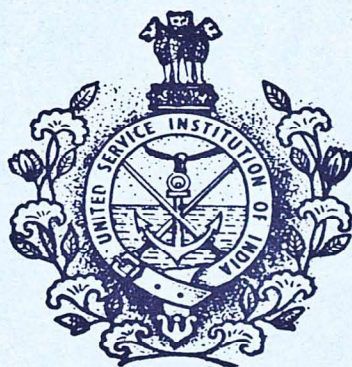


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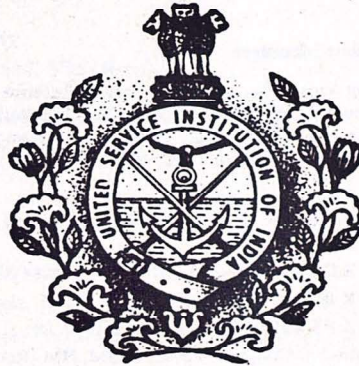
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EDITORIAL

The Challenges Ahead

As India observes and celebrates 50 years of Independence, she faces a diversity of international challenges and opportunities that are extremely complex. Throughout history, men have sought peace but suffered war; all too often, deliberate decisions or miscalculations have brought violence and destruction to a world yearning for tranquility. Indians have every reason to take pride in what their country has achieved during the last 50 years. However, there is a need to look ahead, try and peep into the future, and chalk out the course in the best national interest.

The lead article in this issue on "International Security Environment" by Lt Gen Satish Nambiar, is a perceptive and clear-sighted analysis in a holistic framework of the international arena. It needs careful reading and reflection to arrive at the heart of the problem and then to design, with the rigor of objectivity, concepts for creative policy in the region. The author does not foresee any large scale war in the immediate future. Some local conflicts may take place which are likely to be contained. The areas of concern will be west Asia, Africa and Taiwan. Of concern to developing countries will be trans-national issues - proliferation of small arms, terrorism and drug trafficking. National Strategy needs to be formulated for a credible response to the perceived threats.

International Security Environment

LT GEN SATISH NAMBIAR, PVSM, AVSM, VrC (RETD)

All of you are aware that many changes were effected on the international scene after the First World War. Similarly, a great many changes took place after the Second World War. But, to almost all of you that is history. However, you are now very much part of the profound transformation that is taking place in the international security environment after the termination of the Third World War – which is what the Cold War was, in many ways; though fought diplomatically, by proxy and through intelligence agencies. There can be no doubt that with the major powers engaged in an ideological conflict, the Cold War cast a shadow on international trends and developments. Multilateral institutions set up after the Second World War to help create a democratic and equitable world order, based on collective security, were often paralysed by the rivalry between the USA and the former USSR.

Determining the scope of an analysis of international security in the aftermath of the end of the Cold War is not an easy matter, primarily because though still largely concerned with the security of nation states, such analysis has to take account of the demolition of totalitarian structures and hence greater democratisation and a broadening of the canvas of what constitutes security. Besides the purely military aspect of territorial integrity, the concept now encompasses preservation of the political systems, economic and social well-being of the people, preservation of essential energy sources, protection of the environment and so on. Military theories are being revisited and possibly modified. Military conflicts between the most advanced states and major powers are considered unlikely because the

*Text of a talk delivered on 27 May 1997 by Lt Gen Satish Nambiar, PVSM, AVSM, VrC to foreign diplomats at the Foreign Service Institute, Chanakyapuri, New Delhi.

@Lt Gen Satish Nambiar, former Deputy Chief of the Army Staff, was the first Force Commander and Head of Mission of the United Nations forces in the former Yugoslavia. He is currently the Director of USI.

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available military technology has made warfare in the classic sense, too costly and, in fact, unwinnable, except where the asymmetry is too large. Even in the developing world, conventional war is not the preferred norm; low intensity irregular warfare has emerged as the preferred option. Some figures on the number of conflicts since the end of the Cold War may be indicative that the scale has not really diminished, and, equally importantly, that conflicts are tending to be increasingly within states. Between 1993 and 1995, 34 major armed conflicts were waged in 28 locations; of the 30 major armed conflicts fought in 1995, all 30 were intra-state or internal wars.

With that backdrop, let us take a quick look at the international scene on as broad a perspective as possible, before trying to delve into greater detail. The situation, whether one likes it or not, is that the United States of America is the dominant power; it totally monopolises the international arena, sets the agenda for what is to be done by international institutions and pursues its policies without any inhibitions whatsoever. There are a few squeaks every now and then, but not enough to challenge US dominance; the present situation will therefore continue for at least a couple of years. Given the resentment to total US dominance, particularly by Russia and China and possibly, in a muted manner, by some European countries like France, there appears to be a possibility that additional power centres that could challenge the current US domination may emerge, at some time in the future. Having stated this, however, it may be relevant to remind oneself that countries like China and Iran are not only vocal, but demonstrative in their behaviour, that they will not allow the USA to even remotely transgress their sovereignty. In another category, fall countries like Cuba, Iraq, Libya and Sudan.

Of one thing there can be no doubt; as and when she is ready and capable, or even before that in some ways, China will be at the core of the primary centre of power that will contest the dominance of the USA, given the large military she has, and the modernisation of which she is paying added attention to, as also her growing economic clout and potential for more. Whether she will be joined in this endeavour, by other countries like Russia,

Iran or India is a matter of conjecture; primarily because, notwithstanding current moves, we are yet to be convinced that Russia will, in fact, come out of its present travails, as a vibrant and significant force that has the will to contend with the USA or just fall in line. In so far as countries like India and Iran are concerned, they may have their own reasons for not aligning with China, but may well consider it expedient or more viable, to form a power centre of their own, contesting both the USA and China, may be with Japan, or with others like the ASEAN group. Whether Europe will have the vision, or the courage, or the conviction, to form a power centre independent of the USA is, in my view, questionable; this may change, but at the moment, it appears that Europe will prefer to cling to the coat-tails of the USA (it gives them time to sort out their own internal contradictions). The Japanese role in all this is conditioned by their reluctance to assume a militaristic role; though one may be tempted to suggest it is more for reasons of expediency in terms of getting assured US support, without having to invest adequately for their security themselves. Ironically, what all this leads to, is that there may well be only one counter to the dominance of the USA - the Chinese; which may well mean the start of the Fourth World War, albeit a cold one.

Before proceeding with a detailed analysis of the international security environment, it is essential to flag some trans-national issues that will continue to have a serious influence on the security environment, notwithstanding what is attempted by nation states to prevent, or contain conflict; namely : proliferation of weapons of mass destruction (WMD), the spread of small arms (though this is often attempted to be glossed over by the countries that benefit from arms sales), terrorism, and international crime in the form of drug trafficking.

Let us now attempt to analyse briefly the environment region by region, to see what are the possible flashpoints that may generate tensions and conflict situations around the globe. Since the USA is the sole dominant power today, we may start with the Americas. In so far as North and South America are concerned, while there may be some minor conflicts of manageable nature,

generated more by the drug cartels than any national concerns, the only areas of attention could be the potential for conflict in Mexico, the fallout of the separatist movement in Quebec, and the imponderables in Cuba. All these are in the backyard of the USA, and can hence be considered dealt with by the USA without interference from any other quarter. I doubt whether the USA would allow any other agency to have anything to do with what happens in her backyard, for the foreseeable future.

One of the problems that Europe may have to face, without wishing to do so, is that of Islamic fundamentalism as prevailing in Algeria and terrorism from the Southern Rim. These may lead to refugee influx. Other than that, the scope for regional conflict arises from the tensions emerging from the ongoing confrontation between Turkey and Greece on the Cyprus and related issues, the proposed expansion of NATO and the Balkans imbroglio. Though the recent experience of their incompetence in dealing with the situation in the former Yugoslavia suggests that the European Union is not yet fully ready to handle security problems in Europe with any degree of confidence, it is more than likely that NATO will be the agency to be used, because the USA can then be drawn in, for better or for worse. There is a good deal of rhetoric about the West European Union (WEU), but whether it has any teeth or bite is a matter of speculation. Anyway, in so far as the rest of the world is concerned, the Europeans must deal with their problems themselves, as they are attempting to do in Albania. One cannot foresee the employment of NATO or WEU forces in areas outside Europe, in an interventionist manner, at this point in time, particularly because there is more than enough to keep them occupied within Europe; the potential for conflict between Greece and Turkey remains nascent; the Balkans - the Republics of the former Yugoslavia, with the Kosovo dimension, and Albania, - continue to retain the explosive content that engulfed the region in the early nineties, which means that substantial forces, no matter what nomenclature they are given (IFOR, SFOR, and so on), will need to be deployed for quite some time, if resurgence of conflict is to be avoided.

Sub-Saharan Africa will continue to remain a scene of con-

flict for some years to come, it appears. Rwanda, Burundi, Angola, Mozambique, Liberia, Somalia, and so on, will need to be assisted in tackling the division in their societies generated by ethnic and tribal loyalties, but accentuated by years of deprivation, poverty and economic disparities. Whereas there is some role for regional actors in containing the scope for conflict and in assisting these countries set themselves on a sound economic and social footing, greater involvement of the developed world would be essential, both in economic terms, as well as, in political thrusts for negotiations and compromises. Relatively more stable regimes as in South Africa, Ghana, Uganda, Nigeria, Zambia, Tanzania, and Kenya, will need to exert themselves regionally. Even so, while the scope for continuing conflict remains, there is no likelihood of this assuming international dimensions, that were evident in the Cold War era.

The most volatile region is that of West Asia and North Africa, where a number of explosive issues provide the ingredients for serious threats to international peace and security. The region is of prime significance and interest to the developed world; firstly, because its oil resources are crucial to the USA, Europe and Japan; secondly, Islamic fundamentalist movements, as in Algeria and Sudan could result in refugees pouring into Europe and also in destabilising moderate regimes like Egypt and Tunisia, and the pro-West monarchies like Saudi Arabia and the other oil-rich sheikhdoms; thirdly, the belligerence of countries like Iran, Iraq and Libya, because of their being labelled by the USA and some others as "rogue states" and sanctions (official or unofficial) being imposed on them, could provoke the USA to undertake measures that may well lead to confrontation and possibly some hostilities, resulting in destabilisation of the region as a whole; fourthly, the Arab-Israeli stand-off could result in the collapse of the painstakingly put together peace process, followed by resumption of large scale Palestinian and Hizbollah attacks on the Israelis and Israeli counter attacks. Should all this escalate beyond tolerance levels, another bloody war would appear inevitable.

Much can be done to prevent this region from sliding to

conflict, but that requires statesmanship of a very high order, particularly from the USA. In the first place, the USA and some of her Western surrogates, need to shed what is nothing more than an obsession about countries like Iran, Iraq and Libya. Should their perceived isolation be removed, it may become more feasible to obtain their assistance to prevent attempts at destabilisation of established regimes in the region. Simultaneously, it would be in the interest of the USA, and in conformity with her declared democratic traditions, to encourage the autocratic monarchies to allow more democratic activity in their countries. Together with all this, must continue the US pressure on both Israel and the Palestinians, to restore the peace process. Only the USA can deal with the developments in this region; it is strictly off-limits for anyone else; nor can one see any other actor or set of actors, having either the clout or the credibility to play a role independent of the USA.

With the collapse of the erstwhile Soviet Union, and the developments in Afghanistan, Central Asia has emerged as a region where the situation appears to be rather fluid at present. The only factor which could have security implications, particularly to Russia, is that of possible radical Muslim dominance of the region. Such a development would also be of some significance to China. While most of the regimes in the region are secular in nature, some of the links developing with Iran and the emerging support for the opposition forces in Tajikistan from the Taliban in Afghanistan, may be causing concern in Moscow. However, all things considered, no large scale conflict in the region is likely. The USA, Russia, and Iran, have vested interests in keeping the region stable. In any case, as West Asia-North Africa is considered an area of exclusive US concern, the Central Asian Republics may be considered, at least for the time being, the exclusive domain of Russia, in terms of security concerns.

The Afghanistan imbroglio is altogether another factor. After the withdrawal of the forces of the erstwhile Soviet Union, and a period of jockeying for power by the various factions, culminating in serious infighting, the world appeared to ignore Afghanistan altogether and left it to its own devices. That is, till recently, when

the forces of the Taliban have taken control over most of the country, and appear to be closing in relentlessly on their opponents. What the outcome will be and whether or not fighting will continue for some more time are matters of speculation at present. However, events in Afghanistan are not likely to have any serious international effects, other than some fallout in Tajikistan and Pakistan, both of which will need to be handled by the respective countries: in the former case, may be with some assistance from Russia.

South Asia as a region will continue to have some tensions as before; ethnic strife and insurgencies, some rooted in separatist movements and possibly assisted externally. But there is unlikely to be any large scale conflict that would have international repercussions. In fact, the only destabilising factor of international concern may be the proliferation of weapons and the activities of drug cartels in Pakistan, possibly even spilling over into other South Asian countries, in due course.

South East and East Asia will also continue to be regions of relative stability in the foreseeable future, with some local tensions induced by ethnic and separatist movements. The overriding concern of the countries at the moment is maintaining the pace of their respective economies. They are however conscious of the towering dragon in their midst and are discreetly forming regional security groupings within the ASEAN and also overtly or discreetly, seeking continued US presence and links in the region. The main factors that impinge on the security perspective of the region are the continuing disputes over the Spratlys, and the Taiwan issue. Whereas the former may remain latent, with the occasional outburst, the Taiwan issue has the potential of a major eruption, should the Peoples Republic of China decide to test the genuineness of US support to Taipei; the impending Cold War between the USA and China may then become a rather hot one.

Finally, let me deal with Russia, separately only because of some of the peculiar problems that are the legacy of the dissolution of the Soviet Union; all the problems lie within the European sphere. In the Baltics, related to the Russian minorities in

Latvia, Estonia and Lithuania, and historical animosities, as also access to the vital naval facilities at Kalinigrad. With Ukraine over control and use of the Black Sea facilities, and the local ethnic Russian population. And the problem over Georgia and Chechnya. One cannot see any of these issues overflowing into serious conflict but they may well engage the international community for resolution.

What therefore is the prognosis? I do not foresee any large scale war in the immediate future, certainly not a "HOT" one; a "COLD" one is possible. Some local conflicts may take place, but they will get contained either by the efforts of regional players or groupings, or by the international community in the form of the United Nations, or powers like the USA. The main areas of concern, in order of importance will be, West Asia (the Arab/Israeli stand-off), Africa, and Taiwan. The USA will strive to retain dominance but may be strongly contested by China, though the advantage will remain with the former for some years yet; however, we may see the emergence of power centres other than the USA. Overall stress will be on economic reconstruction and stability, and the improvement of the living conditions of the deprived sections of the international community. I would like to conclude by reminding you of what I feel are likely to be the factors that will affect the people, particularly those of the developing countries, namely the trans-national issues - proliferation of small arms, terrorism and international crime, in the form of drug trafficking; the earlier we replace symbolism and rhetoric on these aspects with concrete measures, the better we would serve succeeding generations.

Cycles of War and Information Age Warfare

MAJ GEN ROBERT H SCALES, Jr

The nature of warfare, like other forms of collective, complex human behaviour, changes slowly. Cycles of change in warfare are particularly difficult to comprehend and even more difficult to anticipate because, unlike endeavours in finance, medicine or law, active experience in war is, thankfully, infrequent. Because warfare cannot be practiced often, soldiers are obliged to rely on the laboratory of past experiences to gain vicarious experience in war.

THE CYCLES AND PATTERNS ARE EVIDENT

Before the advent of the industrial age, study in the laboratory of past wars served soldiers well. Cycles of change were centuries long and factors that generated change such as demographics, politics and relative power among contenders, while not necessarily predictable, were at least constant and familiar enough to give soldiers confidence that data derived from past campaign would remain relevant and useful as signposts into the future. Since the beginning of the industrial age, technological warfare—the applied science of killing—has eclipsed all other dynamics of change. For many, this magnitude and newness of science threatens the reliability of precedent as a useful mechanism for predicting the course of war.

To be sure, the frenetic pace of technological change in the modern world has served to compress the interval and stretch the amplitude of the cycles of change. Nonetheless, identifiable cycles remain. If our historical laboratory serves us, we should be able to search the recent past to identify new cycles driven prin-

Maj Gen Robert H Scales Jr is Deputy Chief of Staff for Doctrine US Army Training and Doctrine Command. In 1991, he was with the Pentagon as the Director, Desert Storm Special Study Group, and is the principal author of *Certain Victory* the official Army account of the Gulf War. *Firepower in Limited War*, a history of fire support in post-World War II conflicts, is his latest work.

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cipally by technology. Should we find a common pattern in technological cycles and if we accept the premise that technology will continue to drive future change, then we should be able to use the recent past to fix the central axis aligning those cycles and project it into the future.

Technology began to dominate patterns of change with the rise of industrial production and the appearance of precision war-making machinery like rifled weapons in the mid Nineteenth Century. The small bore repeating rifle, the machine gun quick firing field artillery extended the deadly zone, or the distance that soldiers had to cross to turn a defender out of his position, from 150 metres in Napoleon's days to a thousand metres or more by the end of the American Civil War. As the deadly zone increased by nearly a factor of ten, the risks of crossing it were further multiplied by the lethality induced through the precision and volume from the massive proliferation of repeating arms. Thus, technology favoured the defender. Images of the terrible slaughter of World War I remain as testimony to the cost in blood exacted by an operational method that relied principally on killing effect to achieve decisive results.

Before the slaughter ended, military professionals on both sides of no-man's-land sought to solve the tactical and operational dilemmas imposed by dominance of firepower on the battlefield. The tactical problem simply was to cross the killing zone alive. The operational problem was to make a successful crossing militarily decisive. Once across, a force had to reach deep, concentrate and strike to dislocate opposing force. The conceptual solution, the innovation came first to the Germans in 1918 and it was deceptively simple: short, highly intense doses of firepower to prepare the assault, small units to exploit the shock effect of firepower in order to infiltrate and bypass centres of resistance, operational formations to move through exposed points of weakness to push deep into the enemy's rear. While the Germans had the method, they lacked the means to translate theory into effective action. After the war, the development of the internal combustion engine provided the means. The graft of practical science to an innovation born in war turned the cycle of war a second

time and restored dominance to the offensive. Motorized armoured vehicles allowed soldiers to cross the deadly zone protected and at enormously greater speed. Large units could now dash great distances into the enemy's rear to strike at his brain and avoid his powerful extremities. The object of Blitzkrieg became the collapse of an enemy's will to resist. Victory was gained through psychological paralysis induced by movement rather than through butchery induced by massive application of firepower.

After World War II, the Western Powers faced another tactical and operational dilemma. The problem now was to halt a Soviet style blitzkrieg across the Northern German Plain. Tactical forces needed defensive killing power to absorb the initial Soviet armoured shock and hold their defensive position. The operational problem was to strike deep with long range firepower in order to slow the rate of arrival from follow-on armoured forces at the front line. Billions of dollars and the collective genius of a generation of brilliant minds succeeded in developing a remarkable set of technologies capable of stopping a mechanized offensive with precise, long-range killing power. Microchip technology provided the tools necessary to extend the killing zone and made targets easier to find, track and kill. Signs foretelling how the defensive's return to dominance might turn the cycles of war a third time, began to appear as early as the closing days in Vietnam. A few laser guided bombs destroyed targets that had previously required hundreds of unguided dumb bombs. In World War II an average of eighteen rounds were needed to destroy a tank at a range of 800 yards. During the 1973 Arab Israeli War the average was two rounds at 1200 yards and by Desert Storm one round at 2400 yards.

The ability to see and strike deep using ground and aerial platforms served to expand the battlefield by orders of magnitude. What was once a theatre area for a field army now became the area of operations for a division or a corps. Just as an army moving at two miles per hour could not cross a killing zone dominated by long-range, rapid-firing, rifled weapons in 1914, the precision revolution made it prohibitively expensive for an army moving at seven times that speed to cross an infinitely more

lethal space a hundred times as large. Thus, in a conflict involving two roughly equal or symmetrical forces, evidence seems to show convincingly that the advantage goes to the defender.

Today, seven years after the prospect of a Soviet blitzkrieg has crumbled with the same finality as the fall of the Berlin Wall, we seem strangely content to remain frozen in the third cycle. As the post industrial age begins to give way to the information age we still find comfort in a vision of future warfare that continues to emphasize the capacity to kill with greater and greater efficiency. Perhaps in our continued rush to embrace precision warfare we might find ourselves embracing a method of fighting that grows increasingly obsolete and more irrelevant with each passing day.

THERE IS NO SILVER BULLET

Arguments against a firepower centred approach to warfare have been with us since the earliest days of the industrial age. War is a deadly business. Yet the object of war is not to kill the enemy so much as it is to break his will to resist. No matter how efficient and precise a firepower system might be, victory is rarely defined by killing everyone on the other side. The extension of influence or control by force is more powerful and palatable than genocide through firepower. Therefore, our object in applying firepower must be to gain advantage. Unfortunately, recent experiments in the laboratory of real war substantiate the view that the paralytic effects of firepower erode quickly over time. Soldiers become inured to hardships and danger. Firepower that might break an enemy formation early in conflict eventually becomes merely a nuisance once soldiers accustom themselves to firepower's pyrotechnic drama and devise effective means to deflect, deceive, dissipate and protect themselves from firepower's killing effects.

To win quickly and decisively at low cost in the future, we must have the means to conduct the battle quickly and to end it cleanly, preferably at the moment when the paralytic effect of firepower is greatest. To delay beyond that moment only increases the killing and makes the enemy more effective by stiffening

his will to resist and by allowing him to reconstitute. Decision is best guaranteed through manoeuvre of forces on the ground. Psychological collapse, the breaking of an enemy's will to resist, comes when an opponent finds himself challenged and blocked wherever he turns. He admits defeat when further pursuit of his political objective is not worth the cost or when his centres of gravity are threatened, controlled or occupied and he has no remaining options for restoring them.

THE BALANCE BETWEEN LETHALITY AND MANOEUVRABILITY

To avoid the horrors of protracted firepower-attrition warfare in the future, we must be sure to maintain a delicate symbiosis between the ability to kill and the ability to manoeuvre. Easier said than done if one assumes that we still dwell in the third cycle of warfare, a period that favours the defender. As we gaze into the distant future and face the prospect of a competent enemy with both the will to fight and the means to develop or purchase his own systems of precision firepower, the prospects of winning a third cycle conflict become even more sobering. Possessed with the intrinsic power of the defensive and most likely defending on familiar terrain, such a foe would not necessarily have to defeat us tactically to win the conflict. He would most probably bow to our overwhelming superiority in the air and at sea and concede both. He would not have to seek victory so much as the avoidance of defeat. He would only need to preserve his ground force in the face of superior firepower, long enough to create stalemate and cause enough casualties for the Americans to tire of the contest first. Again, an enemy possessed with a will to fight at the beginning of a conflict is likely only to grow stronger over time without direct intercession and eventual domination on the ground.

THE OFFENSIVE MUST BE RESTORED

The restoration of the offensive as the dominant form of war will come with the appearance of a fourth cycle of warfare, a cycle defined more by the new revolution in information rather than the stale remnants of the machine age. Imagine a manoeuvre

force possessing the ability to see with unprecedented clarity, to anticipate with unparalleled sureness, to accelerate the pace of movement with unequalled velocity and to maintain an unrelenting operational tempo. Such a force would be able to traverse the killing ground, however expansive and lethal, relatively untouched and decide the campaign with a violent and debilitating movement that ends quickly with minimum loss of life to all sides.

The fourth cycle of war will seek to exploit the information age in order to increase the velocity of manoeuvres. Speed must be the essential ingredient of a future landpower force. Speed will be achieved by creating a force unburdened by the logistical yoke that has long been the principal impediment to agility and speed. The secret of the dominance of the offensive in the second cycle was not to be found in the tanks, personnel carriers and self-propelled artillery of blitzkrieg armies. The secret lay, instead, in the ability of a portion of the manoeuvre force, in the case of the Wehrmacht just ten of a 117 divisions, to break free of the railhead long enough to reach deep into an enemy's rear with enough sustaining strength to collapse his psychological centre of gravity and hold it down long enough for following forces to solidify the victory.

Today the railhead has been replaced by an equally cumbersome and constrictive logistical umbilical cord. Like the Germans in 1940 we must develop the means to break a portion of our force free to achieve the same objective. The information revolution promises to give us the means. Information technologies will allow us to deposit outside the close combat zone all but those forces necessary to move, observe and kill. Detailed knowledge of the enemy's strength will free us from our traditional fixation on stockpiling and "worst casing" so that we will be able to carry with us into the close combat zone only what we need when we need it. In effect, we will know enough to know what to leave behind.

The information revolution should allow us to track the individual elements of a force with exquisite clarity and detail. But knowledge of the enemy alone is not enough. We must possess the means to act on what we know and action is dependent,

again, on speed. The combination of knowledge and speed of movement will allow a future battleforce to anticipate enemy movement and turn costly force on force engagements of past wars into surer and less costly engagements by choice.

The combination of knowledge and speed will allow a battleforce to maintain an unrelenting tempo. In the chess game of operational planning, superior battlefield awareness will enable us to stay four or five moves ahead of an opponent. Speed will allow battleforces to shift quickly about the battlefield to check, block and, when conditions are optimal, strike in a ratio of friendly action to enemy reaction of, again, perhaps four or five to one. Thus the object of a manoeuvre force of this type will not be to kill so much as to paralyse, to exploit the ability to maintain a constant advantage of position in order to close an enemy's options, wear him down and eventually collapse his will. Speed of manoeuvre offers the essential finishing function that balances our already prodigious ability to kill.

The imperative for speed in this new form of warfare begins at home ports, airfields and installations. A highly lethal force, shorn of its Cold War impediments, will be able to project itself from the homeland or from strategic points overseas in days rather than weeks or months and arrive in the operational theatre ready to fight. The ability to get into a theatre "firstest with the mostest" reduces risk to forces first to arrive and prevents the enemy from setting himself into an advantageous defensive position. Early arrival will change the elemental patterns of war at the theatre level. Such a campaign will allow near simultaneous rather than sequential applications of both killing power and manoeuvre. Strategic speed will allow a theatre war to take the form of a 'coup de main'. The bloody, set piece, sequential campaigns of the industrial age will give way to sharp, intense acts of strategic preemption.

A landpower force optimized to capture the benefits of the information age would take on physical characteristics distinctly different from industrial age armies. First, such a force would be able to divide itself into two functional groups : the first, essen-

tially sustaining in character, might be removed from the combat zone entirely, relying on sure communications and rapid aerial logistics to deliver the goods and services of war to the combat zone in just the proper quantities just when needed. The combat force would become the second major group. It must be compact, possessing just the people and gear necessary to sense, track, move and kill. Many essential combat functions necessary in contemporary armies would displace from the ground upward into the exosphere and space. This "space to surface continuum" between close combat force and the information structures which sustain it from above would, in fact, form the central nexus of an information age manoeuvre force. In effect, space becomes the new high ground. When all the services occupy vertically oriented battlespace, the character of multi-service missions changes from the segregated land, sea and air operations to a new approach which will be characterized by total interdependence throughout this surface to space continuum.

UNPRECEDENTED BATTLE SPACE AWARENESS

The ability to see the battlefield and to know the enemy, combined with the speed to exploit these advantages, will fundamentally change the dynamics of fire and manoeuvre. A commander able to observe enemy movement, with fine granularity would be able, with confidence, to divide his own forces into comparably fine increments and position each precisely enough to control and dominate each discrete bit of enemy combat power. The ability to employ many small units at once would allow a commander to cover a large operational area with discrete combat elements. A sports analogy is particularly descriptive: a basketball team with superior speed, agility and understanding of the opposition would be more effective playing man-to-man rather than zone.

A commander with the dual advantage of speed and killing power will dominate the battlefield. Superior killing power allows incapacitation of an enemy force, a necessary capability, but by itself intrinsically indecisive. Superior mobility allows exploitation of the temporary advantage gained by the stunning effect of

killing power. If these two essential elements of combat power are orchestrated with skill so that they are applied in harmony, an unfettered battleforce would be able to strike multiple vital points simultaneously or in a sequence of our choosing. In a very short time, perhaps only hours, such a force would be able to inflict a rapid sequence of local tactical disasters. The cumulative effect of these closely spaced events would serve to dislocate and confuse an enemy to the point that his warfighting structures quickly disintegrate. This confusion, dislocation and disintegration will combine to produce an unequivocal military decision with minimum cost to both sides.

EXPERIMENTATION AND INNOVATION

The image of a landpower force to accomplish such deeds is purely conceptual today. But certain realities have begun to appear dimly through the veil of the future. First, at a time when American arms will most likely be called on to win an offensive campaign cheaply, the third cycle seems to tell us that the advantage goes to the defender. The offensive cannot be restored by firepower alone because firepower cannot provide the essential decisive function necessary to end a campaign quickly on our terms at minimum cost. Second, even when preceded by overwhelming doses of precision firepower, a manoeuvring force cannot hope to succeed against a determined, thinking enemy if its speed of movement cannot exceed the twenty kilometer per hour pace of a third cycle force. An information age army must move at ten times that velocity. Finally, as in past cycles, technology promises a way out of this dilemma. The information revolution will give land forces both the mental agility and matching physical speed, to restore the essential balance between firepower and manoeuvre on a future battlefield.

