C, E and M.

Aerospace Power

Aerospace power can be defined as the synergistic application of air, space, and information systems. This synergistic combination has an overwhelming influence on the economic and military power of a nation.

Economic Implications of aerospace power are :-

- (a) Telecommunications is emerging as the largest sector of commercial aerospace activities.
- (b) Remote sensing is a crucial development that enhances our knowledge and ability to exploit resources, apart from building critical awareness about the earth's environment. Space sensors provide critical data on study of earth, oceanic, and atmospheric phenomena.
- (c) Computers and Communications. The whole world is now being networked in a way never before imagined. All this would not have been possible without satellites and miniaturisation of electronics and communications.
- (d) Environmental data about weather.
- (e) GPS (Global Positioning System) is now being used increasingly by commercial ventures, from airline traffic and courier services to civil engineering.
- (f) Education and Commerce. The biggest and the most comprehensive impact of aerospace power will be in the fields of education and commerce due to global Internet connectivity.
- (g) Satellite communications. Information Revolution and space connectivity have opened enormous possibilities for world-wide data link, data transfer, and commerce.

Economic investments in the aerospace sector are increasing rapidly all over the world. There are now about 600 active satellites orbiting the earth, of which almost 70 per cent are of US, Russian and former USSR origin. This number is expected to grow to between 1500 and 2000 satellites by 2010, of which nearly 60 per cent will be from countries other than the USA and Russia.

Today over 1100 companies in 53 countries are engaged in aerospace research, development and manufacturing activities. Many of these countries have just begun to take advantage of space in the last decade. Similarly, the pace of development in information technology in the last decade has been exponential. For example, consider the following developments: -

- (a) In 1980 an advanced microprocessor contained perhaps

10,000 transistors. By 1994 this increased to 100 million transistors, a ten thousand-fold increase.

(b) Between 1966 and 1989, the amount of information stored in semiconductors increased from 3200 bits to one billion bits. Between 1989 and 1996 the production of semiconductors increased over 300,000 times.

(c) Microprocessor speeds have been increasing exponentially. Very soon, before the end of this decade, the so called "bips barrier" will be broken and we should see one billion bit operations per second.

(d) Fibre optics is revolutionising communications. These can carry over two billion bits of information per second as against the standard copper cable's capacity of 64,000 bits per second. This will revolutionise media and cable networks.

(e) Similar large-scale connectivity explosions are taking place in Internet, cellular and satellite technologies.

Today the revenues from the aerospace sector in the US alone are about \$125 billion. This is expected to increase worldwide to about \$600 to 800 billion. By 2015 this is likely to exceed \$3 trillion.

Military Implications

What are the implications that aerospace technologies will hold for military power in the 21st Century? This can be best understood by identifying the core characteristics that aerospace power will bring to warfare in the Twenty-First Century. These can be narrowed down to four dominant competencies: -

- (a) Information.
- (b) Command and Control.
- (c) Precision.
- (d) Penetration.

The foremost impact is the role of information. From time immemorial information has been the central core of warfare. Modern

aerospace technology allows us to access information on a scale never achieved before. The problem today is one of processing power, as it is now impossible for human processing capability to exploit this surfeit of information. Aerospace technology is moving in a direction that would allow the use of chaos and complexity theories to arrive at the best decision after expert processing of data and information.

Command and control has become more effective as we move towards creating a near real-time situational awareness for the commanders. Modern sensors, airborne and space-based, will provide a comprehensive three-dimensional view of the battlefield to future commanders, thanks to aerospace technologies.

Precision and penetration are outcomes of aerospace technologies that exploit GPS for navigation and targeting, optical and laser designators for precision guided munitions, stealth, cruise missiles, and weapons using fire-and-forget as well as self-actuating technologies.

The four characteristics of aerospace power affect warfare and international relations at three levels. At the first level the impact is technology dominated and leads to enhancement of various tools such as Electronic Warfare (EW), PGMs, etc. This level is one of Military Technological Revolution. The second level is the impact generated from the first level. It leads to changes in the concept of operations. It is the Revolution in Military Affairs. At this level aerospace power will bring in conceptual changes leading to knowledge-based combat, command dominance and command and control warfare. The third level of impact is at the larger national and international levels where concepts will lead to a Revolution in Strategic Affairs. International relations and warfare will focus on perception management, functional disruption/destruction of the adversary using information warfare and the emergence of the concept of strategic information warfare.

Aerospace Power and Future Warfare

Exploitation of aerospace power will transform future wars

considerably. Two concepts, OODA loop theory and Parallel War, will have major influences on the conduct of future operations. The observe, orient, decide and act (OODA) principle is in operation in all facets of life. The theory evolved by Colonel John Boyd of the USAF (United States Air Force) focuses on the time-mind-space paradigm wherein one could always wrest or retain the initiative and control over an adversary by remaining ahead of him in the OODA cycle. One could paralyse the adversary's OODA loop either by flooding too much information or implanting necessary misleading and deceptive information. Thus, interference with the "observation" function would automatically distort "orientation-decision-action" functions and would help achieve national objectives.

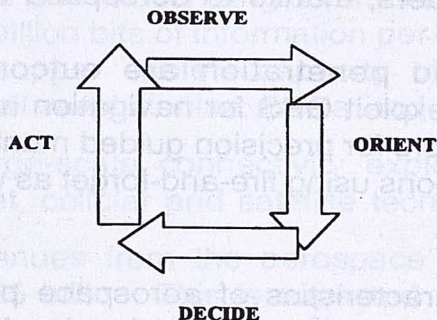


Figure 2 : OODA LOOP

The second transformation is related to what is known as 'parallel warfare.' The synergistic combination of information, precision and smart weapons, accurate and long reach aided by technologies such as GPS and stealth, allows an aerospace nation to follow a comprehensive execution of a battle or war. It is now possible to conduct war at the strategic, tactical and operational levels simultaneously. Therefore, prosecution of war becomes swift, precise and surgical. The concept, advocated as five-ring theory by Colonel Warden of the USAF, was put into operation effectively in the 1991 Gulf War. The result was that within the first week of air operations, the Allies had put out of action the entire command and control structure of Iraq, apart from destroying the infrastructure of the nation. The combination of parallel warfare and OODA cycle will lead to strategic paralysis of the enemy.

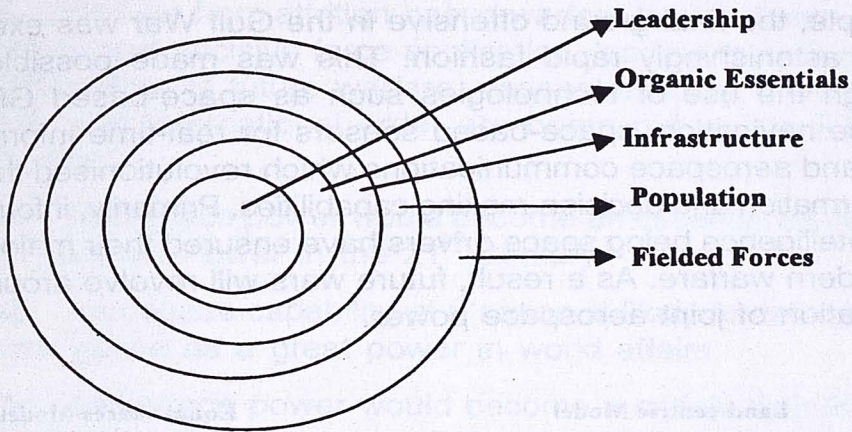


Figure 3 : Warden's Five Ring Theory

The concept of swarming, first demonstrated by the Mongols in the 13th Century, will become the pattern of operations. Swarming, enabled by aerospace power, will necessarily be joint operations. Similarly, aerospace power will affect force structures. Small size, rapid mobility, accuracy, real-time communications and smart weapons would characterise future force compositions. The large massed armies of the Twentieth Century will be sitting ducks in the information-dominated aerospace power scenario.

Inevitability of Joint Warfare

The synergistic approach of aerospace power logically demands a joint warfare approach. Traditionally, warfare has always been led by the army, with the naval and air forces playing supporting roles. Physical destruction or attrition of the enemy force has been the norm. This is the traditional land-centric approach. As technology developed, and as air and sea forces became more effective, particularly in the light of the Gulf War, the equal share model came into acceptance where land, sea, and air forces play equally major roles but with the decisive role resting with the army.

However, the emerging aerospace technologies are becoming

not only common to all three Services but essential as well. For example, the final ground offensive in the Gulf War was executed in an astonishingly rapid fashion. This was made possible only through the use of technologies such as space-based GPS for precise navigation, space-based sensors for real-time information flow, and aerospace communications which revolutionised the flow of information and decision-making capabilities. Primarily, information and intelligence being space drivers have ensured their major roles in modern warfare. As a result, future wars will revolve around the foundation of joint aerospace power.

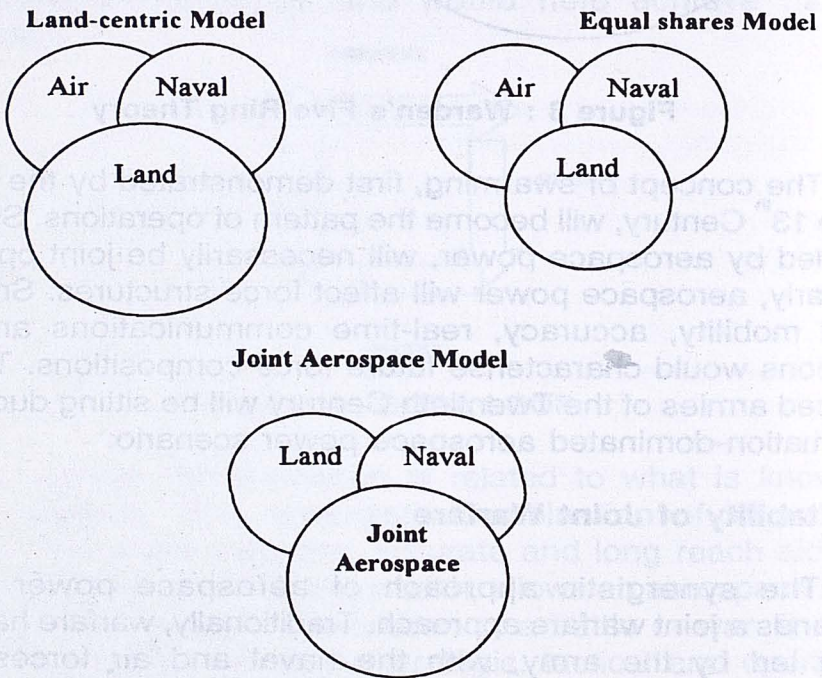


Figure 4. Evolution of Joint Warfare Model

Imperatives of Aerospace power

Having seen the pattern of development of aerospace power that is taking place the world over and its critical impact upon all aspects of national power, it is prudent to appreciate that aerospace power will become the fulcrum upon which national security will

rest. In the Twenty-First Century, warfare will be transformed by aerospace power from attrition-based warfare to one dominated by manoeuvre and decisive force application, leading to swift results. The imperatives of future warfare, national security, international relations, and international order are borne out by the following propositions: -

- (a) Aerospace power would become an essential component of National Power in the 21st Century.
- (b) Aerospace capability of a nation is likely to determine its emergence as a great power in world affairs.
- (c) Aerospace power would become a critical instrument of national security.
- (d) India is an emerging power and this brings with it attendant threats to its national security.
- (e) India needs to become an aerospace power if it has to play a global role commensurate with its size, resources, and potential. Aerospace power will enable India to become a secure, strong, modern, and wealthy state.

IMPLICATIONS FOR INDIA

Opportunities

- (a) India is now a rapidly growing economy. Gone are the days of having been stuck in the Hindu rate of growth in GDP of 3.5 per cent. Over the last decade the Indian economy has been growing at an average of over six per cent. As of 1996 India had a GDP of \$450 billion, which was 1/15 of the US economy. Given a conservative rate of growth of 6 per cent, India will achieve a GDP of \$4.16 trillion in 2015, which will be one-third of the US economy.
- (b) Aerospace power will enable India to build a very large pool of human resource. Even by conservative estimates India can have a pool of 200 to 300 million highly skilled manpower. This would be an enormous asset for national growth.
- (c) Aerospace power offers India the technology to leapfrog

over certain developmental hurdles and join the ranks of advanced nations.

(d) Aerospace power will enhance India's national power largely and propel it as a world power.

(e) India has the potential to consolidate itself as a regional power in the medium term and as a global player in the long term.

Threats

(a) Internal threats emanating from secessionist, fundamentalist, and communal forces.

(b) External threats, primarily from Pakistan and China in the short and medium terms. The long-term threat to India emanates from the issue of being seen as a revisionist power by the established *status quo* powers. This will continue until such time India is accepted as a major world power. The issues of CTBT (Comprehensive Test Ban Treaty), NPT (Non-Proliferation Treaty), etc. should be seen in this light.

(c) If India does not grab the opportunity to become an aerospace power, it will be condemned to obsolete technology, which could result in economic and cultural exploitation. Besides, it will lay itself open to technological and military coercion from the established powers.

Conclusion

It is clear that the nature of aerospace power in the 21st Century necessitates considerable conceptual changes in our national strategies. That aerospace power is of great national relevance is incontestable. India's leadership, therefore, needs to appreciate that all avenues relating to national power must be critically evaluated and appropriate changes made. No amount of appreciation of concepts or changes in concepts and doctrines will bear fruit unless the necessary organisational changes are made to exploit those new technologies, strategies, and concepts. India's needs can, therefore, be summed up as follows: -

(a) There is an urgent need to formulate a national aerospace policy.

(b) Technological revolution necessitates organisational changes. Our national security structures need to be reviewed in the light of the emerging nature of aerospace power. These will involve the following questions to be answered:

(i) Is our existing National Security Council optimal and effective? Does it have the structural wherewithal to take into account the impact of aerospace technology on strategic issues?

(ii) Is there an urgent need to institute the Chief of Defence Staff (CDS) structure, particularly in view of the conceptual change towards the primacy of joint warfare necessitated by aerospace power?

(iii) Is our MoD (Ministry of Defence) system, instituted in 1947, appropriate to 21st Century requirements? Considering the level of sophistication prevalent now in operational, strategic and tactical issues, can the national leadership afford to keep the military away from strategic decision-making?

(iv) In view of the need for an effective nuclear command structure, and the need for aerospace policy, will it not be prudent to set up a National Space Command? Such a system is more likely to meet the requirements of keeping the nuclear and space command and control under the direct control of the national leadership.

(v) Is it not necessary, in the light of aerospace power capabilities, to evolve a joint warfare approach to future operations?

(vi) Does the CDS concept and the joint warfare approach necessitate the establishment of unified commands? If so, the changes will have to be more relevant to India's environment and meet both immediate operational requirements as well as long term strategic requirements.

(vii) Are the commands instituted in the fifties in the Air Force relevant today? Does the IAF need to think in terms of functional commands?

(viii) What should be our force structure, in the short term, medium term and long term?

In addition to the above questions, national aerospace policy will have to address the issue related to the plan for effective interaction and integration of various organisations such as Indian Space Research Organisation (ISRO), DAE (Department of Atomic Energy), and DRDO (Defence Research and Development Organisation) with the MoD towards meeting India's security requirements in the military, economic and political spheres.

The centre of gravity of future wars will not be on the battlefield, or anywhere on the adversary's territory, or even anywhere on earth. By virtue of aerospace power, the centre of gravity of future wars and conflicts will have shifted to space. Space control and space dominance, in addition to information dominance and information denial, will become the secret for winning future conflicts. Orbital planes in space will become the source of competition and conflict in the 21st Century. Collins, an American researcher, has identified that circumterrestrial space, which encapsulates Earth to an altitude of 50,000 miles or so, will be the key to military domination by the mid Twenty-First Century.

To paraphrase Halford Mackinder :

Who rules circumterrestrial space commands planet Earth. Who rules Moon commands circumterrestrial space. Who rules L4 and L5 commands the Earth-Moon system.

L4 and L5 are lunar liberation points – locations where the gravitational pull of the Moon and the Earth are exactly equal. In theory, military bases planted there could stay in position for very long times without needing much fuel.

Validity of Close Air Support

MAJ GEN A K VASUDEV

Introduction

The way armies wage war has been changing over the millennia. The pace of change has increased with the speed of technological development and scientific advance. Current developments in opto-electronics and computers have virtually revolutionised warfare. Stand-off weapon systems, unmanned aerial vehicles, cruise missiles, precision guided munitions have all given the ability to strike accurately at targets without coming into close contact with enemy forces. Opposing armies would aim to degrade the adversary's potential by employing accurate and devastating fire power throughout the depth of the battle field. Fire power would aim to reduce the potential of the enemy to such an extent that the success of close battle is ensured with minimum effort. In such a scenario of a highly mobile and dispersed battle field, we need to examine the validity of close air support (CAS).

Problem Areas

A large number of problems impede the provision of CAS. These have been discussed in succeeding paragraphs.

Differences in Air Force and Army Doctrine. Air Force doctrine and thinking rests on the principle of centralised control and decentralised execution. Army's operational environment on the other hand consists of thousands of individual soldiers and units widely scattered over the battle area. The soldier thus requires fixed plans which may be rehearsed and implemented with fidelity in order to offset uncertainty of own environment. There is therefore a basic difference in their thinking and actions. Air Force would like to undertake counter air operations and air defence (AD) operations as high priority tasks as against counter surface force operations during the initial phases of war. Dr Alfred Price in his book *Air Battle Central Europe* has quoted a similar requirement from the ground

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forces commander : "The Exercise Commander Northern Army Group, General Nigel Bagnall used to say that his priorities for airforce were to keep the enemy airforce off his back and to stop enemy's second echelon of reserves from linking up with the front echelons. He accepted that it could mean that during the initial days of the conflict, his troops might not see a single friendly attack other than those on their way to targets beyond the battle area". Notwithstanding the above, all modern armies of the world have accepted the requirement of unity of command and joint planning for conduct of air land battle.