Henry Ford never met Heinz Guderian, the German General commonly held most responsible for exploiting Ford's invention to gain victory on the battlefield. Likewise, history will eventually produce the warrior who will capitalize on the opportunities offered by Bill Gates and the revolution most often associated with his name. The name and nationality of the warrior who someday

will proclaim himself the Guderian of the information age has yet to be recognized. But one fact is certain: the information revolution will continue to alter our world at an ever increasing pace whether we choose to engage ourselves in it or not. We cannot remain fixed on the third cycle of warfare for much longer. Already competing nations are striving to chip away at America's dominance in precision fires. Sooner or later someone will find a way to match or counter our firepower advantage. The result may well be equilibrium on the battlefield which might lead to stalemate or eventual defeat. Imperatives for innovation and change are overdue. We need to begin now to forge a new marriage between battlefield knowledge and unprecedented landpower speed. We must do no less than draw the outline for a new army whose structure is predicated on the premise that the machine age is past and the age of information has just begun.

NOTE TO CONTRIBUTORS

Articles on National Security issues for publication in the USI Journal, may be sent to the Editor in duplicate, typed in double spacing. Subjects should be covered in depth with adequate research and reference made to sources from where information has been obtained. The length of articles should be between 3,000 to 4,000 words.

Articles may not be returned unless accompanied by self-addressed and stamped envelope.

Problems of The Officer Cadre of The Army

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INTRODUCTION

Over the past few years it has been known that sufficient number of young persons, men and women, are not volunteering to join the officer cadre of the Army. On 1 January 1997, the deficiencies of officers in the officer cadres of the different 'Arms' and 'Services' of the Army were Armoured Corps 30.4 percent, Infantry 26.03 percent, Mechanised Infantry 25.3 percent, Field Artillery 32.5 percent, Air Defence Artillery 27.7 percent, Corps of Engineers 31.5 percent, Corps of Signals 29.6 percent, Army Service Corps 34.4 percent, Army Ordnance Corps 27.9 percent, Corps of Electrical and Mechanical Engineers 32.9 percent, Minor Corps 20.3 percent, Special List Cadre 36.8 per cent, Total 29.7 percent. Deficiencies in any hierarchical structure will not exist for long at the higher levels of the hierarchy since the vacancies at higher ranks will be filled up by promotions. The deficiencies show up at the ranks of Captain or subaltern in units. Such high percentages of deficiencies, in effect mean that 'Junior Leadership' is virtually non existent in units. In blunt terms, the 'Fitness for War' of most units is very questionable.

The aim of this article is to analyse the reasons for this state of affairs and suggest some measures which could improve the recruitment into the officer cadre. The article is broadly divided into the following parts :-

- (a) The streams of intake into the officer cadre of the Army.
- (b) Induction or initial training.
- (c) Possible reasons for deficiencies.

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- (d) Method to overcome the problem.
- (e) A brief comparison with the other two Defence Services.

INTAKE OR RECRUITMENT STREAMS INTO THE ARMY

The intake streams for Permanent Regular Commissioned (PRC) officers fall under three classifications :-

- (a) Boys with 10 plus 2 qualification for admission to the National Defence Academy (NDA), Karakvasla. Boys selected for the officer cadres of all the three Defence Services are admitted to this Institution and are trained together.
- (b) Technical graduates for the three 'Technical Corps', ie, Corps of Engineers, Corps of Signals and the Corps of Electrical and Mechanical Engineers.
- (c) Direct Entry, Non Technical graduates for all arms and Services.

No officer cadre can afford to fill its entire requirements by recruiting PRC officers, since this would lead to a large percentage of these being superseded at the ranks of Major, Lieutenant Colonel and Colonel (in all, about 70 percent). Supersession leads to demotivation and no army can carry such a large percentage of demotivated officers. After due analysis, it was established in 1980 that PRC officers should form only about 30 to 35 percent of the cadre strength and the balance should come from 'Supporting Cadres' like the 'Regimental Commission', 'Special List Commission' and 'Short Service Regular Commission (SSRC)²'. Since Regimental Commission and Special List Commission cadres have their limitations, the bulk of the supporting cadre has to come from the SSRC category. Recruitment into the SSRC category is made from Non Technical graduates who are taken for an initial period of engagement of five years extendable in selected cases to 10 years. As an incentive to attract suitable persons in adequate numbers, about 30 to 50 per cent of them are selected for the grant of PRC after the completion of five years of commissioned service.

Although this policy which was adopted soon after independence cannot be faulted, it had some drawbacks which became more and more evident with the passage of time. Except during the early years after independence, the technical graduate stream has not attracted persons of quality both as regards technical competence and possessing adequate 'Officer Like Qualities (OLQ)' or leadership attributes, bar a few exceptions who have and continue to reach the higher echelons of the officer cadres of the technical corps. Basically the causes for the deterioration in the standard of the intake into the Army were the expansion in job opportunities as industrialisation (both public and private sectors) progressed, the 'Brain Drain' which took away the best technical graduates to Western Countries, particularly the United States of America, and the unattractive conditions of service, viz, hard living conditions, slow promotions and low emoluments compared to people in the same age and service groups in technical appointments in other walks of life.

The Direct Entry, Non Technical type of entry, by and large, bar a few exceptions, has never been of a good standard. Over a period of time the intake consisted of people who could not make the grade elsewhere and joined the Army as a last resort.

The matriculate, now 10 plus 2, type of intake into the NDA has been of a uniformly high standard, bar a few exceptions. The higher echelons of leadership of the Army, from about the late seventies, has been provided by this intake and, without exaggeration it could be said that NDA, Karakvasla, has over the past 20 to 25 years provided the 'Hard Core' of the officer cadre of the Army. In all probability, this statement is true of the other two Defence Services also.

The foregoing summaries have to be edited by the following observations :-

- (a) Till 1962, the strength of the Army was a little over 200,000 with an officer cadre of about 9,000. The annual intake was much smaller than now and, generally, as compared with today, young men of better quality were recruited.

(b) The Army expanded from this figure of about 200,000 to 850,000 during the years 1963 to 1967. The patriotic fervour which the then political leadership was able to invoke after the 1962 debacle provided adequate motivation for young men of good quality to come forward to fill the officer cadre which had expanded from about 9000 to 37,500 as 'Emergency Commission (EC)' officers with a liability to serve for the duration of the Emergency. Because the enlarged requirements had to be met in a short time, the selection standards had to be reduced and many mediocrities were also recruited. The release of EC officers commenced about 1972 or so and unfortunately, the best of them left the Army and joined the All India Services and the Army was left with a large number of mediocrities. Many of them even obtained PRCs but spent long periods of their service as superseded Majors or Lieutenant Colonels. This came to be called the 1963 - 1967 'Bulge'. These officers remained in service till the early to mid nineties.

(c) The performance of the Army during the 1971 conflict could be attributed partly to the youthful profile of 'Junior Leaders' that were then available (on an average about 24 to 25 years of age) and partly to the fact that most of the high quality EC officers had not been released.

(d) After 1972, the growth of the Army has been gradual and recruitment into the officer cadre has not posed any problems till about the mid eighties, although the decline in the quality of volunteers was quite discernible.

The trend since mid eighties resulting in the appalling shortages as on 1 January 1997 has been :-

(a) Severe decline in the numbers of even volunteers of inadequate quality into the Technical graduate and Non Technical graduate streams of the PRC cadre.

(b) Initially, a gradual decline in the quality of 10 plus 2 entrants into the NDA. It has been recently reported that

required number of volunteers of acceptable standards are not forthcoming.

Volunteers for SSRC have followed the pattern as mentioned about the Non Technical stream of intake into the PRC cadre. Over the past few years this has almost completely dried up and the Officers Training Academy (OTA), Madras, where the SSRC intake is trained, is virtually in a state of suspended animation.

INITIAL OR INDUCTION TRAINING PATTERN

The existing system of training is next considered. This system was evolved in the late forties and is still in vogue after a period of nearly 50 years. Intakes into NDA, Karakvasla, undergo training for a period of three years, the content being mostly education to bring them upto the level of a graduate in basic physical sciences (BSc) or of a graduate in arts and humanities (BA). After going through the necessary examinations, they are awarded these degrees by Jawaharlal Nehru University, New Delhi. Cadets are not paid any stipend during this training. This education - cum - military training is followed by pre-commission military training of duration one year at the Indian Military Academy (IMA), Dehra Dun, in the case of the Army, the pre-commission Naval establishment for differing durations in the case of the Navy and the Air Force Academy near Hyderabad in the case of the Air Force. The theoretical part of this pre-commission training in the case of both the Navy and the Air Force is more technology and science oriented, since it includes the principles and operation of high technology modern weapons and weapon platforms. During this period of pre-commission training, cadets of all the three Defence Services are paid a stipend which has varied in value from time to time based on the recommendations of pay commissions. At present the stipend is Rs. 2,300/- only, paid during the last six months of this training.

Although not part of pre-commission training, it is considered necessary to mention the post-commission training of officers

going into the technical corps of the Army. In the late forties when major policy decisions were taken on these matters, it was recognised that every officer joining these three corps should be trained to the level of graduates in the branch or branches of Engineering relevant to these three corps. The period of this training was and continues to be three years. These courses commence every year for a batch which was commissioned three or four years or so earlier. The institutions conducting these courses have three courses running concurrently. Units, therefore, do not have three years worth of young officers available to them at any one time. The shortage of young officers used to be felt even when the overall strength of officers in units was at about 90 to 100 percent of authorisations. The officer problems of these units, at present, which are already short of about 30 percent of officers in the ranks of captain and subaltern, because of this additional commitment, hardly needs any elaboration.

In the late sixties, with the advancements in the technology of military equipment, the technical corps felt the need for a few selected officers qualified above the level of graduate engineers to meet the requirement of good, high grade instructors in their training establishments, for writing practicable Qualitative Requirements (QRs) for new and futuristic equipment to be designed and manufactured in the country, producing exhaustive Questionnaires for Technical Trials and Evaluation and User Trials and such like assignments where a high level of technical competence would be required. A few officers from these corps, based on their aptitude, capability and performance are sent for obtaining Master's Degrees in Technology (M Tech) in specialisations relevant to the requirements of their respective corps, to Indian Institutes of Technology or to universities and other technical institutions abroad.

The Technical and Non Technical graduate streams enter IMA, Dehra Dun, directly and undergo pre-commission training for a period of one and a half years. They also get the same stipend as NDA entrants during the last six months of this training. Non technical graduates joining the technical corps, if any, are also eligible for going on engineering degree courses. Technical grad-

uate entrants into the technical corps are also eligible for selection for M Tech courses.

Conceptually, the existing policies and systems cannot be faulted and yet the Army has been unable to attract persons of quality in sufficient numbers to meet the minimum requirements. The possible reasons for this will next be examined.

POSSIBLE REASONS FOR DEFICIENCIES

Pay, promotions, prestige and service conditions are important features that make a service attractive. In spite of the best efforts of the Chiefs of Staff of the three Defence Services and their respective headquarters over a period of nearly 50 years, neither pay commissions nor the Government have paid much attention to what the Defence Services have said and are continuing to say about the need to attract reasonably good talent into their officer cadres in the overall interest of National Security. No attempt has been made by these agencies to provide the officers of the Defence Services the same pay for the same length of service in comparison with the Indian Administrative or any other Service, as a basic necessity in pay structuring. Adequate compensation is not provided for hard living conditions, frequent movement all over India, living away from families and risk to life and limb not only during wars which are infrequent but also during counter insurgency operations which are endemic. Most armies of the world build this element into the emolument structure or provide it as Military Service Pay or 'X Factor Compensation'. It is generally observed that Chairmen and non-bureaucrat members of pay commissions are sympathetic to the Defence Services when they visit and see the conditions in units serving in frontier and other field areas. However, they seem to forget these observations when making recommendations to the Government, perhaps under the overwhelming influence of members who are either serving or former bureaucrats. A vast majority of political leaders have no idea of the Defence Services, except perhaps the fact that they take part in Republic Day Parades. Hence, it has been a case of 'Remembering God and the Defence Services only when facing trouble'. When a reference is

made to prestige, the Defence Services do not mean that a man in uniform should be put on a pedestal and worshipped at all times, something which cannot and should not happen in a democracy. All that the Defence Services ask for is that officers of the public services and public utilities extend some courtesy when they go to see them or write to them. Another visible aspect which particularly affects the Army is having the same badges of rank as the police and para-military forces and officers with vast disparities in the period of service rendered wear the same badges of rank. These are aspects which have been requiring correction for nearly 50 years but the political leadership is not interested in doing anything positive.

Thus, the Defence Services have no control over the emoluments aspects. They have very little say in service conditions which generally are influenced by poor political and administrative management. However, the Defence Services, do have control over promotions. Unfortunately over a period of time the Army has so mismanaged its officer cadre that officers are assuming command of units at the ages of 45 to 47, whereas they should be doing so when they are about 8 to 10 years younger. Since promotions to higher level require a minimum specified service at the immediate lower rank, all promotions above the rank of colonel are delayed. This has two adverse effects; firstly, officers promoted to these levels are past their prime for assignments in these ranks; secondly, some who deserved to make it to the next rank have to superannuate because the delay in promotion has brought them to the retirement age before promotion. Therefore, the Army cannot absolve itself totally from the responsibility for making its officer cadre unattractive to potential entrants.

It is very doubtful whether in present day India, 'patriotism' and 'Glamour and Glory of the Service' play any great part in attracting good quality youth or even mediocre youth to join the officer cadre of the Army. Although outside the scope of this article, it is worthwhile mentioning and pondering over whether the current political leadership would be able to enthuse youth to join the Defence Services even in an emergency situation like the one which emerged after the disastrous 1962 conflict.

Summing up this rather dismal part of this article, the highlights are :-

(a) A sensible and equitable scale of emoluments for the Defence Services have not been evolved by five successive pay commissions over half a century. Informed and dynamic political leadership to over-ride bureaucratic obstruction to give the Defence Services their due does not exist.

(b) Measures to improve the image of the Defence Services in general, and the Army in particular, are not likely to emerge in a hurry because of deeply entrenched vested interests.

(c) 'Patriotism' 'Glamour' and 'Glory' are no longer operative factors.

(d) Political Management may improve mitigating the rigours of service conditions.

(e) Promotion prospects may improve gradually with better cadre management.

With all these handicaps, is there any other means left to attract youth of reasonable quality to join the officer cadre of the Army?

METHOD TO OVERCOME THE PROBLEM

It is hoped that it has been reasonably well established in the foregoing parts of this article that of the three streams of intake into the PRC officer cadre of the Army, the only one that has been and continues to be effective is the 10 plus 2 entry through NDA, Karakvasla, followed by one year at the IMA, Dehra Dun, notwithstanding the recent reports that the quality of this intake has also deteriorated over the last few years and the latest trend is inadequacy of volunteers of an acceptable standard. The first suggestion to improve matters is to drop the Technical and Non Technical graduate intake streams and have only the 10 plus 2 type of entrants. Perhaps this is radical, but is justifiable.²³

The measures necessary to ensure qualitative and quantitative improvement of this intake is based on the hypothesis that no young man wishing to enter a good profession in the current environment opts for a BSc or BA degree unless his ability and performance in the 10 plus 2 examination have not been good enough to enter the engineering or medical profession. Some young men of high merit do, of course, join these degree courses with a view to join the All India Services, the legal profession or get into the business management sphere after obtaining the necessary Master's degree. Therefore, keeping in mind the rapid development of technology by leaps and bounds and the impact of these developments in the military sphere, should the education of NDA entrants continue to be oriented towards the attainment of a BSc or BA degree? The time has come to change the curriculum to educate these entrants to acquire a BE or BTech degree in a discipline relevant to his (or her) future employment. To cater to the requirements of 10 plus 2 entrants with arts and humanities backgrounds, a Bachelor degree in Business Administration could also be introduced. The pattern of education which has been in vogue at West Point, the Naval Academy at Annapolis and the Air Force Training College at Colorado Springs, all in the United States of America are worth introduction at NDA, Karakvasla. To answer a few queries that have been raised when discussing this proposal, does it harm a young man destined for service in a non-technical arm or service if he acquires a degree in engineering or technology? A person can only assess whether any knowledge that he has acquired during his life time only when he is on his death bed. A high level of knowledge in technology would help an officer to understand and handle sophisticated weapons and equipment better. It also gives him the foundation for a second career, if every necessary. Would it be possible to educate a person to this level in three years, whereas engineering colleges and institutes of technology take four years? Training courses conducted in military institutions are better organised and better managed than those conducted in civilian institutions. Civilian institutions work for 40 weeks in a year giving a total availability of 160 weeks for the course. NDA training could be increased to three and a half years with 46 weeks per year; a break of four weeks would be provided between two semesters

and mid semester breaks of one week each would be catered for. This would provide a total availability of 161 weeks during the course. Of these, four weeks would have to be added to the break between the sixth and seventh semester to provide for an attachment to an industrial establishment for practical experience, leaving 157 weeks for the syllabus including examination time. What is covered in 160 weeks by a civilian institution could easily be covered by a military institution in 157 weeks.³ What makes you feel that this change would attract better quality youth in larger numbers? The very best youth very seldom have opted for defence service careers nor will they now come in unless family financial circumstances necessitate this, since education in engineering and technology is very expensive. But below these 'Toppers' there are a large number of above average standard youth who are denied entry into engineering colleges because of the reservation policy of the Government and also the high cost of technical education, as mentioned earlier, which shuts out good youth from middle class families.

As for the technical corps, they would be receiving qualified engineers at the scale of 100 percent of their requirements (hopefully, after a period of time). These officers would be available in units all the time since the need to drain out three years worth of young officers to do degree engineering courses would no longer exist. It is likely that these corps would resist these proposals, whatever their merit, since the 'Empires' that have come into existence as the Military College of Engineering, Kirkee, the Military college of Telecommunication Engineering, Mhow and the Military College of Electrical and Mechanical Engineering, Secunderabad would have to be dismantled.

Some other refinements to the proposal are :-

(a) Cadets joining the NDA, Karakvasla should be given a stipend at the rate of half the stipend paid to cadets at the IMA, Dehra Dun. Stipends at both these institutions should be paid during their entire stay there.

(b) Arrangements should be made for the attachment of

engineers (all arms and services) for a period of three months every alternate year to industrial establishments to keep in touch with their secondary professions of engineering, establish their credibility in the industrial world and possibly, pave the way for a second career, if the need were to arise. The same should be done for graduates in business administration to work in business houses.

(c) Built in 'Exit' facilities - after 15 years of service with a reasonably good gratuity; after 20 years of service with a pension proportionate to the length of service.

(d) Selection for a Master's Degree in Engineering, Technology or Business Administration should be based on a competitive basis with a service liability of 10 years after completion of the course.

Continuity in a career from joining to retirement is an attraction towards a job in any walk of life. Unfortunately the cadre structure of Defence Services officers is such that this cannot be provided to more than 30 to 35 percent of the entrants, ie, the PRC officers. A large proportion of the balance have to be SSRC officers. SSRC, as originally conceived, is no longer operative. The only possibility of reviving it appears to be in inviting 10 plus 2 qualified youth to join the Army and serve for 10 years as an officer in exchange for quality education in Engineering or Business Administration. Their recruitment, training, employment and all other aspects will be the same as described for NDA, Karakvasla entrants. This means that 'The OTA, Madras', would have to be re-organised to become a combination of NDA, Karakvasla and IMA, Dehra Dun. Other alternatives are also possible.

There is a strong case for reducing the size of the officer cadre. Civilianisation of static establishments and units should be considered keeping military personnel at all ranks to the barest minimum to meet the requirements of compassionate cases and low medical category personnel. The civilian personnel in these establishments should be members of the Territorial Army to ensure rapid mobilisation in an emergency.

Finally, no attempt should be made to take up the deficiencies in a hurry as otherwise a 'Bulge' like the one of the 1963-1967 era would result with severe disadvantages. Induction should be gradual and based on 'Flow Charts'.

COMPARISON WITH THE OTHER TWO DEFENCE SERVICES

The problems of the officer cadres of the Navy and the Air Force are not so alarming as those of the Army. However it is necessary to note them and apply or think of applying corrective measures before the problem gets out of hand as has been the case of the Army. As on 1 January 1997, the deficiencies in the officer cadre of the Navy were 5.68 percent; the deficiencies in the officer cadre of the Air Force were 7.47 percent. Officers in these two services are all of the PRC variety and most of them were commissioned through NDA, Karakvasla and their individual service academies. The exceptions to these are officers belonging to the Technical (Engineering) and Administrative cadres which are filled by Direct Entry, Technical and Non Technical graduates. Any changes to the training pattern at NDA, Karakvasla will affect the Navy and the Air Force.

This proposal was first mooted at the Military College of Telecommunications, Mhow, during Jun/July 1996 at the Technical Advisory Committee meeting. Representatives of the Navy and the Air Force were also present at the address and the subsequent discussion. The representatives from the Navy welcomed the idea of NDA, Karakvasla producing Engineering Graduates for the Navy. The Air Force representatives, all of whom were from the Technical Branches, felt that it would not be necessary and in fact 'dangerous' to educate pilots to the level of Engineering Graduates. Unfortunately, they had no convincing answer to a query whether the days when pilots could be considered to be merely 'Sick and Throttle Jockies' were not long past and a good technical background and a sound knowledge of science and technology was essential to fly high performance aircraft of current and future generations. Perhaps an engineering degree like in the United States Air Force would be a sound investment in human resources and also

give pilots a strong foothold in a second career if found necessary. The Navy and the Air Force may wish to consider these proposals and refine them further to suit their individual requirements.

CONCLUSIONS

This article essentially deals with the problems of the officer cadre of the Army, which have assumed emergency proportions. A solution which can be made to work has been suggested. It is, by no means, comprehensive and may have to be refined further by discussion. Perhaps it may be considered as a 'Default Solution' since other methods have not produced the desired results and have become defunct. To make it work, it has to be examined with an open mind, without any inhibitions.

NOTES :

1. Kind courtsey Military Secretary's Branch, Army Headquarters.
2. Hira Committee Report (1980) and the paper 'Management of the Officer Cadre of the Army' written by the author in 1983 when he was the Commandant, Defence Services Staff College.
3. Based on the experience of the author as a technical instructor and as Vice Chancellor, Kurukshetra University, which had a Regional Engineering College associated with it.

Threat to Indian Society Posed by Man-Portable Weapons and Explosives

SQN LDR ANU RANA SALUJA, SC

“We are indeed, moving into a new era that holds great opportunities but also great dangers. We have not achieved a permanent peace even as the danger of global war recedes. The potential for smaller but still highly destructive conflicts between nations and within nations is growing. We simply do not and cannot know all the challenges that will arise in the future.” This statement made by the former American President George Bush on the changing threat perception for the nation-state, after the collapse of the Soviet Union, sums up the emerging threats in this post Cold War unipolar world.¹

The South Asian region has seen the new order taking root and taking shape towards a deeply troubled and conflict-prone world which is more complicated, more volatile and less predictable than in the past. In the last 10 to 15 years, limited conflict has sapped India's administrative and military machinery. It has taken the nation's precious efforts and resources which had to be diverted towards quelling of disturbances and maintenance of law and order. Pre-meditated, clinically planned and surgically executed killings and assassinations in cold-blood have indeed left an indelible mark on the fabric of the Indian society. Whether it is the pro-Khalistan secessionist forces in Punjab, the Bodo extremists in North East (NE), the revolutionary Peoples War Group in Andhra Pradesh or the sponsored anti national elements in Kashmir, they had unlimited access to weapons and explosives of varying degree of lethality and sophistication.

Edited text of the Essay which won the First Prize in Group B of the USI Gold Medal Competition 1996.

Squadron Leader A R Saluja is serving with a fighter combat squadron of the Indian Air Force. He has written a number of articles for the USI on defence matters.

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DIMENSIONS OF THE PROBLEM

Right from 1980s when terrorism in Punjab was at its worst till as recent as August 31, 1995 when the Chief Minister of Punjab, Sardar Beant Singh was assassinated in broad daylight in a well planned terrorist operation, the voice of the gun has echoed in various parts of the country including Jammu and Kashmir, the six sister states of North East, New Delhi, Punjab and even Mumbai. The alarming number of violent incidents in J and K alone, from 1990 to 1994, bring out the extent and scale of terrorist violence, (Table 1).²

**Table 1 : Violent incidents in J and K
(1990 - 1994)**

Incident	1990	1991	1992	1993	1994	Total
No. of explosions	1522	677	757	1005	1168	5129
Incidents of cross firing	475	1126	1765	1628	1965	6859
Acts of arson	709	485	678	707	606	3185
No. of abductions	169	290	281	349	368	1457
Incidents of random firing	744	787	859	1026	1149	4565
No. of rocket firing	45	162	105	71	87	430
Civilians killed by militants	461	382	634	747	820	3044
No. of militants killed	550	844	819	1320	1596	5129
Attacks on security forces	732	1358	1934	2288	2675	8987
Security men killed	154	168	177	195	198	892
Security men injured	232	520	715	897	773	3137

In Punjab a look at the list of the prominent leaders assassinated from 1981 to 1995 (Table 2) or the 13 simultaneous bomb blasts in Mumbai on March 12, 1996 killing nearly 300 people and injuring 1000, demonstrates the reach of the terrorists, their access to and knowhow of lethal explosives and sophisticated timing and remote controlled devices.

**Table 2 : Assassinations in Punjab
(1981 - 1995)**

Date	Person	Designation/Post
Sept 1981	Lala Jagat Narain	Former Congress (I) minister, editor of <i>Hind Samachar</i> group of newspapers.
May 1984	Ramesh Chandra	Janta Dal leader, editor in <i>Hind Samachar</i> Group.
Aug 1985	Harchand S Longowal	Akali Dal President.
Jun 1990	Balwant Singh	Akali leader and former Punjab Finance Minister.
May 1991	Harbhajan S Sandhu	General Secretary of Akali Dal (Badal).
Aug 1995	Beant Singh	Chief Minister, Punjab.

The North East region has been simmering and faces fresh threats of subversion as intelligence reports indicate designs of the Bangladesh refugees rearming themselves.³

SCALE OF TERRORISM : STATE SPONSORED ARMS TRANSFER

Sponsoring separatist subversion in India has been a crucial component of Islamabad's long term military strategy since the 1970s. The training it imparted to Sikh ultras and other Indian secessionist groups was part of Zulfikar Ali Bhutto's tactics of 'forward strategic depth'. To him, Pakistan's lack of strategic depth and early warning capabilities could be compensated by sponsoring terrorism and subversion. The terrorists and the Pakistan intelligence agents among them, would be able to warn of any impending attack. In the event, the terrorists would launch a guerilla war against the Indian Army on Indian soil before it could reach the border, giving the Pak Army a definite advantage over their rivals.^{4&5}

EXPLOITATION OF THE POLITICAL CLIMATE OF BORDER STATES

As far as Punjab is concerned, in 1980s, the Shiromani Gurudwara Prabandhak Committee had established tight religious and social control over the Sikh masses, played on the fear that the Sikh identity was in danger and resulted in the demand for a separate Khalistan.

Pakistan stepped in and in the Afghan Mujahideen camps, Sikh terrorists were trained in sophisticated bomb making techniques. When the Soviets once raided an Afghan training camp in Pakistan, among those killed were a number of Sikh trainees. The Soviets also seized some incriminating documents.⁶

By the mid-1980s Inter Service Intelligence of Pakistan (ISI) had started sending instructors trained in Afghan camps to India, to organise acts of terrorism against members of Indian government and foreign missions.⁷ Innumerable reports have appeared in media declaring unflinching evidence pointing towards direct involvement of Pakistan's ISI in abetting and sponsoring terrorism in India'.

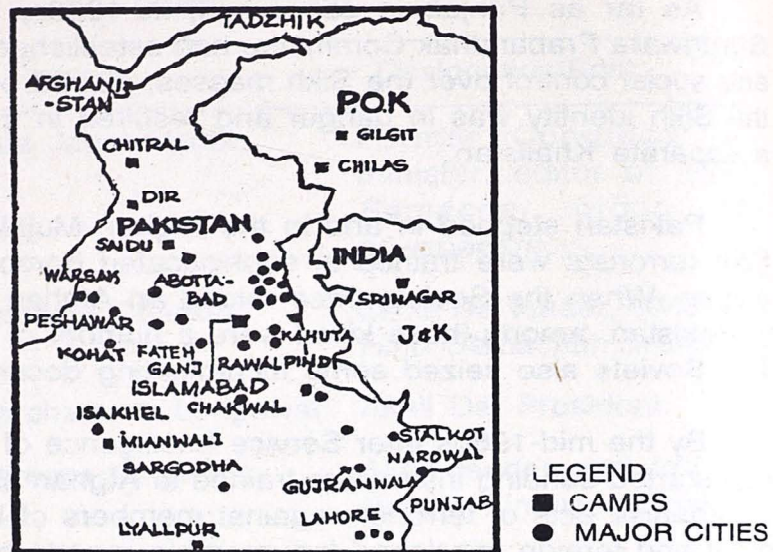
The Report of the Task Force set up by the US House Republican research committee on 'Terrorism and Unconventional Warfare' confirmed that the weapons and materials provided to the Kashmiris were identical to those provided by ISI to Afghan Mujahideens. The Report said that in 1992, ISI was operating 13 permanent, 18 temporary and eight joint training camps for Kashmiris.⁸ There are numerous training camps operating with support from Pakistan, proof regarding which has been established beyond doubt. (See Tables 3, 4 and 5 for the training camps for Kashmiri militants in Pakistan, POK and Afghanistan).

WEAPONS INFLUX

The Afghan Arms Pipeline

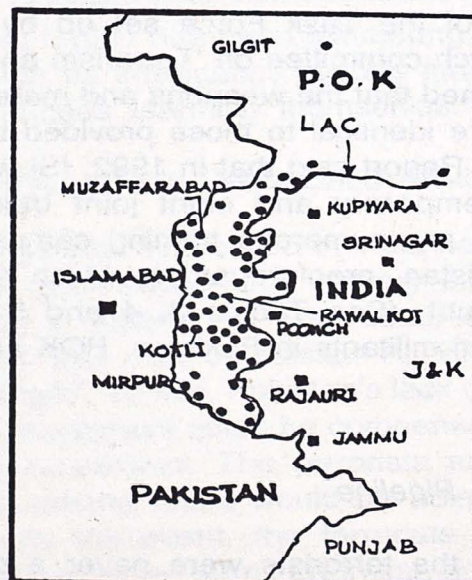
Weapons for the terrorists were never a problem, due to breaches in the 'Afghan Pipeline' that the US had created to

Table 3 : Training Camps - Pakistan



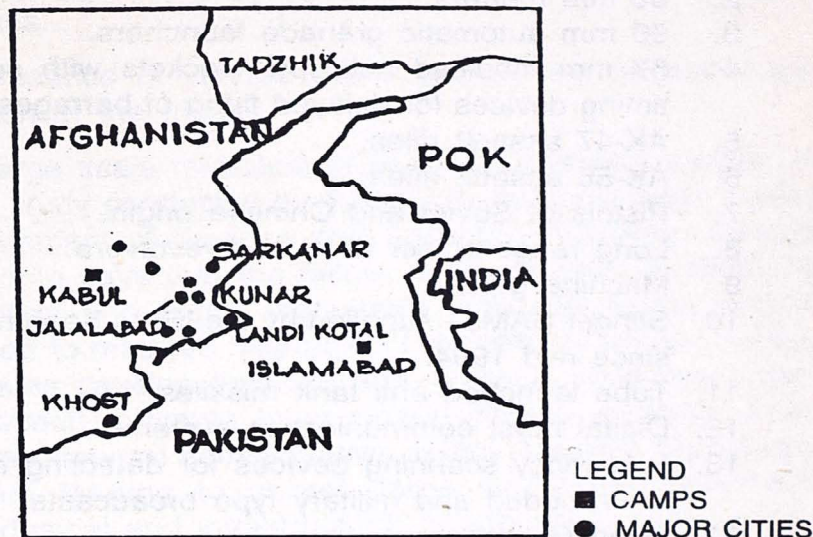
Source : The Week ■ Oct 8, 1995 p. 40

Table 4 : Training Camps - P.O.K.



Source : The Week ■ Oct 8, 1995 p. 40

Table 5 : Training Camps - Afghanistan



Source : *The Week* ■ Oct 8, 1995 p. 40

funnel in large quantities of weaponry for the Mujahideen. The US CIA procured the weapons and Pakistan's ISI served as a conduit. But with neither enforcing control on distribution, the Mujahideen had a free run encashing their weapons in the arms bazars of NWFP, for their clandestine activities. Majority of the weapons found with Punjab and Kashmir militants from the Afghan pipeline are from the stock still controlled by the ISI.⁹ The arms entering into Kashmir from Pakistan have had a major impact on the scale and severity of the conflict.

The report published by the Committee of International Security Studies of the American Academy of Arts and Sciences reveals that shipments of arms are facilitated or sent directly by ISI. It discloses that in 1983 about 10,000 tons of weapons were transferred to Afghanistan via Pakistan, it shot up to 65,000 tons in 1987.¹⁰ With the Soviet withdrawal from Afghanistan, not only have the arms bazars been flooded with these sophisticated weapons, flood gates into Kashmir, Punjab and North Eastern Indian states also have been opened. Confirmed reports and the various seizures indicate that following weapons and systems have found their way into the hands of terrorists¹¹ :-

1. 107 mm rockets.
2. 80 mm mortars.
3. 90 mm automatic grenade launchers.
4. 57 mm modified helicopter rockets with sophisticated timing devices for delayed firing of barrages of rockets.
5. AK-47 assault rifles.
6. AK-56 assault rifles.
7. Pistols of Soviet and Chinese origin.
8. Long range sniper rifles and revolvers.
9. Machine guns.
10. Stinger SAMs - supplied by the ISI to Kashmir terrorists, since mid 1994.
11. Tube launched anti tank missiles.
12. Digital burst communication systems.
13. Frequency scanning devices for detecting and homing in on coded and military type broadcasts.
14. Hand Grenades.
15. Land mines.

While the exact number of the weapons and systems are not known, the scale of the proliferation can be gauged from the number of seizures of weapons recorded in a sample period of 1990 to 1992 as under :

1. 7851 AK series rifles.
2. 8048 grenades.
3. 474 machine guns.
4. 455 rocket launchers.
5. 1625 mines.
6. 2616 pistols and revolvers.
7. 9,04,329 pieces of ammunitions.

SUPPLY OF ARMS TO THE NORTH EAST (NE) SUBVERSIVES

The North East region of the country has been simmering. It may be attributed to :

- a) The people's discontent due to feeling of neglect from the mainstream.

b) Lack of effective governance and delayed or no redressal of issues.

c) Presence of various ethnic groups and economic exploitation of the people.

d) Large scale migration of refugees from Bangladesh. A recent study conducted by the American Association for the Advancement of Science and Canada's University College of Toronto says that the failure of Bangladesh to check its population and highly inequitable land distribution system have led to massive migration of refugees to India's bordering states causing tensions and violence. Over ten million Bangladesh migrants have settled illegally in India. Apart from the general administrative apathy towards the refugee problem leading to unrest, large scale unemployment, low industrial and infrastructural growth has resulted in low economic activity despite export of tea, minerals and large reserves of oil. However, an Indian intelligence report quoted in the NE, *Sunday*, June 15-30 1996, states that India sees the migrants as a potential security risk. It indicates that illegal migrants are easy to be used for smuggling, trans-border gang warfare and information gathering for the extremist groups. Exploiting the grave economic status of these refugees, the ISI presently and China in the past were instigating and arming them to cause violent disturbances.

The influx of migrants from Bangladesh, lack of governance, poor economic progress and feeling of deprivation are among the common issues that have besotted the North East. Their different cultures, language, customs and ideologies have often ignited various movements in the region. These migrants have become a powerful political and economic force in Assam and the neighbouring states. This is a live issue even now. Following is the list of some groups active in the North East :-

Manipur :

UNLF	: United National Liberation Front.
PLA	: People's Liberation Army.

- KCP : Kangleipak Communist Party.
 PREPAK : People's Revolutionary Party of Kangleipak.
 KYKL : Kanglei Yaol Kamba Lup.
 HPC : Hmas People's Convention.
 AMSU : All Manipur Student's Union.

Nagaland :

- NSCN : National Socialist Council of Nagaland (Isaac Muivah Faction).

Assam :

- ULFA : United Liberation Front of Assam.
 AASU : All Assam Students Union.

Cachar Hills :

- CHPF : Cachar Hills People Federation.

Meghalaya :

- HALC : Hill Area Legislative Council.

Mizoram :

- MZP : Mizo Zairlei Pawl (Mizo Students Union).
 Chakmas

Tripura :

- ATTF : All Tripura Tiger Force.
 TUJS : Tripura Upjati Juba Samity.
 ATBVF : All Tripura Bengal Volunteers Force.
 NLFT : National Liberation Front of Tripura.
 TNV : Tripura National Volunteers.

Amra Bengali :

A regional outfit of Bangladeshi refugees.

The religious, ethnic and historical perspectives of the people living in sensitive border towns make them vulnerable to

divisive forces which have been fanning their ideology and arming them to the teeth.

Though Pakistan has been supplying arms and weapons through the porous Indo-Bangladesh border since long, the recent reports of the Army Intelligence reveal that Pakistan's ISI is choosing muslim fundamentalists among Bangladeshi refugees to disrupt the civil administration in the region particularly in the state of Assam. ISI in recent past is believed to have sent a large number of huge arms consignments to the region. These are mainly for the Nationalist Socialist Council of Nagaland (Issac Muivah faction) while some of them intercepted by the Army in April-May 1995 belonged to United Liberation Front of Assam and Manipur's Peoples Liberation Army (PLA). It can be recalled that Bangladesh Navy intercepted a ship carrying large number of weapons belonging to NSCN (IM) on 29 March 1995 off Cox Bazaar coast and seized weapons ranging from AK assault rifles to rocket launchers.

THE ROUTE FOR ARMS MOVEMENT IN THE NE

Supply of arms to Indian insurgents in Bangladesh is mostly controlled by Jamait-i-Islami, an Islamic Muslim fundamentalist political party. The weapons bought by the insurgents from the Jamait-i-Islami originate mostly from Iran and some from South East Asian countries like Thailand. However, these are not brought by Iranian ships or nationals. Private ships are used to carry the arms to Cox Bazar in Bangladesh or at Takraf located south of Cox Bazar. Further movement of arms from Bangladesh is the responsibility of the concerned outfits. Couriers for insurgents use Dawki sector as it is virtually unguarded. The river Dawki divides India and Bangladesh and one can easily cross the border. The Imphal-Dimapur-Shillong-Nongthymai-Dawki route is mostly used by couriers. NSCN couriers are known to use the old Shillong - Sylhet road to reach Dawki via Pymirsia--33 kms from the border.

USE OF NEPAL

Though Nepal is relatively a quieter region of South Asia, the indication of spill-over of the separatist elements into Nepal has

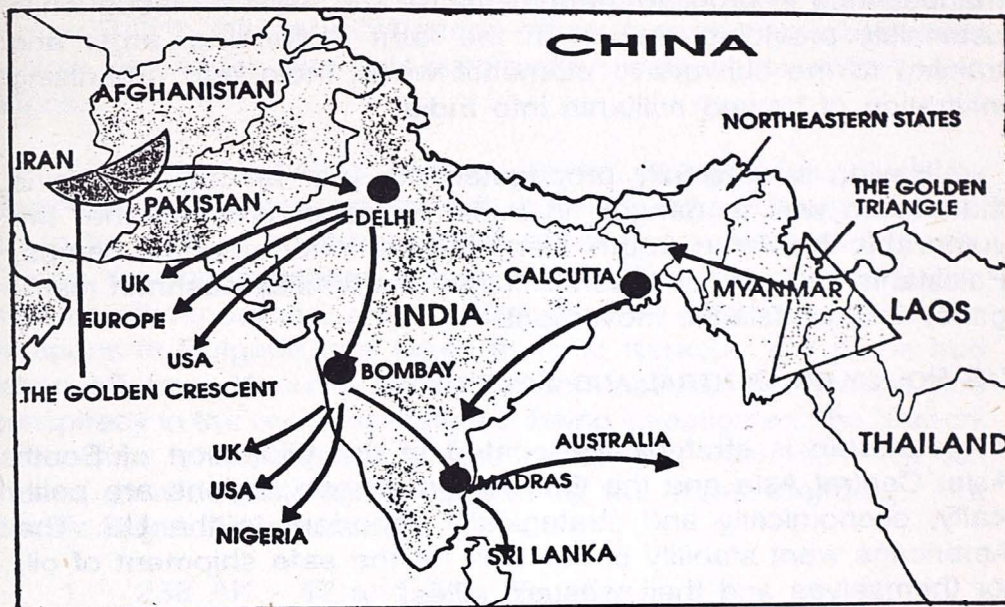
come to the fore. The porousness of the Indo - Nepal border being exploited by Pakistan for organising and supporting militancy in the states of J and K, North Eastern India and other parts of the country. In July 1996, after the arrest in Kathmandu of some Pakistani nationals engaged in arms smuggling, the Nepalese police recovered huge quantities of RDX and country made weapons, meant for Pakistan undercover agents. Through them these were to be routed to the militant groups operating in Punjab, bordering districts of Rajasthan, Mumbai and the Terai regions of UP. Pakistan has begun to sell arms and weaponry to Nepali muslims settled along the Indo - Nepal border with the aim of fanning the fundamentalist sentiments in this hitherto peaceful region. Intelligence agencies have confirmed that country made bombs and weapons were supplied to Maoist terrorist groups active in the Terai region and in Reopa, Dolpa, Gorkha and Syangza areas of Nepal.

FUNDING OF ARMS THROUGH DRUGS PROFITS

It is not possible to control the spread of arms without an effective control over drug trafficking and money laundering. The major production and trafficking complexes representing the world's most successful illegal narcotics enterprises are the Golden Crescent comprising Afghanistan, Iran and Pakistan and Golden Triangle of South East Asia comprising Cambodia, Laos, Myanmar and Vietnam. The disturbed conditions on the fringes of India in the North West and North East, which are geographically close to these narcotics areas of the world, serve as an ideal backdrop for proliferation of drugs and the arms trade. (Table 7)

Drug profits have penetrated Pakistan's highest political circles and are entrenched in the Pakistani economy. The scene is worse in Afghanistan, whose internal politics have its echoes in India. The massive poppy cultivation and trafficking are a legacy of the Afghan war when the US funnelled billions of dollars to support the Afghani militia to fight the Soviets. Most of the money and arms went into wrong hands and trafficking in drugs and weapons thrived. It was boosted further by a devastated rural economy where the only source of income was poppy cultivation.

Table 7



SOURCE : *The Week* * May 30 1993

Proximity of golden crescent and golden triangle to the sensitive states of J&K, Punjab, Rajasthan and North Eastern Indian States.

The militant outfits in Punjab, Kashmir, Assam, Andhra Pradesh, Manipur and Nagaland need enormous amounts of funds and arms to sustain their ideological whims. They are easy preys to the unscrupulous drug traffickers. The old smuggling dons have switched to narco trafficking and sale of weapons. The Mumbai blasts in March 1993 and the involvement of smugglers and terrorist groups were pointers towards the nexus between them. The subsequent escape of the Memons to Pakistan exposed the links of the terrorists with Pakistan.

HISTORICAL, RELIGIOUS AND ETHNIC INFLUENCES

Kashmir being the core issue, Pakistan has gone to war thrice against India without much success. Having tested military

strength, it embarked upon diplomatic trickery and crafty political manoeuvring in order to internationalise the Kashmir issue while ostensibly providing support in the form of funding, arms and training to the subversive elements within India and organising infiltration of trained militants into India.

Having successfully propagated the fear among Kashmiris that "Islam was in danger" in India, Pakistan ensured that the vulnerable Kashmiri youth went to the indoctrination camps, Pakistanis had set up, thus skillfully transforming Kashmiri insurgency into an Islamic movement.

US POLICY ON CENTRAL AND SOUTH ASIA

Pakistan is strategically located at the trijunction of South Asia, Central Asia and the Gulf region. These regions are politically, economically and strategically important to the US. The Americans want stability in the Gulf for the safe shipment of oil, for themselves and their western allies.

Having emasculated the Iraqi regime in the Gulf War, containment of Iran is a major US aim. Iran also needs to be tamed to further US interests in the resource rich Central Asia. The long term American strategic interest dictates reigning in of China and Russia. To achieve these objectives, the US needed a 'strategic ally' - a role which Pakistan has been eager to play¹². Pakistan's patron - client relationship with the US has weathered the storms of time. The US, in order to further its interests is ready to go to any extent, even close its eyes to Pakistan's declared nuclear programme, the acquisition of M - 11 missiles and ring magnets technology from China, Islamic fundamentalism, trans border international terrorism, the Islamic bomb and continues to pump in billions of dollars of military equipment and economic aid.

DELIVERY OF ARMS FROM THE SKY : INTERNATIONAL FACTOR

The dropping of arms and ammunition by an AN - 26 aircraft that included assault rifles, rocket launchers, anti - tank grenades, pistols and ammunition, in a score of villages in Purulia district of West Bengal on the night of Dec 17, 1995 pointed towards an

international factor in the gun running operations being conducted against the country. The crew consisted of five Latvians, a former British military intelligence officer turned arms dealer and a New Zealander who had reportedly overseen the entire operations.

While the Latvians seemed to be mercenaries, the New Zealander Kim Davy and the British Officer Blaeck were suspected to be part of an international arms and espionage network. During the investigations it was admitted by the former British military officer turned arms dealer that he had purchased the weapons in Bulgaria and taken them to Karachi. The plane had taken off from Karachi. While the International connection and conspiracy in the entire operation is being investigated, the Karachi factor has lent credence to the belief that Pakistan's ISI did indeed provide ostensible support to the arms dropping. The deadly arsenal¹³ included :-

1. 238 AK - 47 and AK - 56 rifles.
2. 10 rocket launchers.
3. 81 anti - tank grenades.
4. 61 hand grenades.
5. 19792 rounds of ammunition.
6. 3840 rounds of 9 mm pistol ammunition.
7. 09 9 mm pistols with 14 magazines.
8. 890 assault rifles.
9. 01 telescopic sight.
10. 01 detonator box.
11. Revolver holsters and canvas pouches.

EFFECT OF VIOLENCE ON INDIAN SOCIETY

PERSONAL SECURITY AND HUMAN RIGHTS OF THE PEOPLE

The massive influx of weapons and explosives in Punjab, J & K, North Eastern hilly regions and other parts of the country

has led to unprecedented violence. In Punjab where terrorism was believed to have been buried, the past again came afresh with Beant Singh's assassination in August 1995. The basic human rights for existence was under question. If one was fortunate to be spared the bullet or fragments of a bomb blast it was more luck than anything else since the terrorists were indeed targeting anybody and everybody. Freedom and human liberty have suffered at the hands of the elements of subversion. Militants in Kashmir have imposed bans on entertainment and general social life. Similar restrictions were witnessed in Punjab, while the Golden Temple was desecrated by using it as a hide out and a store house of arms.

The new generation growing in the midst of these turmoils would be the most affected. Indoctrination of the youth into the rank and file of the extremists is indeed the greatest loss to the state and the nation. The World Bank in a report on "The Wealth of Nations" has analysed 190 countries and points out that 64 per cent of the wealth of nations is human capital. It is this human capital that we are losing. The new generation could be more violent as their life has been in the surcharged atmosphere of guns and rockets with drastic reduction in educational facilities and interaction with fellow beings. This does not augur well for the Indian society in general and only a psychotherapist can say what damage has already been done.

LACK OF LAW AND ORDER AND COLLAPSE OF THE ADMINISTRATION

In fact the efforts to impose the government's will through the deployment of large number of security forces against guerillas has been counter productive to some extent. Some innocents invariably get caught up in the crossfire. A bureaucrat quoted in *The Week* dated Feb 20, 1994 by Vijaya Pushkarna in the article "Living Death" just about sums up the helplessness felt by the common man. "We have a gun in front of us, a gun behind us. Anyone with a gun is supreme in Kashmir, whether he is in uniform or not. They are exempted from all rules, laws and civility."¹⁴

ADVERSE EFFECT ON ECONOMY

Most business establishments such as the handicrafts, tourism, dry fruits and small scale industry in the affected areas, be it Srinagar, Anantnag, Doda Valley or any place north of Banihal Pass, have borne the brunt of insurgency. This near collapse of the economic activity in the state results in colossal loss of revenue to the state.

When terrorism was at its peak in Punjab, the industrial output of the state which houses the Manchester of India - Ludhiana and big industrial towns of Jalandhar and Amritsar, reduced drastically. Penetration of the militant cadres in the education system of the valley and imposition of their writ has forced certain schools and colleges.

EXCESSIVE USE OF ARMY FOR INTERNAL SECURITY DUTIES

Due to the availability of large quantities of arms and explosives, the dimension of the problem of internal security in the country has assumed dangerous proportions. Internal Security has traditionally been Army's secondary role. Although the police and para military forces have multiplied, the Army has had to be deployed extensively in Assam, Nagaland, Manipur, Punjab and J and K in the 1980's and 1990's. The frequent and prolonged use of the Army on these duties has had a detrimental effect on the civilian - soldier relationship. This has resulted in lack of confidence among the people in the police, para military forces and more significantly the entire civil administration as a whole. This can prove detrimental to the development of society. Also, where a low intensity conflict (LIC) situation involves religious or such other emotive issues, there is a danger of whipping up of anti-army frenzy among the public. This was evident in Punjab after Operation Blue Star in 1984.

When viewed in isolation, they may not cause undue alarm. However, seen as a whole, over a period of time, they have indeed left an indelible mark on the fabric of the Indian society. In all probability the ongoing proxy war in J and K and North East is going to continue till the people of these regions accept a

political solution. In these circumstances the proliferation of arms and explosives is likely to continue. Therefore, the economic, social, demographic and psychological effects of the violent movements shall continue to prevail and effect the fragile balance of the societies in these regions and the Indian psyche in general.

PROPOSED MEASURES TO COUNTER PROLIFERATION OF ARMS

Proliferation of arms, weapons and Improvised Explosive Devices (IEDs) into India has taken place with specific motives and aims viz. subversion, terrorism, separatism and so on. Remedial measures to check their use are, therefore, not isolated from the measures to defeat the motives of those perpetuating this mass proliferation. Though interrelated, the remedial measures suggested here to counter such threats are not presented as a comprehensive solution to the problem of terrorism but limited in scope towards the topic under consideration i.e. to suggest measures to counter the threat arising out of massive proliferation of man-portable weapons and explosives due to clandestine trade and arms smuggling.

SEALING THE BORDERS

It has been established beyond doubt that, it is the induction of sophisticated weapons and explosives from across the border which has given the anti-national groups the capacity to coerce and terrorise the region through insurgency. The prerequisite to break this impasse is to put a stop to illicit crossings to and from Pakistan, POK, the Indo-Bangla and Indo-Nepal borders.

In Punjab the three districts of Gurdaspur, Amritsar and Ferozepur adjoin Pakistan for a total length of 550 km. This is undoubtedly the best guarded stretch of our border. The following measures are in force to check infiltration :-

- a) During day the border is under surveillance through watch towers.

- b) At night there is intense patrolling and 'nakabandi'. Flood lighting of a large portion of the border has been carried out. Night vision gadgetry is used for night surveillance to defeat intrusions.
- c) All movement is forbidden within 500 metres of the border at night.
- d) Even during the day, only persons who are screened can go to work in the fields close to the border.
- e) BSF is closely backed by the Army and entry to border areas across the defence perimeter is controlled at limited points of access.

However, well organised arms and drugs smuggling operations with the connivance of local political bosses and officials still continue to augment the supply of sophisticated weaponry and illicit drugs. In order to check this traffic across the Punjab border, the main financiers and marketeers who are known to be operating from Delhi and Bombay have to be exposed and brought to book. This is possible only if corruption and collusion is eliminated.

In J and K, the international border through the sub-mountainous regions of Kathua and Jammu from where the border is denoted by the Line of Control, facing Pak-held areas of J and K, the terrain gets more rugged and mountaineous. The measures in force for security of the border are as under.

- a) A belt of 20 km or so along the border and Line of Control has been notified as a protected area under the J and K Public Safety Act. No outsider can go into this belt without permission.
- b) Foreigners can be permitted only by the Government of India.
- c) All adult males residing in the belt have to carry identity cards with their photographs.

- d) The passes and gullies into the Valley are guarded by BSF pickets.
- e) The security forces are vested with adequate powers of search, seizure and arrest in this belt.

The measures already in force towards sealing of the border in J and K are at best a deterrent to the infiltrator, since such a terrain cannot be made impenetrable and an odd person may sneak through. However, it must be ensured that these measures are effectively employed with security forces being trained especially in counter insurgency operations and equipped with anti terrorist equipment. In the overall approach greater mobility and flexibility is desirable. The static bunkers and pickets in towns are likely to become obvious targets for militant action. These must give way to mobile patrols and reserves which respond swiftly. While security forces guard the border, vital installations, communications and so on, the visible presence in the towns must be of the local police who is more likely to be operating with some support from the populace, a factor critical to the success of counter insurgency operations.

The major contributory cause of ferment in the North East (NE) has been the influx of refugees and infiltrators bringing in arms and weapons through the Indo-Bangla and Burma borders. The sensitive points have already been identified by the various intelligence reports.¹⁵ The BSF has started fencing and flood lighting the NE border. They have also put check-posts, along the border, on alert following intelligence reports of increased targetting of Bangladeshi Muslims as 'potential' fundamentalists by the ISI. The measures adopted in Punjab more or less apply to the NE region too. Over and above securing the international borders, the vigil over the Bay of Bengal and the Arabian Sea needs to be stepped up in order to deny the infiltrators use of the sea route to dump arms in the region. In mid 1993 there were various reports of huge consignments of RDX and other explosives being brought into the country through the sparsely guarded coastline of Gujarat and Maharashtra. To counter this, the employment of agencies like the Coast Guard, Customs and the Indian Navy must be closely coordinated so as to ensure that maximum area

is brought under surveillance. An effective control and reporting organisation must be set up to enable the local operatives and local populace to provide timely tip off on arms smuggling activity or likely infiltrations.

The almost non existent police force in the North East must be brought into its own and made to take charge of the law and order situation in the urban areas and villages while the BSF supported by the Army and para military forces can concentrate on fencing, floodlighting the border and carrying out effective policing of the border to check the infiltration of arms and weaponry into the country.

INTELLIGENCE

The importance of good intelligence in seizure of arms and prevention of proliferation of arms and weapons through clandestine trade and smuggling cannot be over emphasised. An infiltrator or smuggler is often an invisible enemy and to track down such an adversary, good intelligence is of essence. Today the arms and drugs smugglers are backed by syndicates and powerful drug lords and influential power brokers. It, therefore, becomes absolutely essential that their organisation be penetrated if possible or else adequate intelligence be gathered and disseminated in real time so that swift and timely response may materialise. The IB is responsible for domestic intelligence, including computer espionage operations under the Ministry of Home Affairs. It has offices in every state and liaises with the state's CID and other special branches. The other agencies contributing to the intelligence picture are :-

1. Research and Analysis Wing.
2. Military Intelligence.
3. Enforcement Directorate.
4. Customs Intelligence.
5. Revenue Intelligence.
6. Intelligence departments of the Navy and the Air Force.

7. Intelligence departments of para - military forces like CRPF, BSF, ITBP and so on.

At present horizontal and vertical dissemination of information does not take place. Since an effective intelligence machinery takes a long time to evolve, the Government needs to dedicate effort and sufficient resources to make experts available with appropriate equipment at their disposal at the earliest. The whole organisation needs to be rewamped, depoliticised and simplified. A simple and cost effective method that will ensure a fluid exchange of intelligence information is to network all the agencies and end users of intelligence on computers. Due care will have to be taken to ensure information security. Penetration of the terrorist's and arms smuggler's organisation and planting of one's own agents as moles must be given priority in order to gain an insight into the thought processes of the terrorists and expose their sanctuaries.

A data bank needs to be built up which must contain intelligence in the fields of forensics, weapons, explosive devices, timing mechanisms, personnel and vehicles. This tool of information technology has been effectively employed by the German Bundes - Kriminal - Amt (BKA) the federal criminal office. They amassed ten million pages of data on wanted terrorists, their habits and associates and used the information to track down individual terrorists using special anti-terrorist 'target teams'.¹⁶ Highly developed forensic intelligence, on weapons and IEDs is maintained in data banks.

Use of Satellite Intelligence, SIGINT (Signals Intelligence), ELINT (Electronic Intelligence) and IR (Infra-Red) photography must be made to build up a comprehensive picture, identify strongholds, camps and so on. Use of sophisticated electronic spy gadgetry viz. listening and tracking devices etc. must be effectively dovetailed into the total intelligence gathering machinery. In 'Operation Clam' in Spain in 1985 involving French Overseas Intelligence Service and American CIA, electronic bugs were introduced into terrorist cars and weapons. These were subsequently tracked to a huge underground arsenal near the Spanish border.

INCREASING POLICE EFFECTIVENESS

This was amply proved by KPS Gill's Commando police groups in which he pitted Jat Sikhs of the Punjab Police against the Jat Sikh terrorists.

The police force today needs to be modernised. They should be given the appropriate modern equipment which must be handy and user friendly. While it is the police which has to look after the routine law and order, it is the same police which must rise to the occasion when the requirement is to nip a revolt in its bud. It does not behove a police man to wield a 303 rifle when pitted against a terrorist and criminal, armed with an AK-47 and other sophisticated weaponry. Correct functioning at the local police station level must be made the core of the correctional thrust. The ratio between the number of police personnel and the population needs to be fixed at practical levels. While provision of additional police stations and the manning of existing ones need immediate attention, adequate checks and balances must be introduced to ensure the efficiency of the force at all levels.