Effect of Visibility. For engaging a ground target first the pilot needs to acquire it, identify it and then engage. During war, dust and smoke impede visibility. Night or poor visibility due to weather also adversely affect provision of CAS.

Response to Immediate CAS. Although air arm is flexible and fast reacting, the time taken for provision of immediate CAS is still long. Even when communications function smoothly and there are no obstructions, an immediate CAS mission is likely to take one to one and a half hour to materialise. The ground situation may change during this time for better or worse. Ground forces would need much faster response which can be provided by diverting aircraft from other missions if available or keeping the aircraft on 'air alert' or 'ground alert'. All these alternatives have their shortcomings and are usually not recommended.

Close Integration. In order to understand how the army operates on the ground and remain updated with the plans and progress of ground battle, there is a need to have detailed integration of pilots with the ground forces. With fighter aircraft operating from bases distant from the battle area it becomes difficult. This drawback can be eradicated if the CAS were provided by attack helicopters of Army Aviation operating from within the battle area.

Need for Air Superiority. Air superiority even if only localised must be achieved to provide CAS. In the absence of superiority, would own Air Force be able to provide the desired CAS is questionable.

Hostile Threat. Ground forces today have a host of cheap and effective air defence weapons including shoulder-fired SAMs (Surface-to-Air Missiles) that impinge on freedom of aircraft operating for CAS in the battle area. Modern aircraft are very costly and even a sophisticated aircraft like the Stealth Bomber costing Rs 280 crores was brought down during the Kosovo operations by hostile AD. Because of hostile AD environment, CAS aircraft at high speed are likely to make only one run over the target area. This would further reduce their chances of recognising the targets and engaging them accurately. This problem of target identification can be overcome by use of slow moving rotary wing aircraft. However they too would be susceptible to enemy fire from small arms and air defence weapons.

Fratricide. When ground forces are engaged in mobile battle, the ground situation changes quickly. In the fog of war, it is difficult to recognise enemy forces on the ground. Even with good communications, command and control, an A-10 aircraft of the USAF had attacked a column of Chieftain tanks of the UK during the Gulf War. Conversely own ground AD weapon systems may shoot down a friendly aircraft.

Air Space Management. Management of air space with the Air Force, army aviation aircraft, ground based AD weapons, artillery and SSMs is a very difficult task. The best of C³I systems would find it difficult to inform all users of airspace of movement of each other to avoid fratricide. Procedure of safe corridors, timings, flight altitudes are also very cumbersome and restrict employment of fighter aircraft for CAS.

Reliability of Communication. Hostile actions can jam our radio communications. Jamming of Air Support communications and Control and Reporting communications will adversely affect the reliability of CAS and can also lead to fratricide.

Effect of Terrain and Weather. Mountainous terrain conditions make acquisition of targets on ridge difficult, especially if the aircraft have to fly high to avoid enemy short range AD weapons. Weather in the mountains changes very fast thus making CAS unreliable.

Serviceability and Survivability of Weapon Systems. In his book *How to Make War* James F Dunnigan has carried out an analysis of serviceability state and survivability of various aircraft, missiles and guns. Guns and missiles have a comparatively better survivability and serviceability ratio vis-à-vis aircraft and hence are more reliable systems for provision of fire support to ground forces.

Directing the Aircraft on to the Target. The task of directing own fighter aircraft to ground targets is done by FAC (Forward Air Controller) with assistance of GLO (Ground Liaison Officer). FACs are fighter pilots and finding adequate number of fighter pilots for FAC duties has always been a problem. An airborne FAC is better than a FAC on the ground; this may have to be taken on by pilots of Army Aviation helicopters who are integrated and updated with the battle situation on the ground. The post of GLO therefore becomes redundant.

Developments in Technology. Although technology affords dramatic application of air power, it is still the man behind the machine that counts. To engage targets close to own troops or pinpoint targets, laser-guided bombs can be used. However, to direct the laser-guided bomb to the target, the target has to be continuously illuminated thus exposing their launching and designating aircraft to hostile AD. To reduce the threat to the aircraft from enemy AD, the designation of the targets can be done by a ground laser designator if in range. The Pakistan Army is known to carry out training in use of ground designators for illumination of target of attack by aircraft. Stand-off technologies also add to the cost of weapon systems manifold. Laser or infra-red seeker weapon systems are affected by visibility, weather, and the signature of area surrounding the target thus degrading their accuracy.

Cost Factor. Aircraft are very costly machines and a lot of time and money is spent in the training of pilots. Both these factors weigh heavily in the mind of commanders while assigning CAS missions since chances of losses of aircraft are high in high intensity AD environment of battle area. Stand-off technology and smart weapons can reduce the chances of own aircraft losses but they add

enormously to the cost of the mission and still cannot meet the requirements of CAS due to a host of other problems. Longer range and highly lethal precision guided munitions available with field artillery which are also cheaper can fill in the void. For example to hit a pin-point target a laser-guided bomb delivered by aircraft costs approximately Rs one crore, whereas a laser-guided projectile fired from a gun would cost approximately Rs 14 lakhs. Losses to own aircraft can also be reduced by launching well planned 'Suppression of Enemy AD' (SEAD) operations.

Future Prospects

Indian Air Force doctrine propagates the primacy of air campaign. When pitted against an enemy who has a powerful Air Force, priority has to be given to achieving control of air. It suggests that no other operations should be commenced if it is going to jeopardise the attainment of air superiority or is going to use resources that should be used to attain air superiority. Since in our scenario we do not visualise an air campaign on the lines of the Gulf War as a precursor to launching of ground operations, it would be prudent to assume that CAS will be given a back seat during the initial stages of the ground battle.

We have examined a host of problems that impinge upon the provision of CAS to the ground forces. There is therefore a definite requirement to review our tactics, teaching and organisation to ensure that our ground troops will get the desired fire support for success of operations. "Experience in Gulf War seems to show that armed helicopters and long range rocket artillery will lessen the problem of integrating aerial close support by assuming many of the more difficult close-in fire power tasks formerly reserved for airforce. There were also fewer occasions when CAS was preferred option because artillery and attack helicopter offered a degree of precision equal to close support aircraft while retaining the flexibility to work much more closely with forward manoeuvre units." Moreover, "Attack helicopters armed with missiles are more effective against tanks as compared to fixed wing aircraft. Armed helicopters/gunships fitted with guns and rockets provide effective CAS. If there are sufficient guns and rocket launchers within the range of the

target and its location is known, these can engage far more rapidly than can aircraft, do so with greater accuracy, sustain fire over longer periods and concentrate a greater volume of fire. If artillery weapons are in a position to perform a given destructive task, they will usually do it more cost effectively than can aircraft".

Recommended Solutions

Having analysed the problems of provision of CAS and the lessons of various wars, the following are recommended :-

- (a) All assets of attack and utility helicopters currently held by Air Force to be taken over by Army Aviation to achieve better integration with the ground forces. Kargil operations have clearly shown that R & O (Reconnaissance and Observation) Units had to extensively undertake the task of casualty evacuation, logistic supply and movement of troops in the battle area which should rightfully have been carried out by utility helicopters of the Air Force. In England and Germany all rotary wing aircraft are under the Army other than those needed by the air force for domestic use.
- (b) Army Aviation should acquire state of the art attack helicopters and helicopter gunships with a compliment of scout helicopters for undertaking the task of CAS in future. The Air Force should be called upon to provide pre-planned CAS including BAI (Battle Area Intelligence). They should provide immediate CAS in case of emergencies only.
- (c) R & O pilots and scout helicopter pilots should be trained to direct attack helicopters and fighter aircraft to ground targets, ie, act as airborne FACs.
- (d) Post of GLOs should be abolished since they would be no longer required.
- (e) We could disband Air Support Signal Units and utilise their assets elsewhere. Normal communications between Corps HQ and Tac HQ Air Force could be used to meet pre-planned or any emergent requirement of provision of CAS by the Air Force.

- (f) Communication nets between Army Aviation Units and formation HQs of Army need to be harmonised to achieve better integration of Army Aviation Units in battle or during exercises.
- (g) To achieve jointmanship in conduct of operations, the Air Force representative should be included in all exercises conducted at division level and above from the planning stage onwards. This would ensure desired integration during war.
- (h) Speedy action for modernising of field artillery and to fill existing voids needs to be taken. Artillery should have long range guns and MBRLs (Multiple Barrel Rocket Launchers) along with state of the art munition systems and target acquisition devices like BFSRs (Battlefield Surveillance Radars), IOE (Integrated Observation Equipment), LORROS (Long-range Reconnaissance and Observation System), WLRs (Weapon Locating Radars) and UAVs (Unmanned Aerial Vehicles). Maximum use of artillery should be planned to meet the fire power requirements of the ground forces.
- (j) Procedure for demand of attack helicopters/helicopter gun ships for immediate CAS and removing the weaknesses of the existing system should be evolved.

Conclusion

With the changing focus of future wars to depth battle and improved availability of fire power means with the Army, the requirement of CAS will continue to diminish. However since future wars will be fire power predominant, pre-planned CAS and BAI in support of ground operations are a must. Own air force will also have to ensure that the ground forces can execute their operations with minimum interference from the enemy's air force. We may still require immediate CAS from air force when some elements of ground troops get surprised and ground based fire power means are not available or when such an adverse situation develops that immediate CAS must be employed. We definitely need to review our tactical concepts related to CAS and carry out desired organisational changes to optimally meet the fire power requirements of the ground forces.

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The Challenges for Junior Leaders in the Next Decade

LT BALAKRISHNAN GURUMURTHY, IN

If you want to plan for a year, plant corn.
If you want to plan for 30 years, plant a tree.
If you want to plan for 100 years, plant men.

-- Chinese proverb.

Introduction

The Indian Armed Forces have been one of the cornerstones of our democracy. Fifty three years after independence, while other institutions have suffered erosion, the military stands like a colossus. The nation has fought four wars with Pakistan and one with China. Insurgency in Jammu and Kashmir and the North East continue to fester. In all, the military has acquitted itself very creditably in the eyes of our countrymen (except in the Chinese War of 1962). What is the reason for this success? The answer no doubt is : focussed and visioned senior military leadership, raw courage, will and motivation of our junior officers and JCOs (Junior Commissioned Officers) and the unflinching loyalty of our men.

There is little doubt that our junior leadership is comparable to the best in the world. Utterances like 'Yeh dil maange more' by Capt Vikram Batra (PVC, posthumous, Kargil War 1999) epitomised valour and inspired our JCOs and jawans to face insurmountable odds and succeed against an enemy who clearly had an upper hand in the early stages of the conflict. The reality has dawned on us that the battlefield of the future will be one of enormous destruction resulting in great confusion and high levels of fear among all those involved. Despite the nuclear tests of Pokhran II and Chagai in 1998, the conventional threat has not withered away as evident from Kargil.

Excerpts of the essay which won the Gold Medal in Group B of the USI Gold Medal Essay Competition 2000.

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The Future Battlefield

The Army is operating at two ends of a spectrum – a battlefield with conventional weapons which have become very lethal, with the possibility of escalation to the chemical, biological and nuclear dimension, and counter-insurgency and LIC (Low-intensity Conflict) operations, which require diametrically opposite approaches as the enemy cannot be identified. A parallel can be drawn with the Navy also, where the requirements of a 'blue water' capability to ensure presence in the 'hotspots' of the world and the need to patrol the EEZ (Exclusive Economic Zone), safeguard maritime assets as well as play a constabulary role with the Coast Guard require different approaches. Air Force operations in Kargil marked a milestone in successfully executing a truly unique concept in air warfare. The dense EW (electronic warfare) environment of the future battlefield will sever communications between units in the field and their Command Headquarters. Advances in lasers and infra-red technology, which have greatly enhanced night fighting capabilities, will force officers and men to fight continually with little or no rest. Any future war will put a lot of strain not only on the regulars but on the civilian population as well, due to the widespread and dispersed characteristic of the digitised battlefield. Given improvement in weapons with stand-off ranges, one will be fighting the enemy 'virtually blind'. All these factors combined have thrown newer challenges to the leadership approach in the military.

Peculiarities of a Ground War

The intensity of any future war will be such that the casualties which were sustained by our Army in 1971 in a span of 25 to 30 days will be suffered within the first 24 to 48 hours of combat. There has also been a trend towards an increasing threat to the civilian population. The so-called 'collateral damage' to Iraqi civilians in the 1991 Gulf War and NATO's 78 day-bombing campaign in Kosovo are striking examples of this. The distinction between combat troops, support personnel and civilians has increasingly blurred, giving rise to new problems to senior military commanders. An added responsibility for military personnel may be to direct disorganised and panic stricken civilians in future. This phenomenon has been observed in more recent conflicts and peacekeeping operations.

Dilemma of Junior Leadership

In a democratic society, the military often finds itself in a peculiar situation. The values necessary to defend society are often at cross purposes with the values of society itself. Every other day we read of a politician, bureaucrat or a businessman chargesheeted for one or other act of malfeasance. We even read of agitations by policemen and lawyers, who are the custodians of law and order. The cancer of corruption seems to have engulfed the moral fabric of our society. The Kargil conflict witnessed a crass commercialisation of war, which incidentally was brought 'live' to our drawing rooms by the various television channels. It can be inferred that whatever be the values of society, to be an effective instrument the military must concentrate not on the values of the society, but on the hard values of the battlefield which are simply - "live or die, win or lose." The efficiency of our system which has performed so well cannot be doubted. However, a few changes will need to be brought about in order to adapt to future scenarios.

THE ROAD AHEAD

Need for change

Traditionally armed forces have been rigid hierarchical organisations. The military climate is highly formalised, tightly structured and is based on a reductionist approach as opposed to a holistic systems view. The present system is designed to ensure compliance to orders and minimises individual thinking and deviation from these orders. The current culture tends to produce leaders at junior levels who are more reactive than proactive, adaptors rather than innovators and whose time horizons are short. We must accept that there is need for a paradigm shift to deal with new realities. However, flexibility does not mean changing without rhyme or reason. It is more importantly changing what should be changed and respect the reality that life is a mixture of rigidity and flexibility. Flexibility is not a one-time phenomenon but a process of continuous change. It is not shifting to extremes but to dynamically balance change. It is not changing as per convenience but evolving a value system. The lack of a flexible approach in dealing with problems and the perils of rigid centralised control was shockingly evident in

the recent tragedy of the Russian submarine 'Kursk' in the Barents Sea. According to a crew member of 'Voronezh', a sister ship, the highly trained 'michmen' (petty officers) crew was proficient in the escape drills. However, after the initial explosion and flooding in the forward compartments, in which more than half the crew and the commanding officer died, the remaining crew and officers in the aft compartments were apparently 'waiting for orders'.

Empowering Junior officers

This concept is not new. In World War II, the German Army practiced what is known as *auftragstaktik* (promotion of harmonious thinking at all echelons of command). This enabled subordinates at the lowermost rung to understand and carry out the mission concept of their superiors. As per this doctrine, when German units were overwhelmed by an attack the subordinate always knew what his commander wanted. As a result, the Germans always counter-attacked within 15 to 30 minutes as compared to a couple of hours taken by the Allied troops. In future, positive control of subordinates may not be possible because of jamming of communications. Thus junior officers, who in present conditions are directly controlled by their seniors (who have reasonably good information as to the whereabouts of their subordinates and the problems they face), must in future assess their own situations and determine actions. The situation in the Navy is slightly different as the smallest unit in any task force is the ship or submarine which is commanded at least by a Lt Cdr. Thus, junior officers must have a frame of reference which allows them to understand the intentions of their senior commanders two echelons higher. This must be accomplished under conditions of extreme stress and probably limited capability for radio communications. All this notwithstanding, the fact is that with the advances in information technology warfare has become 'network-centric' rather than 'platform centric.'

Peter Drucker, the management guru, has remarked : "In the information age, winning teams will write the scores as they perform." From this, we can conclude that there must be a change from the present dominant and bureaucratic control of our organisation. The present structure definitely suits a predictable environment. In such circumstances, work can be standardised and

the officers easily selected and trained, and co-ordination can be achieved through hierarchical command and control. But as was brought out earlier, the future battlefield of 2010-2020 will be one with technologically complex weapons, a dense electronic environment, violence and chaos with a high level of unpredictability. Such a scenario calls for a more flexible and dynamic organisation. Presently, this kind of an organisation exists only in elite special forces like the Commandos in the Army and MARCOs (Marine Commandos) in the Navy. But this difference is because of the fact that these are small units with special missions.

Empowering the JCOs and equivalents

The recent arrest of a Warrant Officer accused of spying for the ISI (Inter-Services Intelligence of Pakistan) and involvement with a shady sect called *Deendar Anjuman* (responsible for blasts in churches of South India) has revealed a shocking gap that exists in officer-men relationship (more applicable to the Air Force). Agitations by airmen in various units across the country for rationalisation of pay scales post-Fifth Pay Commission is also a pointer to the deteriorating discipline. The ISI is trying to penetrate the lower ranks of the military in order to suborn 'soft targets.' It is time we accepted the fact that the officer-men relationship is not what it ought to be and stop pretending that everything is hunky dory. With the improvement in living standards, rise in educational levels and increasing urbanisation, the present day jawan or NCO's (Non-Commissioned Officer) awareness has increased manifold. Merely ensuring that he gets good food and daily 'tot' of rum is not enough. Our JCOs and NCOs need to be assured that they have a vital role to play in the leadership matrix. They need to be empowered to take decisions within their frame of reference and grow in their 'spheres of excellence.' Thus, empowerment of both junior officers and JCOs (and equivalents) is a step that will go a long way in improving our effectiveness.