TARGETING ARMS SUPPLY AND TRAINING CAMPS IN POK AND PAKISTAN

Our country has had some irrefutable evidence of at least a hundred different camps in POK and Pakistan which are supplying arms and explosives to subversive elements and providing training to the youth from our country. There are agencies which are recruiting foreign mercenaries, arming them, providing detailed briefings about specific subversive activities and sending them into India through a well developed network of access points and safe havens. When in India, terrorists receive full support of the India based counterparts of their organisation.

The suspected mastermind of the 1993 World Trade Centre bombing in New York was caught by US officials from the safe sanctuary in Islamabad in February 1996. In Feb 1995, during Benazir's state visit to his country, Phillipines President Fidel Ramos protested that Pakistanis were fighting alongside muslim

terrorists against his government. Russia has charged Pakistan with aiding the separatist battle in Chechnya. Even Arab governments in Egypt and Jordan have complained that Pakistanis were involved in extremist movements in their countries.

A concerted effort by the Government towards mobilising diplomatic initiatives the world over, in order to expose the extensive support being provided to the insurgency and the funnelling in of large quantities of arms and lethal explosives into India, must be undertaken. Feasibility of targetting the accessible camp locations with planned special commando type operations and sabotage and even punitive action in terms of air strikes must be studied. The Government of Pakistan must be confronted with the evidence and warned to abstain from fomenting violence in India. Should this initiative not elicit the desired response, the option of punitive strikes and special operations must be exercised.

CHECKING THE SPREAD OF ARMS PROLIFERATION TO HITHERTO SAFE REGIONS

The ISI is known to be expanding its operations in India to include newer areas with large sections of muslim population, evoking religious sentiments in the name of 'jehad'. Since 1992 when a couple of ISI agents were caught from UP, interrogations revealed a strong ISI network in Western UP. A number of people were arrested and a huge cache of arms and ammunition was recovered from Saharanpur, Meerut, Muzaffarnagar and Haridwar district of West UP. An ISI agent who planned to bomb several important places in West UP was arrested at Attari railway station in Punjab. Following these arrests and seizures, special anti - ISI cells have been opened in Western UP in Muzzafarnagar, Saharanpur and Ghaziabad. By analysing the past trend and collating intelligence, such soft spots must be identified and more of such anti - ISI cells be opened up. The importance of intelligence gathering, horizontal and vertical exchange and speedy dissemination assume great significance in such efforts. Greater coordination and removal of administrative hiccups between the police forces of different states will ensure that no militant and

criminal who is being tracked in 'hot pursuit' can get away due to self created administrative and bureaucratic obstacles.

COUNTER INSURGENCY TRAINING

Unfettered proliferation of arms, weapons and explosives and increasing sophistication of means and methods of inflicting terror has increased the premium on specialised training. To fight this man, the security forces, police and even the administrative officials need to undergo specialised training in handling LIC situations.

The 26 year old Counter Insurgency School of the Indian Army at Vairangli in Mizoram has established another wing in Jammu where Army units moving into J and K are imparted pre - induction training. At present this specialised training is mainly imparted to Army personnel with token representation from the police, para military forces and the Navy. It is recommended that the rank and file of para-military forces and police of sensitive states be given dedicated counter insurgency training at such schools. Either the sphere of influence of existing schools be increased or new training centres with expert instructors be set up.

CONCLUSION

Having identified the problem and realising the implications of inaction, a concerted effort on part of the Government with a clear political aim is required. Mere setting up of a committee to look into the issue and forwarding recommendations shall yield nothing till it is backed by a cohesive team of motivated personnel, appropriately equipped, backed by experts, who would implement government policy and take the steps initiated to their logical conclusion.

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Managing the Sky with Safety

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Breast beating comes naturally to mankind whenever a tragedy strikes (expectedly or unexpectedly). Accidents and tragedies become a part of life particularly when we challenge nature or provoke its fury. No two accidents are alike, yet the reactions are almost identical. Since accidents are least expected, coping with their aftermath becomes laconic and distressing. The survivors of the victims undergo unmanageable trauma. The accusing fingers become spring loaded and all functionaries try to run for cover (up) to keep their tails clear. The emphasis shifts from finding out the cause of the accident to culpability and blame worthiness, which is certainly detrimental to the interest of aviation and flight safety. The technological advances, the design defects, the operating limitations always come under close scrutiny leading to further refinement of design, manufacture, operating procedures and maintenance practices.

Aviation has its inherent complexities all over the world. Developed, developing and under-developed countries are all beset with the problems of expanding air travel, congested aircraft manoeuvring areas, the human factors like the level of expertise and understanding or their work culture, economic viability, market forces and profitability, industrial back-ups and security environment. Moreover, the machines are as good as the men behind them. The advanced aids can prove to be hindrances if not interpreted properly and used diligently. Automation has its own limitations and cannot replace man entirely. Human ignorance can always override the artificial intelligence of automation. Automation does help the man but can induce complacency as well. The fail-safe designs can enthuse the humans to a false sense of safety and inaction.

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Dead persons tell no tales. The investigators cannot recreate the accident situations exactly. They have to go by only tell-tale evidence of various hues from wreckage, survivors, eye-witnesses, the systems managers cum manipulators, personal experience and expertise, vested interests and lobbies, organisational loyalties and national interests. Their task is further compounded by 'flighty releases' and media pronouncements. Just to illustrate, take the case of mid-air collision of 12 November, 1996. Even 48 hours after the occurrence, the editorials in leading dailies mentioned type of aircraft involved as TU-154 instead of IL-76. The so-called controllers, directors or the law makers and enforcers try to pre-judge the issue or 'jump the gun' in a bid to give a subtle twist from the main issue, thereby deflecting the attention without ever admitting their own role in 'incubating' a hazardous situation into a full grown tragedy.

In the recorded history of aviation's major disasters such as mid-air collisions, explosions, collisions on the ground, crashes due to mechanical or structural failure, design defects and navigational errors have been researched, analysed and publicised to prevent their recurrence. They have occurred in spite of fully automated landing aids, highly qualified professionals in their respective disciplines, fully serviceable state of the art machines, on the biggest and the best equipped airfields.

Despite these accidents, aircraft is still the safest mode of travel. Throughout Europe, fifty thousand people get killed in road traffic accidents per year and this figure far outnumbers the total number of passengers killed in civilian aircraft accidents since air transport began 84 years back. The total number of major air accidents chronologically recorded and reached is only 145. Statistically speaking, any person can expect to fly safely for one thousand years before being involved in an air disaster. But that really means, disaster can happen anytime during those thousand years. Thus the drive to the airport may still turn out to be the most dangerous part of the journey.

In the category of human failure accidents, the most elementary causes can be ground-to-ground, ground-to-air and air-to-air

communication failure. The language, the vocabulary, the tone, the density of radio telephony natter, what is transmitted and what is received, what is intended and what is understood, what is anticipated; interpreted and implemented; the alertness and firmness of the controller using proper, familiar or standard terminology pointedly to ensure compliance. Take, for instance, the recent case of air crash involving Saudia and Kazak aircrafts. The Kazak Pilot coming in for landing is keen for an uninterrupted descent and the other is keen on uninterrupted climb to his cruising level. Hence the Saudia, when cleared to climb upto flight level 14,000 feet, knowing the reciprocal's clearance upto 15,000 feet, has transmitted approaching 'Flight level 140', with the hope of getting further clearance above 14,000 feet. The controller instead of directing him to 'maintain' 14,000 feet repeats "Clear to Flight level 140". Even if Saudia got the message and complied with it, Kazak could have mistaken the instructions to be for him and vacated flight level 15,000 feet or, Saudia could have crossed 14,000 feet by the time he got the message and mistaken Flight Level 140 as 240, disregarded repeated clearance as meant for Kazak while assuming his clearance above 14,000 feet for granted.

As far as the calibration or graduation of the instrumentation and gadgetry is concerned, different scales are used but conversion tables are also readily available. Even altimeter-at least one out of the four-is in feet. But the instrumental lag and limitations, permissible errors and crew complacency regarding exactness can add up to minimise the separation. However, such issues will be established by the judicial inquiry by pooling in other data. But under such circumstances the controller could have averted the disaster by creating lateral separation, even if the pilots confirmed the assigned flight levels and vertical separation. This is where the human ingenuity, initiative, common sense and motivation score over the proliferation of 'state-of-the-art' equipment and counter the bravado of dare-devil, over-confident or genuinely mistaken cockpit crew.

The traffic density in our country is just as much as was in the western countries about 30 years back and because of In-

dia's vastness can accommodate much higher density. Western countries with meagre air space could regulate their traffic and still do so using only single corridors. Separate entry and corridors cannot be the fail safe method of avoiding such collisions since the flights originate or terminate at the same point. Crisis-crossing generates its own problems which can be more confusing and troublesome to tackle. Leave alone two runways solving the problems created, even two separate airfields in close proximity cannot make matters easier or safer. Difficult problems have difficult solutions and nothing can replace dedication, devotion, discipline and diligence-major ingredients of any safe and successful venture: and they flow from top to bottom in any well-run organisation.

We often cry after the milk (read blood) is spilt but hate to heed history and its lessons. We often fall back on our lack of decisiveness, bureaucratic hassles, the red tape and delays, lack of accountability *et al.* Surprisingly the autonomous bodies, who are supposed to generate their own funds and have every element in-house also take refuge in the same smoke-screen as the others who actually lack resources and are the prisoners of the vicious system. Definitely an unhealthy trend we need to set right. Greater pity is that we do not even use or fully exploit what we have but condemn it and demand what we do not have. We do have some stamina in putting a cart before the horse and pushing it back somewhat. After all we know that it is only a bad workman who quarrels with his tools and polluted boardroom atmosphere that generates clumsy and quarrelsome management.

Our quality of manpower, assets, airspace, tremendous potential to meet the growing demands or quantum increase, is as good as any in the world but the authority and responsibility are not co-terminus. Authority is claimed and responsibility is dumped. Co-ordination, which is essential in a free and democratic set up often turns out to be an unending game of Ping-Pong. The political leadership, the bureaucrat, the technocrat, the jargonist, the worker in field seldom share each other's perceptions and never have a common goal. That is the reason why the

studies and reports, their diagnostic and remedial contents recorded by the experts and visionaries, panelists and commissions, generally gather dust in spite of our 'best efforts'.

Our track record in the field of flight safety is quite commendable despite our poor ratings on various scales by image-projecting mercenary agencies. But why do we attract international odium? It is due to the telescopic procedures, unplanned, obtrusive and incoherent approach to visualise and deal with disaster situation. Admittedly, pre-emptive or preventive action to avoid a disaster may not always be possible, however, our efforts in mitigating the trauma after a disaster are poorly conceived, rarely planned, invariably insufficient, ill-timed and without grace, or gratis, more so while dealing with the compensations, including the insurance sector. In both situations i.e., during the incubation period of a disaster and the post-disaster scenario, management's empathy for the supervisory apathy manifests itself, Authorities' orientation for finding faults rather than the causes invariably exhibits shallow knowledge and debased intentions.

Controlling the skies is not an ordinary job. It requires working knowledge and specific understanding of the systems, basic skills and continuous practice, cross training and periodical skill tests, precision, physical fitness to ensure tension free concentration, communication skill, assertiveness and team spirit. Above all full knowledge of the equipment, aids, facilities available and their limitations is essential. Just as an alert and assertive traffic policeman on a busy crossing can avert or reduce confusion and snarls, with or without traffic lights, by instilling a bit of discipline, likewise an active, alert and diligent controller can cause an orderly flow of traffic in the air or on the ground. Under the control of such controller, the pilots can feel the difference in the cockpit and always gain confidence in their own ability for safe flying at busy airfields, corridors or terminal areas, even during rough weather, poor visibility, heavy rain, low clouds, thunder, turbulence or fog.

The controversies about the method of using available air space should be discussed and sorted out in good time and not

raised after the disaster. Similarly, availability of three dimensional radar is not an absolute necessity. An ordinary two dimensional surveillance radar could be effectively used by ensuring two or more blips are not allowed to merge, following a simple procedure of creating lateral separation irrespective of the altitudes or levels assigned and reported. Adequacy of one thousand feet vertical separation is needlessly questioned. It is a known fact that 1000 feet separation while cruising is sufficient but not during transition or manoeuvring stages-for reasons of lags, limitations, reactions of the instruments, equipment, machines, the humans. The separation of 1000 feet can get nullified in spite of the best intentions, unknowingly and unwittingly. More so, as mentioned earlier, what about the inevitable element of misunderstanding or 'hearing what one wants to hear'.

The last moments of the flight can always be recreated quite accurately with the help of Cockpit Voice Recorder, Flight Data Recorder and audio and visual ATC tapes, by analysing the tone and tenor of transmissions and their correlation with the time frames, traffic and transmission density and flight parameters. Vagaries of vagueness apart, one profound and practical hazard to Air Traffic, which could be a nightmare of any controller has not been mentioned at all i.e. restrictions due to VVIP flights on aircraft movements and airspace. The situations at times get so grim that we, from the VVIP cockpits had to plead with the controllers to give priority to other traffic or vary airfield closure timings disregarding the standard instructions, at least for our own safety. The problem is far too complicated to be encapsulated in limited air space. Suffice it to say that traffic at all stages becomes really unmanageable and accident prone particularly when the VVIP schedules are not adhered to and get changed frequently.

Nothing could be more farcical than the statement from the head of the department that the IAF was not permitting separate bi-directional corridors or entry and exit routes. The point is who controls the National Air Space? Civil authorities or military authorities or both? The civil authority is supreme, but the co-ordination is poor. There are no common goals to harness the

national resource, talent and technology. Duplication, bifurcation and trifurcation results in avoidable waste and confusion. We fritter away valuable and usable energy in petty squabbles or hair-splitting and undesirable elements exploit the overlapping authority by hooking onto crooking. While asserting our individual supremacy we forget that collective supremacy can become an instant asset multiplier and thus enhance the national potential.

Tragedies or accidents, avoidable or unavoidable, sometimes due to sheer negligence do occur even in the most advanced bastions of technology, but the chaos, confusion and callousness are conspicuous by their absence, during the rescue, relief and investigative operations. Research and investigative operations are launched relentlessly to determine the causes in right earnest, so that humanity does not suffer a similar fate in future. They may or may not make the true findings public to protect their business or national interests, but possible remedial action will be initiated and followed up immediately.

We rarely, if ever, learn any lessons from the past. Even if we do, we won't like to share them with others. The inquiry reports which should be easily available in the book stalls, even the professionals find it difficult to locate them in their departmental libraries. Even rarer is the opportunity to conduct any research for promotion of flight safety. How many of us know, even now, who was sitting in which seat out of the three pilots killed in Sahara Boeing aircraft at Palam or what 'retro-mod' bulletin was issued by Airbus Industries pertaining to the A/320 aircraft after the crash at Bangalore, or what component of the 'system' failed which caused the IAC Boeing air crash at Imphal? In all these cases, as per the known evidence, there was no emergency. And who says that the mid-air collision is the first and worst of its own kind? Efforts must be made to enhance awareness about aviation and its complexities at all levels and in all spheres.

Impact of Information Technology A New Dimension

MAJ GEN GURBAKSH SINGH, VSM (RETD)

INTRODUCTION

From time immemorial mankind has had a fetish for warfare and it continues till today. Only the methods and means are being altered by time and technology. Technology has not only altered the way of warfare but its employment has been a key factor in establishment of military power. Use of gun power helped Babar to establish Mughal rule in India which lasted for 400 years and it enabled England to establish the largest ever world empire. Coming of industrial age led to large scale attrition wars, first tank and then aircraft dominating the battle field. World is now entering the information age and Gulf War has demonstrated how winning of the information war would give an overwhelming advantage in military balance. Therefore, in future, manipulation and winning of an information balance would become a key factor to victory and national power.

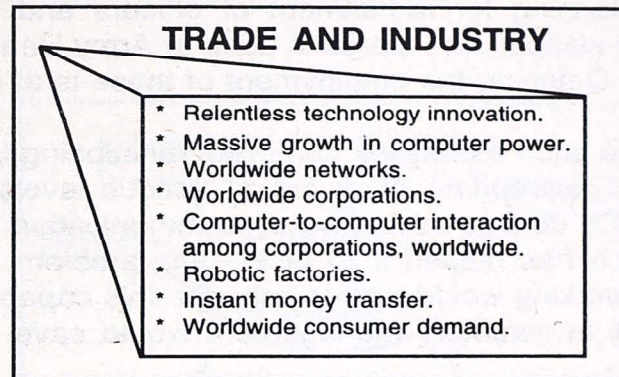
It is part of history that benefits of technology are reaped by those who have first exploited its potential and not by those who first invented it. Chinese were the first to invent the gun powder but Mughals, Britishers and other Europeans made use of its power to establish empires. It is also a historical fact that technology is generally first absorbed by business and industry and only then the armies with a vision leverage it to enhance its winning capability. Information revolution has already created a revolutionary impact on the industry and business.

Peter Druncker the doyen of management states "Today basic resources are no longer capital, labour, equipment, material and land but it is knowledge."

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It is necessary to understand that we are still in the early stages of one of history's greatest transitions, which we are witnessing. The changes that are likely to emerge in a decade's time are mind boggling and even difficult to visualize.



JAMES MARTIN

The defence forces cannot remain isolated from this change. To have a winning chance, armies of the future would also have to change from industrial age organisation to knowledge and capability based - armies by leveraging information technologies to their advantage. It is gaining information balance, its sharing followed by a synergic action, which will give an edge in a conflict. Accordingly, present organisations around weapon system would get transformed to be built around information. In fact, the US Army is already undergoing this change in a massive way to so called Force XXI (force of 21st Century). War covers a very wide spectrum of activities. Information Technology (IT) has a capability enhancing role in each of these activities.

IT AND PEACE TIME MANAGEMENT OF ARMY AS AN ENTERPRISE

We can take the example of Indian Army. It is the third largest Army in the world, consisting of more than 40,000 officers and a million men, more than 50,000 crores worth of inventory including 11,50,000 tracked and wheeled vehicles and half a million other items in the inventory. It is located throughout the length and breadth of the country and is required to fight in varied

areas, from permanent snow covered hills of Siachen Glacier to hot deserts of Rajasthan and from jungles of East to built up areas of metropolitan cities. It has a hierarchical structure consisting of six layers from lowest unit called Regiment or Battalion to Brigade, Division, Corps and Command and Army Headquarters. Whereas all planning for recruitment of officers and men and procurement of weapon and stores is done at Army Headquarters and Ministry of Defence, the employment of these is at unit level.

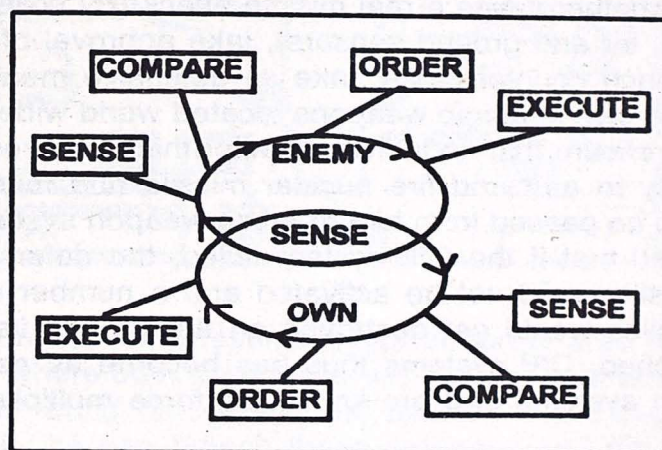
To manage such a complex corporate functioning is difficult. It is the use of appropriate hardware at various levels -- main-frame, mini, PC, connected software, communication and networking -- which has helped it to tackle this problem. In future enterprise, networking would further enhance this capability. Similarly, use of IT in inventory management would save crores of rupees.

FIGHTING A FUTURE WAR-COMMAND, CONTROL, COMMUNICATION, CO-ORDINATION, INFORMATION AND INTEROPERABLE (C⁴I²) SYSTEM.

A commander has always played a dominating role in war. In olden times the king had to be visible to lead his Army and if the king fell his army ran away, the battle was lost. With the coming of communication in the form of flags, drums and horse mounted couriers the communications gave the ruler longer warning time and helped him to control the battle from a safe distance. It also helped him keep in touch with his out-lying post and increased his span of control. Telephone and radio further enhanced this capability and made it possible to fight World War I and II on global scale. Invention of nuclear weapons and missiles have further shortened the warning period to few hours and lead to the development of automated Command, Control, Communication, Coordination, Information and Interoperable (C⁴I²) system.

It is necessary to understand this much used but less understood term-C⁴I². "C⁴I² system consists of facilities, equipment, communication, procedures and personnel essential to a commander for planning, directing and controlling operations of assigned force pursuant to the mission assigned". Basically (C⁴I²)

constitutes four functions i.e Sense, Compare, Order and Execute called SCORE loop and also called OODA loop i.e Observe, Orient, Decide and Act. These function both for the enemy and own forces interact in a time sensitive loop as explained in figure 1 below:-



The lessons gained from military history indicate that the key to military victory lies (regardless of military size of the opposing forces) in remaining ahead of the enemy in time sensitive SCORE loop of (C⁴I² process).

If a defending force or weapon system can, with some accuracy and sufficient warning, find out where the attacker is or his future course of action would be, it would be easier to defeat him by occupying position of advantage or by massing a superior force at the point of decision.

Since war covers a wide spectrum of activities, devising a single C⁴I² system to cover all activities at all levels will be a highly complex task. Therefore, the world over, these systems have been divided into two or three levels i.e Strategic, Operational and Tactical level (or last two levels are combined). Each level also has a number of sub-systems to cover various activities.

STRATEGIC SYSTEMS

These encompass control of strategic weapon systems and strategic forces as also defence against these weapons. Such systems were first developed during Cold War when it was realised that a missile launched by one country could reach the other in half hour to two hours and during this limited time it had to be confirmed whether it was a real missile attack (By collecting data from space, air and ground sensors), take approval of the President to launch counter strike, take all defensive measures and inform one's own strategic weapons located world wide. Systems has to also ensure that no individual other than the President has the authority to arm and fire nuclear missile and thus the final code has to be passed from him to these weapon systems. It can be visualised that if the C⁴I² system failed, the defence against enemy missile could not be activated and a number of counter attack missiles would get destroyed on the ground itself before being launched. C⁴I² systems thus has become as essential as the weapon systems and are known as force multipliers.

If India has to occupy its rightful place in the communities of nations, it would have to acquire such a national level C⁴I² system so that not only defence forces but entire nations' resources could be utilised in a synergic manner to be directed against an aggressor.

OPERATIONAL AND TACTICAL SYSTEMS

At tactical level the fog of war is thickest, intensity and violence of operations at its peak and need for correct decision making most critical. Future wars are also likely to be fought against a nuclear backdrop in fairly intense high technology environments. Operations will be highly mobile with fast changing situations. Decision making will become time sensitive in SCORE loop in the above scenario, requiring faster acquisition, processing and retrieval of information for planning, monitoring , threat analysis and assessment of situations. C⁴I² system in such scenarios become a force multiplier as explained from a situation on a typical border scenario.

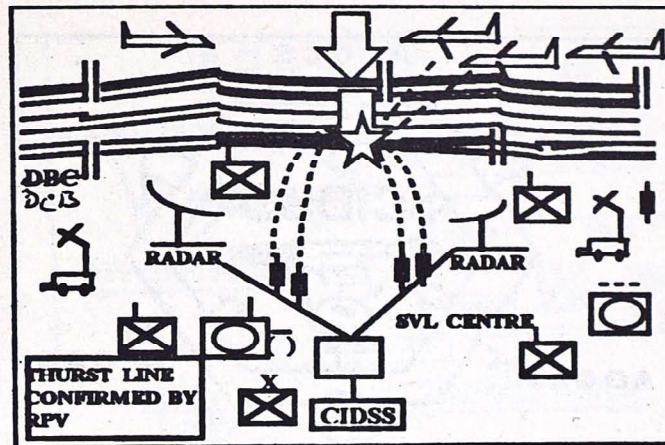
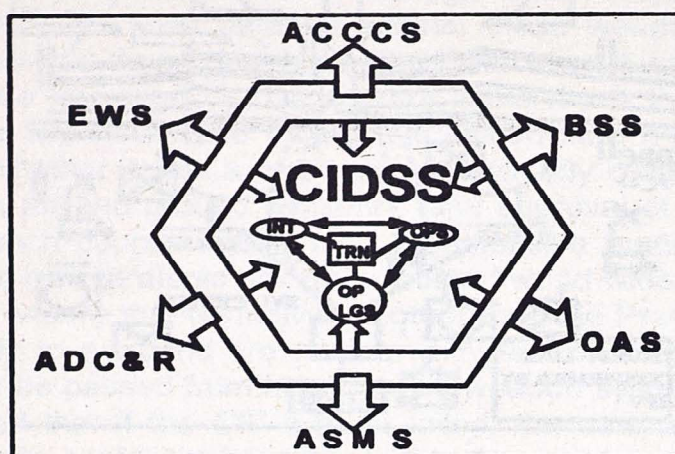


Diagram above represents a typical border area along Indo-Pak border where both sides have built elaborate defences based on ditch cum bund. Success of the attacker would depend upon how speedily he can breach these defences and get his forces across. On the other hand defender's aim would be to prevent the attacker breaching defences by moving his reserve to the area under attack before the attacker crosses the defences.

In this scenario, if the defender has his sensors like Battle-field Surveillance Radar (BFSR) and Electronic Warfare (EW) deployed, the BFSR can indicate the likely area of enemy's attack by monitoring his movement prior to his closing on the defences and similarly EW sensor can judge the area of his attack by direction finding his electronic emitter and monitoring his transmission. Remotely Piloted Vehicle (RPV) and air reconnaissance can further confirm the likely area of attack. Thus by this advance information, defender can move his guns, call for air support and move his reserve to area of attack well in time and defeat the attacker at his weakest movement ie crossing of ditch cum bund. Thus it would help a smaller force to defeat a large attacking force and C⁴I² providing the force multiplier effect.

Tactical systems consisting of the following sub systems are planned to be acquired for Indian Army :-



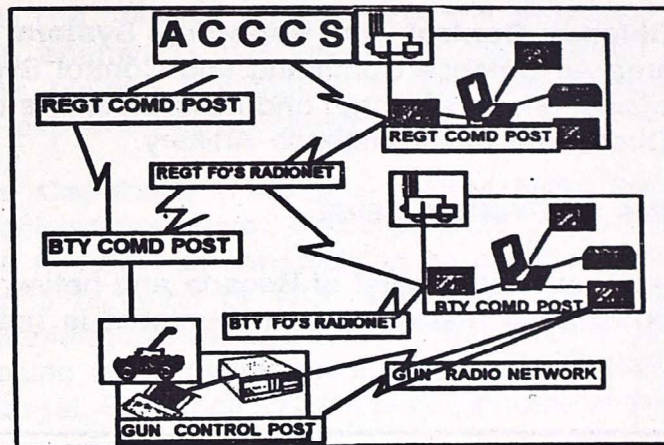
Command Information Decision Support System (CIDSS):

This will be the hub centre of C³I system and is to be developed by Project Management Organisation (PMO) CIDSS with the help of DRDO. It would assist Commander in Planning, Directing and Controlling military operations. CIDSS will be an integrated data network with computer servers and terminal stations at each HQ from Corps to Battalion HQ.

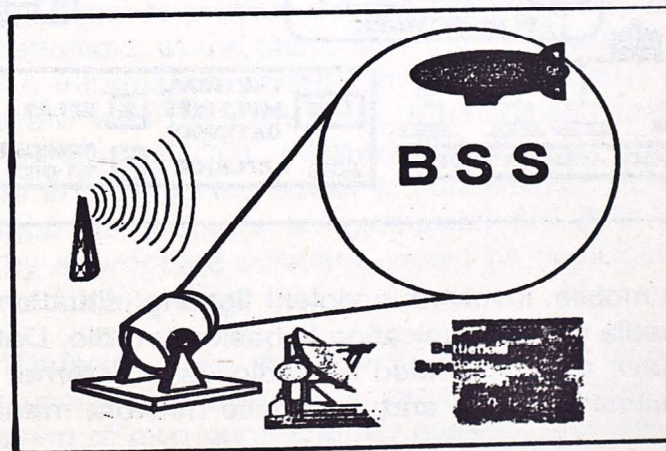
Tele-communications : Tele-communications and Data networks provide the main transport means of information between various Headquarters. The operational requirement dictates that at the fighting level the tele-communication will be mainly on combat net radio and radio relay with limited data capability. There is also a need to provide data communication from Army Headquarters down to Battalion over varied type of media like microwaves, satellite, radio and line and with varying data rates, which poses a serious problem to the system design.

Artilery Combat Command and Control System (ACCCS) :

The system is being developed by PMO ACCCS and DRDO. It is a computer based data network to help in enhancing the response time, first salvo effect and force multiplying effect of artilery fire.



Battlefield Surveillance System (BSS) : Consists of sensors and data fusion system to produce an effective time sensitive intelligence picture of the enemy and is to be developed by PMO Battlefield Surveillance Systems.