SIMULATIONS

Battle Practice Manoeuvres

Exercising under more realistic conditions. During most of

the peacetime exercises, situations producing extreme conditions of stress are rarely simulated. Therefore, it is likely that only a miniscule number of people actually have an idea as to what they can and cannot do under severe stress. For example, during a practice missile firing exercise in the Indian Navy, all co-ordinates and parameters are known to the other ships who are to engage the missile with their SAM (Surface-to-Air Missile) and gun systems. This exercise is highly structured to minimise errors. Note the important point : 'errors' and not risks. Say, if we were to create a minor deviation from the established norm by just keeping the firing axis secret from the engaging ships. Because in war, we can never be sure where the missile will come from! This will be a realistic test of weapon systems crew's proficiency and a true indicator of their performance under severe stress. As we all know, one will get a reaction time of not more than 45 seconds to take avoiding action against a missile. Similar parallels can be drawn in other Services also.

Another point that needs highlighting is jamming. We avoid jamming because our command and control systems will get disrupted. If the C² structure is jammed, nothing else matters. Personnel who have minimum experience of operating under conditions of disrupted command structures will experience severe stress when that command structure disappears in wartime. Scientific research has revealed that high stress produces a high level of anxiety, which usually results in poorer performance of complex tasks. And with a decrease in manpower owing to advanced technology and force multipliers, we have a paradoxical situation of trying to repair a very complicated piece of equipment within a very short time under a high level of stress.

There is need for more realistic simulations. Our junior leaders will definitely cope better when they have repeated exposure to it. Thus, the organisation must be made flexible and dynamic, able to adapt to a wide range of situations. The military professional of the next decade should be able to execute his mission without a great deal of external control and guidance. Junior officers must be encouraged to enter uncertain situations and "learn" what the important characteristics of the situation appear to be. Having developed a set of assumptions about the situation, the officer will need to be able to revise his assumptions as action is taken and

new information is generated. Here I would like to mention the example of the Israeli Air Force in the Yom Kippur War of 1973. It was surprised by the effectiveness of Egyptian SAM batteries and the Air Force's deep-seated assumption of its invincibility lay shattered. The Air Force officers drew upon their cognitive repertoire of non-military situations to devise a strategy which finally turned the tide in their favour.

Peacekeeping Operations

Indian Forces have been successfully involved in peacekeeping duties since 1961. The most recent example is of Sierra Leone, where a successful attack was mounted by the Indian Army to free captured soldiers. The core of the peacekeeping ethic is the use of 'absolute minimal force and impartiality.' The military tends to think of this activity as less prestigious, like internal security duties. However, as the number of trouble spots all over the world increase, the military is more likely to get involved in peacekeeping duties. This poses a series of potential management and leadership problems. How should the personnel be selected for peacekeeping duties? What sort of training should they receive? What should be the QRs (Qualitative Requirements) for officer selection? Are there leadership problems that need to be addressed? During deployment, the effects of boredom – perhaps the most challenging leadership problem among combat troops on a peacekeeping mission – become apparent. When incidents occur in such a context, they are likely to do so without warning and little opportunity to co-ordinate with higher headquarters. The judgement of the leadership at the site is likely to determine the success of the new mission. One of the finest examples that can be quoted is the restraint shown by Indian Peacekeepers in Somalia compared to US troops whose retaliation against the forces of the warlord Aideed led to a backlash ultimately resulting in their ignominious withdrawal. The Army has succeeded in this by creating a capsule training for peacekeepers at Rajputana Rifles training centre, New Delhi. The Navy and the Air Force need to take a cue from this.

Psychological Operations (Psy Ops) and Military Intelligence

These cover a wide spectrum of activities related to studying and controlling the 'hearts and minds of men.' As was amply

brought out in Maj Gen Arjun Ray's book, *The Kashmir Diary*, Psy Ops played a major role in counter-insurgency in Jammu and Kashmir. In addition to counter-insurgency, counter-indoctrination and interrogation, Psy Ops can include activities such as conflict resolution in peacekeeping operations and management of information. Propaganda, which in essence involves information control, may play an important role in military operations in terms of bolstering the morale of friendly forces and demoralising or confusing enemy forces. Fear, confusion and ignorance are factors that hinder effective military operations. In order to function effectively in these circumstances, junior leaders must have as realistic expectations as possible of what will be facing them in battle. Education, indoctrination and realistic training are all efficient methods for reducing some of the personally debilitating effects of combat operations. In future conflicts it will be necessary to have access to both timely and accurate intelligence and Psy Ops expertise during operations to prevent our junior officers and men from becoming cannon fodder.

Build-up of Intelligence. One main reason for Kargil was the total failure on the part of intelligence agencies. Even the Chief of Army Staff admitted recently that the present intelligence set-up has become obsolete. With the advances in information technology and telecommunications, the benefits, however, do not seem to have been exploited fully by the Armed Forces. Also, intelligence is no longer only a cloak-and-dagger game as is widely perceived. It is well-known that the present JIC (Joint Intelligence Committee) is an established 'dumping ground' for civilian officers. Even within the military, the intelligence cadre is not attached the importance that should normally be given. It is plagued by archaic practices and antiquated equipment. To rectify the anomaly with immediate effect, revamping of the intelligence set-up should become the top priority of the Service Chiefs. Also, there needs to be a closer interaction between the RAW (Research and Analysis Wing), the IB (Intelligence Bureau) and Military Intelligence. Intelligence chiefs should be included in the decision-making loop to make them accountable.

BEHAVIOURAL SCIENTISTS AND MILITARY PSYCHOLOGY

SSB (Services Selection Board) and Military Psychology

Our SSBs form the first level of officer selection. This system was adopted by the British after studying the selection process of

the German *Wehrmacht*. The science of selection of officers at the SSBs is a highly credible system. The three-pronged process of interview, psychological tests and group testing techniques have been so designed as to ensure that even if a candidate manages to hide his inadequacies in two of the three, the third technique will eventually catch on to his limitations. The military psychologist of the board has a significant role to play in the study of a candidate. A candidate will definitely not get selected if he or she is not recommended by the psychologist. However, in our context, the role of a psychologist ends after initial selection. The psychologist has a continual role to play in the study, preparation and maintenance of men in battle. It is important to point out that military psychology is different from other branches of psychology in key aspects – it applies psychology to own Forces so that they can better survive the rigours of battle and accomplish the task of defeating the enemy, while at the same time psychology is applied to the enemy to disrupt his efforts and destroy his will to continue the fight. This necessitates the forming of a cadre of uniformed behavioural scientists with 'hands on' experience in operational matters. The author suggests the formation of such a cadre, which has been successful in the Israeli Defence Forces.

Behavioural Science in the Israeli Defence Forces

The Israeli Defence Forces have made extensive use of behavioural science concepts to create cohesive, well-led and highly-skilled fighting units. Military psychology was adopted by the Israeli Defence Forces shortly after the establishment of the country because of the necessity to make the most efficient use of Israel's relatively small 'military eligible' population. The initial attention is focussed on induction screening and selection. A full-fledged department of behavioural science oversees the work of military psychology. Field-oriented research is decentralised in such a way that major corps and combat divisions (and similarly for the Navy and the Air Force) have their own teams of field psychologists, and major basic training combat and leadership schools have staff behavioural scientists among their staff. The behavioural scientist's agenda would be :

- (a) Initial selection (both men and officers).
- (b) Identify and foster leadership and command potential.

- (c) Create and integrate cohesive combat teams.
- (d) Produce feed-back to commanders at all levels on the basis of information gathered from surveys dealing with attitude, motivation and morale.
- (e) Be available to assist with personal problems of the individual soldiers, sailors and airmen, whether these arise as a consequence of difficulties in peacetime military or wartime trauma, fatigue and grief.
- (f) Conduct applied research to solve problems and innovate and develop more effective manpower practices.

Pitfalls likely to be encountered

While the Israeli model provides important lessons for other armed forces, it would be disastrous to copy it *in toto*. The military structure and ethos of Israel are totally different from ours. The Israelis have a large number of personnel in uniform as conscripts. A large part of the Israeli Defence Forces consists of reservists called for duty for one month in a year, after the initial two or three years of compulsory service. Thus, discipline is restricted to essential matters only. There are no separate messes for officers, NCOs and other ranks. They dine together and there is very little social drinking. Officers are known by their nicknames. Each potential leader starts at the lowest rank in the military. Unlike our system, the Israeli Defence Forces do not produce their officers through academies. Outstanding soldiers, sailors and airmen are selected for NCO training. Then, from this group, outstanding NCOs are selected and sent for officer's courses. However, in spite of all the advantages of the Israeli Defence Forces, it would be impossible to implement such a system in an all-volunteer force like ours. In our society, people aspiring to join the military have firm expectations of the status and perks due to them on the basis of their education and the social strata to which they belong. People will not be attracted to a system that is markedly different from their expectations. After all, the thing dearest to Indians is *izzat*. Whether we like it or not, in a class-conscious society like ours, such radical changes are not possible.

Regimental System

The British Regimental System, which has been in place for about 300 years, has proved to be conducive to the development of cohesion and unit identification and resistant to unit disintegration under stress. Individuals with similar backgrounds and acquaintances are trained together and socialise in cohesive units to share common sacrifices and experiences over extended periods of time. This has resulted in very stable and cohesive units, which have often fought valiantly and stubbornly. Each unit has its own battle cry, to which officers and men associate with deeply. Thus, performance in battle was based not only on *izzat* of the *paltan*, but at the individual level on the related motive of not wanting to be known in their family or community as someone who 'let us down.' True, the education levels have gone up, joint families have given way to nuclear families, liberalisation has spawned a new 'cola' culture, but the onslaught of all these have not been able to dent the Regimental System.

Application of Behavioural Science to Regimental System

As brought out in the preceding paragraphs, we will not be successful in implementing the Israeli system *in toto*. But definitely, a start can be made by inducting behavioural scientists at the regimental level. These will be uniformed personnel attached to a regiment, who will move to field areas when the regiment moves. They can form an effective bridge between the Commanding Officer (CO) and the junior officers/JCOs. The Navy does not follow a regimental system like the Army due to the uniqueness of its operations. However, drawing a parallel in the Navy, each fleet or flotilla could have a team of behavioural scientists (it may not be practicable to have one on each ship or submarine). Commanding Officers, junior officers, Master Chief Petty Officers (MCPOs), Chief Petty Officers (CPOs), and Petty Officers can interact with him. He will be the advisor to all COs and the Fleet Commander. Likewise in the Air Force, each air station could have a team of behavioural scientists. All these teams can be headed by an officer of the rank of Major and equivalent. They should be entrusted with the following responsibilities :

- (a) Gathering of information to support early identification of leadership.

(b) Conducting of team-building seminars and workshops for leaders from Naib Subedar (equivalent) to Captain (equivalent) level with their combat teams (e.g. in the Navy, the weapons officer and his system crew).

(c) Conduct of surveys and interviews with personnel at all levels to provide feedback to senior commanders with respect to such issues as morale and motivation, inadequacy of training and equipment, confidence in leadership and perceived operational readiness of the unit involved. The result of this survey will be a very important indicator of *operational effectiveness* and a source of problem identification and resolution.

(d) Provision of a broad variety of other behavioural science advice, counsel and support at all levels in peacetime and wartime conditions. These will not include clinical intervention (which is handled by psychiatrists of the medical branch) but will include identification and handling of normal incidence of battle fatigue and breakdown, and allow personnel to express their fears, frustrations, wish or grief, and by helping them to understand the basis for these emotions and to resolve any associated problems. However, the field psychologist will neither have the mandate nor the right to intervene immediately prior to or during combat. He does not have a role in the treatment of psychiatric, combat stress or battleshock casualties.

PERSONNEL POLICIES

Career Progression

The present system of performance evaluation revolves on what one terms as a 'zero error syndrome' or 'zero tolerance' or the '365 day culture', wherein one does not want to rock the boat too hard during a tenure. All a junior officer will like is to do what is his due and keep quiet. This also discourages innovative thinking and remains an obstacle to decentralisation and goes against the professional ethic of 'choosing the harder right than the easier wrong.' The military will need to create an environment that reinforces values and empowers leaders at all levels to seize the

initiative and act creatively. There is need to create a climate for more junior leaders that permits rational risk-taking. An environment needs to be created in which training and development of subordinate leaders is viewed as the top priority. The present ACR (Annual Confidential Report) evaluation system makes command errors seem extremely disastrous in terms of career potential. It is highly likely that these characteristics will not be adaptive to the future battlefield. In peacetime, we need to create leaders who will serve the nation during wartime. And the beginning has to be made now.

Exit Policy

The current officers exit policy needs a relook. Definitely, to maintain the pyramidal structure, we need more lieutenants, captains and majors (and equivalents). However, presently, the continuance of 'low growth potential' officers against their wishes has the effect of eroding the cutting edge of the Services. Also, the much talked about 'teeth-to-tail-ratio' is upset to a considerable extent. Once it is apparent to an officer that he or she is not going to make it, the choice should be left to the officer to either stay or leave. The present exit policy is too cumbersome and bureaucratic, forcing us to carry on with the deadwood. This can be made attractive with golden handshake schemes and a provision of lateral exit employment in the civilian sector where his or her proficiency and leadership skills can be put to good use. After all, one never joins the military for purely 'altruistic' purposes. Concurrently, the Armed Forces must work towards a formula where 40 per cent of officers are SSC (Short Service Commission) and 60 per cent are PC (Permanent Commission). This will ensure steady growth and a highly motivated junior level leadership who know their contribution to service has been recognised and that they will not be victims of the 'necessary evil' of the selection system. For example, a few vacancies can be reserved at the postgraduate level in Indian Institutes of Management for the Defence Services, subject to the officer clearing the entrance test.

Ethics Programme

Moral values and ethical leadership are oft repeated themes and volumes have been written on this subject. The importance of

ethical behaviour at all levels needs no emphasis. This is drilled into cadets when they join the National Defence Academy or the Indian Military Academy or the Naval Academy and other basic training institutions. The chief ingredients of leadership as propounded by General Mathew Ridgway are three C's – Character, Courage and Competence. But somewhere, we seem to have lost track of 'character.' Even in academies, the stress by peers and senior trainees is on the development of a 'smart' officer who can 'manage' things efficiently rather than the suffering 'straight' person. Once this value gains currency, there is nothing to stop its proliferation after officers get commissioned. There was a recent example of a Lieutenant General who wanted his son to be deputed for a particular UN mission. The Colonel responsible for selecting the officers gave him a list which did not include his son's name. When asked, the Colonel politely replied that since he was following the selection norms set by the Lieutenant General himself, this could not be done. The Colonel was shown the door quietly and the son's name was included in the list. This news spread like wildfire in the Army and was even reported in the papers. To salvage the situation, the least the Lieutenant General could have done was to offer to resign.

Of late, a lot of writ petitions and ROGs (Redress of Grievances) are being filed by senior officers for promotions. The fact that military service is a 'calling' and not just another 'job' has been lost on a section of our senior officers. This has resulted in the military being clubbed with the civil services as far as values go. As brought out earlier, the military has to deal with the great dilemma of protecting the society whose values are totally at variance to its own. To re-emphasise – "character means self-discipline, loyalty, readiness to accept responsibility and willingness to admit mistakes. It stands for selflessness, modesty, humility and willingness for the supreme sacrifice." Thus, our senior leadership must effect changes both from "top-down" and "bottom-up" in order to salvage the situation from the present mess. The process of selection to the highest levels must be free from political interference and made transparent in order to help mitigate the writ petitions being filed by officers. Only then will our senior officers provide an 'inspirational' leadership to junior levels. They have to emphasise that qualities like confidence, courage of conviction, candour and

commitment are two-way. We need leaders who can practice the immutable leadership principles : "know yourself", and "set the example." We also need leaders who embody the military ethic – it is better to put your career in line than to be dishonoured.

Decentralisation

This would involve shifting of authority and resources further down in the organisation. It is not only physical decentralisation such as having various subunits broken up and dispersed. In the gamut of Computerised, Command, Control and Communication with Intelligence, Information Surveillance and Reconnaissance (C⁴I²SR), the matrix of decision-making will be complex. Moreover in "information warfare" the stress will be on 'push' configuration of information rather than 'pull'. Decentralising command decisions will be a partial solution to the turbulent environment, the information overload (or even total lack of information under conditions of jamming) at the higher formations and the need to make decisions quickly. Pushing decision-making towards lower echelons of command to where the information is and allowing for judgement of lower levels of commanders will be a practical response to a physically-dispersed, fast-moving and confused battlefield. The sophistication of C⁴I²SR in fact promotes centralisation. Also, peacetime pressures on the military like public opinion, political ideology, budget pressures, etc. encourage centralised decision-making. A decentralised military will definitely be more adaptive but also more expensive since there may be duplication of resources. The aim of decentralisation is to be more adaptive and innovative in the long run.

Conclusion

A military must evolve as the society changes. At the same time, it must stay unique. Certain aspects of the military, such as concepts of command and of unlimited liability, give it uniqueness from the rest of society. There are risks involved in making sweeping changes within a very short span of time. Therefore, we must strike a balance between changing enough to remain consistent and preserve the values and traditions which make a positive

contribution to effective morale. The response to an emerging problem in one area has effects in other areas that may or may not be desirable. Behavioural scientists have a key role to play in analysing the various options and advising on the probable consequences of each. Further, by identifying potential problem areas and recommending courses of action to come to grips with them, military behavioural scientists can serve as effective catalysts for adaptive personnel change at all levels.

The Israeli Defence Forces (IDF) have been trendsetters in this field. In deciding how to apply this model, it is important to keep in mind the differing backgrounds, traditions and cultures between the IDF and the Indian Armed Forces. Any change modelled on those in the Israeli Defence Forces will have to be adapted to make allowances for such differences. There are strong similarities shared by most modern military forces. We have our own research and leadership training in academies, junior officers, staff college, etc. having capsules of behavioural science as part of the curriculum. Except for combat support, we have all support services. But combat is what we are interested in and the pragmatic combat support role of the military psychologist has already been highlighted. Success in war will depend upon adequate numbers of highly skilled and well-led men and women. In an all-volunteer force, we have to attract, select and train the best possible recruits. We must not forget that after all, 'War is and has always been a human contest, with weapons merely the tools through which the contest is prosecuted.'

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Welfare : Battle Casualties (Part-I)

LT GEN C R SAMPATH KUMAR, PVSM, AVSM, VSM (RETD)

Introduction

The Indian Army has been engaged in a number of conflicts since independence. During the various operations of 1947-48, 1962, 1971, OP Pawan, OP Meghdoot, OP Rakshak, OP Vijay and others, a large number of soldiers have been killed or disabled permanently. Besides these conventional operations, the Army has been involved in fighting insurgency in Jammu and Kashmir (J&K), Punjab and the North-Eastern states, over protracted periods of time. Counter-insurgency (CI) operations are still continuing in J&K and the North-East. During all the above operations, over 16,000 personnel have been killed and more than 32,500 wounded. In the last ten years alone, over 4,500 personnel have been killed and more than 13,000 wounded. With the situation as it exists, CI operations are likely to continue, resulting in more number of casualties. Apart from the staggering human cost in the form of loss of life and limb of the soldiers, these operations also leave grieving widows and family members, who suffer in silence and fade away from memory with time.

In the recent past and particularly during and after the Kargil conflict, there has been a national awakening to the cause of suffering widows and family members of our martyrs. This is a very healthy trend where the Central Government, State Governments, Non-governmental Organisations (NGOs) and the private sector have chipped in arranging relief and rehabilitation for the soldiers' families. The Army hierarchy has ventured to ensure that relief measures reach the families expeditiously and that the benefits go to the deserving members rather than be pocketed by intermediaries within the family of the soldiers or in the channel of disbursal. From the point of view of the widows and family members, there are wide variations due to sub-cultural factors, as the social

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status of the widows varies depending upon caste and region. There is also a wide variation in their educational and vocational competence, thereby adding a new dimension to rehabilitation. Illiteracy, ignorance, and the rural background of the widows make the job of relief and rehabilitation much more difficult and challenging.

Classification of Battle Casualties (BCs)

An analysis of the benefits given to families of martyrs since 1947 indicates that there has been a sharp quantitative increase in the benefit package given to martyrs of recent operations vis-a-vis battle casualties in the past. It is also pertinent to mention that there is a significant gap in the welfare packages given to martyrs' families of OP *Vijay* (Kargil) vis-a-vis martyrs of other operations during the same period and thereafter. The casualties can be classified into six distinct categories based on Central Government ex-gratia available from time to time. A study reveals that there is a glaring variation in the benefits received by different categories, more so after OP *Vijay*. The details are contained in subsequent paragraphs.

CATEGORY 1 (FROM 15 AUGUST 1947 TO 19 AUGUST 1993)

Benefits to Next of Kin (NOK) of the Deceased

	Officers	JCOs/OR
1. Ex-Gratia from Central Government	- Nil	Nil
2. National Defence Fund*	- Rs 50,000/-	Rs 50,000/-
3. Army Central Welfare Fund**	- Rs 50,000/-	Rs 50,000/-

Benefits to Disabled (Boarded Out/Prematurely Released)

1. Ex-Gratia from Central Government	- Nil.
2. National Defence Fund	- Nil.
3. Army Central Welfare Fund**	- Rs 1 lakh.

Remarks : During the Chinese aggression in 1962 'Army Relief Fund' was constituted from a grant from National Defence Fund

for rendering immediate relief to personnel, who were invalided out of service and to the next of kin of those who die during operations. The following payments were made :-

- | | | | |
|-----|----------|---|-------------|
| (a) | Officers | - | Rs 1,000/-. |
| (b) | JCOs | - | Rs 300/-. |
| (c) | OR | - | Rs 200/-. |

This was discontinued on exhaustion of funds.

Note : * Announced and implemented with effect from (wef) November 2000.

** Announced and implemented wef October 1999.

CATEGORY 2 (FROM 20 AUGUST 1993 TO 30 APRIL 1995)

Benefits to Next of Kin of the Deceased

	Officers	JCOs/OR
1. Ex-Gratia from Central Government	- Rs 1 lakh	Rs 1 lakh
2. National Defence Fund*	- Rs 50,000/-	Rs 50,000/-
3. Army Central Welfare Fund**	- Rs 50,000/-	Rs 50,000/-

Benefits to Disabled (Boarded Out / Prematurely Released)

- | | | | |
|----|-----------------------------------|---|------------|
| 1. | Ex-Gratia from Central Government | - | Nil. |
| 2. | National Defence Fund | - | Nil. |
| 3. | Army Central Welfare Fund** | - | Rs 1 lakh. |

Note : * Announced and implemented wef November 2000.

** Announced and implemented wef October 1999.

CATEGORY 3 (FROM 01 MAY 1995 TO 31 JULY 1997)

Benefits to Next of Kin of the Deceased

	Officers	JCOs/OR
1. Ex-Gratia from Central Government	- Rs 2 lakhs	Rs 2 lakhs
2. National Defence Fund*	- Rs 50,000/-	Rs 50,000/-
3. Army Central Welfare Fund**	- Rs 50,000/-	Rs 50,000/-

Benefits to Disabled (Boarded Out / Prematurely Released)

- | | | | |
|----|-----------------------------------|---|-----------|
| 1. | Ex-Gratia from Central Government | - | Nil |
| 2. | National Defence Fund | - | Nil |
| 3. | Army Central Welfare Fund** | - | Rs 1 lakh |

Note : * Announced and implemented wef November 2000.

** Announced and implemented wef October 1999.

CATEGORY 4 (FROM 01 AUGUST 1997 TO 30 APRIL 1999)

Benefits to Next of Kin of the Deceased

		Officers	JCOs/OR
1.	Ex-Gratia from Central Government	- Rs 7.5 lakhs	Rs 7.5 lakhs
2.	National Defence Fund*	- Rs 50,000/-	Rs 50,000/-
3.	Army Central Welfare Fund**	- Rs 50,000/-	Rs 50,000/-

Benefits to Disabled (Boarded Out / Prematurely Released)

- | | | | |
|----|-----------------------------------|---|------------|
| 1. | Ex-Gratia from Central Government | - | Nil. |
| 2. | National Defence Fund | - | Nil. |
| 3. | Army Central Welfare Fund** | - | Rs 1 lakh. |

Note : * Announced and implemented wef November 2000.

** Announced and implemented wef October 1999.

CATEGORY 5 (OP VIJAY (KARGIL) FROM 01 MAY 1999 TO 31 OCTOBER 1999)

Benefits to Next of Kin of the Deceased

		Officers	JCOs/OR
1.	Ex-Gratia from Central Government	- Rs 10 lakhs	Rs 10 lakhs
2.	National Defence Fund*		
	(a) Dwelling Unit	- Rs 5 lakhs	Rs 5 lakhs
	(b) Education	- Rs 1 to 2 lakhs	Rs 1 to 2 lakhs
	(c) Assistance to parents	- Rs 2 lakhs	Rs 2 lakhs

3. Army Central Welfare Fund** - Rs 30,000/- Rs 30,000/-

Note : * Announced and implemented wef September 2000.

** Announced and implemented wef October 1999.

Benefits to Disabled

1. Ex-Gratia from Central Government - Nil.
2. National Defence Fund* :- (applicable only if boarded out of service)

(a) 75% to 100% disability	- Rs 6 lakhs	Rs 6 lakhs
(b) 50% to 75% disability	- Rs 4.5 lakhs	Rs 4.5 lakhs
(c) For less than 50% disability	- Rs 3 lakhs	Rs 3 lakhs
(d) Dwelling Units	- Rs 5 lakhs	Rs 5 lakhs
(e) Education (Max)	- Rs 1 to 2 lakhs	Rs 1 to 2 lakhs

(Rupees one lakh per child)
3. Army Central Welfare Fund** - Rs 30,000/-, Rs 20,000/- or
(Based on % disability) Rs 10,000/-

Note : * Announced and implemented wef September 1999.

** Announced and implemented wef October 1999.

CATEGORY 6 (OPERATIONS OTHER THAN OP VIJAY (KARGIL)) WEF 01 MAY 1999

Benefits to Next of Kin of the Deceased

- | | Officers | JCOs/OR |
|--------------------------------------|----------------|--------------|
| 1. Ex-Gratia from Central Government | - Rs 7.5 lakhs | Rs 7.5 lakhs |
| 2. National Defence Fund | - Nil | Nil |
| 3. Army Central Welfare Fund* | - Rs 30,000/- | Rs 30,000/- |

Benefits to Disabled

1. Ex-Gratia from Central Government - Nil Nil
2. National Defence Fund - Nil Nil

3. Army Central Welfare Fund*

- (a) Boarded Out - Rs 1 lakh
- (b) Retained in Service
(Based on % disability) - Rs 30,000/-, Rs 20,000/-, or Rs 10,000/-

Note : * Announced and implemented wef October 1999.

Pensionary and Other Benefits from Central Government

(a) Central Government Ex Gratia Grant

- *Ex Gratia - Rs 10 lakhs (OP Vijay (Kargil) only).
- Rs 7.5 lakhs (Other Battle Casualties).

(b) **Pensionary and other benefits to next of kin of deceased soldiers.** Liberalised Family Pension equal to last pay drawn of the deceased.

(c) **Pensionary and other benefits for disabled soldiers boarded out of service on medical grounds.** No separate service and War Injury Elements. War Injury Pension is equal to emoluments last drawn for 100 per cent disablement which is proportionately reduced for lesser degrees of disablement subject to a minimum limit of 60 per cent in the case of officers and 80 per cent in the case of personnel below officer rank (PBOR).

(d) **Benefits for disabled soldiers retained in service.** If disability is assessed at 20 per cent or more for life, the personnel are given an option for taking lump sum compensation in lieu of war injury equal to the capitalised value calculated at the following rates for 100 per cent disablement (these rates will proportionately reduce for lesser degrees of disablement) :-

- (i) Officers - Rs 1500/- pm.
- (ii) JCOs - Rs 1100/- pm.
- (iii) OR - Rs 900/- pm.

(e) Other Benefits

Ser No	Benefits	Details
(a)	Education Concession	Ministry of HRD (1962, 1965, 1971 Wars, Meghdoot and Pawan) :- - Tuition Fee. - Hostel Charges/Books (Rs 250/- p.a.). - Uniform (Rs 810/- 1 st year and Rs 350/- subsequently). - Clothing (Rs 250/- 1 st year and Rs 150/- subsequently).
(b)	Government Married Accommodation	3 Years (2 years Government accommodation and 1 year on approval of COAS).
(c)	Air Travel Concession	50% concession in domestic flights of Indian Airlines.
(d)	Rail Travel Concession	75% concession in 2 nd class Mail/Express Trains for Widows of Martyrs of "OP Vijay (Kargil)" only.
(e)	Daughter's Marriage	Rs 8000/- by Kendriya Sainik Board (KSB).
(f)	Medical Facilities	Rs 75000/- (Maximum from KSB).
(g)	Telephone Facilities	Priority, Installation and Registration exempted, Rental-50% (widows/discharged soldiers) Rental also 100% exempt for gallantry award winners (Chakra Series).
(h)	Oil Product Agency	Priority.

Other Sources

Ser No	Benefits	Details
1.	Army Group Insurance (AGI)	Officers - 8.00 lakhs. JCOs/OR - 3.75 lakhs.
2.	Dwelling Unit	3% reservation by AWHO.
3.	Army Officers Benevolent Fund (AOBF)	Rs 50,000/- (Only for Officers).
4.	Educational Concession	(a) Tuition/Allied fee exempted for students of Army Schools. (b) Bengal Masonic Association (BMA) Rs 500/- to Rs. 2000/- per annum from Class IV to Post Graduation.
5.	Credit/AFPP/DSOP	As Applicable.
6.	AWWA	Rs 5000/-.
7.	Army Central Welfare Fund	JCOs/OR - Rs 2000/- (Non-BCs Only).

ALLOCATIONS FROM NATIONAL DEFENCE FUND (NDF)

Ser No	Beneficiary	Period Covered	Amount per head	Approximate Total Amount Allotted
1.	Ex Gratia Disabled Soldiers (Invalided out) (a) 75% to 100% disability (b) 50% to 75% disability (c) Less than 50% disability	OP VIJAY (K) OP VIJAY (K) OP VIJAY (K)	6.0 lakhs 4.5 lakhs 3.0 lakhs	4.95 Crores
2.	Grant for Dwelling Units for Next of Kin of killed and Disabled soldiers invalided out	OP VIJAY (K)	5 lakhs	30.50 Crores
3.	Grant for children education	OP VIJAY (K)	1 lakh per child upto a maximum 2 lakhs	12.50 Crores
4.	Grant for dependent parents	OP VIJAY (K)	2 lakhs	9.60 Crores
5.	Grant for war widows/ children hostels	OP VIJAY (K)	20 lakhs	6.20 Crores
6.	Ex Gratia Nepal domiciled Gorkhas	OP VIJAY (K)	5 lakhs	90.00 lakhs
7.	Grant for past battle casualties	15 August 1947 to 30 April 1999	50,000/-	73.185 Crores
			Total	137.835 Crores

National Defence Fund (Welfare Package)

(a) **Applicability :** OP Vijay (Kargil) Battle Casualties only (01 May 1999 to 31 October 1999), (Including soldiers of Nepalese domicile).

(b) **Ex-Gratia for Disabled Personnel Invalided out of Service.**

(i) Rs 6 lakhs for more than 75 per cent disability.

(ii) Rs 4.5 lakhs for more than 50 per cent upto 75 per cent disability.

(iii) Rs 3 lakhs for 50 per cent disability or less.

(c) **Dwelling Units.** Rs 5 lakhs for next of kin of deceased soldiers and those invalided out of service due to disability.

(d) **Children Education.**

(i) Rs 1 lakh per child for education (restricted to maximum of two children).

(ii) Applicable to children of deceased soldiers and those invalided out of service due to disability.

(e) **Assistance to Parents.**

(i) Rs 2.0 lakhs for needy parents dependent on deceased soldiers.

(ii) Parents who are next of kin are not eligible.

(f) Ex-Gratia of Rs 5.00 lakhs each to next of kin of deceased soldiers of Nepalese domicile.

Note :- 1. Disabled soldiers continue to be in service and receive all the service benefits as hitherto.

The NDF packages will become applicable once they are invalidated out of service on medical grounds.

2. NDF Package is not applicable to non-Op *Vijay* (Kargil) battle casualties.

(g) **Grant for Battle Casualties of Past Operations.** Grant of Rs 50,000/- to the living next of kin of fatal battle casualties of all operations between 15 August 1947 and 30 April 1999. This supplements the grant of Rs 50,000/- being paid out of Army Central Welfare Fund to this category.

ALLOCATIONS FROM ARMY CENTRAL WELFARE FUND (ACWF)

Ser No	Beneficiary	Period Covered	Amount Per Head	Approximate Total Amount
1.	Killed (Living next of kin only)	15 August 1947 to 30 April 1999	Rs 50,000/-	85 Crores
2.	Disabled (Boarded out)	15 August 1947 to 30 April 1999	Rs 1,00,000/- cash, or Rs 60,000/- Plus Rs 40,000/- worth Scooter/appliance	55 Crores
3.	War Widows Children Hostels	—	(a) Upgradation (Existing Hostels) (b) New Hostels	10 Crores 20 Crores
4.	ACWF Corpus	Payment of ACWF grant to next of kin of battle casualties and disabled BCs of all operations wef 01 May 1999	Killed : Rs 30,000/- Disabled BCs : More than 75% - Rs 30,000 50-75% - Rs 20,000 Less than 50%- Rs 10,000	89 Crores
5.	ACWF Welfare Corporates (Corporates)	Various Welfare Schemes	—	32.29 Crores
Total				291.29 Cr

Total Amount Received - Rs 291.29 Crores
Total planned allocation as on date - Rs 291.29 Crores

ARMY CENTRAL WELFARE FUND (ACWF) WELFARE PACKAGE

Benefits for Battle Casualties 15 August 1947 to 30 April 1999

- (a) **Killed.** Ex-Gratia grant of Rs 50,000/- each to living next of kin of all battle casualties during the period.
- (b) **Permanently Disabled.** All battle casualties boarded out of service or prematurely released without completing their terms of engagement, due to war injuries sustained in operations.
 - (i) **Option I.** Grant of Rs 1 lakh in cash.
 - (ii) **Option II.** Rs 60,000/- plus three-wheeler auto transmission scooter, electric wheel chair or any other appliance upto Rs 40,000/- (In case cost of appliance is less than 40,000/- the balance amount will be paid in cash).

Benefits for Battle Casualties wef 01 May 1999 (other than OP Vijay - Kargil)

- (a) **Killed.** Rs 30,000/- to each next of kin as a one time grant.
- (b) **Disabled.**
 - (i) Disabled soldiers who are boarded out of service due to battle injuries - Rs 1 lakh.
 - (ii) Disabled soldiers disabled in battle and retained in service will be paid a grant depending upon their disability percentage, as under:-
 - (aa) Over 75 per cent disability - Rs 30,000/-.
 - (ab) 50 per cent to 75 per cent disability - Rs 20,000/-.
 - (ac) Less than 50 per cent disability - Rs 10,000/-.

Benefits for Battle Casualties wef 01 May 1999 to 31 October 1999 (OP Vijay - Kargil)

- (a) **Killed.** Rs 30,000/- to each next of kin as a one time grant.

(b) **Disabled.** Soldiers disabled in battle will be paid a grant depending upon their disability percentage, as under:-

- (i) Over 75 per cent disability - Rs 30,000/-.
- (ii) 50 to 75 per cent disability - Rs 20,000/-.
- (iii) Less than 50 per cent disability - Rs 10,000/-.