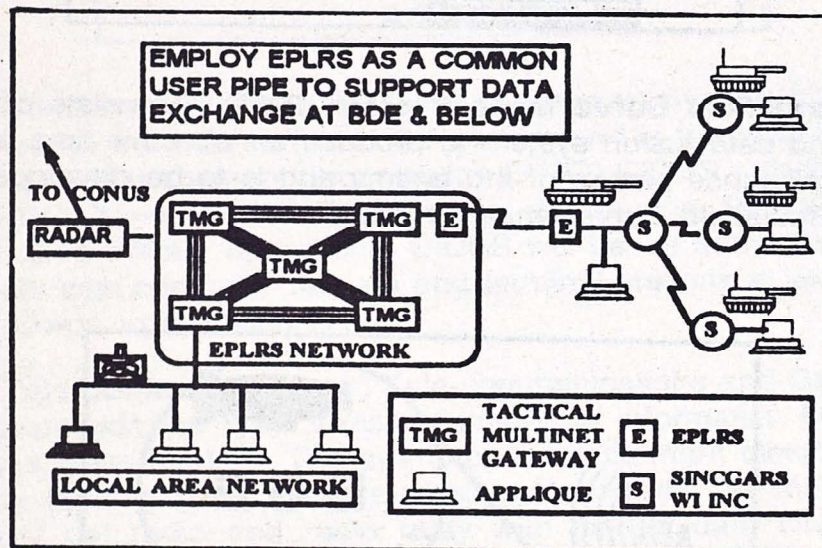


Operational Air Support System : To integrate air power in ground operation.

Air Defence Control and Reporting System (ADC&R) : Forward area Air Defence Command and Control System for air defence against enemy's aircraft and missiles and is to be developed by Directorate of Air Defence Artillery.

C³I SYSTEMS AT FIGHTING LEVEL

At the lower fighting level of Brigade and below, problem of automation increase manifold as environment is not congenial.



Troops are mobile, involved in violent fighting, situation is always fluid and media of communication is basically radio. Data communications have to be provided on radio using internet controller; tactical multinet gateway and automatic network manager.

Efforts are being made to provide a seamless data communication from highest level to fighting level so as to employ the total synergic power of the Army to defeat an enemy.

IMPACT OF IT IN OTHER AREAS OF WAR FIGHTING CAPABILITIES

C⁴I² systems are force multipliers but they cannot multiply a zero force. The hard kill weapons are still necessary to deter or destroy an enemy. IT has enhanced the weapon capabilities which were beyond imagination a few years earlier. Some of these are explained in succeeding paragraphs.

Strike Capability : Weapon system today have unprecedented precision fire power, made possible by guidance system. Tomahawk missile has capability to hit a building or room in a building at a distance of 1200 kms using its advance terrain contour matching system to travel to the area of target and thereafter switching on to digital scene matching correlator to hit the pin-point target. Guidance system is 60 per cent of the cost of the missile.

Mobility : Mobility on battlefield is achieved not only by better mechanical vehicle but providing these with navigation aids like Gyro Positioning System (GPS), night vision devices, soil conditions (based on satellite imagery) etc. Mobility is a winning factor in war.

Surveillance and Intelligence : Satellite, Aircraft, RPV, Radars are likely to provide the commanders with total transparency in battlefield, at the same time EW jammers would deny the enemy the information of the battle situation and the ability to communicate with his own force. Technology development like Coupled Devices (CCD), Infrared (IR), Electro Optical Devices (EOD) are enhancing the power of surveillance. The use of powerful computers required to synthesise the data from various sensors by appropriate software, would be necessary to produce the required information.

Air Defence : Air defence in almost all countries heavily depends upon automation i.e in area of detection of air missile attack, laying of own guns and AD missiles and their guidance to the incoming target is based on automatic data processing. Defence against Scud by Patriots was a typical example of these systems.

TRAINING

Exploitation of IT is feasible only if the Armed Forces have been fully trained in its use. IT power is also being employed for training of fighter in their basic trades. It has a major role in some of the following areas :-

- * Training in use of computer and computer software by using self training software packages.
- * Training of fighters economically by use of simulators from a simple rifle training simulator to simulator for training of jet pilot or AD gunner.
- * Training of Commander in manoeuvre by computerised war games or still more, creating a synthetic theatre of war (STOW) by employing virtual realities, which would overcome the problem of cost in actual use of troops and lack of realism in simulation.

FIELD EXERCISE

- * Realistic
- * Costly
- * Limited in scope
- * Live operators

SIMULATION

- * Approximation
- * Economical
- * Flexible
- * Lacks human factor

STOW

SECURITY OF INFORMATION SYSTEM

Control and security of information domain has become critical, as once we start using information we become dependent upon it and it is this dependence which makes us vulnerable as information is vulnerable.

USA's Defence Information Security Agency (DISA) testing the vulnerability of military computer systems found that about 88 percent of all defence computer systems could be penetrated,

ninety six percent of intrusion went unnoticed and those detected only five percent were reported.

It is not only the computer systems which are vulnerable to access by unauthorised persons but the whole information system is vulnerable in many other ways as indicated below :-

- * **Electronic Warfare** : Each country spends considerable amount of money and resources in gathering intelligence through electronic monitoring of target country's systems. National Security Agency (NSA) involved in this task is the largest of USA's intelligence agencies. Thus at all times, communication systems of a country are subject to monitoring and information gathering. Armed forces have on the other hand acquired, at considerable costs, jamming and deception systems to deny the enemy the use of his electronic media or misguide him. Thus the systems are vulnerable to denial of its use at critical times.

- * **Computer Virus** : There are nearly 1600 known types of computer virus which spoil computer software data files and programmes. Every day new types of virus are being invented to overcome the anti-dote designed. Some of these virus can play havoc with the information system during war. If used as a weapon, these can provide commander with unparalleled capabilities due to their unique characteristics. Some of these characteristics are :-

- * Computer virus are contagious giving it widespread effect. This allows indirect targeting of victims by initially entering at the weakest element in the enemy's defence and slowly finding its way to the real target. Computer virus are covert with victim user being unaware of their presence and striking at critical time. This is known as Logic Bomb.

- * Size of virus programme is surprisingly small. It is also versatile in the sense that it does not require information about the programme to be infected.

- * **Tempest - (Total Electronic and Mechanical Protection against Emission of Spurious Transmission)** : Each

computer system particularly the port and cable to the monitor and printer produce spurious radiation which can be monitored at a distance using sensitive receiver. The data being processed can be reconstructed and reproduced for information gathering. Thus without the knowledge of user, information being lost is one of "the greatest danger of loss of intelligence when no one can even visualise the source of its leakage."

* **Loss of Information due to insiders** : Large amount of information may be lost by insider, personnel working in the systems or involved in its repairs. Procedures and methods have to be designed to overcome such problem.

FUTURE WARS IN INFORMATION AGE

Everyone in defence community agrees on the importance of IT in a future war. However, new thoughts and theories are emerging. IT will totally change the very nature of war and the area of battlefield, now being called battle space. A new form of warfare called Cyber War or Netwar or Infowar, is being talked about. To avoid symantic confusion these terms need clarification at the outset.

CYBER WAR

	NET WAR	INFO WAR
Pertains to Effects	Society level conflicts. Target population and their thinking.	Military level conflicts. The Information balance by denying the enemy use of electro magnetic media and having a transparency of battlefield.
Focus on	Public or elite opinion or both	C ³ I system, communications, computer systems, surveillance devices.

Issues now under debate are whether IT would be a major adjunct to military war which we are used to or would it be a totally different form of warfare. Some of these areas are still not very clear as to how cyber war will be different from normal war, i.e. will it enable power to be projected in a new way? Will the target be information and knowledge instead of ground target? Whether war in the classic sense would be necessary at all in future or would IT make it possible to occupy dominating positions in trade and industry and capture profit centre without violent conflict? Still more, would IT enable a nation to effect the mind of people of the target country? Two scenes have been visualized in this regard.

- * **Scenario 1 - Conservative Estimates** : Even the most conservative defence strategist who would present a traditional battle plan, accepts that cyber war will play significant role in the overall military strategy in the area of C⁴I², electronic warfare, psychological warfare, attack on the information system and so on. Anybody with an information balance in his favour will be the winner.
- * **Scenario 2 - Hold No Base Estimates** : IT would help a powerful nation even during peace time to control the target country's economy particularly banking and stock exchange and other profit centres, gain knowledge of the weakness of its leadership, exploit TV, Radio and Press to demoralize the target nation and dominate it by touting its own way of life or change its value system and by such means totally eliminate the need for a violent military war. It would also be able to create a military and information based powerful deterrence and if deterrence fails fight and win the war decisively leveraging IT.

Whatever be the military scenario; IT will have profound effect on society. Some of these have been included in the table attached.

EFFECT OF IT ON SOCIETY

AFFECTED AREAS	ENABLING TECHNOLOGIES/DEVELOPMENTS	BENEFICIAL CHANGES/EFFECTS	VULNERABILITIES
BUSINESS INDUSTRY BANKING AND STOCK EXCHANGES	<ul style="list-style-type: none"> * IRIDIUM SATELLITE * PERSONALIZED SERVICES * MICROSOFT NET * CUSTOMISED PRODUCTION * ROBOTIC FACTORIES * HOME SHOPPING * COMPUTER TRADING OF STOCKS 	<ul style="list-style-type: none"> * AVAILABILITY OF LATEST INFORMATION FOR PLANNING * MOST SUITED STRATEGY * MAXIMUM PROFITS * CUSTOMER'S DELIGHT 	<ul style="list-style-type: none"> * CONTROL OF THESE RESOURCES BY MNC OR POWERFUL STATE * MANIPULATION OF INFORMATION * QUICK EFFECTS ON NATIONAL ECONOMY * RAPID CHANGES IN OWNERSHIP * LOSS OF CONTROL BY GOVT.
INFRASTRUCTURE	<ul style="list-style-type: none"> * AUTOMATION OF ELECTRICAL POWER * TRANSPORT * COMMUNICATIONS INFRASTRUCTURE 	<ul style="list-style-type: none"> IMPROVE EFFICIENCY CUSTOMER'S DELIGHT 	<ul style="list-style-type: none"> USE OF VIRUS TO PUT OFF SYSTEM EFFECT BILLING AND CONFUSION
NEWS/ ENTERTAINMENT PUBLIC OPINION	<ul style="list-style-type: none"> * SATELLITE * TV * PRESS * INTERNET 	<ul style="list-style-type: none"> * ENTERTAINMENT ON CALL INFORMATION WORLDWIDE * ACCESS TO WORLD WIDE KNOWLEDGE BASE 	<ul style="list-style-type: none"> * WINNING OVER OF ELITE AND PUBLIC OPINION BY OUTSIDER * PROPAGATION OF CASTE, FANATIC RELIGIONS BY ENEMY OF STATE * CONTROL OF POLITICIANS * CORRUPTING LEADERSHIP * DEMORALIZING OF POPULATION
INTERNATIONAL	<ul style="list-style-type: none"> * GREEN PEAS * CROSS RELIGIOUS SOCIETIES * HUMAN RIGHTS * ENVIRONMENTALISM 	WORLD AS ONE SOCIETY	DESTROYING OF ESTABLISHED GOVT/ SOCIETIES
TERRORIST DRUG CARTELS SMUGGLERS	<ul style="list-style-type: none"> * INTERNET * MOBILE PHONES 	BARRIER OF TRADES MAY GO AS TRADE BY INTERNET/COMMUNICATION WOULD BE POSSIBLE	DIFFICULTY IN DEALING WITH TERRORISM OPERATION BY TERRORIST FROM HEAVEN WOULD BE POSSIBLE
WAR	CYBERWAR	NEW ENABLING TECHNOLOGIES TO FIGHT IN INFO ERA (AS STATED ABOVE)	<ul style="list-style-type: none"> * INFORMATION SYSTEM VULNERABLE * WILL AFFECT THE OUTCOME OF WAR

CONCLUSION

Why are some nations strong and others weak? Power in International arena is defined as ability of one state to impose its will on the other or make it accept its dictates by persuasion, coercion, economic pressure, international pressure or outright military force. Elements of such national power are military power, size, population, resources, economic structure and strength, technological development, financial power, ethnic mix, social cohesiveness, stability of political system, national spirit and national vision and now the most important information power which would play its profound role in building up all other elements of national power.

We are living in the early stages of Information age. Gulf War has demonstrated how the Information Technology can play a winning role in armed conflict. Recent developments indicate that in an economic arena Information Technology is bringing in a total revolution in the way industry and society would function. For the future, concepts are evolving on how without getting involved in violent conflict it may be possible to win a war, capture economic means and profit centres of target country or effect the mind of its people and ultimately impose your will on the target country.

Mirror Mirror on the Wall

LT GEN VIJAY MADAN, PVSM, VSM, (RETD.)

The quality of officers being commissioned into the Army has been consistently deteriorating has been a refrain I have heard from the day I got commissioned in December 1954. Such an opinion prevailed in the Army well before I joined, but one dismissed it as no more than the opinion every set of officers expressed bi-annually about the Courses commissioned after them. A subject of much light hearted banter in the messes and at times even of admonishment by seniors to their juniors, this view was never more than a mock serious expression of dismay rather than of concern about the future of the Indian Army passing into dubious hands.

That something so sinister was actually in store for the Army was first voiced by the authorities in early seventies with the publicly stated declaration that the officers' cadre of the Army was no more attracting suitable youth of the country.

The findings of numerous studies and surveys showed that the Armed Forces, most certainly the Army, was the last choice among professions for young men. Neither glamorous uniforms, nor the spirit of adventure, let alone patriotism, motivated them to take on the "sacred" duty of defending the Motherland. Harsh living conditions, lack of accommodation in peace stations, short peace tenures and a poor pay package were enough disincentives towards making the Army the choice of last resort and that too for people who could not get a decent job otherwise. Whereas, at one time alumni from renowned public schools and from families of good standing flocked to serve under the colours, the situation now was entirely different. Hardly anyone, say from the Doon School would think of joining the Army as indeed none from

The Article pertains to the image of the Army Officer as reflected in society. The author has suggested measures to re-burnish it.

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the upper middle class and more affluent families would. Not only was there a deterioration in the quality of entrants, even the numbers coming forward was so low, that a large shortage of officers remained uncovered. Such a view has again been officially repeated regularly.

All this presents an alarming picture of the shape of things to come and yet those who eventually make policy-the civil servant and the politician, unfortunately in that order do not appear to be unduly concerned. Or could be it that the problem posed to them has been wrongly worded and projected. Once when the late Mr. Jagjivan Ram, the then Defence Minister, was informed that young people from good families were not joining as Army Officers, he retorted sarcastically that pedigree was looked for only when buying dogs, not when enrolling Army Officers. 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. The civilian bureaucracy, incidently, hardly figured for the simple reason that in Britain it is really a faceless organisation known only in the corridors of power and not on the streets. 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. Similarly, having rated the Dons of Oxford and Cambridge or other Universities alongwith Scientists and Doctors as the most respected of professions, the public knew only too well that just a select few would make the grade into them. I later realised that we had asked the wrong question. Public image is one thing, being a highly acceptable job is another. The question should have been not one of finding out the public image of the Army but rather one of the choice of professions. This confusion has prevailed for long with us and does so, even now.

During my tenure as Commandant of the College of Combat, I introduced a subject on integrity and self respect as part of the leadership series in the curriculum of the various courses run at the College. We sent officers to interview some very senior and highly respected citizens and opinion-makers in the country to get their views about the Army's standing. They ranged from Mr. J.R.D. Tata, Mr. Palkiwala, Swami Chinmoyananda and many others from various fields. I was amazed and almost embarrassingly so at the unstinted praise and respect they had for the Army. Almost all of them said that if the other organisations had half as much standing in terms of dedication, integrity and professionalism as possessed by the Army, India would be a different and a magnificent country altogether. A small vignette from Mr. Tata's meeting with the officer sent to interview him would be appropriate. After the end of the interview, Mr. Tata said that he was a small eater and ate his frugal lunch in the office but would the officer - a Gunner Colonel - please take Mr. Tata's car and have his lunch at the Taj. The officer politely declined since he already had a lunch engagement. "See, what I mean," said Mr. Tata, with a twinkle in his eye, "only an Army Officer would refuse JRD Tata's invitation to lunch since he already has accepted an engagement elsewhere". The same attitude of respect and affection is found amongst the general public. One would then expect that with such a fund of good will present amongst the highest and the lowest in the land, the Army should be flooded with requests from men of noble qualities wanting to get in. On the contrary, people make a bee-line for major industries like Tatas and Birlas and other similar organisations rather than for the Services. In fact if these organisations were to open wide their portals to serving Army officers, most-irrespective of rank-would take off their uniforms and head for the doors of the nearest corporate house. And why only the Army, Navy or the Air Force, even the members of the Administrative, Foreign and Police Services and others would do so. Then again not only in India so would they in the most affluent of countries where the salaries and benefits of the Armed Forces are from our point of view, unbelievable.

Let me now narrate the views expressed by Army officers ranging from serving Captains to serving and retired Generals.

Each one of the latter decried the lowering of the standards in the Army, the unbridled ambition, the growing lack of personal integrity and so on. The younger officers "cribed" that they did not get any job satisfaction. They had not joined the Army to ensure that the toilets were working in guest rooms when senior officers visited their stations or accompany them and their wives on shopping trips. Even worse was to be assigned to over-see setting up of tents and making other such arrangements during various unit and formation functions. Tasks which should be handled by JCOs, nay L/Nk's, were now being handled by Captains and Majors. These junior officers were also of the opinion that the senior officers, specially Brigadiers and above, hardly interacted with junior officers even on social occasions. Besides, senior officers were apt to moralize without setting personal examples of social and professional behaviour.

Now a few examples of what some other Government services feel about the Army officers - in fact about Armed Forces' officers. The Indian Foreign Service (IFS) officers feel that the officers of the Armed Forces are by and large uneducated and the senior ones are unable to grasp or articulate matters concerning larger issues. This was an opinion expressed to me by a Joint Secretary in the Ministry of External Affairs (MEA) whose father was a highly respected senior officer of the Army in his days. That such views are shared by others in the IFS can be gauged from the reported statement of Mr. Dixit, a former Foreign Secretary to the effect that the Army was unable to grasp the political directions given about its role in Sri Lanka.

Mr. Dixit was then the Indian High Commissioner in that country, and knows what he is speaking about. We have yet to see any senior General who was directly or indirectly responsible for the conduct of operations in Sri Lanka challenging this criticism. Now for the views of two former Defence Secretaries. Both felt that there was no unnecessary and a contrived friction between the Indian Administrative Service (IAS) and the Armed Forces. The IAS was always ready to protect the interests of the Service officers. In the Ministry of Defence itself the civil servants by and large uphold the cases put up by the Service

Headquarters, although most times such cases have many loop holes and are often contradictory. Both felt that although at lower levels the Army officer is almost as good as one can expect but when arriving at higher levels and specially in the case of senior officers who come to hold the appointments of Principal Staff Officers (PSO's) and above, their personal interest and benefits take a priority over that of their Service. This is true of all the three Services. Consequently, many become easily pliable, some even subservient to the civil servant, let alone the Minister. For such officers to strike a posture of being paragons of virtue and up-rightness that they often do in public, particularly in front of their juniors does not fit well with their actual behaviour. In other words very few senior Armed Forces officers have the right to run down the civil servant and others for the lack of moral values. Lastly, both felt that the Army should, as the Navy and the Air Force have by implication accepted, that in India civil control of the Armed Forces included control by the civil servant and the politician. It is only the civil servant who understands the politician's mind, in whom the political boss confides and who has access to all other ministries and departments of the government at the Centre and in the States.

Finally, the views of a former Union Home Minister and two former Ministers of State for Defense. The former Home Minister was of the view that all political parties are agreed on the fact that the Armed Forces are to be kept apolitical. He was also appreciative of the fact that the most powerful element in ensuring this quality of the Indian Armed Forces have been the Armed Forces themselves. His efforts had always been to see that the Army was never exposed to unnecessary bickerings and mud-slinging by irresponsible politicians. He was, however, critical of senior officers addressing the media on policy matters even on those concerning their own departments. According to him, policy announcements should be made only by political heads of departments and ministries. Any announcement of public interest should be made through press notes issued by the Defence Public Relation's Officers (PROs). The senior officers should not seek public limelight since it sends wrong signals. He said that during his time, he had forbidden even the civil servants to use the media for expressing policy matters.

Of the two Ministers of State for Defence, one was of the view that there was no other organisation as effective and well run as the Armed Forces. He was, however, unhappy with the knowledge that some senior officers would go to any unsavoury lengths to further their own interests. The other, with vast experience of other disciplines behind him, felt that the senior officers were incapable of a large, comprehensive approach. That they missed the wood for the trees and as he pithily put it, "rather than finding their way back to the woods, go about merrily chopping the trees and spoiling the environment". He was also amazed that the three Armed Forces have no, all inclusive, comprehensive joint plans.

We thus have a fairly clear idea of the image of the Army officers, in fact of all the Armed Forces Officers that exists in the minds of others. Clear but nevertheless fractured. Fractured because there is no one single mirror to view it in. Thus we have :-

- (a) The general public including top opinion makers and achievers of the nation holding the Army officer in high regard. That is not the same thing as saying that they would leave their various fields and rush to put on the Army's uniform.
- (b) We have the civil servants dealing with the Army who feel that the problem area is really at the senior levels where all the compromises with values take place. Similarly, the politicians who while holding the Army in high regard are at the same time convinced that it is within their own professional boundaries that the Armed Forces must operate. They too feel that many senior officers often give priority to their own interests.
- (c) The senior officers, both serving and retired, who keep on repeating that hackneyed old line about the quality of Army officers going from bad to worse as time passes. As to what this quality should be has never been clearly and objectively defined. Each has his own definition.

(d) The junior officers feel that he is misused and unheard by a rather disinterested and often distant set of seniors who very rarely show any sympathy let alone empathy with their subordinates-specially those at the levels of Colonels and below.

(e) Lastly, the views of the Joint Secretary from the IFS. These are articulations of an immodest group of people whose arrogance is based neither on any deep intellectual content nor on any worthwhile achievements of their service over the past so many decades of its existence. Hence one can say with confidence that their views should be ignored, as indeed they are by the IAS, in such matters.

The true image of the Army officer is perhaps an amalgam of the various images described above. One thing, however, stands out after viewing such an image it needs re-burnishing, and that too very quickly and the task must start at home. There should be a ban on any public declaration that the quality of officers is deteriorating day by day. Measured by what yardstick is this announcement made even if only to impress various Pay Commissions and press the Government into loosening its purse strings? Over the years this nation has accumulated a huge debt to the Army officer who has repeatedly frustrated all efforts of enemies to dismember the country. More recently it is this Army officer, the young Subaltern and Captain and Major, the dedicated Colonel commanding his over worked unit and others, who have saved Kashmir for India. These officers continue to fight the country's battles in various parts of India and they uphold the nation's flag high. They are sick of not being given adequate peace tenures, accommodation and compensation. Yet the Army Headquarters proclaim from the roof tops that the Army officer is not amongst the best of what the country has. In fact he is amongst the best in the world. The public already agrees. The quality of the material coming into the Army has to be defined, actually it is simply stated. The young men aspiring to join the Army should be physically hundred percent fit and capable of being moulded into good junior military leaders with further training. This latter aspect requires that boys of an age younger than

those joining the National Defence Academy (NDA) at present should be taken in. When the NDA was first established the aim was to catch them young. We have, by increasing the educational qualifications required for entering the NDA, ourselves destroyed its very ethos and purpose. It is rarely appreciated that when young people finish their Plus Two (Twelveth class) levels they have a great choice of professional careers available to them. The entry into the NDA at class 10 level will firstly ensure that boys of a younger age, with lesser exposure to the poor environment in most of our ill-disciplined educational institutions, will have a choice of a top class career available to them. Most parents and their sons (and daughters) would like to get into an assured career at such an early stage in their lives. The stay in the NDA could be increased by two years to ensure that the cadets pass out as graduates - although in the opinion of this writer that is not essential. On the other hand, the Services may find it more beneficial to have a four years course at the NDA equated with a University's B.Sc degree by an act of the Parliament. In this context the total contact period calculated in hours with subjects essential for earning the degree works out to be more than what even a good conscientious student puts in on an average in a reasonably disciplined well run College. Carrying this argument further, the additional one year, ie, for a five year course could be offset by doing away with the one year's training at the IMA for NDA graduates. Cadets should pass out from the NDA and go straight to their respective Arm or Service institutions for a comprehensive Young Officers' course. The Navy and the Air Force will also benefit from such an arrangement and will have no objection to re-structuring the NDA Course.

At this stage it needs to be stated again that no amount of improvement in pay and allowances and other benefits will ever attract the top bracket of our youth - whatever that may mean - to the Army if we go to them at a stage in their lives when other equally attractive or better avenues are available. With progressive liberalization in our economy and with the entry of other disciplines and modes of earning into the society this relegation of all Government services, to a lower choice level will continuously increase. It is only if we offer the youth of the country a top

grade career at a time in their lives when other organisations are not ready to take them; in that the Armed Forces can score over these rivals. Besides the Armed Forces want primarily the younger lot, who can be moulded and not those who have already been moulded. The key term in this argument is Top Grade. How do we define Top Grade? To my mind one can say that it is a career held in high esteem in the mind of the general public, is lucrative and job content-wise highly satisfying. The general as well as responsible public opinion regarding the Army has been already narrated. The lucrativeness of this career has certainly to be improved constantly and the job content made more and more satisfying. This last is a purely in house affair of the Army, while the lucrative aspect too requires a major input from the Army itself. Let us examine these aspects now.

Whatever be the resources of the Government, there is a limit to which it can foot the pay bills of serving officers and the pension bills of the retired ones. Our failure has been our inability to attract suitable youth to the officer's cadre and that of misusing this resource. The problem has arisen post 1962 - after our debacle against the Chinese - when the inabilities of the senior commanders got translated not only into a rapid expansion of the Army but the almost astronomical expansion of the officer's cadre. This came about amongst other things due to a rapid decline in the quality of the Junior Commissioned Officer's (JCO's) cadre. A reflection on the abilities of the officers themselves. In fact with the proper and effective use of the JCOs we can reduce the strength of officers by a third. Of the two-thirds that remain almost half or a little less should comprise of a mix of Short Service Commissioned and Regimental Commissioned Officers. We have to lay greater emphasis on the training, job content and responsibility of our JCOs and consequently of the Non-Commissioned Officers (NCOs). This will greatly reduce the base of the pyramid at present formed by the Regular Commissioned Officers. The officers cadre will also become more manageable, than it is at present.

The next step in officer management in order to make the Army a "lucrative" and a "satisfying" career is to fix a minimum

retirement rank for regular officers and to make the selection and advancement procedures more rational and transparent. The minimum rank for retirement of an average officer should be that of a Colonel (Col). This has two implications. Firstly, a majority of officers in a particular age bracket would retire as Cols. Thus they will be of an age when they can still seek employment after retirement. Secondly, the planning of the annual intake into the NDA could then be made proportional to the strength of Cols retiring every year. Combined with this should be the proviso that a Lieutenant Colonel (Lt Col) and a Col's ranks and appointments are bracketed. Thus an officer selected to be promoted as a Lt Col will automatically become a Col after a certain number of years say three to four without being screened by another promotion board. All active unit command appointments should be held by Lt Cols and all grade 1 staff and non-active command appointments by Lt Cols/Cols.

With a Col's rank becoming the minimum rank at which an officer of average capabilities should retire, it is necessary to devise a selection system which allows an officer to reach this rank in the course of his service. Regrettably one has to accept the generally held belief that in the Indian Army as of today and for quite some time now we have a rejection rather than a selection system in existence. A true selection system should aim at ensuring that officers of high calibre are progressed faster in their careers and at younger ages so that their capabilities are available to the Army for periods longer than they are at present. Next, it must be supportive of not so brilliant officers so as to enable them to rise to the limit of their potential and lastly it must be both so humane and transparent that those whom the system finally rejects accept such a judgement of their abilities as fair and unbiased and, therefore, unchallengeable. Any objective study of the present system will show that it fails on all these counts. The first step that has to be taken in devising the new selection system is to throw away the order of merit list that is based on the order of passing out from the IMA. The inputs for devising this order of merit list has just no relevance in determining an officer's progress in his career after passing out. This list is acceptable for protocol purposes and no more. The laying down of officers

seniorities for promotions above a Major's rank should be determined by the first selection board that he is screened, to determine his suitability for a Lt. Col's/Col's rank. This consideration should not be by the year of passing out but by a minimum age and the years of service put in. For example in 1997 the system should not just consider officer's commissioned in 1980 or 1981 but by a minimum age say 36 years and a minimum service say 15 years. Thus even an officer commissioned in 1982 if he is at least 36 years of age and who would in 1997 have 15 years of service behind him, would be screened for promotion. By delinking the year of passing out and the order of merit based on the passing out order from the selection system and replacing it with a minimum age and service requirement we will automatically take the first step towards making the higher ranks tenable by a younger, more capable lot as will be apparent later in this discussion. Besides the minimum age and service limit, other minimum mandatory requirements like having attended certain basic courses, passed promotion examinations on time, holding a substantive Major's rank and such criteria will have to be met before an officer is considered by the selection board. Selection for a Lt Col's rank should be not by course batches based on their year of passing out, but by a minimum number of years of service put in, a minimum age and other qualifying criteria which can be suitably laid down. The seniority of officers for future considerations should then be fixed from this occasion onwards. Only such officers who clear the selection board in the first three chances should be considered for command of active units and future promotion in a Command Stream.