Note : Applicable to soldiers of Nepalese domicile also.

ACWF Welfare Corpuses

(a) Bulk donations received from certain corporate houses and NGOs have been set up as corpuses in Army Central Welfare Fund. The annual income out of corpus are being used for rehabilitation and welfare activities, thus ensuring continued support to the families of our brave martyrs and war disabled soldiers. Income from the corpuses created are to be utilised for the following purposes :-

(i) Educational scholarship including for higher education for meritorious children of Army personnel either killed or disabled in operations. This will include study in the fields of engineering, medicine, management studies, computer sciences and the like.

(ii) Financial assistance to Army personnel disabled in various operations for purchase of mobility equipment, training and self-employment ventures.

(iii) Financial assistance for medical treatment to dependent members of the martyrs' families and families of disabled soldiers.

(iv) Financial assistance for marriage of the wards of such personnel.

(v) Financial assistance for maintenance of war widow children's hostels.

(vi) Financial assistance for agro-based ventures like purchase of tractors, establishment of tube wells, etc. undertaken by war widows and disabled soldiers.

(vii) Financial assistance for animal husbandry and dairy development ventures undertaken by such personnel.

(viii) Financial assistance for infrastructure development to improve quality of life of disabled soldiers.

(ix) Educational scholarship to children of needy widows of non-BCs and disabled soldiers.

(b) The details of the schemes with sample application form for education scholarship have been forwarded to all Command HQs, Area/Sub Area HQs, Regimental Centres, Rajya/Zila Sainik Boards. Applications have been called for by advertising in newspapers, including vernacular editions.

UTILISATION OF CORPUSES

S. No.	Name of Corpus	Amount (Rs)	Approx Annual Interest (Rs)	Purpose	No of Beneficiaries (Planned)
1.	Tata Defence Welfare Corpus	12.5 Crores	138 Lakhs	(a) Higher educational grant. (b) Equipment for disabled soldiers.	200 60
2.	Express Publications Madurai (Ltd) Army Welfare Corpus	6 Crores	60 Lakhs	(a) Higher educational grant. (b) Medical treatment for dependent. (c) Financial assistance for marriage. (d) Mobility equipment for disabled soldiers. (e) Training and self-employment for disabled soldiers.	84 50 50 23 40
3.	Mahindra Army Welfare Corpus	70 Lakhs	8.05 Lakhs	(a) Education scholarship, mobility equipment, training, self-employment of disabled soldiers. (b) Medical treatment and marriage assistance.	36 16
4.	Pepsico Army Welfare Corpus	1 Crore	11.5 Lakhs	(a) Education of children. (b) Retraining of disabled soldiers.	* *
5.	Hindustan Lever Army Welfare Corpus	2.5 Crores	28.75 Lakhs	Rehabilitation of disabled war veterans and ex-servicemen.	*
6.	NDDDB Army Welfare Corpus	3 Crores	34.5 Lakhs	(a) For assistance in Agro-based ventures. (b) Financial assistance for purchase of tractors, establishment of tube wells, etc.	25 25

				(c) Financial assistance for animal husbandry and dairy development ventures. (d) Financial assistance for horticulture. (e) Financial assistance for infrastructure development for quality of life of disabled soldiers.	25 25
7.	Gem and Jewellery Army Welfare Corpus	1.50 Crores	17.25 Lakhs	Education scholarship upto Post Graduate level.	810
8.	Rotary Club Delhi, South Suburban Army Welfare Corpus	21 Lakhs	2.4 Lakhs	Merit scholarship for high school, Graduation and Post-Graduate students.	*
9.	IRDF Army Welfare Corpus	50 Lakhs	5.75 Lakhs	(a) Education scholarship for children of needy ex-servicemen/Non-BCs. (b) Financial assistance for marriage of daughters/medical treatment of ex-servicemen/non-BCs.	* *
10.	NDTV Army Welfare Corpus	1 Crore	10.75 Lakhs	Education and welfare.	*
11.	CII Army Welfare Corpus	3.36 Crores	35.30 Lakhs	(a) Central War Widows Children Hostel Grant. (b) Provision of mobility equipment for disabled soldiers. (c) Grant for Vocational Training Centres.	06 06 03

*Details under finalisation

(To be Concluded)

Women in Uniform : Gender Dialectics in the Indian Armed Forces (Part-II)

DR ANITA NAHAL ARYA

Impact of the induction

How do lady and gentlemen officers view the presence of women in the Armed Forces? Do the men want them there? What happens to a lady officer when she has to combine a high profile and commitment career like the Services with her family life? What is thus the professional construct?

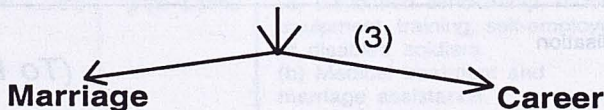
Professional Construct

(1) Looked upon as a career

Women who opt for a career in the Services look upon it professionally, with dedication and commitment to hard work. Generally between the ages of 19 to 27.

(2) Marriage + Career

For the initial three of the first commission of five years, the enthusiasm is extremely high. But the strenuous job requirements (includes posting in field areas, particularly in high risk areas, night duties, a sustained physical stamina, non-family postings or separated postings between the couple who are both in the Services etc.) begin to disillusion the lady officers from the third year onwards and many leave after the initial five years, particularly if by then they have got married.



Can pull the women emotionally and physically in two different directions, pressurising women officers to opt for one of the two. Family generally takes precedence, as is often the case in the civilian workforce as well, though perhaps with not so much intensity.

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From an initial short service commission of 5+5 or 7+2+1, it is now being considered to increase it to 10 + 5 years. Many lady officers in all the three Services agreed that joining the Armed Forces was a great accomplishment for them. While some joined because they wanted to prove to their parents that they could, others felt inspired by the aura of the Armed Forces. Most felt that people looked up to them, in their family and friends circle as well as people at large. The uniform gave them a special respect. Though most officers, lady and gentlemen, felt that the uniform was colour blind, most also agreed that as yet it would be difficult for a regiment to be commanded by a woman. For, soldiers coming from varied backgrounds, specially rural, may not take orders from a woman, as in their social set-up the male is the power holder and woman the obedient servant. The lord-servant relationship is part of our patriarchal system and it has affected the gender dialectics in the Services as well. Gandhiji rightly said in 1941 that, "men have not realised the truth in fullness in their behaviour towards women. They have considered themselves to be lords and masters of women instead of considering them as their friends and co-workers."¹⁰ We can break free of the servant-lord dialectic and secure co-partnership for women in the Services only if they are completely inducted.

While these sociological beliefs are patriarchal and would not change overnight, it is not denied that there are certain things that women cannot do in the Services. Lady officers agreed that throwing grenades, picking up heavy ammunition boxes, or fighting for days in snow and desert conditions, working in a submarine or running a tank may be difficult tasks for women to do, though not impossible. The fact that men and women are physically different cannot be overlooked. However, Amod Kumar Singh, Senior Research Fellow at the Defence Institute of Psychological Research, says "One of the old myths surrounding the question of women in the military has been simply lack, in general, of the physical stamina to perform many of the most demanding military tasks, including combat... when a woman is correctly trained, she reaches the same level of physical toughness as a man of similar size and build."¹¹ For some, this is debatable but at least people have started to think on those lines in India as well.

¹⁰ Tendulkar, *op.cit.*

¹¹ Amod Kumar Singh, "Women In New Role" (article submitted for publication).

According to historian Radha Kumar in her pioneering work on Indian women's history, an extremely vital part of the emergence of feminism particularly in contemporary times is that, "it began by basing itself firmly on principles of equality and asserting that gender-based structures such as the sexual division of labour" be destroyed.¹² Further, liberal feminists stress that, "the difference between men and women was held largely (and by implication 'merely') to be a biological one, which should not affect women's right to equality with men in both public and private spheres."¹³ And the entry of women into the Armed Forces is definitely a statement of liberal if not radical feminism. At the same time it is also questioned from the other side, as did Cdr Kashyap that, "can women justly demand and receive equal rights and equal opportunities in all sectors of society without accepting the risks men now carry in defending that way of life?"¹⁴ Perhaps in the coming years the notions of professional and social equality will overcome biological differences!

This was largely the view of the lady officers. What about the gentlemen officers? How have they reacted to the entry of women into 'their' sphere? Most of the gentlemen officers I interviewed were quite vocal in their dissatisfaction over the induction of women. Clearly, the gentlemen found the experiment a waste of national resources and time. More nearer the truth was the hidden irritation and resentment at certain advantages that they felt only women could have. What are those? Calling this the feminine advantage construct the following emerges:

The Feminine Advantage Construct



- (1) Less strenuous training in terms of physical tests.
- (2) Less risky, easier, non-field area postings.
- (3) Rare or few night duties.
- (4) Forgiveness for lapses that men are pulled up for.

¹² Radha Kumar, *The History of Doing : An Illustrated Account of Movements for Women's Rights and Feminism in India, 1800-1990* (London : Verso, 1993), p. 2.

¹³ *ibid.*, p. 2.

¹⁴ Cdr Jaideep Kashyap, "The Integration of Women into Combat Roles in the Navy," MSc dissertation, University of Chennai.

Thus the complaints range from, "they are given less strenuous physical training routines," "even daily exercises are at times waived off," "field duties are given rarely, especially in the Valley and if they have a night duty a gentleman officer has to be posted alongwith the lady!" "the lady officers themselves try to get out of convoy duties for lack of toilet facilities," "if you give them work they come with problems not solutions," "they use their feminine charm to get soft postings or to get out of some lapse," "or they will cry," two women officers quarrel over a male officer," "if an affair takes place with a lady officer and the man decides not to marry, it can lead to serious consequences for the gentleman officer," "they at times make false complaints of harassment by the male officers," and "they show no initiative," "they have no motivational capabilities, specially in relation to the jawans," "they take away our peace postings" and finally "they are total misfits."

I must sadly note that in almost all of my interviews with gentlemen officers when I questioned them on the induction of women, I got in response, smirks, muffled laughter, raised eyebrows, long sighs, shrugging of the shoulders, and throwing of hands into the air. Their body language was very male, bordering at times on snobbishness and at times on mockery. Gender dialectics definitely appeared constrained, tense and biased. They were either patronising towards the lady officers, somewhat suffering their presence or downright dismissive.

Were these comments and gestures from gentlemen officers justifiable? The lady officers of course rejected almost all of them. They said, "There are black sheep everywhere; even some male officers behave in non-officer like manner; if some women officers are un-professional no generalisations ought to be made about all women officers; for the gentlemen officers the entire pattern of military placements and male bonding has drastically altered with our induction and are, therefore, not sure how to react to us; yes it is no doubt that going on convoys is a practical problem. There are no toilets. But then is that not a basic necessity for all?" One lady officer told of her personal experience when she was posted in Leh and on one of the exercises she was left high and dry — no male member of the advance team of which she was a member even thought of putting up a tent for her basic necessities. For eight hours she kept quiet out of sheer

embarrassment, which prevented her from confiding in her male colleagues!

According to lady officers the men have in fact a certain advantage over them. Consequently, they say that at times the output of lady officers automatically becomes less due to existing prejudices and prevents them from fully emerging as competent officers. Let us now look at this masculine advantage construct :

The Masculine Advantage Construct



(1) Psychological Advantage

(the military and war have been traditionally the man's domain).

(2) Professional Advantage

(men have the option of a Permanent Commission and this can tell on the lady officers' input and efficiency).

(3) General or Socio-cultural Advantage

(in a country like ours where gender relations are dictated by patriarchy, gentlemen officers have the added advantage of being the 'right gender').

Summarising their sentiments, it appears that since the Services have only seen the presence of men (except on the medical side), gentlemen officers have an attitude problem which prevents some of them from accepting ladies amongst them as co-officers. The fact that the gentlemen have the choice of a permanent commission gives them a professional security and though they might perceive the lady officers as a threat yet it is only a short-term one. Whereas for those lady officers to whom a career in the Services is what they want to do in life, the sense of job insecurity is like a Damocles Sword hanging over their heads. Many don't know exactly what they will do after having served in a career which is a high commitment and high risk one and gives them prestige, status and perks that would no longer be there once they leave the service. Further, the socio-cultural pattern of patriarchal domination prevents the gentlemen officers from accepting lady officers as social equals. Traits that are chauvinistically associated by men for women in society are piled upon the lady officers as well. As one gentleman officer admitted, "the lady officers

are generally weaklings, and they are not trusted by us for tough tasks – perhaps it is psychological, perhaps cultural but we are not used to treating them as peers!" Another quite disdainfully added, "they come here for the pomp and show and the moment they find a suitable officer husband they lose interest."

However, it is generally acknowledged that women officers have certain special qualities which can be put to very good use in the Armed Forces.¹⁵ For example, women have administrative qualities that far outweigh those of men. Their reasoning, patience and commitment are greater than those of men. Lady officers are also found to be having lots of confidence, and the motivation to prove themselves is also greater than those of the men. As one young lady officer said, "what the men can do we can do too."¹⁶

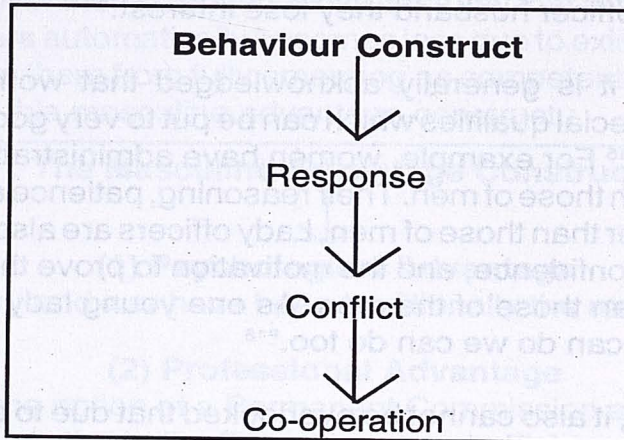
Of course, it also cannot be overlooked that due to their specific biological needs, like curtailment of movement during menstruation periods, or marriage and consequent pregnancy, and the emotional and physical pulls that result when lady officers try complementing their marriage with the demands of a highly involved career, make it difficult, and at times impossible, for the woman not to buckle under pressure. Either we have had women leaving the Services or there have been divorces, or women choosing to remain unmarried. But these are elements and situations that are primary to being a woman and have really nothing to do with only women in the Services. Professional women in the civilian work force face similar constraints.

It appears that the entire gender-dialectic debate is really one of acculturation between the sexes in a career where only men were present earlier. Suddenly women are entering the Services in a big

¹⁵ Some gentlemen officers used the words, "immature", "below average performance", "lack of initiative", "lack of motivational spirit", "not strong", to describe the performance of women in the Armed Forces. However, only some felt that women ought not to be in the Armed Forces for these very handicaps. The rest did believe that given time and proper training and their own motivation these could be overcome.

¹⁶ Almost everyone questioned said that though women had been in the Armed Forces as doctors since the very beginning, gentlemen officers had looked upon them not really as officers but as doctors or nurses. They had never felt threatened by them, but now with the induction in the other branches women as a threat perception has suddenly risen, where none existed till almost a decade ago.

way, and it is bound to lead to adjustment problems. Let us look at the behaviour construct to understand some of the problems on integration of women into the Armed Forces and some remedial possibilities.



Picking up from sociological, philosophical and political science theories, let us define the above. American philosophers of the Harvard School who have written a great deal on the behaviour-response notion, believe that people's feelings about themselves arise out of interaction with others. Thus the notion of the 'self' (material, social or spiritual) emerges through an understanding of how people respond to you. Once that understanding occurs one can, "construct those responses."¹⁷ Given this background it is not impossible for gentlemen officers to understand that lady officers are here to stay. Radical feminism would never allow the retraction of an equality once given, which would amount almost to blasphemy! From this it can be deduced that response has to be based on mutual co-operation and benefits, with the final benefit going obviously to the Armed Forces and to the security of the nation. Thus interactions between the lady and gentlemen officers can be positively constructed through gestures, words, actions of others that act as a "looking glass".¹⁸ And interaction or response that is positively oriented is what co-existence and interdependency are all about. This co-

¹⁷ Harvard School philosophers like Charles Peirce, William James, Josiah Royce and George Santayana who all wrote between 1880-1900's gave the basic theory about response, conflict and co-operation. For a comprehensive, though short, analysis of each one of them, read Jonathan Turner, *op.cit.*

¹⁸ *ibid.*

existence is essential for maintaining equilibrium and normalacy in a given structure – in this case the Armed Forces.¹⁹

However, when response is restricted by any existing model of social and professional interaction, conflict can result. According to famous philosophers and economists like Karl Marx, Fredrick Engels and Max Weber, "society and its individuals is rife with conflicts. Those that are denied power and prestige would respond with conflict. Thus a conflict of interests is bound to develop."²⁰ Most of the interviewed officers, both men and women, believed that response and interaction between the sexes in the Armed Forces was according to the existing patriarchal norms of society. These norms preordained a secondary position for women in the Armed Forces. Even if women are positioned only in the support services, there too patriarchy plays a very significant role in interaction. They stressed that patriarchal mindsets would have to be changed.

They were, however, quick to assert that despite patriarchy playing a major part, conflict between men and women is not so apparent in the Armed Forces, for beyond patriarchy the established norms of military conduct prevail. As one lady Air Force officer said, "all of us are educated enough to understand the seriousness of the Services and their specific requirements." Another lady officer from the flying division of the Air Force commented, "a conflict in gender parity can never develop in the Armed Forces, for strong moral values are inculcated in all officers during and after training – all the time in fact. A small difference in thinking is taken positively, more as a healthy difference in opinion than as a matter of serious conflict."²¹ On the other hand, there were some responses from gentlemen officers who strongly believed that conflict on gender parity could escalate and "weaken the fabric of a military society." Or that, "gender conflict

¹⁹ Read Herbert Spencer for more on Analytical Functionalism. For a synopsis read Jonathan Turner, *ibid*. Spencer's theory has four points : (1) Each differentiated structure comes to serve distinctive functions for sustaining the 'life' of the systematic whole. (2) Differentiated structures require integration through mutual dependence. Each structure can be sustained only through its dependence upon others of vital substances. (3) Since each differentiated structure is a whole in itself, the larger whole is always influenced by the systematic process of its constituent parts. (4) All units in society are conscious, goal-seeking and reflective and there are variant levels of consciousness and voluntarism.

²⁰ For more details see Jonathan Turner, *ibid*.

²¹ The names of the officers or their ranks are confidential.

may adversely affect the Armed Forces."²² One can only say that this difference of opinion will continue to exist and it is up to all officers to rise above it, if military efficiency is the eventual goal. Gender discourse in the Armed Forces has to be replaced with military discourse, which rises over and above any dialectical problems between the genders.

From conflict ultimately emerges various patterns of co-operation. In the understanding of International Relations one uses the term, 'confidence-building measures'(CBMs). I asked officers as to what kind of CBMs they employed in the Armed Forces to relate better to each other? While some skeptics felt that no CBMs existed between the lady and gentlemen officers and neither will there ever be, some officers said the opposite. They talked of lecture programmes, healthy discussions, debates and social gatherings as a means of building up the confidence of the other side, thereby leading to co-operation and reduction in chances of conflict. Others listed CBMs separately for women and men. For women : volunteering to do all kinds of duties and putting in extra hours in the office, along with male colleagues. For men : trying not to detail women for late hour shifts, providing an escort if late duty is inescapable and try hard to show that women officers are officers first and then women. The best summing up was done by a gentleman Air Force officer who said, "day-to-day interactions and a respect for the uniform, irrespective of gender, is the main CBM."

Future Participation

On a detailed and frank discussion with both the lady and gentlemen officers, some points for future participation did come out clearly. The future participation construct can look something like the following :

Future Participation Construct

- (1) Retain the lady officers in the non-fighting branches for the time being, ultimately inducting them into the fighting arms as well.
- (2) Induct women into the ranks and ultimately have women's regiments, wings and ships.

²² Such a response cut across the Services and many gentlemen officers believed in it.

- (3) Change their commission into a permanent commission and weed out both gentlemen and lady officers into the BSF, CRPF or the Cabinet Secretariat after the rank of Major/Sqn Ldr/ LtCdr.
- (4) Women's NCC wing at schools and colleges to be further strengthened.
- (5) Government to allocate more funds for successfully completing promise of equal opportunity under the Directive Principles. Shortage of funds alone ought not to be the reason to prevent the induction of women into branches like flying.
- (6) There ought to be a conscious linking of induction of women into the Services with their status in the society to bring about a mind-set change in both men and women. It can be done through effective media programmes and sensitisation workshops.²³
- (7) All-women Review Board for attending to lady officer's problems and grievances.
- (8) To foster patriotism as the main reason for joining the Services, open them to everyone(women and men) till the age of 45 years on a two-year voluntary service. Rank could be given according to qualifications and services.

Some officers said that the government wastes money in training lady officers, especially pilots in the Air Force, who very quickly got married and left after their initial service had been completed. To them it appeared to be a wastage of public money. Yet, this again is a highly controversial issue. The above argument is very simplistic, if nothing else. If we want each and every member of society to progress, money is going to be involved. And if we do not encourage the progress of a certain section due to financial implications, then we are denying that section of equal opportunity. And ultimately that section would stagnate. Thus, this is a natural process of progress (besides so many others – this is not the only process), which we have to adopt if we want to develop.

²³ Sensitisation programmes are conducted in all the three Services from time to time.

It is not sufficient to say that it is counter-productive. What we have to evolve is a cost-effective strategy that allows for the induction of women, hopefully into a permanent commission, in the branches where their educational qualifications and their emotional and physical qualities can be put to optimum benefit for the nation and the self, giving them the option of joining the fighting arms if they so desire and so prove their capabilities. Lady officers from all the Services expressed almost on similar lines that, "the biggest achievement of this experiment has been that contrary to predictions and beliefs of male chauvinists, women have yet again proved their worth in a new field thereby making a very large part of the population useful for national security." The women of today are asking that the men who are currently evaluating the role of women in the Armed Forces should have a change of heart and recognise the validity of the above.

In the final analysis, it is a statement which a lady officer in the Army gave, an officer whose officer husband had died in the post-Kargil operations in the Kashmir Valley that confirmed my initial theorising that such an experiment would ultimately bring about a change in the social status of women in India. She said, "my decision to join the Army was vindicated when my *sahayak* told me that after watching me, a woman as an officer getting so much respect from others, he too had decided that he would send his daughter into the Army." Could anything more be said?

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Letters to the Editor

Letters are invited on subjects which have been dealt with in the Journal, or which are of general interest to the Services.

I

Dear Editor,

Review of a book is designed to help the reader choose his reading. To serve this purpose, the review must essentially be an honest assessment of the book, in fact describe its essence and highlights. To fulfill this rather demanding charter, the reviewer must be perceptive, honest and completely objective. In order to do so, he must not allow his personal prejudices, narrow convictions and limited views colour his assessment of the work.

My book, *'The falcon in my name – A soldier's diary'*, has been reviewed in the July-September issue of the prestigious *USI Journal* by Lt Gen R N Mahajan, PVSM, VSM, (Retd). Regrettably, he has largely strayed from a meaningful approach to the purpose of the review. The underlying sarcasm is so patently visible in the very opening paragraph - "so what is new about this author and the Soldier's Diary?" The author experienced and observed the dimensions of soldiering during a critical period of Indian history from a unique vantage point. After establishing his credentials in the opening chapters, he has written of the dynamics of service life rather than about himself. This rather fine distinction has escaped the reviewer. Mahajan's write up makes only some general comments about the contents and essence of the book. For the most part, he occupies himself with making cynical and sarcastic comments about the author. His observations are dripping with ridicule. Under normal circumstances, the author would ignore such an exercise to have been triggered by intellectual poverty, an odious judgmental inclination and pettiness. In this case, however, the author owes it to his readers to put the record straight.

Here are some examples of his barbed cynicism. "Though he rose to be a major general, the author did not achieve what is known as the ideal career profile, especially as a staff officer." How on earth did the author rise so high, is what Mahajan implies?

This observation is totally misplaced and its relevance to the review of the book is beyond understanding. The author had deliberately chosen to remain in the active combat stream, wherein his career was well balanced between command and staff streams from a company commander/ adjutant all the way to an officiating corps commander/chief of staff. It was fully productive and successfully served the assigned military purpose.

"A commander who would like to believe that he is charismatic" and then goes on to say, "he identifies closely with his subordinates, imbues them with confidence and injects fun and swagger in their lives." The reader is left with the impression that the reviewer does not quite know his own mind. Where would the leadership of the author be slotted when his soldiers always achieved most significant results under very demanding parameters of employment? "...he cuts corners when his own or his troops interests are threatened." Firstly, what the author or his troops did was to promote their military purpose and not their own interests. Secondly, and more importantly, dynamism vital to achieve results can never be a slave to red tape and "corners". Is the intention of the reviewer to reduce military leadership to "babudom"? God protect the Army from purveyors of such concepts!

To top it all, he says, "He fancies himself as a tactician...". In his book, the author has not advocated any doctrine, concept or practice, which was not tried out and adequately established by practice. This rather contemptuous remark clearly reveals the reviewer's rather narrow and petty mind set. A general officer of the Indian Army, who had widespread exposure to the practice of tactical doctrine in the field at successive levels of command; had a proven talent for substantive training of his troops; had extensive war experience and has had a long innings as a military thinker and a writer, has surely some claim to a grasp of tactical doctrine. Regrettably the reviewer has not indicated where the fountain-head of tactical theory and practice lies in the Army.

Mahajan opines, "...and the urge to rise in his career but always on his own terms." To get ahead in life is a natural human desire. Did the author do it at the expense of his military purpose

or merely to promote his own interests? Had it been so, then he would not have defied some of his superiors to uphold his military purpose as well as his moral responsibilities to his troops.

Mahajan endeavours to invest camaraderie and loyalty with a narrow and an undesirable definition. In his lexicon, even if a superior is violating the sacred credo of soldiering so eminently enjoined in the Indian Military Academy, the subordinates must suffer in silence. In other words he is advocating, defer to your superiors as Maj Gen Niranjan Prasad did in NEFA in 1962 against all elements of sound military judgement and tactical concepts. It is such a pity that we still have advocates of practices designed for failure. The purpose of the author will be well served if some of the readers of his book, who rise to high office in the future, learn to avoid potentially damaging quirks of behaviour as were displayed by those the author comments upon.

Mahajan even chooses to reinvent history to serve his mind set. He observes, "His forbears rose to prominence in the period when the Sikh power in the Punjab was declining and the British power ascending... and set up a feudal clan." The book links the history of the clan to the ruling family of Jaisalmer, which in itself was over four centuries old when the Bajwa ancestor branched out. The clan had a prominent feudal ancestry long before the Sikh rule. The comments show ignorance of the history of the clans and chiefs of Punjab. Mahajan may well read the authoritarian works of Griffin and Ibetson in this regard.

There are other petty observations made by Mahajan, which the author chooses to ignore. In sum total, the book review sounds like a confidential report initiated by a commanding officer upon an officer he did not like. In any case the above comments passed on the author by Mahajan are quite irrelevant to the purpose of the review of the book. Perhaps he chooses to question the competence of the author to write the book. That would be, if nothing else, simply hilarious!

The essence of the book is the need for dynamic bonding between the leaders and the led to create combat winning entities.

The narration clearly brings out that the path to upward mobility which enhances self esteem and brings purposeful career satisfaction does not lie in sycophancy. Devoted professionalism and hard work are its dynamics. Nowhere in the book has the author chosen to indulge in any form of an ego boosting exercise. The narrative is simply an honest statement of what the author and those who worked with him had experienced. The author is neither defending nor appologising for his conduct as set out in his book.

The *USI Journal* is a much admired publication. To uphold the high quality of its contents, it is absolutely essential that book reviews are genuinely objective, perceptively directed and unbiased.

Major General Kuldip Singh Bajwa (Retd)

II

Dear Sir,

Kindly refer to Brig R S Grewal's article in the *USI Journal* of Jan-Mar 2001. I don't think it is advisable to transfer enmasse other ranks to BSF and CRPF when the jawan is tired of combat service and looks forward to a job near his home town.

About responsibilities, we can see the example of foreign countries, where sergeants are functioning as co-pilots. In the Armoured Corps an NCO is often the tank commander, we can surely improve capabilities of our junior leaders. On skills, the following are recommended

- (a) For technical skills we should recruit a candidate from the industrial training institute sponsored by state governments.
- (b) Cadres should be run without any interference from the Administrative wing which makes so much demand on manpower.
- (c) For training purposes improved aids like VCP should be used.
- (d) Dual-trade should be encouraged in order to enhance the technical skill.

Brigadier A Thyagarajan

A Career in India's Armed Forces*

LIEUTENANT GENERAL VIJAY MADAN, PVSM, VSM (RETD)**

Lieutenant General R N Mahajan brings a career of distinction, full of experience, to bear on the subject of his book. As one who was closely involved both with the planning and execution of the policy during his tenure in senior ranks, he has had first hand knowledge of how the "System" works, or does not work, or worse, is manipulated to serve individuals.

This experience is well reflected in his handling of the subject resulting in a macro level analysis of the topic he has chosen. This objectivity, therefore, is the hallmark of the author's work.

The topic of research project by Lieutenant General R N Mahajan for the 1998 Field Marshal Cariappa Fellowship awarded by the United Service Institution of India stated :-

The need to refurbish the image of the Armed Forces and to make a career in them attractive to the younger generation has been long felt. As early as 1982, the Chiefs of Staff Committee had underlined the dismal state of intake and dissatisfaction among serving personnel in its paper, 'Quality and Morale of Armed Forces Personnel'. When defence is downgraded as a national priority and its budgetary share reduced in inverse proportion to the rising GDP, the Armed Forces are perhaps seen as an expensive unnecessary burden rather than a vital security necessity. The study should go into comprehensive remedial and compensatory measures to make a career in the Armed Forces as attractive as it once used to be.

This reviewer must first take up cudgels with the formulator of the topic on two counts, since these have restricted Lt Gen Mahajan's views, though fortunately, only a little. Firstly, the Chiefs

*A Career in India's Armed Forces : How to Make it More Attractive. By Lieutenant General R N Mahajan, PVSM, VSM (Retd) (New Delhi : Ocean Books, 2000), pp. 143, Rs. 200.00, ISBN 81-87100-46-X.

** Lieutenant General Vijay Madan is a former Commandant of the College of Combat in Mhow. He has written a number of articles relating to defence.

of Staff Committee's paper was born out of a narrower focus on the officer corps and its career prospects, and as an add-on argument for the large scale upgradation of ranks to make them equal to the large number of higher ranks and appointments held by other all India services, particularly the Indian Administrative Service. It was not a paper arguing about the Defence apparatus as such – institutional restructuring – but only a segment of that apparatus. Then, again, to suggest as the wordings of the topic do, "to make a career in the Armed Forces as attractive as it once used to be", is to chase a glory now well past and rightly so. If one yearns for the days of the "Raj" for military glory, the yearning is futile. In my article "Mirror Mirror on the Wall", published in the *USI Journal* No 528 (April-June 1997), which was a discussion on the same topic and from which article the author has been good enough to quote in a few places in his book; I had written;

"When I was the Military Adviser in the Indian High Commission in London, we decided to find out as to what was the standing of the Army in the British public's perception. I consulted various organisations including some universities and found out that on a scale of one to ten the public's sense of respect was the highest for Professors in Universities, School Teachers, Doctors and the Armed Forces. These figured generally amongst the first three, the others came lower with the politicians being fairly low ... Having rated the Army as the second or third most respected organisation, it was not as if the British youth were falling over each other to rush to the recruiting office or the Royal Commissioning Board."

Public image is one thing, acceptability as a profession is another, as I explained and Lt Gen Mahajan has succinctly come to the same conclusion, when he notes and warns that, "The Armed Forces must recognise the severe competition that exists for manpower, specially in certain disciplines, in the market-place. They must therefore radiate their attractiveness to that segment of youth which is naturally attracted to the military way of life".

The empirical data collected by Lt Gen Mahajan is wide based and exhaustive enough to help him formulate his views. His use of Samuel P Huntington's views on civil-military relations as expressed

in the book, *The Soldier and the State*, and the institutional versus the occupational thesis advanced by Charles C Moskos in the book, *The Military: More than Just a Job* (edited by Frank R Wood), clarify a host of confusions that exist in the minds of various Indian analysts.

Finally, the disconcerting observation of Dr S L Das should awaken our planners in case they are not already aware of a dangerous trend setting in, due to the background from which the present day officers and men are coming, and will continue to come;

"... Consequently (as a result of this background) they would create an atmosphere of pseudo-rationality in their units which, however, would be found wanting in behavioural directness and openness. Officers and men working under them would function more often on barter than on an emotive basis. They would, therefore, have little commitment to each other, and terms like loyalty and dependability would fail to have much meaning for them".

Lt Gen Mahajan's book is an excellent addition to the very few objective books and articles we have on this subject. The million dollar question, however, remains; how many of our policy-makers, civilian or military, care to study such seminal works for policy formulations? Not many, one must confess.

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The Indian Armed Forces and Community Development*

COLONEL JM SINGH

The first reaction of a layman to the linking of Armed Forces and community development would normally be one of skepticism, while many within the Services too would hardly consider this as one of the tasks of the Forces. However, it would come as a surprise to many that the three Services as also our para military forces have been and are intimately involved in various community development projects. The Army, due to its size, spread and operations on land has been the largest contributor to community development while the Navy and the Air Force have also not lagged behind. However, this voluntary 'shramdan' (service) by the Armed Forces has so far remained unsung. The credit for taking the lead in giving voice to these activities has to go to the Indian Navy which has brought out a coffee table volume titled 'Outreach'. It outlines some of the community development projects that the Services, especially the Indian Navy, participate in.

The author has lamented the widening of the gap between the 'haves' and the 'have-nots' in the last fifty years and has blamed it on a general lack of sensitivity for the have-nots amongst the citizenry apart from the government. In a developing country the credo of 'each one for himself' can only lead to disaster. He has placed a part of the onus of societal progress on national organisations of all hues, armed forces being one of them, as part of their social responsibility. The book which has been produced in an extremely pleasing visual format, has been divided into General Guidelines, Education, Health, Disability Sector and Environment. All these areas have further been dealt with in detail thereby making this book a good reference manual for, both, the top and senior management executives as well as the grassroot workers who are

***Outreach – Community Learning and Development Programme – An Approach to Voluntary Action.** By Commodore Lokesh K Batra (Directorate of Adult Education, National Literacy Mission, Ministry of Human Resource Development on behalf of Naval HQ, 1998), pp. 200, Price not indicated.

likely to be involved in carrying out the development work, in conjunction with other agencies.

One can be assured that whenever such programmes are taken up by the Armed Forces, these will be executed with thoroughness and efficiency, and in concert with other relevant civilian agencies. This not being a routine occupation of the Services' units, the concerned headquarters would do well to analyse the local requirements and match these with own resources and capabilities. It should be an article of honour for the Services that whenever such projects are undertaken they ought to be carried to their logical conclusion and not abandoned prematurely, in which case such efforts can prove rather counterproductive by causing undue resentment amongst local communities.