An officer should be considered for promotion to a Lt Col's rank till the age of 45 years. That means that he would have nine chances in all to make the grade to a Lt Col's and thus a Col's rank. After these are exhausted the most self-opinionated of officers will accept that they are not average material. In the first three looks the really Above Average and High Average officers should be cleared; subsequently the criteria should be lowered with each passing year so that in 45th year of his age the truly Average officer should be able to meet the selection criteria. The method can be compared to a high jumper first being required to

clear the jump at the highest possible level and subsequently being asked to clear lower heights. The reason being that with each subsequent passing year lost an officer would be required to hold an appointment requiring a lower criteria. Consequently a Lt Col commanding a unit would be on the top and one commanding a training battalion much lower down and one doing a Camp Commandant's job even lower. Such a system would ensure that the Command Stream is always manned by younger and highly capable officers. The Military Secretary's Branch should draw-up a list of appointments both in the Command Stream and in non-command stream, each consisting of command and staff appointments. With the system of entry into the NDA as suggested, the youngest officer passing out would be 21 years old. Taking the example of a really clever officer, when he is 36 years old with 15 years of service behind him he will be considered for promotion to a Lt Col/Col rank. Officers of comparatively lesser abilities should make the grade into the Command Stream in their second look (37 years of age and 16 years of service) or third look (38 years of age and 17 years of service). Thus the Command stream will always have younger officers with many years of service ahead of them, a somewhat similar system is in vogue in the British Army.

With the reduction in the base of the pyramid as a result of the reduction in the strength of the officers, the number of appointments for Brigs and above should be suitably and drastically scaled down. But a prior requirement is that a Brig should be equated with an IAS Joint Secretary to the Govt of India in every way. Given this proviso the reduction in the higher ranks should be done to rationalise the rank structure. The selection to ranks higher than a Col's will have to become very strict and selective. A Col should get only three opportunities to be selected to a Brig rank. A Brig only two for a Maj Gen's rank and a Maj Gen only one to a Lt Gen's rank. A Lt Gen should be reported upon once at the end of one year on his suitability to hold the rank. The reporting system should be fool proof with adequate participation by the Lt Gen reported upon himself. After this one report no further reports should be initiated on the officer unless a special report is required by any act of his, derogatory to his rank. In case

the report mentioned earlier, at the end of one year, brings out the unsuitability of the officer to carry on in the Army in that rank he should be retired. Further promotions ie, to the Army Commander's level and above should be strictly by seniority and the residual service, no more.

The suggestions made will ensure that :-

- (a) An average officer has the prospect of reaching a Col's rank by the time he retires.
- (b) The better officers will progress into high power appointments and at a younger age.
- (c) The inter-se status of Army/Navy/Air Force ranks vis-a-vis the other Govt of India Services i.e., IAS and IFS will improve with a Brig and equivalent ranks being equated with a Joint Secretary's rank.
- (d) There will be greater job satisfaction alongwith a greater rationalization of senior ranks and appointments.
- (e) A Lt Gen's rank will become almost inviolate from any personal whims and fancies as has happened in the past some years.

One issue needs to be tackled last, not because it is the least important. On the contrary it is the most important ingredient of an officer's image: "Integrity". Much is said about it and much more left to be desired. Over the years it has become a questionable character trait. The fact that it even figures in an Annual Confidential Report form pre-supposes that this quality in a Service Officer needs to be commented upon. No amount of what should be done and not done to prove one's integrity has any meaning. Suffice to say that many of our senior officers in the past had set almost excruciatingly high standards of personal and professional integrity. Let their torch be carried forward. Even the slightest deviation from expected norms should be dealt with most severely. If an officer is in a position to help himself or his kith and kin or his favourites by unethical means he must be shown the door, there can be no compromise on this aspect. One

essential ingredient of ensuring high integrity is to keep the channels of communication open with junior officers and the other is to accept the fact that the higher one goes in Service, certain social obligations, even towards one's subordinates, become essential. The organisation has to make provisions for this.

The Army is a great institution. During the four years of my retirement I have seen other organisations including the Corporate World at fairly close quarters. Most cannot hold a candle to the Army. The Army officer, specially the younger lot is in a class by himself and a very high class given the right guidance, motivation and example. It is the sacred duty of the top echelons to see that he is neither run down, nor his ideals sullied nor his dreams shattered.

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Jammu and Kashmir Problem : The Truth*

Part I

LT GENERAL SIR JAMES WILSON, KBE, MC, DL, (RETD)[@]

LT GENERAL (DR) M L CHIBBER, PVSM, AVSM, (RETD)[£]

INTRODUCTION

“By Time, verily man is in loss, except such as have faith, and do righteous deeds, and in mutual teaching of Haq (TRUTH) and patience and constancy”

— Sura 103

“Sathyam - eva - Jayathe” - TRUTH always triumphs.

— Upanishads

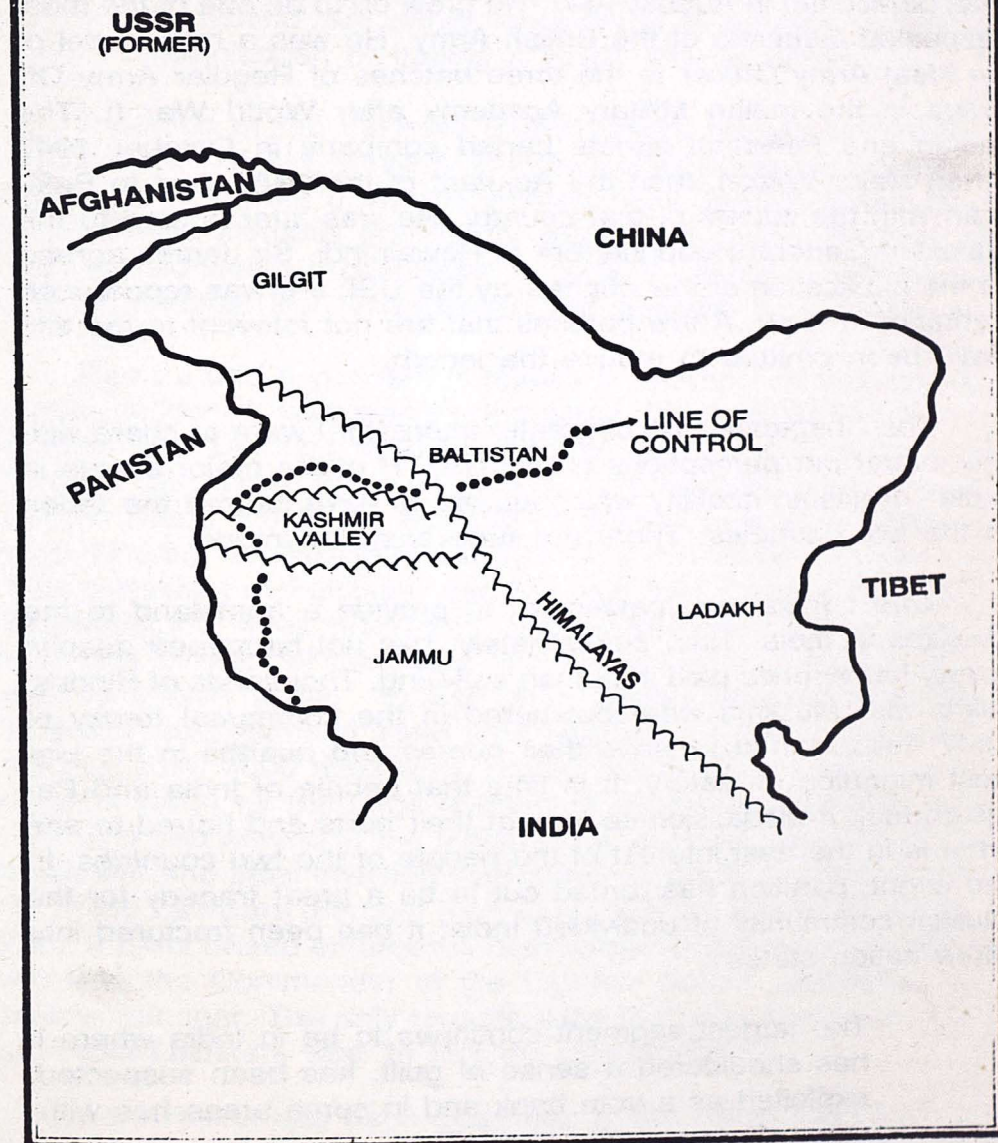
Discovery of the Chapter in this serial one of two articles of yet-to-be published memoirs was a part of the eleven years old struggle to promote India - Pakistan reconciliation. My wife, Dr Ramesh Chibber and I have been at it despite being labelled as starry eyed simpletons by some friends in India as well as Pakistan. Over the years our conviction that TRUTH (Haq in Arabic and Sathya in Sanskrit) ultimately prevails, has gained greater and deeper strength.

*Chapter 11 Part I of the unpublished memoirs of Lt Gen Sir James Wilson, KBE, MC, DL, with an introduction and footnotes by Lt Gen (Dr) ML Chibber, PVSM, AVSM.

@Lt Gen Sir James Wilson, KBE, MC, DL is from the British Army. He was Military Assistant to General Douglas Gracey, the Pakistan Army Chief in 1948-49.

£Lt Gen (Dr) ML Chibber PVSM, AVSM, retired as Army Commander. He has authored a number of books, USI papers and biographical sketches of Field Marshal Montgomery, Marshal Foch and Field Marshal Slim.

JAMMU & KASHMIR



SKETCH - 1

This chapter written by a man of great integrity, who is a friend of India as well as Pakistan has some nuggets of the TRUTH pertaining to the partition of India and the problem in Jammu and Kashmir. Sir James, as the Military Assistant to General Douglas Gracey, the Pakistani Army Chief in 1948-49, had a ringside seat during the tragic and fateful days after India was partitioned in August 1947. He grew up to be one of the most respected Generals of the British Army. He was a role model of an ideal Army Officer to the three batches of Regular Army Officers in the Indian Military Academy after World War II. The Indian and Pakistani cadets parted company in October 1947 when Major Wilson, then the Adjutant of the IMA, went to Pakistan with the cadets of that country. He was later posted to the Pakistan General Headquarters at Rawalpindi. Sir James agreed to the publication of this chapter by the USI, if it was reproduced verbatim. It is so. A few portions that are not relevant to the title have been omitted to reduce the length.

The Chapter will be of greater interest if I were to share with the reader our perceptions of the TRUTH of the major events in India - Pakistan hostility which appear to have blurred the vision in the two countries. There are **nine** such landmarks :

One : India was partitioned to provide a homeland to the Muslims of India. This, unfortunately, has not happened despite a very heavy price paid in human suffering. Thousands of Hindus, Sikhs and Muslims were butchered in the communal frenzy of 1947; millions had to leave their homes and hearths in the biggest migration of history. It is time that people of India and Pakistan took a dispassionate look at their hurts and hatred to see what is in the best interest of the people of the two countries. In the event, partition has turned out to be a great tragedy for the Muslim community of undivided India; it has been fractured into three nation states :

- * The largest segment continues to be in India where it has shouldered a sense of guilt, has been suspected, exploited as a vote bank and in some areas has withdrawn into a ghetto mentality.

- * The second segment is in Bangladesh which is the most thickly populated country in the world with very few resources.
- * The third segment is in Pakistan where it has been directly or indirectly ruled by the military since 1958. Those Urdu speaking migrants who went to the 'Muslim homeland' are either languishing in refugee camps in Bangladesh or having a rough time in Sindh.

A portion of the Pakistan establishment refuses to see this as the stark TRUTH. Similarly in India the establishment dismisses this TRUTH with a brisque remark—"Well, the Muslims asked for it". These attitudes are neither wise nor humane. Partition of India indeed was a monumental tragedy. It cannot and must not now be undone. But reconciliation can mitigate its ill effects.

Two : J and K problem is merely a symptom of the tragedy of the partition. It was precipitated when Liaqat Ali as the Prime Minister and Defence Minister assisted by Iskander Mirza, the Defence Secretary (later President of Pakistan), Khan Abdul Qayum Khan, the Chief Minister of NWFP and Ishaq Ahmad Khan working for the Chief Minister as a provincial civil servant (later President of Pakistan) decided to annex J and K by force. Bypassing the Army hierarchy, Colonel Mohamad Akbar Khan, DSO, the Director of Weapons and Equipment in the GHQ was used to evolve a two - phase plan¹ (Akbar later adopted the romantic name General Tariq while leading the Tribal Invasion). In phase one, 4000 rifles were issued mainly in Poonch area to trigger a revolt by the large number of demobilised Muslim soldiers who had served in the Indian Army during World War II. In phase two, the tribal invasion was launched on 20 October 1947. The Tribal Lashkars (Forces) were led by officers like Major Anwar Khan, a demobilised emergency commissioned officer of the ASC who was the Commander of the Lashkar (force) earmarked to capture Srinagar. The only remuneration that was agreed to with the Tribal Lashkars was 'to loot the non-Muslims'².

The invasion has been described in the book *Memories of Jinnah*³ by his Kashmiri secretary MA Khurshid as a *criminal folly*

which sealed the fate of Kashmir. It appears that Jinnah was informed of the invasion plan only a few days before it was to be launched⁴. He was assured of success and was invited to be at Abbottabad for a triumphal drive to Srinagar. When the plan did not succeed, Liaqat put forward the excuse of a conspiracy by Mountbatten and Nehru to deprive Pakistan of the State of Jammu and Kashmir. It was obviously an alibi for the failure by the organisers of the invasion; that is the TRUTH.

Three : When the tribal invaders were nearing Srinagar the Maharaja of J and K offered to accede to India if the Indian Army could be sent to save Srinagar from the fate of the loot, arson and rape meted out to Baramullah. Mehr Chand Mahajan, the Prime Minister of the State, flew to Delhi and persuaded a reluctant Nehru to send the Indian Army with these words, "give Army and take accession or I will fly to Lahore to negotiate terms with Jinnah"⁵. Nehru got angry and asked Mahajan to go away. But Sheikh Abdullah, who was staying with Nehru, interceded and accession was accepted. Srinagar was saved by the Indian Army troops flown in. It was a touch-and-go affair.

While accepting the accession, Mountbatten conveyed the Indian Government's position that "accession will be finalised by a reference to people after the invader is pushed out of the State". The TRUTH is that this has not happened and the invader is still in occupation of what the Indians call the 'Pakistan Occupied Kashmir' and Pakistanis call the 'Azad Kashmir'.

Four : India complained to the United Nations against this aggression. The body in a resolution of 13 August 1948 and others linked to it postulated a three step solution :

- * **Step 1.** A cease fire. This took place on 1 January 1949.
- * **Step 2.** Pakistan to pull out of the State, this has not happened so far.
- * **Step 3.** Future of the State to be decided by a reference to the people. When step 2 was not taken, India got the accession ratified by the Constituent Assembly of J and K to complete the process of reference to the people.

Five : In 1962 India suffered a humiliating defeat at the hands of the Chinese. The British government promoted a dialogue between India and Pakistan to settle the J and K problem. Bhutto representing Pakistan for talks with Swaran Singh of India demanded the whole of the State (98% land) leaving the Tehsil of Kathua to India. The talks failed.

Six : Bhutto as the Foreign Minister of Pakistan by-passed the Army hierarchy and got the 'Kashmir group' to prepare Operation Gibraltar supported by Operation Grand Slam to annex J and K while India was still dazed with the Chinese trauma. The plan involved infiltrating soldiers in civilian clothes across the cease-fire line into Kashmir to trigger an uprising and severing lines of communication with Operation Grand Slam. When General Musa, the Pakistani Army Chief, learnt of the plan, he objected to it on two counts. First, the Pakistani intelligence agencies had not yet prepared a dependable network in the State to trigger and sustain an uprising. Second, the operation would surely escalate into an all out war for which Pakistan was not ready[@]. Musa's objections were eventually overruled by the President, Field Marshal Ayub Khan and Operation Gibraltar was launched in August 1965. It escalated into an all out war. Musa was proved right on both counts and the State could not be annexed. Under the Tashkent Agreement both sides agreed to revert to status-quo-ante.

Seven : During the late sixties, Pakistan intelligence agencies started a long - term plan to prepare a proper covert network of committed supporters in the State for an uprising at an appropriate time. Islamic sentiment and an utterly corrupt system of governance in J and K were fully exploited. It was this development which prompted me to formulate the subject 'Preventing Insurgency in Jammu and Kashmir' for my compulsory dissertation during the year long National Defence College course of 1971. I had gone to attend the course after commanding a brigade in Kashmir and the fact that an insurgency was being pre-

[@]Colonel SGS Mehdi, an outstanding officer who was an instructor at the Indian Military Academy before partition warned the Army hierarchy, in writing, that Operation Gibraltar[@] will end up as the 'Bay of Pigs adventure' by the Americans in Cuba because Gibraltar was poorly planned and prepared..

pared was an 'open' secret. But Delhi refused to face the TRUTH and take action to prevent it.

Eight : In 1971 East Pakistan erupted. India exploited the situation and launched what is frequently called Operation Gibraltar (Indian model). This was by supporting Mukti Bahini (The liberation army formed by the Bengali elements of Pakistan military). In December 1971, a full fledged war broke out resulting in the birth of Bangladesh. The Simla Agreement ended that war. The clause in this agreement dealing with the problem in J and K reads as under:

"In Jammu and Kashmir the line of control resulting from cease-fire on 17 December 1971 shall be respected by both sides *without prejudice to the recognised position of either side.*[@] Neither side shall seek to alter it unilaterally, irrespective of mutual differences and legal interpretations. Both sides undertake to refrain from threats or use of force in violation of this line."

Nine : Manufacturing threats is a fine art mastered by most militaries of the world. Pakistan military has convinced the Pakistani establishment that India would capture large portions of Pakistan unless 7 percent (plus/minus of the GDP; which is around 35 to 39 percent of the federal budget) is allocated for Defence. The fact that India did not annex any portion of East Pakistan does not dissuade them from conviction in this UNTRUTH. Bulk of this allocation (over 70 percent of it) is spent on manpower related costs as Pakistan has acquired the most expensive manning system among the large countries of the world. Indians are not far behind even though for Defence they spend only 3 percent (plus/minus) of their GDP which is nearly eight times larger than that of Pakistan. Many Indian strategists see in this situation an excellent arrangement to drive Pakistan to bankruptcy like the USSR which broke-up by over spending on Defence to match the USA which had five times larger GDP. These Indians see the

[@]The underlined portion (italics in the above article) was inserted at the last minute when Bhutto undertook to convert the line of control into a permanent border by integrating Pakistan Occupied Kashmir into Pakistan. The TRUTH is that he did not do so.

proxy war launched by Pakistan in Kashmir since 1989 something with which India can live and argue for paying back Pakistan in the same coin. This approach unfortunately, will only retard the development of this region as a whole.

With the above history of 50 years, the two countries are locked in an automatic spiral of action - reaction and the tempo of covert violence and terrorism is gathering momentum. The stand of the two countries on Jammu and Kashmir which has become the symbol of this hostility is :

India : Jammu and Kashmir is an integral part of India. The only unfinished business is to persuade Pakistan to vacate Pakistan Occupied Kashmir.

Pakistan : Majority of the people of J and K are Muslims. They should have the right of self determination by a plebiscite to choose between India and Pakistan.

After eleven years of efforts for India - Pakistan reconciliation, we have come to the conclusion that the establishments in the two countries cannot end hostility. The fate of Nehru - Liaquat Agreement and Simla Agreement also suggests that even signed agreements are worth nothing in any case.

The only way attitudes can change is by people to people contact with a focus on the TRUTH of our problems. Absence of open, sincere and truthful communication is the cause of all fractured relations in families, institutions as well as in and among nations. Fortunately, there is a strong undercurrent of love and affection among people of the two countries. Perhaps it is due to centuries old deep roots in the geography of this whole region. Even among the establishments of the two countries there are large, though silent, sections who realise that hostility is essentially promoted by those who have a vested interest in perpetuating it - intelligence services, traders who handle business between the two countries via third countries and make huge profits, certain sections of clergies and of course a category of the military elite in the two countries.

Enormous opportunities are knocking at our doors for moving to an era of peace and plenty for all by being a part of the historic surge towards *unity of man, global economy and earth citizenship*. I hope this Chapter from Sir James' Memoirs will help us understand the TRUTH and work for reconciliation with honesty, conviction and love. India which is almost eight times larger in size, population and GDP must take unilateral initiatives to promote people to people contact. It would help if we keep in mind the TRUTH recorded in the Time Magazine of December 23, 1996 : On his death bed, according to his Doctor, Mohammed Ali Jinnah, the wealthy lawyer of Bombay, rendered his final judgement on his signal achievement :

"Pakistan", he said, has been "the biggest blunder of my life".

Where necessary I have added footnotes to give a fuller picture of events. We can now read the account of Sir James after he was posted to GHQ at Rawalpindi in November 1947.

CHAPTER ELEVEN : PART ONE

Though this was the first time I had worked in a large H.Q., I settled into the routine surprisingly easily. As M.A. (Military Assistant) to the Chief of Staff for the first two months, I was lucky to be at the hub of events and Douglas Gracey was the sort of boss who liked things done quickly, besides being an excellent delegator. Terence Glancy introduced me to his own routine, which so obviously worked well that I merely had to slip into the groove he had created. The day began early at 8 a.m. with the Chief of Staff's morning meeting, attended by the Principal Staff officers and the Joint Financial Adviser only. In November, when I arrived, these were all British, highly professional staff officers from the Indian Army, with the exception of the Financial Adviser, Mumtaz Mirza, who, in the prevailing economic climate, had a difficult and unenviable job. At this time, Pakistan's administrative capital was down in Karachi, the commercial centre of the new country. Karachi was also the capital of Sind province, a difficult province in itself, and with interests often different from those of

West Punjab, the largest province in the country, and the most important from any Army standpoint. Poor Mirza had only limited authority, since Pakistan, as a new country, had as yet very few funds. In theory, India was supposed to make over an agreed percentage of the old Government of India funds; these, thanks to the sterling balances accrued from the British Government during the war, were not inconsiderable. Delhi, however, dragged its feet over the financial transfer, partly because of bureaucratic inertia, but increasingly as a means of putting pressure on the Pakistan Government. Poor Mirza had an impossible task; on the one hand he was assailed every morning with requests for financial approval of projects all of which were essential to the Army's well being. On the other, Ghulam Mohamed, the Finance Minister, and Mohamed Ali, the Secretary General, down in Karachi kept telling him to avoid as much expenditure as he could until, from whatever source, they could arrange some sort of basis for funding Pakistan's expenditure. I felt for Mirza, and quickly became friends with him; sometimes, too, I could ease matters by putting requests into an acceptable order of priority; Douglas Gracey, as Chief of Staff, was far too busy and indeed too dynamic to bother with such detail. He soon became happy for Mirza and I between us to negotiate some sort of solution between Karachi and the hungry Principal Staff Officers at Army H.Q.

To add to our difficulties, Naval and Air H.Q. were sited away from the Army alongside the embryo Ministry of Defence in Karachi. Joint planning at first was virtually non-existent, and there was an understandable tendency for the Army to think that the Pakistan Navy and Air Force got preferential treatment in all important financial matters because of their proximity to the source of supply. The Defence Secretary, Iskander Mirza, did his best to referee the situation, and I soon learnt to respect his ability to get things done, even if his method did not always stand up to close analysis. Iskander was, in fact, a master at playing both ends against the middle, a technique he had acquired early in his career as Political Agent in the North West Frontier Province. (A story about how he dispersed a large political procession of Pathans marching to Peshawar in support of Frontier Gandhi by

mixing castor oil in refreshments he served to them is omitted).

Above Douglas Gracey was Frank Messervy, whom Pakistan had to some extent inherited as C in C, since at the time of partition he was GOC-in-C Northern Command with his H.Q. already in Pindi. He had a well deserved reputation for gallantry as a fighting commander having first come to notice as a dashing Commander of a mobile column, Gazelle Force, in the successful campaign in 1941 to liberate Abyssinia. Subsequently he had commanded both 4th Indian Division and 7th Armoured Division in the Western Desert. While holding the latter command, his Headquarters was overrun by the Africa Corps and he himself captured in the early stages of Rommel's May 1942 offensive. Messervy removed his badges of rank, and, masquerading as an elderly private soldier, escaped three days later to rejoin Eighth Army. With the arrival of Montgomery, command opportunities for people from the Indian Army swiftly disappeared; Messervy returned to India, commanded 7th Indian Division in the Arakan, where his H.Q. was again surrounded, and subsequently a Corps in XIVth Army's pursuit southwards towards Rangoon. Messervy was an Etonian, an Indian Cavalry soldier, a polo player, and something of a traditionalist. I think he found it hard to accept that if one served an independent Pakistan, this meant carrying out the policy of that country's Government, whatever one's views about its wisdom or effects on the defence of the sub-continent as a whole. I found his personality impressive and he certainly possessed a considerable presence. Douglas Gracey and he, however, were poles apart temperamentally, and it was no real surprise when early in January 1948 Messervy announced that he would be leaving Pakistan on retirement in a month's time. Many Pakistani officers were sad at first to see him go, especially those in the Cavalry whom he knew well and who liked his approach to soldiering. But I doubt if Messervy was sufficiently flexible to have coped with the politico-military situation, which had developed as a result of the Kashmir problem, with whose origins I must now deal since for the rest of 1948, and indeed the remainder of my time in Pakistan, it was to dominate our affairs. Before he left, Frank Messervy kindly invited me up to his house for a drink. By this time, the Pakistan Government had decided

to appoint Douglas Gracey to succeed Messervy as C in C. Frank Messervy asked me if I intended to stay on with Douglas Gracey as his Private Secretary in these new circumstances. Though doing so would involve me being prompted, only temporarily of course, to the rank of Lieutenant Colonel at the age of 26, he (Frank) advised me not to do so. I would get involved in the complexities of the Kashmir problem, and he doubted if to do so would be in the best interests of my career. I listened politely, and thanked him for taking so much interest in my affairs. I did not, however, take his advice, and have never since regretted my decision; the next fifteen months were to be an education in politico-military situations, and the experience I gained then has stood me in good stead on many occasions since.

The transfer of power on 15th August 1947 had allowed the various States to opt for either India or Pakistan, and, after a triumph of persuasiveness by Mountbatten in the Chamber of Princes, almost all had effectively done so on sensible geographical or economic grounds, regardless of whether the Ruler was Hindu, Sikh, or Muslim. The two significant exceptions were Kashmir and Hyderabad, both of which felt themselves sufficiently large and powerful to sign standstill agreements with India and Pakistan, hoping by so doing to retain a large measure of their former status. A third, Junagadh, a small Kathiawar state of 700,000 Hindu inhabitants, but with a Muslim ruler, perversely opted for Pakistan, and by doing so caused a challenge to the whole accession concept. The details of the Junagadh issue need not concern us. Everyone recognised the absurdity of the situation, and the Pakistanis, though affecting to be mortally affronted, did not object too seriously when the Indians determined to take Junagadh into India by force. Kashmir, however, was on a very different scale. The Ruler's refusal to accede to either India or Pakistan before the transfer of power led to a major crisis, and the affair still bedevils the whole position between India and Pakistan as I write. Soon after 15th August, the Muslim majority in Kashmir began a series of risings against the Hindu ruler; by early September the position in the State was not only uncertain but had become dangerously unstable. Throughout September the uncertainty continued, the Kashmir Government

complaining that Pakistan was not only failing to provide supplies of essential commodities, but also sponsoring border raids into Kashmir in support of the local risings against the Ruler. The main factor in the crisis was, of course, the indecision of the Ruler, whose procrastination proved disastrous to himself as well as to the luckless people of his State. Finally, using the example of Junagadh to provide justification for their behaviour, the Pakistanis took the law into their own hands and connived at a large scale invasion of Kashmir by tribesmen from the North West Frontier Province.

I was not in Pakistan at the time this invasion was launched, being still at Dehradun and busy with implementing Operation Exodus. Even if I had been I doubt if I would have known precisely how the operation was organised, or who decided that it should go ahead. Certainly no-one at Army H.Q. was consulted; Terence Glancy told me that neither Frank Messervy nor Douglas Gracey had any inkling of what was intended. I cannot believe either that the Governor of the North West Frontier Province, Sir George Cunningham, was given previous warning. Rumour subsequently maintained that the operation originated on a political level through officials of the Muslim League,[@] and that such military planning as took place was the responsibility of former Muslim officers in the I.N.A. (Indian National Army) who had settled in Pakistan.

Whoever was responsible for organising the invasion of the tribesmen, it proved a disastrous decision, from both a military and a political point of view. The tribesmen were totally without discipline, and interested only in looting. The obvious military objective for anyone attempting to invade Kashmir from the north west was the airfield at the capital, Srinagar. With the airfield in the hands of the invaders, no help from outside could have arrived in time to save the valley of Kashmir from being occupied and its Muslim community freed to opt for Pakistan. Instead the raiders delayed on the route, pausing at Baramullah to sack a nunnery, and their numbers progressively decreased as pillaging individuals departed back home to the tribal areas with their booty.

[@] See the Introduction : number TWO-truth

Even more importantly, the invasion by the tribesmen forced the dithering Maharaja off his fence of indecision, and on 24th October,* unnerved by the rush of events, he signed a letter of accession to India. The Government of India accepted Kashmir's accession, and the Ruler left Srinagar, accompanied by his wife and son. Next day an Indian infantry battalion was flown in to the airfield at Srinagar, and, advancing to Uri, managed with difficulty, to hold the tribesmen there, though they suffered considerable casualties including the loss of their Commanding Officer. Secure in the possession of Srinagar airfield, the Indians steadily built up their forces in Kashmir, while the tribesmen, quite incapable of matching the regular troops of the Indian Army in positional warfare, soon began to disintegrate and return whence they came.

Jinnah, whose exact responsibility* for launching the tribal invasion will probably never be known, now faced an appalling dilemma. As Governor General of Pakistan, he could not afford to see Kashmir, now that it had legally acceded to India, simply occupied by the Indian Army. Opinion inside Pakistan would never accept the subjugation of their co-religionists without any attempt being made to help them. The result would inevitably be a resurgence of communal violence within Pakistan, quickly spreading across the border to affect the far more vulnerable Muslim community still in India. Furthermore the mainly Muslim area of Kashmir, with Poonch as its centre, contained the headwaters of the rivers running into the West Punjab, Pakistan's main agricultural province, and which was greatly dependent on irrigation for its prosperity. Jinnah realised that he had to do something, and gave orders through the Defence Ministry in Karachi for regular Pakistan troops to be moved into Kashmir. The order reached Douglas Gracey® on 26th October in Rawalpindi, where he was acting Commander in Chief in the temporary absence of Frank Messervy

*RL Batra, the Deputy Prime Minister of J and K flew on October 24 to Delhi with the Instrument of Accession signed by the Maharaja. However, the accession was accepted only on 25 October as explained in number two TRUTH in the introduction⁷.

*Sir George Cunningham the Governor of NWFP has this entry in his Diary on 26 October 1947—"Apparently Jinnah himself first heard of what was going on about 15 days ago, but said "Don't tell me anything about it. My conscience must be clear"⁸.

@Jinnah also asked Mudie the Governor of Punjab to pass this order to Douglas Gracey from Lahore. There was some heated exchange on telephone when Gracey did not agree⁹.

in the U.K. Gracey, realising the implications of complying with Jinnah's order, replied that he was not prepared to issue any such instructions without the approval of Auchinleck, the Supreme Commander. He then, with great difficulty, got through to the Auk in Delhi, and persuaded him to fly to Lahore, where Jinnah was staying with Mudie, the provincial Governor, to explain the consequences of executing his order. Auchinleck arrived in Lahore on the morning of 27th October; he told Jinnah that to send Pakistan troops into Kashmir, now that the State had acceded to India, would constitute an act of invasion. In such circumstances, he, the Supreme Commander, would have no option but to order automatically and immediately the withdrawal of every British officer serving with the Pakistan Army. Since such action would have made it quite impossible to reform and reorganise the Pakistan Army, which depended to a far greater extent than the Indian; on retaining the services of British officers, Jinnah, reluctantly accepted the Supreme Commander's decision, and cancelled his order.

It remained, however, vital for Pakistan somehow to defend the mainly Muslim areas of Kashmir outside the vale itself. A fiction, therefore, arose by which this territory became the responsibility of a local militia, known as the Azad (Free) Kashmir Forces, commanded by a regular Pakistani officer, who used the 'nom de guerre' of General Tariq.* Elements of the Pakistan Army found their clandestine way into the Azad Kashmir Forces in sufficient numbers to stabilise the military situation. British officers were strictly prohibited from taking part in these operations, and were not permitted to enter Kashmir. Both Messervy and Gracey were aware of the progressive reinforcement of the Azad Kashmir forces from the regular Pakistan Army. Neither, however, gave any instructions or advice to General Tariq, who dealt directly with Iskander Mirza, the Defence Secretary, and through him with Liaqat Ali Khan, the Prime Minister who also held the Defence portfolio.

Though this covert involvement of the Pakistan Army in Kashmir, byzantine in its complexity, was clearly not satisfactory,

*Real name Colonel Mohamad Akbar Khan DSO.

in practice it operated surprisingly well. The main credit for avoiding a major conflagration over Kashmir must go to the two Prime Ministers concerned, Nehru and Liaqat, who despite their differences, remained determined throughout to avoid full scale war between India and Pakistan. It helped too, that on 22nd December, the Indian Government, accepting a suggestion made ten days earlier by Mountbatten, decided to appeal to the United Nations Organisation. The Indian complaint, accusing Pakistan of having organised the original aggression by the raiders, and of continuing to support them, induced a degree of restraint on both sides within Kashmir itself. Furthermore the Indian commander in Kashmir, Kalwant Singh, finding his superiority in man and weapon power largely offset by the weather and the terrain, wisely pursued a policy of limited further involvement. From our point of view in Pindi, India's referral of the problem to the U.N. meant that there was now less danger of a full scale war between India and Pakistan. Army H.Q. involvement in the defence of the key areas of Kashmir thus became more overt, with Sher Khan, the extremely able Director of Military Operations, starting to give more specific direction to the Azad Kashmir Forces.

Messervy, understandably, in view of his basic approach to the role of a British Commander in Chief in an independent Pakistan, was not prepared to soldier on, in the equivocal situation over Kashmir, I have described. Douglas Gracey, more pragmatic, if sometimes naive in his understanding of politics, had fewer reservations; he operated a compromise by which he quietly released, normally without question, to General Tariq such resources as the latter needed to maintain a defensive role. Gracey, however, retained overall control of the Army, and, in particular, for planning the defence of the country should India, overcome by frustration over Kashmir, launch an attack into the West Punjab. Though there was still a British Commander in Chief in Delhi until the end of 1948, Roy Bucher's operational responsibility was far less than Gracey's in Pakistan. Moreover, in India, as opposed to Pakistan, there were already enough senior officers, sufficiently well trained and experienced to do without British support if necessary. We therefore had to reckon with the possibility of a surprise attack by India, unlikely though this might seem, certainly

while Mountbatten remained as a constitutional Governor General.

Experts on the Kashmir dispute, and those well versed in the politics of the sub-continent, will doubtless feel that I have been over simplistic in the way I have presented the political situation as it obtained at the start of 1948. If so, I plead guilty at once; I have tried, however, to indicate merely the main elements of the problem; since this constituted the form in which affairs appeared to me at the time. None of us were experts, least of all me; I quickly learnt though, how defence problems, in times of so-called peace, are inextricably mixed with political considerations. Though soldiers should not be politicians, and are seldom successful when they attempt to be so - General de Gaulle is the exception to prove my rule - some understanding of politics is essential in any military appointment near the top.

In Pakistan, Douglas Gracey was fortunate to inherit as Deputy Chief of Staff, Bill Cawthorn, formerly Director of Military Intelligence in undivided India. Cawthorn was an Australian, a brilliant staff officer with a clear and flexible mind. We positioned him in Karachi. There he provided professional military advice to Iskander Mirza and Liaqat, obtained their instructions and passed these on to us in Rawalpindi. As I have indicated, my boss, Douglas Gracey, found politics difficult, and itched always to be allowed to get on with his main interest and skill; the training of an Army for war. Thus, without anything being said officially, the job of dealing with Bill Cawthorn devolved increasingly on me, young and inexperienced as I was. Ross McCay, Gracey's successor as Chief of Staff, another Australian officer in the Indian Army, wisely kept himself aloof from the political scene. In any event he had such a full time task wrestling with the many administrative difficulties facing the Pakistan Army that he would never have had the time to master the non stop ebb and flow of politico-military topics which beset us throughout my time in Pakistan. Bill Cawthorn was a marvellous teacher; he always assumed that one was more intelligent than I must have often appeared. I owe him much and remain grateful for all he taught me, and for the confidence he placed in me to see that Douglas Gracey was adequately briefed

about political aspects. This was not always easy, though I found my boss a good listener on our many long car journeys round Pakistan. He was a quick reader too and not too picky about letters drafted for his signatures, provided these were explicit and unambiguous.

Just before Messervy left, the assassination of Gandhi on 30th January gave us a day or two of acute anxiety. I remember getting the news on the radio and recall our intense relief, when we heard that the assassin was an extremist Hindu, and fortunately not a Muslim. Gracey was at his best in such situations and seldom over-reacted. "Never take counsel of your fears", he used to say an expression he told me he had acquired from Bill Slim, and one I have often found useful myself, in many commercial as well as military contexts.

I think Douglas Gracey found the last few days before Messervy's departure a considerable strain. Their temperaments were totally alien, Messervy's phlegm contrasting sharply with Gracey's dynamism. Messervy seemed to me a procrastinator in many ways, though as a Corps Commander in Burma he had won a well earned reputation for pushing on whenever he saw an opening—in Pakistan, no doubt, he felt the situation to be different. Too quick a decision, in any field, might only add to the mass of problem, which already existed. Gracey's philosophy, by contrast, was one of instant, almost instinctive, decision. He recognised that the most brilliant decision maker would do well to get 50 per cent of them correct. In the case of 30 per cent or so the issue was as broad as it was long, with the decision mattering little. The 20 per cent or so of wrong judgements would, with luck, fall into the correct category next time. Meanwhile the worst one had done was to create a new situation.

We decided to combine the Chief of Staff's Secretariat with that of the Commander in Chief into a single unit, which I would head as PS(C). Underneath Major Inayat Khan, a good sound staff officer, worked directly to Ross McCay, the Chief of Staff. As a second staff officer in our Secretariat, we acquired Dick Learmonth, who had been working under Robin Ridgway for the Auk. Dick had been a tower of strength in Delhi, and proved as

good in his new incarnation. He specialised in tour programmes and the all important matter of relations with the Air Force about our Dakota. There was only one V.I.P. aircraft in Pakistan for the services at that time, and some forethought was needed over planning itineraries. Douglas Gracey needed little persuasion before accepting my idea that we should go for two Pakistan ADCs. I had known them both at the I.M.A., where they had been under Officers on the first course. Though both were cavalry officers, they were very different in character and outlook. Wajahat Hussain, delightful, courteous and well educated, came from Aligarh in the United Provinces. His parents were professional people and well known to Liaqat, the Prime Minister, whose provincial origins were similar. In the special circumstances of the new Pakistan, this link proved very useful, Wajahat often, and always tactfully, provided invaluable input to our deliberations. In keeping with his position as an officer in the Guides Cavalry, Wajahat was a fine horseman; he had won the equitation prize at the I.M.A., and was already developing well as a polo player. It was no surprise, and a great delight to me, that Wajahat had a distinguished subsequent career, which led through command of his regiment, an armoured brigade, a division to Commandant of the Staff College in Quetta at the time of General Zia Ul Haq's coup which unseated President Bhutto. Wajahat's background and outlook made him, in Zia's opinion, unsuited for high military command in his dictatorship. Instead, partly because of Wajahat's own qualities and also because they had been brother officers in the Guides Cavalry, Zia transferred him to the Foreign Service. Wajahat was thus first Ambassador in Athens, where my wife, Jean and I gave him lunch on one of our business tours and, subsequently in Australia, where he achieved considerable success and proved a fine representative of his country. Happily Wajahat has remained a great friend and Jean and I look forward to entertaining him and his wife whenever they can come to England.

✓ Bashir Babar, the other ADC, from Probyns Horse, was a Pathan from a country gentleman style of family, not far from Nowshera in the North West Frontier Province. Like Wajahat, he was beautifully turned out and had the same impeccable man-

ners. Though just as intelligent, he was more extrovert than Wajahat, and Douglas Gracey found him admirable company. Bashir had an admirable sense of the ridiculous and regularly regaled us with the latest gossip from within the HQ and also collected on our various tours. His personal qualities apart, Bashir was a fine games player, with tennis as his speciality. Most evenings, after work, he and I would motor to the Club and engage in closely matched contests, usually over three sets, though sometime darkness would stop play before we had time to reach a decision. Bashir too had an excellent subsequent career. Tragically, for his family and for Pakistan, it was cut short by his death in a helicopter accident, while he was acting as Chief of Staff of a division at an unusually early age. Otherwise he would surely have risen rapidly higher and proved a challenger for posts at the very top of the Pakistan Army. Like Wajahat, Bashir Babar was a man of great integrity and high quality. I enjoyed serving with them both and owe them much for their loyalty, efficiency and good company. (A portion describing the office routine in the GHQ is omitted).

As I have already indicated, Douglas Gracey was, by temperament, an outside General and liked to be away from Rawalpindi on tour whenever possible. These tours were the best part of the job, and I needed little encouragement to set them up. There was plenty to see, it was stimulating to watch a new Army taking shape and, the defensive battle in Kashmir apart, there was an operational plan to make for the defence of the West Punjab. Douglas Gracey explained to everyone and soon managed to get the principle accepted that Pakistan had no hope emerging victorious from a war with India. The latter's resources were altogether too strong; the only hope of success would be if India attacked first, became unbalanced in the effort to capture the huge city of Lahore 10 miles inside the Pakistan frontier and so became vulnerable to a well timed counter attack. In this context all depended on correct positioning of Pakistan's only armoured brigade and the timing of its move by rail over the Jhelum Bridge before deploying into the Punjab plain. In 1948 Pakistan had no Corps H.Q. Thus Gracey planned to direct the operation himself much as Auchinleck had done with Eighth Army in the Desert in

1942 after the departure of Ritchie. It might just have worked, but only if the Indians had made major mistakes. Looking back, I am delighted that our plan remained a concept and never required to be implemented.

Our military tours, therefore, fell into two rather different categories, those to the field force involved in the defensive plan referred to above; the remainder to training units and establishments busily starting to train for the future. The most important operational formation, 7th Division to which the main counter-attack role would fall, was stationed round Rawalpindi. It was commanded at first, and until 1949, by a British General, Loftus-Tottenham, a 2nd Gurkha-solid and sensible. Loftus reminded me of Eveleigh in style and to some extent in appearance. His common sense gave everyone great confidence. While his deliberate approach to situations well complemented Gracey's fiery temperament. There were also good subordinate commanders in 7th Division, Hyad Din, Ahmad and Azhar Khan, who had done their first service in my Regiment, knew Vic Turner well and delighted in wearing a regimental tie. Many years later in 1982, long after Azhar had retired, when I revisited Pakistan at the invitation of the President, I took him a new Rifle Brigade tie as a present. He was overjoyed and the neat prayer mat he gave me in exchange now decorates the floor of my dressing room.

The all important defence of Lahore was in the hands of 10th Division, commanded by the outstanding Pakistani General of his generation, Iftikhar Khan. 'Ifty' was an admirable commander, with a positive personality to match his considerable military attainment. Tough, sensible and well versed in his formation in his approach to politics. He was balanced and understood the need for the Army to distance itself from such considerations. It was a disaster for Pakistan when 'Ifty', shortly after being selected in 1950 to be the first Pakistani C in C, was killed in an air crash together with Sher Khan by then promoted Major General. The loss of these two officers affected the whole course of Pakistan's history. I doubt if Iftikhar, whatever the temptation and however dire the alternative, would ever have entertained the possibility of a military takeover. He was a big enough man to

have imposed such a philosophy on the Army and it is Pakistan's misfortune that he was denied the opportunity. (Details of tours to other stations omitted).

NOTES

1. Mohamad, Akbar Khan Major General, DSO in *Raiders in Kashmir*, (Karachi : Pakistan Publishers, 1970) and his interview with Brigadier AA Siddiqi published in *Defence Journal* (Karachi) June - July 1985.
2. Ibid.
3. Khurshid, KH, *Memories of Jinnah* (Karachi : Oxford University Press, 1990). Also audio recording of discussion on BBC on 25 November 1991, in the series 'conflicting opinion on Jammu and Kashmir'. Participants were : Professor Alastair Lamb author of the book '*Kashmir : Disputed Legacy*', Sir Mark Tully the BBC representative in Delhi for 20 years and Dr Wiqar Ahmad of Urdu Service of the BBC.
4. Ibid.
5. Mahajan, Mehr Chand, Chief Justice of India, *Looking Back : An Autobiography*, (New Delhi: Asia Publishing House, 1963).
6. Mehdi, SGS, Colonel, *Mehdi Papers, Serial Three*, (Karachi: Mehdi Foundation, 1987).
7. Mahajan. He took over Prime Ministership of J and K on 12 October 1947 and plunged into discussion about the accession of the State with Jinnah's emissary Major Shah who was a Secretary in the Government of Pakistan. His candid account of the drama of accession of Jammu and Kashmir is most revealing.
8. Quoted by Noorani AG in his review of the book '*Kashmir : Disputed Legacy*' by Professor Alastair Lamb in *Frontline* magazine of 27 March 1992.
9. Gul Hassan, Lieut General, *Memoirs* (Karachi : Oxford University Press, 1995). Gul Hassan was asked to be in Lahore to act as ADC to Jinnah during his visit to Lahore even though he had relinquished this appointment sometime ago.

Indo-Pakistan Relations : The Quest for Peace

MAJ GEN VINOD SAIGHAL (RETD)

In just a few months from now the subcontinent will be arriving at a Golden Jubilee - that of its partition. And how will the people of the subcontinent celebrate the event. Will there be parades and dancing in the streets; or will the year be heralded by special cannonades along the frontiers. Will there be bigger killing sprees to chalk up a befitting golden score? Or will it be a time for reflection: to ponder over lives lost, energies wasted and opportunities missed.

There can be no mistaking the fact that the problems facing these countries have assumed dimensions not even remotely grasped by their governing hierarchies. Whether these problems relate to ecology, demography, illiteracy, poverty or drugs, they can only be effectively tackled by a joint effort on a subcontinental basis; and that too in the next five or ten years. After that the immensity of these problems will propel the subcontinent into a state of terminal decline. At that point in time it will make scant difference whether India and Pakistan are at war or peace. These two nations by their incessant bickering have not only pushed their respective peoples into a nearly irreversible decline but they have been responsible to quite an extent for dragging down the other nations of the subcontinent as well. Not an enviable record after fifty years of independence.

If the establishments governing these countries are oblivious of all this, then the time has come for the people of the subcontinent to wrest the initiative from their masters, not friends. To begin with, the simple fact that the Radcliffe award was a cartographical delimitation has to be grasped. It is possible to draw a line across a map in one fell swoop and call it partition. It is not possible, however, to delineate a Radcliffe award across millennia of shared history, culture and kinship. The geographical

separation of fifty years - an aberration viewed from another perspective - cannot efface overnight, the shared existence of a hundred generations of common ancestors, tilling and mingling with their sweat, blood and tears the same soil. A reading of the shared history shows that there were periods of extreme turbulence, intense religious persecution, uneasy co-existence and periods of harmony. The periods of productive harmony were the makers of a historical landscape of the last millennium; which witnessed an unique blend of art, architecture and music that enriched the subcontinent. It is as much the heritage of every Indian of today as that older heritage that moulded the spirit of this ancient land, which is re-emerging to shape the destiny of India, the subcontinent and mankind.

One more aspect which cannot be glossed over relates to people who changed their religion. The increase in the converttee population over the centuries was not the result of large-sized influx of alien hordes but resulted from a process of conversion. This could have been due to coercion, opportunism or genuine appreciation of the tenets of other faiths.

Whatever the reason for embracing the other faiths, there is no denying that the other fellow is as much a product of this land as anyone else. The faiths may differ but there is no difference whatsoever in the "Indianness" of every inhabitant of India, Pakistan or Bangladesh. They are as much sons of the soil as anyone else; irrespective of the displacements forced upon them in every century by grinding poverty, terror, mass killings, droughts or more recently, the overweening ambitions of some of the leaders of the subcontinent in the years leading upto partition.

The destruction of mosques, temples or shrines is not really helping anyone. It leads only to senseless reprisals, instigated by religious bigots. An even greater loss is the destruction of the common heritage. Which sane person in India, Pakistan or Bangladesh would have been happy at the destruction of Babri Masjid or Charar-e-Sharief or the countless temples. Does not the destruction of Kabul diminish every Indian, Pakistani or Bangladeshi. It is tempting to speculate whether Afghanistan could

have suffered the fate it did; if the nations of the subcontinent had not been involved in infighting. The question that should be foremost in everyone's mind is "who is going to put a stop to this madness which is dragging everyone down"? For nobody can claim to be winning. Everybody knows that they are losing. Meanwhile, the subcontinent from Kabul to Kashmir and Karachi to Colombo sinks deeper into the mire.

History cannot be unmade, whether it be of the last thousand years or of the last five decades. Nobody can go back in time to 1946 or 1947. It is not possible. It is not desirable. The scars left by the bloodshed of partition and the post-partition conflicts cannot be easily obliterated. It is possible, however, to pause for a moment and take stock. The people of the subcontinent are more than ready for sensible accommodation. A start can be made by rooting out the purveyors of hatred from every corner of the subcontinent. The daily tirade of hatred beamed at each other must cease; the world also must be spared the constant agony of being subjected to this incessant bickering.

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Letters to the Editor

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

I

Dear Sir,

I read the article "SURPRISE DECEPTION AND UNPREDICTABILITY IN OPERATIONS" by Major General B.S Malik (USI Journal, Jul-Sep 1996).

It made interesting reading as it struck the right cord in the soldier who has donned the uniform for professional satisfaction and adventure. However the spirit of doing the thing differently is mostly viewed as being rebellious unless one is lucky to have like-minded Commanding Officer. There is no doubt as officers rise in service and rank they tend to play safe. To an extent it is correct for they have greater responsibilities of commanding formations. What actually is a matter of great concern is when this attitude is stretched to absurd levels. No matter how differently and successfully a task is done by young and sometimes older officers, appreciation and acknowledgements are hard to come by.

The concept of a "gunman, poacher and gambler" being the virtues of a good soldier are unheard of in the academia. Most of the officers are fed on a dose of advantage of getting good gradings and annual Confidential Report rather than being imbued with a spirit of adventure and risk taking for it is failure prone.

The zero error syndrome is like a virus which is degenerating our Army. Officers are doing jobs and tasks, previously looked after by the NCOs and the JCOs in order to over ensure things. Getting a job done correctly is being seriously misinterpreted as doing the job yourself without any mistake. Such an attitude is prevalent more so, when a senior officer visits a Unit or an Officer's Mess. Those not adhering to this norm, but still getting the

task completed by careful set of instructions are termed as black sheep and they can most of the time forget about getting more brass on their worthy shoulders.

F-21/12, Noida

Yours Sincerely,
Capt. Puneet Gopalam

II

Dear Sir,

Brig. R D Law's article on Light Armour published in your Jan-Mar '97 issue made very educative reading. Although I fully agree with his contention that the reconnaissance factor is an essential one for armour operations, I am sceptical about the raising of the seperate light armoured regiments for this purpose, in our context. The physical distance covered by armour in our case, is negligible. I don't think it will make any difference to our armour operations, even if we had reconnaissance regiments as of yore. Our problem is the incorrect employment of armour. Brig. Law, in an earlier article highlighted the value of "concentration", a principle that we have consistently flouted - herein lies our problem. We are wary of taking calculated risks with armour.

The terrain where armour operations are visualised, along our border, is rife with successive water obstacle based defensive networks. What is required to overcome this is the air land battle mode. Brigadier Law's suggestion to expand our Army aviation is the only way to ensure this capacity. We should have one infantry division per strike corps on air-land battle mode.

On Brig. Law's reference to surveillance, we must comprehend the gamut of information warfare. We should have information regiments in lieu of reconnaissance regiments. We should also have three armoured brigades on the establishment of an armoured division in place of the current two and they must be armour heavy. The self defeating independent armoured brigade should be scrapped and the armour commanders should be risk takers!

Yours Sincerely,
Lt. Col J K Dutt (Retd)

III

Dear Sir,

The article "Data protection and Information Security" by B. Raman in USI Journal of Jan-Mar 1996 highlights the importance of data security in the present environment where everything depends on computers and most of the data is stored in the hard disk of the system. These systems are not only connected within the offices on a local area network (LAN) and wide area network (WAN), but are also connected to the super information highways like Internet. This ease in flow of information is causing a lot of problem to the security managers who are posed with problems like 'time bomb' and 'trojan horse' and hackers sitting in Russia have been able to electronically transfer huge amount of money into their account illegally from the US banks even without stepping in the US!

The author has covered the vulnerability of information technology (IT) systems, parameters of good data security system, risk management and counter-measures. In the present scenario of high vulnerability to it, where a hacker can break into the highly sophisticated data protection system of the banks, there is no denying the fact that our local system and hard disk becomes highly vulnerable and the author describes a good data security system in four categories from outstanding to bad. He has analysed the problem and attributed this to mainly three factors, as under:

- a) Human element.
- b) Technical element.
- c) External element.

As a certain check, the author has given three categories of persons who are authorised to handle the sensitive data, as under :

- a) Category I - authorised to read, input, modify and erase data.

- b) Category II - same as Category I but cannot erase.
- c) Category III - authorised only to read data.

The author has also suggested excellent counter measures which are equally applicable to us, in the Armed Forces, as under:

- a) Avoid LAN or WAN.
- b) Use coding for sending data.
- c) A total ban on outside floppies.
- d) Purchasing only sealed floppies.
- e) Test all free software and gifts with the computer books.
- f) All new software be tested through experts for virus.

The author has gone into all the finer aspects of data security system which is a real security hazard in the present scenario, if not checked at the root level. The article gives a deep insight into the importance of data security and is highly recommended for anyone interested in the computers, from PCs to Pentium.

Yours Sincerely,
Maj P Kumar

Review Article

Surrender at Dacca*

LT GEN S L MENEZES, PVSM, SC**

As is well known the 1971 campaign for the liberation of Bangladesh was swift, some 13 campaigning days, conducted on riverine terrain, eminently suitable for defence. It is the greatest feat of our post independence military history. The official account has not yet been released. As to this book, at the very outset it needs to be said that the narration could not be more authoritative, in as much as the author was Chief of Staff at HQ, Eastern Command, Calcutta and thus Chief of Planning Staff in the East for a campaign that was thrust on India. Lt. Gen Jacob is well known as a cerebral military writer and, in this book, he has excelled himself. A comprehensive yet concise magnum opus, covering success, failures and shortcomings, objectively.

The events leading to the creation of Bangladesh, beginning with the Pakistan Army's crackdown in East Pakistan on 26 March 1971, to the outbreak of a full-scale conflict following the Pakistani bombing on Indian airfields in the West on the evening of 03 Dec 71, and the subsequent military operations leading to the surrender of Pakistan's Eastern Command, are lucidly encompassed. The exposition of the evolution of the strategy for the campaign is masterly - the selection of the thrust lines using subsidiary dirt tracks that by-passed centres of resistance, axes of maintenance being opened up later. The objectives selected were communications centres in relation to the geopolitical heart of East Pakistan - the capital, Dacca. The great contribution the Mukti Bahini made in the liberation of the country is emphasised.

The pressures exerted on India at the Security Council and

*Surrender at Dacca : Birth of a Nation, By Lt. Gen J.F.R. Jacob, New Delhi, Manohar, 1997, p. 263, Rs. 400.00, ISBN 81-7304-189-X.

** Lt Gen SL Menezes is a former Vice-Chief of the Army Staff and the author of well known book *Fidelity and Honour : The Indian Army from the Seventeenth to the 21st Century*, New Delhi, Viking, 1993.

Journal of the United Service Institution of India, Vol CXXVII, No. 528, April-June, 1997.

the pro-Pakistani stance of China and the USA are highlighted by the revelatory appendices, some published earlier by the columnist Jack Anderson, in addition giving a first-hand account of the negotiations leading to the signing of the Instrument of Surrender. In the event, however, the once-in-an-era advantages gained on the battlefield were squandered in the political negotiations at Shimla in Nov. 1972. The sequential geopolitical environment resulting from the creation of Bangladesh was not adequately understood. A chapter on "Lessons" objectively analyses our adhoc higher command set-up for war.

Throughout history, the conduct of military operations has been shaped to a considerable degree by the personalities involved, as also the inter-se relationships between them. The encapsulation of the performance of the 'Dramatis Personae' is succinct. I quote only some of the many incisive personality sketches in the sequence recorded, lest we forget their contribution.

"Air Chief Marshal PC Lal, Chief of the Air Staff... was a highly pragmatic capable officer, down to earth and practical... Gen Sam Manekshaw was the Army Chief at the time of the greatest Indian Victory in recent memory ... He had stood up for the Army ... He was a man with commanding personality ... Throughout this crisis Manekshaw conducted himself with great dignity ... He was dedicated to the Army, and upheld its dignity. As Army Chief and Chairman of the Chiefs of Staff during the 1971 war, the overall responsibility for operations was his ... Sam can rightly take his place among the great leaders of independent India".

"Jagjivan Ram ... was perhaps the best Defence Minister we have had. He had an excellent grasp of military strategy. It was Jagjivan Ram who made sure that the requests of the three Services - manpower, weaponry, equipment and infrastructural facilities ... were provided as far as possible".