Gradually the Services' cantonment and garrison mentality must give way to a more integrated existence in harmony with the local environment. At times, the Services' requirements come in direct conflict with the aspirations of the local communities, as evidenced by their requirement of training areas, Army field firing ranges, Air Force firing ranges and the requirement of uninhabited islands, coastal areas and sea lanes for ships' firing practices at sea. A major positive spinoff of the Services' involvement in community development projects would be that such conflictual issues could be resolved through a more accomodative understanding of mutual needs between the Services and the local communities.

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Short Reviews of Recent Books

A Question of Loyalty : Military Manpower Policy in Multi Ethnic States. By Alon Peled (New York : Cornell University Press, 1998), pp. 203, \$ 35.00, ISBN 0-8014-3239-1.

The book is about the Trojan Horse syndrome in the armed forces of nations having multi-ethnic societies. Basing his research on the Singaporean, South African and Israeli Defence Forces' models, Alon Peled surmises that ethnic integration succeeds when manpower policies are formulated on the basis of combat needs rather than political concerns. Whereas the three mentioned above are success stories; the Iraqi capitulation in *Desert Storm* is attributed to the lack of will to fight amongst the large number of Kurds compelled and brutalised to fight as soldiers by Saddam Hussein. He, therefore, recommends a phased integration of mistrusted minorities; like the Malay-Muslims, into the Armed Forces of Singapore, the Indian and native Africans into that of South Africa, and the Druzes into the Israeli Defence Forces.

He believes that given a fair chance, tribal soldiers will serve loyally. The author sets the fears of politicians, pertaining to betrayals by minorities, aside by citing the example of Singapore. He makes a strong case for the constructive part that can be played by those retiring with high rank from the integrated armed forces. A hard question is; nevertheless, raised in the wrap-up: are soldiers with relatives across the border mere puppets used by the state to divide and rule the weak ethnic groups from within? Many would answer this question with an equivocal 'yes'. The author does too. Sadly he premises his view only on the solitary example of the trial of South Africa's General Malan in 1994. This is a shallow perception, which the reader should overlook in an otherwise well-argued book.

Lieutenant Colonel A K Sharma (Retd)

Bold Endeavors : Lessons from Polar and Space Explorations. Jack Stuster (Annapolis, Maryland : Naval Institute Press 1996), pp. 377, \$ 36.95, ISBN 1-55750-749-X.

This book is a serious scientific study of the behavioural effects on persons having to live and work in conditions of extreme isolation

and confinement, over long periods of time, under inhospitable conditions, during polar and space explorations. Although people have lived and worked under these adverse conditions for many a generation, it is only since the 1950s that there has been a scientific interest in understanding the problems associated with human adjustments to those difficult living conditions. The lessons brought out from the study of past polar and space explorations will be of great help not only to such future missions but will be equally applicable to military and other groups forced to live in similar conditions of extreme isolation and confinement. This brings to mind our Army garrisons serving in similar hostile conditions in Siachen and other high altitude areas.

The author has identified various behavioural issues that have design and procedural implications on groups living in isolation and confinement over long periods of time. He has carried out a detailed study of fifteen behavioural issues and on each of these issues, a number of interesting facts and lessons are brought out, which would help in increasing the efficiency of groups and contribute to the success of future such missions. He brings out the fact that men living in isolation and confinement tend to exaggerate trivial issues which can lead to friction amongst them. He, however, points out that though humans are capable of enduring conditions far more austere and dangerous than are considered normally possible, this should not be made the reason for not providing such missions the greatest degree of comfort possible in their habitat. The book contains many accounts of past polar and space explorations which make for very interesting reading.

Major General Samir Sinha, PVSM (Retd)

Battling the Elements – Weather and Terrain in the Conduct of War. By *Harold A Winters with Gerald E Galloway Jr, William J Reynolds and David W Rhyne* (Baltimore, Md.: The John Hopkins University Press Ltd., 1998), pp. 317, \$ 43.00, ISBN 0-8018-5850-X.

With three retired officers of the US Army in tow, Winters battles the elements in the conduct of combat; in this publication! They come out victorious! This squad has come up with an engaging

and engrossing exposé on how prevalent weather conditions along with terrain played decisive roles in the outcome of campaigns and battles, and have styled warfare, eventually even swaying history.

Weather has always been a dominant element in war. Climate plays many characterisations in battle. Time and again terrain plays a puissant role in hostilities. Water is always a factor in combat. To illustrate the effect of these agents of the environment, the authors examine the American Civil War's Mud March and Flanders Field of WWI to see the impact of rains and mud; the Battle of the Bulge and the fighting in Vietnam's Khe Shan province for the effects of low cloud and fog; Napoleon and Hitler's campaigns in Russia for the effects of winter and snow; the American wilderness and Ia Drang Valley for that of forests and jungles; the American Civil War's Eastern theatre and the battle of Verdun in WWI for effect of terrain and corridors; Operation 'Market Garden' for the water obstacles; landings at Anzio and Inchon for peninsulas and sea coasts; Tarawa and Iwo Jima for the island battles; new Guinea and Dien Bien Phu for the aftermath of heat, torrential downpours and infirmities; and the campaigns in the Western Desert and that in the Sinai for the effect of high temperatures, granite and sandy soil.

This book is not a new or an ultimate work. Instead, it combines established facts and abstractions from the disciplines of military history and technical analyses of physical geography to show that relationships between environment and combat are highly variable, often unpredictable, and always menacing. This study clearly brings out that at all levels, unmindful of time; those who know more about the guise, nature, and variability of battleground ambient factors will always be at a more advantageous position over a less knowledgeable foe.

Put across in lucid style, it is interspersed with topographical maps, sketches, diagrams, vintage photographs, lithographs and weather maps and charts. It undoubtedly is a veritable treasure trove of military concepts and ideas.

Lieutenant Colonel A K Sharma (Retd)

The Aftermath of Partition in South Asia. By *Tai Yong and Gyanesh Kudaisya* (New York and London : Routledge, 2000) pp. 322, Rs. 1400.00, ISBN 0-415-17297-7.

It is difficult for someone from India, Pakistan or for that matter from Britain to write an unbiased history of the post-partition South Asia. The patriotic fervour of each of them could interfere with facts. The authors of this book, being scholars from Singapore, could dispassionately look into the near past.

India won freedom after a prolonged struggle of nonviolence. Nonviolence was the creed only of the freedom fighters; the ruling British had resorted to brutal violence. Did the nonviolent freedom struggle help India make less sacrifices in terms of human lives? In no war have so many innocent lives been lost as during the partition period. Perhaps there would not have been any necessity of partition.

However, partition has become a fact of life. Ironically, the very absurd pretext for partition, that religion constitutes nationality, was not believed by the father of Pakistan, Mohammed Ali Jinnah. While Nehru's exhortation was followed by India, Jinnah's was discarded by Pakistan; India remained a secular democracy, giving rights and protection to all its citizens irrespective of religion. Pakistan fell back on the medieval concept of a religious state pushing out its minorities to India.

The rest is history. The book ably reconstructs the birth pangs of the two states, takes a look at the manner in which the political boundaries of the post-colonial South Asia were drawn and presents a detailed picture of post-partition situation in Punjab and East Bengal. The other subjects covered are, post-partition Pakistan with its civil-military oligarchy, the creation of Bangladesh and the legacy of partition continuing to menace contemporary South Asia.

Very useful and stimulating to all who wish to know of the subcontinent's recent past.

Subedar Major N Kunju (Retd)

Nuclearisation of Divided Nations–Pakistan-India-Korea. By *Prakash Nanda (New Delhi : Manas Publications, 2001), pp 215, Rs 495.00, ISBN 81-7049-125-8.*

Truth is stranger than fiction. To understand fully the import of this dictum, read this extremely well researched and cogently analysed book about North and South Korea and Pakistan. Having discussed the background of Pakistan, North Korea and China, the author has rightly concluded that authoritarian regimes will always retain their propensity for offensive action at the slightest pretext and if none is forthcoming they will invent one. Nanda's deposition of facts is complete, his deductions logical and his conclusions sound. In support of a major premise, which perhaps is the cornerstone of this book, Nanda has called Pakistan a 'crazy' state – this being no metaphor but a definition given by political scientist Yehezkel Dror in 1971. The author deserves to be congratulated for identifying the schizophrenic thinking and attitudes that Pakistani leadership has so consistently displayed. He has also covered in some detail the militant groups that operate from Pakistan and the role of the ISI in creating unrest in Indian states. Apparently, Pakistan has not reconciled to partition and treats it as an unfinished agenda to determine the future status of Jammu and Kashmir.

North Korea is another 'crazy' state as per Dror's definition. The author has researched well the covert nexus and military cooperation between Pakistan and North Korea.

Are there any limitations to the Lahore process? The author certainly thinks so, specially with the 'Indo-centric' policies and weaponisation programmes Pakistan has been following for the past fifty years. Yet the Indian Prime Minister is considered to have shown great sagacity in his persistence to offer the olive branch. This is somewhat akin to the Sunshine Policy of President Kim Dae Jung of the Republic of Korea. In the event, North and South Korea have made progress despite gross acts of provocation by the former. It is to be hoped that the ceasefire offered during Ramadan and the June Agreement in Pyongyang will be the precursors to lasting peace. Is it all too naïve, and would reality prove us otherwise, as astutely suggested by the author? Truth is, indeed, stranger than fiction. Assuredly, it is in India's interest to cultivate

strategic partnerships with Japan and Korea, to develop cooperative security. This would help contain the growing Chinese influence in the region. The Indian viewpoint and her nuclear doctrine have also been aptly covered.

An immensely readable book. It is a must for all libraries and for students of politics and matters military.

Major General Ashok Joshi, VSM (Retd)

The Pakistan Trap. *Compiled and edited by Rajeev Sharma (New Delhi : UBS Publishers Ltd., 2001), pp xxviii, 252, Rs. 395.00, ISBN 81-7476-328-7.*

This is an interesting collection of writings by eminent experts and seems to be an honest effort to provide an insight into the differing and conflicting situations and changes in Pakistan. It is an informal analysis and an updated review of the situation in Pakistan for an in-depth study by one and all.

Pakistan is in a trap and is laying a trap. It is in the trap of three Frankenstein monsters of its own making – the unbridled Inter Services Intelligence (ISI), which is virtually a state within the state; Islamic fundamentalism which is fast turning the country into the Beirut of South Asia, and the Taliban with which Osama bin Laden is intimately linked. Pakistan has been using these three monsters against India, perhaps conscious of the fact that if they do not feed on India they would start feeding on Pakistan itself.

The book discusses the Indo-Pak relations from all angles – diplomatic, military, political, ISI-instigated terrorism, Islamic fundamentalism, the nuclear issue and the attempted 'intelligence encirclement' of India. The contributors of articles are from different fields, and each has been a decision-maker in his field.

Rajeev Sharma, a New Delhi based author-journalist and special correspondent of *Newstime-Eenadu* group of newspapers, has done well to publish these writings in the form of a book. The book holds the attention of the reader and educates him on what the ground realities in Indo-Pakistan relations are.

I R Kumar

The Indian Armed Forces - A Basic Guide. Edited by Major General Afsir Karim, AVSM (Retd) (New Delhi : Lancer Publishers & Distributors, 1995), pp 248, Rs 295.00, ISBN 1-897829-06-X.

Despite all the efforts by the system, our Armed Forces have failed to attract the best of our country's youth. One of the reasons for this failure is the lack of knowledge about Armed Forces amongst our countrymen. To meet this end, Major General Afsir Karim, an eminent defence analyst and a member of National Security Advisory Board – on Security, has edited this book. The book may not be able to fully attain its aim, due to its inadequacies and inconsistencies, yet this remains a commendable effort.

In a sketchy introduction to the book, the Editor has tried to create a backdrop for study of each Service. Inclusion of issues common to the three Services like procedure for recruitment, pay and pension, service privileges, post retirement benefits, and honours and awards, in the introduction could have saved a lot of repetition. The portion on Indian Army has been authored by Captain Bharat Verma. After a brief historical overview, the author has detailed the command and control structure and branches of the Army. Mention of Air Defence Artillery and Army Aviation as separate arms and inclusion of Intelligence Corps, Pioneer Corps, Army Education Corps and Army Dental Corps as minor corps/ services would have given a more complete picture to the readers. For obscure reasons, the author has not made any mention of computers and information technology in the Army. The fact that our Army has long ago opened recruitment to lady officers has also not found a place in this well written chapter. This may give a very incorrect impression of our modern Army to the lay reader. A glimpse of life in the Army, traditions and customs of the Service, recruitment in the Army and a brief history of wars after independence are the remaining chapters of this portion. Commodore NML Saxena (Retd) has written about the Indian Navy. This portion covers our maritime heritage; role, organisation and branches of the Navy; recruitment into the Navy, the Indian Coast Guard, a short operational history and the types of ships in our Navy. A very well written account of our Navy, but for some not so necessary details given by the author in his enthusiasm to give more and more to his readers.

Air Commodore TK Sen has written a very balanced historical account of development of the Indian Air Force. He has ably covered the subject through chapters on historical overview, and organisation of command and control and development of the Air Force from independence to date. But for certain errors which could amount to misinformation, the book makes a reasonable presentation of the Indian Armed Forces. An updated version of this book would do justice to its purpose. Recommended for unit libraries.

Major General Yatindra Pratap (Retd)

Attrition in Air Warfare. By Air Commodore Arun Kumar Tiwary, VSM (New Delhi : Lancer Publishers, 2000), pp. 214, Rs 495.00, ISBN 1-897829-68-X.

In the early Twentieth Century, the arrival of the aeroplane and its subsequent use as an instrument of war-fighting was certainly the most significant landmark in the long history of warfare. It extended military operations in the 'third dimension' of aerospace and provided the armed forces the capability to search, attack and destroy the opponent's nerve centre and his military potential without any restraints of geographical boundaries and coastal obstructions. Now, within less than a century, air power, or aerospace power, has become the predominant military force with its ability to fight in the air, on land and at sea, either alone or jointly with the ground and naval forces.

However, air power is a costly force to acquire, maintain and operate, particularly for the middle level developing countries, which have to import most of the elements of air power. Therefore, economy in its use is a prerequisite and calls for centralised command and control of all air power assets, so that maximum damage can be inflicted on the opponent with minimum losses to one's own. Air Commodore AK Tiwary has discussed this aspect of offensive air operations, a role most suited to the inherent characteristics of air power, like surprise, concentration of firepower, and flexibility; and the impact on these of new technologies, like precision-guided munitions, stealth, space-based satellite support system, AWACS, in-flight refuelling and, most importantly, electronic warfare systems.

The author describes in depth, giving examples from the air wars of the Twentieth Century, the losses in aircraft during war due

to deployment of new technology anti-aircraft artillery and surface-to-air missiles and measures taken to reduce such losses by the use of suitably revised doctrine, strategy and tactics. This has engendered a new role in offensive air operations called "suppression of enemy air defences" or SEAD.

The book will also be of interest to the members of the other two Services and those concerned with the role of air power in national security.

Air Commodore NB Singh (Retd)

Military Plight of Pakistan—Indo Pak War 1947-1948, Vols. I and II. By Colonel MN Gulati (New Delhi : Manas Publications, 2000), pp 624, Rs 1495.00 (set of two vols), ISBN 81-7049-123-1.

Kashmir has been the focus of attention of writers, historians and strategists on both sides of the border. The author has contended that the present work has attempted to provide a complete and detailed study of the 1947-48 Indo-Pak War, as a campaign study from the military point of view, with adequate details of the background leading upto the War.

In Volume I, there is a discussion on Gilgit, its strategic importance and how it passed into Pakistani hands without a fight, due to British duplicity, thereby opening the way for subsequent Pak incursions into Ladakh, Gurais and Tilel Valleys, Zojila and the capture of Skardu and later construction of the strategic Sino-Pak Karakoram Highway. Of the many obscure sidelights provided in the book, the one on Junagarh (a small Hindu-majority state in Kathiawar region) makes for very interesting reading. Here, inspite of stiff opposition from Sardar Patel, Jawaharlal Nehru ordered a referendum in February 1948 after the state was handed over to India by the Dewan of the state, Sir Shah Nawaz Bhutto. The rest of the first volume is devoted to the equally interesting details of 'Operation Gulmarg' launched by Pakistan with tribal raiders as pointsmen, the detailed Indian response to the battle of Shalateng and the subsequent recapture of Uri followed by the militarily inexcusable Indian decision to halt further operations towards Domel and Muzzaffarabad.

Volume II of the work brings out fine details of the operation after recapture of Uri, which our forces conducted with elan and success in the regions of Jammu and Ladakh. A separate chapter has been devoted to some interesting anecdotes by the author, but the subtle irony of the so-called anecdotes with the underlying theme of painful Indian political bungling is hard to miss. The editing of the book has been good. This book, apart from adding to the literature on military history, should also act as a reminder to our policymakers to be vigilant in recognising when our supreme national interests are in jeopardy. To act to the contrary may result in endless national lament as exemplified by the initial mishandling of the Kashmir issue.

Colonel Jagmohan Singh

Pakistan Splits - The Birth of Bangladesh. By Lieutenant Colonel J R Saigal (New Delhi : Manas Publications, 2000), pp 216, Rs. 495.00/\$ 30.00, ISBN 81-7049-124-X.

This is a narrative of the 1971 Indo-Pak War, as witnessed by the author. The book recounts the operations of 1 Corps in the Shakargarh bulge. The depiction of the scenario and sharp observations cut close to the bone. Unfortunately, the author has given free rein to his creativity in structuring the book and covered the subject in the manner he wanted, which at times is distracting, often repetitive and occasionally detracts from an otherwise thought provoking narration.

Colonel Saigal compares the hesitant steps of 1 Corps taken after much prodding with the rapier-like thrusts of 4 Corps in an obstacle ridden terrain, under the dynamic leadership of its Commander, Lieutenant General Sagat Singh, an exceptional field commander who went for the jugular from day one. Obstacles – man made or natural – meant nothing to him and his aim was to capture Dacca. Comparisons are odious but it is a tantalising thought – if he were commanding a field force on the Western front, he would have been onto line Zafarwal-Narowal-Dhamtal in a flash and Shakargarh reduced in a trice.

The author bemoans the higher direction of war which not only

implies having vision as regards politico-military objectives but also to select suitable field commanders imbued with requisite dynamism. Some thirty years down the line we still seem unsure if our selection process is right.

Colonel Saigal has painted on too broad a canvas. It is perhaps not possible to do justice to so many major issues in one book. His view, for example, that in case of "a nuclear weapons threat from Pakistan, a counter threat from India can bring Pakistan not to resort to such suitable action", is too simplistic.

However, this book is an interesting effort. The author gives vent to his feelings and manages to provide an insight into the thinking processes of our military machine. There are a number of errors in printing, typographical and grammatical, and some of the photo captions are not readable! Despite these errors the book is a useful addition, which takes you down memory lane. It should be read by all those whose love for uniform and national security is as strong as that of the author.

Major General Ashok Joshi, VSM (Retd)

The Marginal Nation : Transborder Migration from Bangladesh to West Bengal. By Ranbir Samaddar (New Delhi : Sage Publications, 1999), pp. 227, Rs 325.00, ISBN 0-7619-9283-9.

Legal and illegal migration is a worldwide phenomenon. This situation is particularly bad between Bangladesh and West Bengal. The author construes Bangladeshis crossing the borders to India as a historical matter and due to social affinities, geographical contiguity and poor economic conditions in their own country. Some political parties in India also encourage illegal migration to create their vote bank. The book is an analysis of various issues and problems regarding migration, with facts and figures, with a liberal use of material available from various books and articles written on the subject. A well researched book, of interest to research scholars and officials engaged in the control of illegal migration.

Commodore R P Khanna, AVSM (Retd)

The Furies : Violence and Terror in the French and Russian Revolutions. By Arno J Mayer (New Jersey : Princeton University Press, 2000), pp. 716, \$ 22.00, ISBN 0-691-04897-5.

It is said that "Freedom had been better served in countries where no revolution had ever broken out". In a revolution, the old order is destroyed violently. It results in armed action and civil war, liquidation of a whole class of people and the ascendance of a new class that has no experience. It will have to experiment with a new system. All this causes chaos, indiscriminate killings and dictatorial actions.

The author has analysed the two revolutions in detail. Fired by ideological zeal of serving the oppressed humanity, the revolutionaries wanted quick results. In the process, class war, and later infighting, resulted in loss of thousands of lives. Naturally, the oppressed bore the brunt because they did not have the weapons to beat the armed might of the police and the army. However, in the ultimate, the sheer numbers of the masses won.

The French Revolution was meant to establish a people's government after ending the feudal rule of kings. Great thinkers like Robespierre and Rousseau were the moving forces of the people's action. But these thinkers could not be effective leaders, therefore, the mob took over. The leaders that the revolution threw up were no better than the feudal lords. They used power more to settle scores with their personal enemies than with the class enemy. Thus monarchy was restored to establish order.

The Russian Revolution was more organised and had a statesman in Lenin to lead. Also to a great extent, the rule of the working class was established after the violent overthrow of the Tsar. Under Lenin's able administration, the revolution was retrieved from chaos to an orderly dictatorship of the proletariat. However, the state of affairs did not last long. According to Karl Marx, the dictatorship of the proletariat was to be a passing phase in the establishment of socialism. But under Joseph Stalin, the dictatorship of the proletariat degenerated into his personal dictatorship. It took several decades to unwind the supreme power of the general

secretary of the communist party of the Soviet Union. And with the erosion of that unquestionable power, communism too withered in Russia and its satellite states.

It is said that a revolution eats its own children. After the French Revolution, many of its leaders were killed in the chaos and infighting that followed. The Russian Revolution was most notorious for the liquidation of the very people who formed its vanguard. A megalomaniac Stalin got hundreds of communist party leaders and generals of the Red Army killed on mere suspicion of their becoming his rivals.

The Furies is a very detailed story of the terror let loose by the two revolutions with their thorough historical, political and social analysis. It exposes the romance and excitement associated with revolutions that has misguided the youth, and the myths from that of Che Guevara to the Naxalites.

Subedar Major N Kunju (Retd)

The Kennedy Tapes – Inside the White House During the Cuban Missile Crisis. Edited by Ernst May and Philip Zelikow (Cambridge, MA : Harvard University Press, 1997), pp. 701, \$ 16.95, ISBN 0-674-17927-7

The year 1962 proved to be epochal for the free world with the Cold War rivals working to grasp and restrain the crisis that was taking them to the brink of use of nuclear weapons due to the presence of Soviet nuclear missiles in Cuba. In the East, a sea of Chinese humanity invaded the Indian North East Frontier Agency (NEFA), now known as Arunachal Pradesh, and rapidly swept across the scabrous mountains. While America averted the crisis, through deft handling of the situation without loss of lives and with a boost to its credibility, India suffered a humiliating military defeat. Perhaps the strategic decision making process in both the countries had a role to play in these opposite outcomes. This is suggestive from a reading of the full account of *The Kennedy Tapes*, a transcription of audio recordings of meetings held in the White House during the fateful thirteen days starting 16 October 1962. May and

Zelikow, two American historians of repute, have recreated a gripping blow by blow and minute to minute account of how the US President, John F Kennedy, supported by an able administrative machinery, averted a nuclear war.

As incontrovertible evidence of construction of IRBM and MRBM missile sites in Cuba across the US mainland came in, the Kennedy administration was faced with a Hobson's Choice. Upping the ante would have been disastrous for the US; they were ill prepared for a nuclear strike. Defusing the crisis without loss of American face was thus a prime necessity – a fact realised by Kennedy on day one. Physical measures, such as quarantine of Cuba, were thus supplemented by direct engagement of Khrushchev on a personal basis, for the U S administration had correctly identified that decision making in the Soviet Union was centralised. Dangers of a direct nuclear confrontation, especially after express assurances given by Khrushchev during the Vienna Summit to the contrary, were deftly used to convince the Soviet leadership against nuclear brinkmanship. The role of the UN during the crisis and its impact in a bipolar world are also clearly enunciated. The authors have very effectively weaved the background that affected the decisions ultimately made, including impact of the force of personalities involved, most of whom were older and more experienced than President Kennedy. While the Cuban missile crisis lasted for a mere thirteen days, its successful handling proves the effectiveness of the American strategic decision making process – a process of collegiated reasoning but unitary responsibility in the President. Kennedy's clear focus on the objective amidst the fog of options presented to him by his advisers, each one of whom seems to have had partisan tint, as each was trying to protect his own turf, averted a possible nuclear disaster. All this when both powers were bent on exploiting their nuclear power potential.

An interesting aside is the reference to the Chinese invasion of NEFA, which coincided with the Cuban missile crisis. The Chinese were reportedly bitterly disappointed with Soviet acceptance of withdrawal of missiles from Cuba and proclaimed it a "betrayal". References have also been made of this being a two-pronged communist grand sweep with China invading India and a

Soviet nuclear strike on the US. While no concrete evidence of the same is provided, confabulations between strategic partners can be surmised, implying that the Soviet Union was probably aware of Chinese plans of invading India. Also, U S capabilities in strategic surveillance indicate that Chinese build up in Tibet may have been noticed by the Americans. A timely warning to India by either of the powers then could perhaps have saved the debacle of 1962, through better preparations as well as effective diplomatic measures to deter the Chinese from such a venture.

This is a historical work of significant interest, providing an insight in the art of governance in democracies through an authentic record of functioning of the US government at the highest level during a national crisis, and the effectiveness and efficiency of its policy making process.

Colonel Rahul K Bhonsle, SM

Kilo Class. By Patrick Robinson (London, Arrow Books, 1988) pp. 539, £ 5.99, ISBN 0-09-926904.

This intriguing work of fiction revolves around an off-beat plot of a US-China confrontation. For her grand design to seize Taiwan and mastery of Taiwan Straits, China must boost her fleet of Kilo Class Russian submarines, which the US Navy is hell-bent to prevent reaching the Chinese. The joker in the pack is Taiwan's development of nuclear capability on an island deep down south of the Indian Ocean.

With mind-boggling hi-tech systems and exhilarating accounts of submarine warfare, surreptitiously executed in the icy depths of arctic oceans as well as on the mainland of Russia, the story provides enthralling fare. The author has appropriately inducted the human element, of strong duty, love and hatred of the men as well as the three masterminds—USA's Annold Morgan, Admiral Zhang Yushu of China and Russian Admiral Vitaly Hankov – playing a deadly game of roulette

Highly enjoyable novel, which can be read to the last page.

Major General SK Talwar (Retd)

The Prize of All the Oceans - The Triumph and Tragedy of Anson's Voyage Round the World. By Glyn Williams (London : Harper Collins Publishers, 1999), pp 264, £ 19.99, ISBN 0-00-257125-0.

A fascinating account of the heroic era of the mid-Eighteenth Century English sailors who dared to master the seas in medieval ships with sails notwithstanding the hazards of the unknown and turbulent seas, seasonal winds, debilitating diseases and deaths.

Anson's four year venture round the Cape Horn, the Pacific and the Cape of Good Hope is an epic of fortitude and unwavering spirit against forbidding hazards and odds. Out of a flotilla of nine ships, only one survived and almost 1400 of the complement of 1900 oarsmen and soldiers died. When he got the much awaited news of the legendary rich Spanish galleon approaching Manila, he raised the spirit of his debilitated crew and soldiers with the promise of prize money. With the spirit of a gambler, he blasted the so far elusive galleon with his powerful guns and forced it to surrender when a small boarding party jumped aboard, much to the chagrin of numerically stronger soldiers and oarsmen of the galleon.

Anson reached England with the vast riches of booty to national acclaim and glory. His example of single minded resolve and fortitude set other English sailors to follow in the footsteps of forbearers like Drake and later Nelson, which won for England an empire on which the Sun never set.

The maps, sketches and drawings help in an easy understanding of the captivating story of an indomitable spirit over natural hazards.

Major General L S Lehl, PVSM, VrC (Retd)

James G Blair : Architect of Empire. By Edward P Crapol, (Delaware : A Scholarly Resources Inc, 2000), pp. 157, Price not indicated, ISBN 0-8420-2604-3.

This is a biography of a visionary. Born in a well to do family, with good education and sound upbringing, Blair was an avid reader with a taste for history. The author traces the career of Blair as a

teacher, a highly successful journalist, an editor and as a politician. He became the Speaker of the House of Representatives at the young age of 39. He was involved in a number of major debates leading to decisions on issues like Reciprocity Treaty with Hawaii, support of federal subsidy for steamship line to Brazil, Treaty of Washington with Britain and so on. He also supported Lincoln's re-election to a second term. The author describes at length Blair's term as Secretary of State from March 1881 to December 1881 and again from March 1889 to April 1892, during which periods he was responsible for very useful works for the American society: he demanded respect for his nation and its citizens.

A well researched and comprehensive biography that should interest the American people themselves who have little or no knowledge of the nature and extent of their nation's involvement in world politics. A good reading for politicians and diplomats.

Commodore R P Khanna, AVSM (Retd)

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2. The full name and address of the author along with a brief Curriculum Vitae should be given. Serving officers should enclose no-objection certificate signed by their immediate superior for publication of their articles.
3. The author will receive a copy of the issue of the Journal in which his article appears along with three offprints. A suitable honorarium will also be paid after the article is published.

Additions to the USI Library for the Quarter - Ending June 2001

(The books reviewed in January-March 2001 issue have been added to the Library during this quarter but not shown in this list)

BIOGRAPHY/MEMOIRS

1. Almeida, Prakash **Jinnah : Man of Destiny.** Delhi, Kalpaz Publications, 2001, pp 292, Rs. 690.00 ISBN-81-7835-016-5.
2. Sarma, SH (Vice Adm [Retd]) **My Years at Sea.** New Delhi, Lancer Publishers & Distributors, 2001, pp 252 Rs. 450.00, ISBN 81-7062-121-6.

CARIAPPA MEMORIAL LECTURE

3. Directorate General of Infantry **Field Marshal KM Cariappa.** New Delhi, Sona Printers Pvt. Ltd., 2001, pp 200 Rs. 395.00, ISBN 81-7062-19-4.

CURRENT AFFAIRS

4. Strong, Maurice **Where on Earth Are We Going.** New York, Texere, 2001, pp 431, \$ 27.95, ISBN 1-58799-092-X.

FUNDAMENTALISM

5. Griffin, Michael **Reaping the Whirlwind : The Taliban Movement in Afghanistan.** London, Pluto Press, 2001, pp 283, £ 19.99, ISBN 0-7453-1274-8.
6. A Wordsmith Compilation **The Jihad Fixation : Agenda, Strategy, Portents.** Delhi, Wordsmith, 2001, pp 424 \$ 40.00, ISBN 81-87412-03-8.

INDIA - BRITISH HISTORY

7. Weller, Jac **Wellington in India.** London, Greenhill Books, 1993, pp 338, ISBN 1-85367-397-8.

INDIA - DEFENCE

8. Menon, Raja
(Rear Adm [Retd]) **The Indian Navy.** New Delhi, Naval Headquarters, 2000, pp 210.

INDIA - ECONOMY

9. Kothari, S S **Reform of Fiscal and Economic Policies for Growth.** New Delhi, Macmillan, 2001, pp 300, Rs. 495.00
10. Sondhi, M L **Towards a New Era : Economic, Social and Political Reforms.** New Delhi, Har Anand Publications Pvt. Ltd., 2001, pp 688, Rs 695.00, ISBN 81-241-08005-1.

INDIA - MAPPING

11. Keay, John **The Great ARC.** London, Harper Collins Publishers, 2000, pp 182, £ 14.99, ISBN 0-00-257062-9.

INDIA - POLITICS

12. Kashyap, Subhash C **Eradication of Corruption and Restoration of Values.** New Delhi, Sterling Publishers Pvt. Ltd., 2001, pp. 257, Rs. 500.00, ISBN 81-207-2257-4.

KARGIL

13. Krishna, Ashok (Ed)
(Maj Gen [Retd]) **Kargil : The Tables Turned.** New Delhi, Manohar, 2001, pp 341, Rs. 700.00, ISBN 81-7304-366-X.

MIDDLE EAST - MILITARY BALANCE

14. Brom, Shlomo and
Yaftah Shapir (Ed) **The Middle East Military Balance 1999-2000.** London, The MIT Press, 2000, pp 479, ISBN 0-262-02478-0.

NUCLEAR ISSUES

15. Kanwal, Gurmeet
(Colonel) **Nuclear Defence.** New Delhi, Knowledge World, 2001, pp 246, Rs. 750.00, ISBN 81-87966-00-9.
16. Ram, N **Riding the Nuclear Tiger.** New Delhi, Left Word, 1999, pp 120, Rs. 175.00, ISBN 81-87496-03-7.

PAKISTAN

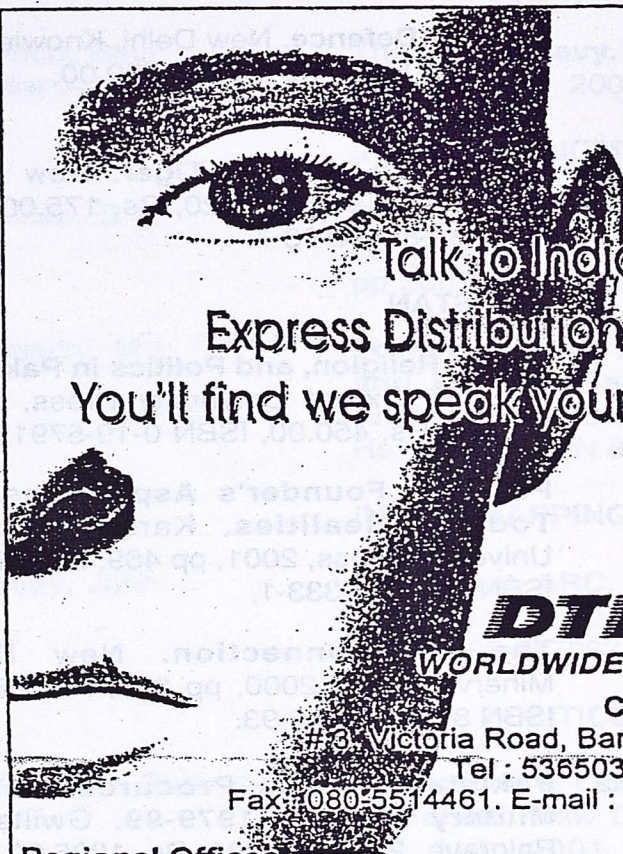
17. Akhtar, Rai Shakil **Media, Religion, and Politics in Pakistan.** Karachi, Oxford University Press, 2000, pp 255, Rs. 450.00, ISBN 0-19-579174-6.
18. Malik, Hafeez (Ed) **Pakistan Founder's Aspirations and Today's Realities.** Karachi, Oxford University Press, 2001, pp 469, Rs. 595.00, ISBN 0-19-579333-1.
19. Shekhar, R **The ISI Connection.** New Delhi, Minerva Press, 2000, pp 283, Rs. 250.00, ISBN 81-7662-076-93.
20. Siddiq-Agha, Ayesha **Pakistan's Arms Procurement and Military Buildup 1979-99.** Gwiltshire, Palgrave, 2001, pp 231, Rs. 1295.00, ISBN 0-333-73172-7.

REFERENCE BOOK

21. Kaushish, Poonam I **India Who's Who 2000-2001.** 26th Edition, New Delhi, Infa Publications, Rs. 500.00.

SINO - US RELATIONS

22. Aijazuddin, F S **From A Head, Through A Head, To A Head.** Karachi, Oxford University Press, 2000, pp 163, Rs. 395.00, ISBN 0-19-579449-4.



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