"Of the Corps Commanders, Lt Gen Mohan Thapan stood out as a man of principle and conviction. He had professional integrity and was competent. He oversaw the operations of his Corps effectively. He was well-liked by his staff and subordinate

commanders ... He was well-served by Maj Gen Lachhman Singh who commanded 20 Mtn Div. This Division had to clear some of the heaviest enemy opposition in the campaign. Lachhman Singh secured his objectives as planned".

"Lt Gen Sagat Singh had dash and personal courage ... His divisional commanders Maj Gen 'Ben' Gonsalves and 'Rocky' Hira and Krishna Rao, displayed initiative and were largely responsible for the success of 4 Corps whose offensive was swift and well-executed. Overall credit must also be given to Lt Gen Sagat Singh who was the driving force behind the 4 Corps Offensive".

"Maj Gen Gurbax Singh Gill was commanding 101 Communication Zone. He had drive and the courage of his convictions ... Gurbax was a fine soldier, down to earth ...".

"Maj Gen Inder Gill took over as Director Military Operations at Army Headquarters in August 1971... An officer of very high calibre, practical, competent and down-to-earth ... stood out head and shoulders, above the other Staff Officers at Army Headquarters."

"Indira Gandhi was Prime Minister during the critical period prior to and during the operations for the liberation of Bangladesh. She realised from the very beginning that intervention was inevitable. As there was no National Security Council, no Chief of Defence Staff and no effective co-ordination of the various intelligence agencies, she was perforce obliged to seek advice from the heads of various agencies and personal advisers ... Indira Gandhi was pragmatic, determined and courageous. She stood up to Nixon and the pressures from the US. She led the nation to its greatest military victory, restoring our prestige and raising India's status to that of a regional super-power ... The liberation of Bangladesh was Indira Gandhi's finest hour ..."

"Perhaps the most important role played during my tenure was by the Chief Engineer ... much of the credit for our success in the operations in East Pakistan should go to Brig 'Baba' Bhide".

The sentient author rightly concludes on an emotive and evocative note, "The rifle and helmet that form the centrepiece of

the Amar Jawan War Memorial at New Delhi, India Gate once belonged to a soldier, unknown to history who died on the battlefield on the outskirts of Jessore. There is no inscription on this memorial ... There is an inscription chiseled into the living rock in the War Memorial at Kohima, to those who fell in that World War II battle. It reads -

When you go home
Tell them of us and say
For your tomorrow
We gave our today.

They are equally appropriate for our jawans who laid down their lives in the rice paddies of Bangladesh. Let us not forget them."

On this facet one can only add that our National War Memorial needs to be constructed expeditiously, 25 years after it was first mooted in 1972 by the then Chiefs of Staff.

Overall, an unputdownable read, highly recommended. The author comes across as one of the most devoted and dedicated professional soliders of our Army. The quality of production also needs to be commended. A remarkable book from every point of view.

Short Reviews of Recent Books

Nationalisation of the Indian Army 1885-1947. By Lt Col Gautam Sharma, *New Delhi, Allied Pub, 1996, p.259, Rs. 275.00, ISBN 81-7023-553-3.*

This subject has featured as chapters or sections of several books by various authors, eg, Professor Stephen Cohen, but this is the first time that a complete book has appeared on the subject. This work has been published as a result of a fellowship awarded to the author by the Indian Council of Historical Research. The author's concern for the Indianisation of the Indian Army in the period in question comes out in the dedication itself, "To the Youth of India who inspite of obstructions by the British proved their gallantry and leadership as Military Commanders". While the author prefers the term "Nationalisation", till 1946 the then Government used the term "Indianisation", though the late Pt Motilal Nehru correctly in 1928 sought to use "de-Europeanisation".

Before World War II it was the stalwart Indian legislators, who pressed the Government for Indianisation. With the onset of World War II, the issue of Nationalisation, changed substantially. After 1939, it was the Government which made efforts to attract Indian youths for the officer cadre. While it is true, as narrated by the author, for the period selected by him, that the majority of the British officers opposed Indianisation, yet many favoured it. In 1885, the Secretary, Army Department, Major General Sir George Chensney, and the Viceroy Lord Dufferin, favoured it, but the then Commander-in-Chief, Lord Roberts, opposed it. Thereafter, Lord Curzon's many endeavours with the War Office could only result in the feudal Imperial Cadet Corps. As late Durga Das has said, "For his times, Lord Curzon was a friend of India". Subsequent Viceroys, like Lords Hardinge, Minto, Chelmsford and Reading, endeavoured to the best of their ability on behalf of Indianisation. Even in the 1939 Indianisation Committee, Major (later Major General and Director Military Training) D.R. Bateman, a witness who appeared before the Committee, as did Major Cariappa, was upbraided by the British Chairman for favouring Indianisation and using terms like "legitimate grievances".

An extensively researched work, both of the National Archives and Historical Division of the Ministry of Defence, but somewhat marred by perfunctory proof-reading and checking, resulting in an avoidable Errata sheet. Errors and omissions excepted, this book undoubtedly has a niche for itself, among the books written on the pre-Independence Indian Army.

— Lt Gen SL Menezes, PVSM, SC (Retd)

Light And Shade In Combat Soldiering : The Evolution of a Good Grenadier Officer, By Brig. Joe Nazareth (Retd), *Poona, The Military Highbrow, 1996. p.119, Rs. 450.00.*

This is an autobiography of an outstanding officer of the Indian Army who

established himself as a good soldier and a military writer who won the United Service Institution of India's gold medal and also received many prizes for his military writings.

In his autobiography, Brigadier Nazareth describes his early education under trying conditions both at the school and college. He supplemented his college educational expenses by taking odd tuitions.

Nazareth did the young Combat Officers' nine months course at the officer training school Mhow where he excelled himself both in sports and at various drills. As a Captain (junior most officer) Nazareth underwent the staff course, at DSSC, Welington where he developed his writings and contributed extensively to the college magazine - the "Owl". In 1963, he joined the staff college as a directing staff. The writer of this review underwent the staff course at the same time and was impressed by his knowledge of military matters as well as international and domestic affairs.

An excellent book which should be read by all young officers to inculcate the qualities of good leadership. A good addition to all libraries.

— Commodore R.P. Khanna AVSM
Indian Navy (Retd)

KASHMIR : A Tale of Shame, By Hari Jaisingh, *New Delhi, UBS Publishers' Distributors Ltd., 1996, p. 235, Rs. 250.00, ISBN 81-7476-095-4.*

On Kashmir, abundance of literature is available. Even then books on Kashmir continue to flood the market, due to the importance of the subject and the changing dynamic scenario.

This volume by Hari Jaisingh makes a valuable contribution. The chapters on the history, from Vedic age to 1947, are very informative. Subsequently the events too are well covered. But the author appears to be rather harsh in his judgement on some of the personalities involved. Moreover, some of us may not, subscribe to his views fully. He is very critical of Mountbatten's role and accuses him, of wanting Kashmir to merge with Pakistan and promote western strategic interests. He is critical of Nehru for accepting plebescite, stopping the march of our Army, when they were poised to free J&K of raiders, completely and also for taking the problem to the UNO. on advice of Mountbatten. He is also critical of Sheikh Abdullah for his "shady" behaviour. He is critical of successive governments in New Delhi for playing games. He is not happy with Indira Gandhi, Rajiv Gandhi, V.P. Singh and Chandra Shekhar for various omissions and commissions. He also has uncharitable comments to make, on the conduct of Kashmiri Pandits. The Author holds strong views, backed by facts. He appears to be angry with the way events have unfolded, during the last fifty years in Kashmir.

The book is well researched, written in easy and lucid style. It will be a useful addition to any library.

— Maj Gen Ram Nath (SM) (Retd)

The International Dimensions of Internal Conflict : Ed. by Michael E. Brown, Mass., *The MIT Press*, 1996, p. 654, \$ 25.60.

Michael E. Brown, Associate Director of the International Security Programme at the Centre for Science and International Affairs (CSIA) at Harvard University has dealt with the most important agenda of international relations i.e, 'Internal Conflict'. Intrastate conflicts have practically engulfed all the regions of the world and pose a serious threat to international peace and security. The resultant fallout has displaced millions of people besides mass scale killings. In the available literature on internal conflicts researchers have not come out with widely accepted answers to the problem. The volume makes a systematic attempt to identify the missing gaps in the research carried out on internal conflict. The causes and consequences of internal conflict on the neighbouring states including the refugee issue and economic repercussions have been focused in a scholarly manner. Michael E. Brown has done a wonderful job with his fourteen contributors in the book under review to highlight the issues facing the former Yugoslavia and the Balkans, East Central Europe, Russia and former Soviet Union, South and Southwest Asia, the Middle East, North Africa, Central America and South America. Besides this, the role of negotiation and mediation by the non governmental organizations, the United Nations, collective security organization and the effectiveness of economic sanctions have been very well highlighted in the book.

The book has been divided into three parts with maps and tables which make the understanding of the complex issue of internal conflict easy for the reader. A well researched and well timed addition to the existing literature on the subject. It is highly recommended for policy makers, peace keepers and research scholars.

— Major Sunil Chandra, Ph.D

India's Northeast Resurgent : Ethnicity, Insurgency, Governance, Development, By B.G. Verghese, Delhi, *Konark Publishers*, 1996, p. 475, Rs. 450, ISBN 81-220-0455-5.

India's Northeast, originally a bridge to lands further east, the region was rendered all but land locked by Partition which dealt it a cruel blow from which it is yet to recover fully. The completion of infrastructure will open up this resource-rich region to a new and significant phase of development which is likely to present attractive alternative to agitation and insurgency.

The book deals with the seven states of Northeast proper viz Assam, Meghalaya, Arunachal, Nagaland, Manipur and Tripura as well as Sikkim and the Darjeeling - Gorkha Hill area, making nine units in all. Sikkim has already been admitted to the North Eastern Council and North Bengal, beyond the Siliguri corridor, is integrally linked to the Greater Northeast.

Insurgency came with the Naga assertion of not being part of India. The Mizos made a separatist demand but did not press it. Other insurgencies have

been essentially internal rebellions seeking amelioration of certain grievances or local autonomy. These have been aided by some foreign countries and have been contained by counter-insurgency measures. The security forces have been able to instil confidence amongst the local population and protect them from the insurgents. This book looks at problems of ethnicity, governance and development in the Northeast. The people of Northeast want peace and an end to mindless violence that can achieve nothing but hinder development. The author has carried out a comprehensive research and produced various facets of the Northeast region. A very good and well documented book for all students of history.

— Maj Gen. Prem K. Khanna, MVC (Retd)

Crisis Prevention, Confidence Building, and Reconciliation In South Asia : Ed by Michael Krepon & Amit Sevak, *New Delhi, Manohar, 1996, p. 276, Rs. 425.00, ISBN 81-7304-144-X.*

The fifty years old animosity between India and Pakistan, continues unabated, causing much suffering to the people and retarding economic progress. This volume is most timely and first of its kind. The authors who have made contributions are from India, Pakistan, China and USA. They have made concrete proposals, to help avert future conflicts and to encourage regional cooperation. They have also listed out CAMS and CBMS that could be undertaken, to help in our goal, of eliminating the 'Cold War' between India Pakistan. Both the editors, are experts in international affairs. Foreign policy makers and diplomats will find this book educative and thought provoking.

— Maj Gen Ram Nath (SM)

Asian Security 1995-96 : By Research Institute for Peace and Security, *London, Brassey 1995, p. 261, £ 25.00, ISBN 1-85753-113-2.*

The comments in the study by the Tokyo Institute, cover practically all major countries of Asia but in some cases views have been taken by new events. The basic thrust of the book is, on whether the type of cooperation obtaining in Europe can be replicated in Asia. The general view expressed is that preference in Asia is for loose agreements that afford flexibility.

The primary security concern according to the Institute is the US withdrawal from the East Asian Region and the Chinese long term intentions particularly their aspirations in the South China Sea.

The chapter on China's perception on security is a refreshing departure from the stereotypes. The suggestion is that China will need West's assistance for its military modernisation for a long time and ultimately it is the impact of US, Russian and Japanese policies that collectively may determine the future course. The overall view expressed is that China could be a major security concern of all East Asian nations and this could lead to an arms race.

The study feels that Indian security and stability will be determined by its economic management. On Pakistan much of the description is outdated as recent developments have changed the situation dramatically.

The book has a great deal of information but in certain section it is more descriptive than analytical.

— Air Marshal K.D. Chadha

Asian Security Handbook : An Assessment of Political - Security Issues in the Asia-Pacific Region : Ed. by WM Carpenter, David Wiencek, *New York, ME Sharpe, 1996, p.301, \$ 27.95, ISBN 1-56324-814-X.*

Western interests in the Asia Pacific region have dramatically expanded over the last few years. While economic development is predicted to continue in the region, the assumption of political stability on which it depends is clouded by major security uncertainties lurking in the background, which could undermine the relative stability of the region. This book takes on wide ranging review and analysis of regional issues and the task of explaining and analysing the formidable and complex array of forces engaged in Asia.

The end of Cold War has not fundamentally altered many of the region's geopolitical realities. True, the large scale Soviet threat has disappeared, and with it the rationale for much of the region's traditional security and defence preparedness, thereby creating new dilemmas for defence planners. Long time tensions do exist between the two Koreas, China and Taiwan, India and Pakistan and the possibility of a military clash over the contested Spratly Islands. The book examines many uncertainties and unresolved issues, which will determine the future power balance based on the role of China and the United States in the region. This in turn will have a dramatic influence on how other nations in the region develop their security strategies and configure their military forces. The book makes important contribution that should be read alike by policy makers, analysts and students.

— Col RPS Malhan, YSM, SM

Colonial Masculinity : The 'Manly Englishmen' And the 'Effeminate Bengali' In the Late Nineteenth Century : By Mrinalini Sinha, *Manchester, Manchester University Press, 1995, p.191, £ 14.99, ISBN 0-7190-4653-X.*

The author has critically examined and projected the colonial strategies administrative, economic and social, resulting in controversy about the upper class society in India, particularly in Bengal. The colonial cliché of the effeminate Bengali Babu was a consequence of this "colonial masculinity", during the last decades of 19th Century.

Her study discusses the course of social revolution through the Ilbert Bill - 1883 which accorded jurisdiction to native officials over Europeans in moffusil areas, the Native Volunteer Movement 1885, whereby the Indians sought to organise themselves as a body and the Public Service Commission

recommendations of 1886. Interestingly, the Anglo Indian Community became a reckonable voice in these controversies. In the field of social reforms the passage of the Age of Consent Act in March 1891, raised all-India reaction from reformist social leaders and conservatives. By this Act, consummation of marriage with a girl under 15 years of age was dubbed as a criminal offence. The Bengali elite was voluble in these controversies.

Mrinalini Sinha's thesis has placed "colonial masculinity" as the key factor of social conflict in Bengal of the 1880s, and makes material contribution to social history.

— Maj Gen SK Talwar

Pakistan At The Cross-Roads : By Mushtaq Ahmad, *Pakistan, Royal Book Co. 1993, p. 266, Rs.300.00, ISBN 969-407-154-2.*

This book was first published in 1985, and the second edition in 1993. The book is based largely on the weekly column, contributed to DAWN. It is an authentic version of the Zia regime, covering first eight of the eleven years of his government.

Zia's government was one of crisis, dealing with one crisis after another. In Pakistan, successor governments have been critical of their predecessors. The new rulers have been quick, to dust off the old slate and replaced them by their own formula. Ghulam Mohammed's assault on the constitution was one instance and Ayub Khan's controlled democracy another. Though the source of power of Zia-Ul-Haq was also the Army, religion was the chief weapon in his armoury.

The volume gives a comprehensive analysis of the martial law regime and deals with the diversity of political ideas, economic policies, social objectives and exploitation of religion by the head of state. It attempts to understand the developments, which brought the country at crossroads, during that period of history of Pakistan.

The author, after his Masters from Bombay University, had a distinguished academic career, besides research and writing, over four decades. He is the author of more than a dozen books.

It is a good introduction to Pakistan of the eighties.

— Maj Gen Ram Nath (SM)

The Contemporary History Hand Book : By Brian Brivati and others, *Manchester University Press, 1996, p.488, £ 17.99, ISBN 0-7190-4836-2.*

The Contemporary History Handbook is in three sections which cover Debates, International Perspective and Sources. Each of the sections has views expressed by scholars on subjects affecting contemporary history. The aim of

the editors is to re-kindle quest for history which perhaps today is getting swamped by electronic media and where visual images and audio sources are being preferred to the written word.

In the section on Debates the discussion is mainly on Europe, the decline of colonial empires, welfarism, gender issues, as also on approaches to history. Hegel and Fukuyama are commented upon extensively and there is a cynical comment that perhaps ignorance is today a pre-requisite to the writing of universal history.

In the section on International Perspectives the comments of interest are those on Russia, China and India. The main poser on Russia is whether it can create democratic minds and institutions to manage conflict. In relation to China the primary question is, not that it is all set to become the world's biggest economy, will it be able to dismantle central control of the state? On India the suggestion is that despite massive social and economic change, in contemporary terms, India remains unresearched. Journalism in India is more a career rather than a profession and the significance of real events thus remains muted.

On sources the book suggests how researchers can reach and sift information. Altogether an extremely useful volume for those having a bent towards history and wanting a frame or reference on what constitutes contemporary history.

— Air Marshal KD Chadha

France : From the Cold War to the New World Order. Ed. by Tony Chafer and Brian Jenkins, *London, Macmillan 1996, p. 245, £ 40.00, ISBN 0-333-63666-X.*

The book is a study on France after the Cold War and her relations with the rest of Europe after the unification of Germany. It is divided into five distinct sections containing essays on Foreign Relations, Defence and Security, Economy, Politics and relations with the 'Magreb' written by a number of experts in each field.

The French feel that France must help to build Western Europe into an organised union of states which will have decision making independent of the US. An entity which in political, economic and military terms will be the most powerful, prosperous and influential the world has ever known. The book focuses on shortcomings of equipment including Mirage 2000 and AMX 30 (heavy) and the nominal manpower they could muster for the Gulf War. It was an eye opener that large parties of the French Army are conscript and every time require a special vote in the national assembly to recruit them.

Some of the essays cover the French economy; its trade with China and Vietnam and other aspects pertaining to attitude on CTBT, NPT and PTBT, 'Magreb', relations with specially Algeria, Iraq and Iran which appear to be its main concern.

Though at times the book makes heavy reading and is repetitive, it is very informative. The essays are by very knowledgeable authors.

A useful book for most libraries.

— Brig YP Dev (Retd)

The Last Great Nuclear Debate : NATO and Short Range Nuclear Weapons in the 1980's : By Thomas E. Halverson, *London, Macmillan, 1995, p. 219, £ 40.00, ISBN 0-333-62538-2.*

The book pertains to decision making processes of NATO nuclear weapons mix, in the context of Flexible Response and Escalation Strategies. A fundamental change particularly in the attitude of Federal Republic of Germany started to emerge after the appearance of Gorbachev on the scene. Prior to this there was a 'Responsibility Bargain' where the United States as NATO nuclear supplier took primary responsibility for nuclear decisions and by accepting deployment of nuclear forces on their soil, European allies received sought after nuclear guarantees in the face of the Soviet threat. As a part of this policy a programme had been formulated to have a Follow-on-to (FOTL) as a more tactically advanced short range ballistic missile as also improved Artillery Fired Atomic Projectiles (AFAP) in the 1990s.

The entire stability in nuclear realm got disturbed when Gorbachev proposed zero option on Intermediate Nuclear Forces (INF) in Europe and the Treaty was arrived at. The European concerns, particularly of Federal Republic of Germany got heightened because the INF Treaty led to a preception of strategy where nuclear strikes would be limited in geographic depth to limit escalation. This implied that while Europe would be the war zone, the absence of Intermediate Nuclear Forces on which there was multilateral control, may prompt US not to use its long range nuclear strategic forces to avoid retaliatory action on its soil. Thus the Europeans felt that they were being made pawns in the 'Game'.

In the Last Great Nuclear Debate it is discussed as to how from 1987 to 1989 the Germans were able to achieve their nuclear preferences over traditional decision making concepts on nuclear weapons mix in Europe and how the FOTL and AFAPs were cancelled.

The book should particularly be read by the pseudo nuclear specialists in India to understand the complexities that go with nuclear power and how dangerous a proposition of two or four nuclear bomb nations can be in the absence of a doctrine.

— Air Marshal KD Chadha

Nuclear Designs : Great Britain, France and China in the Global Governance of Nuclear Arms : By Bruce D. Larkin, *New Brunswick, Transaction Publishers, 1996, p. 354, \$ 34.95, ISBN 1-56000-239-5.*

The second tier nuclear states, according to the author, have special obligation to consider and help enforce non-nuclear option in the post-Cold War

world. Their role has been either neglected or taken for granted except when there is a crisis situation. However, with their substantial nuclear capability they are in a position to shape the result of any future global nuclear decision. By abandoning nuclearism, these three powers could have tremendous political leverage on Russia and the United States and also other undeclared nuclear powers. On the other hand, a choice of status quo would mean continuing with balance of terror, making possible quick and large scale destruction.

Bruce Larkin whose earlier work pertains to the Soviet (former) factors in America's Central American policy, takes up possible role of medium level nuclear powers in nuclear disarmament. And with some contentious formulations indeed. He believes the US and Russia are likely to prove to be the most tenacious adherents to nuclearism, in spite of the fact that they have voluntarily agreed to reduce strategic nuclear weapons in the last six years. On the contrary, the amount of intransigence shown by the second-tier nuclear powers, especially China and France, regarding their own arsenal, nuclear explosions, as well as arms trade have led to many apprehensions.

However, special emphasis on transparency, mutual reassurance and collective measures against non-compliance, as well as other political and social means to guarantee against weapons of mass destruction will have a strong bearing on all aspects of nation building. The book also throws substantial light on defence expenditure, implications of environmental degradation due to weapons explosions, etc. A useful work with good amount of information on medium nuclear powers.

— Kishore Kumar

A Nuclear-Weapons-Free World : Desirable? Feasible? : Ed. by Joseph Rotblat and others, *Boulder, Westview Press, 1993, p.228, \$ 19.95, ISBN 0-8133-3013-0.*

The destruction and havoc caused by the atomic bombs dropped on Hiroshima and Nagasaki made the world's statesmen realise the danger to the world security from the thousand fold increase in the lethal power of a single weapon. So, in the aftermath of Hiroshima and Nagasaki a widespread belief emerged that a world with nuclear weapons would be very dangerous.

The elimination of nuclear weapons has been the declared objective of the United Nations from the very beginning of its existence, affirmed in many declarations and resolutions signed by member states including nuclear weapon states. During the period of Cold War, these desires were disregarded.

It has been widely accepted that nuclear warheads have no utility as weapons of war as "a nuclear war cannot be won and must never be fought". The only possible function of nuclear weapons is to deter their use by another state. It is desirable, therefore, to have a Nuclear-Weapon-Free-World (NWFV)

since the retention of nuclear weapons by any state is bound to be an incentive for others to acquire them.

The idea of NFWF was put back on the world agenda by Gorbachov in 1986. President Reagan also had a vision of a world without nuclear weapons. The disintegration of the USSR has removed the main purpose of nuclear weapons. The threat to world security now comes from nuclear proliferation. The way of stopping this is to have an enforceable world ban.

This book is divided into five parts : Part A - Historical, Part - B Desirability of NFWF; Part C - Feasibility of NFWF, Part D - Alternative Route to NFWF and Part E - Intermediate Steps. The contributors - many of whom are experts with long experience in the field of nuclear weapons - seek to answer two key questions regarding the concept of NFWF : Is it desirable : Is it feasible? The purpose has been to focus on various issues involved and this must be studied for acquiring greater knowledge on the subject.

— Maj Gen Prem K. Khanna, MVC (Retd)

DESERT WARRIOR : A Personal View of the Gulf War by the Joint Forces Commander : By HRH General Khaled Bin Sultan, *London, Harper Collins Publishers, 1995, p.492, £ 20.00, ISBN 0-00-255612-X.*

'Desert Warrior' is the memoirs of the Gulf War by General Khaled Bin Sultan a scion of the Saudi Royal family. General Khaled 'was the parallel commander' of 14 Arab/Islamic Forces in the 37-nation coalition fighting against Iraq, under US General Norman Schwarzkopf. Saudi Arabia was the linch-pin of the coalition and without Saudi Arabia, USA and her Allies would have destroyed but NOT defeated Iraq. Although Khaled analyses the Gulf War from various angles like tactics in the Desert of destroying the desalination plant at al-Khafji in the face of any advance of the Iraqi forces, it is clear that General Khaled was more involved in maintaining the Arab culture and identity insulated against the Western influences, so that the 'all-powerful Americans do not swallow us up'. American Service women were required to don black robes over their uniforms and were not permitted to drive off-duty. When Bob Hope was to visit the US troops along with Brooke Shields, Saudi Arabia refused the entry of Brooke Shields!

— Lt. Colonel Daljit Singh

Securing Command Of The Sea : NATO Naval Planning, 1948-1954 : By Sean M. Maloney, *Maryland, Naval Institute Press, 1995, p.276, ISBN 1-55750-562-4.*

This book covers the NATO naval planning during the period 1948-1954 for the command of the sea. The domination of the sea is exercised not only through the number of ships but through command organizations. This book is

a study of the Command Organization which is the grouping of people that plan and execute operations at the strategic levels of warfare both during war and Cold War. The study of command organization provides insight into how NATO strategies were formulated, coordinated and executed primarily against the Soviet submarine fleet of 29 submarines in 1950s. Some readers may find it a dry study of a wet subject.

— Lt Col. Daljit Singh

Inside the Blue Berets, A Combat History of Soviet and Russian Airborne Forces 1930-1995 : By Steven J Zaloga, *Novato, Presidio 1995, p. 339, \$ 24.95, ISBN 0-89141-399-5.*

The book pertains to the combat history of Soviet and Russian Airborne and Special Forces covering the period from 1930 to 1995. Soviet airborne operations have been cloaked in secrecy for many years and only recently have many of their missions been publicly disclosed. The book surveys the evolution of Russian Special Forces and offers the first hand description of the murky situation that surrounded the breakup of the USSR.

If the West ignored the Russian airborne operation, the Soviet Army certainly did not. In the Cold War years, the Soviet Army's airborne forces became the largest in the world. Well trained, motivated and well equipped, they were the shock troops for an invasion of capitalist Western Europe, an invasion that never came. Instead the VDR Airborne Force became the imperial storm troopers of the Kremlin, despatched to the dirty little imperial skirmishes of the Cold War, Hungary in 1956, Czechoslovakia in 1968 and Afghanistan in 1979. For ten long years, the Blue Berets of the Soviet airborne forces bore the brunt of the hard fighting in the brutal mountains of the Hindu Kush in Afghanistan.

The Russian Army may no longer be the threat but the Blue Berets are likely to figure prominently in the headlines over the next decade. In the New World Disorder, rapidly deployable special forces are becoming the central focus of modern armies, where the Blue Berets will provide Russia with the power projection muscle in these conflicts.

— Col RPS Malhan, YSM, SM

Aircraft of the Royal Air Force Since 1918 : By Owen Thetford, *London, Putnam, 1995, p.414, £ 35.00, ISBN 0-85177-865-8.*

This is the ninth edition of the book originally published in 1957, a part of the series by Putnam.

As the title suggests the book has the complete listing of aircraft that have served the Royal Air Force since the end of the first World War. Starting with the aircraft that survived the great war like Bristol Fighter to the very latest, the

Tornado, that excelled in the Gulf War. There is even mention of the Eurofighter 2000 which is yet to enter service.

For the aviators everywhere, particularly those from the Indian Air Force, it would make fascinating reading. All the aircraft which the IAF acquired from the UK, find mention. From the Wapitis to Jaguars all are adequately covered. Also included are civil aircraft that have served the RAF in both peacetime and in war as well as all the missiles and nuclear weapons in use in that service. Some important service personalities also figure in the text. The photographs are plentiful and excellent throughout.

This is a very useful book of reference for defence libraries and those of aviation buffs.

— Cdr. S. Varma SC IN (Retd)

Bill Mauldin's Army - Bill Mauldin's Greatest World War II Cartoons, Novato, Presidio Press, 1995, p. 384, \$ 15.95, ISBN 0-89141-159-3.

Mauldin's depictions of US Army's operations during World War II (mainly in Europe) through his cartoons, caricatures, characters and quips makes the book rare and one of its own kind. The book energises the spring board of memory, even half a century later, in real terms the battle scenes, the trenches and the torches, the camps and the concentration areas, the captured and the conditions of captivity, the desire to escape or die. The new readers of later generation may miss the mirth and morbidity - its subtleties and nuances - but will certainly be able to capture the soldierly spirit, quality of leadership from a Private to a General, dig at the inevitable hardships and obstacles, the obvious as well as latent hazards, risks and dangers to life.

The straight and shaded lines and sketches project the topography in real terms i.e. the rain or rivers, the sands or sea shore, beaches or blue seas, the military hardware or the battle fatigues, Infantry, Cavalry or Artillery, the guns, grenades, cannons or rifles, rations, refreshments or PXs. The social milieu i.e. the rest periods recreation, refreshments, the bars and the messes, the etiquette and the discipline, the mixing and the segregation, are highlighted. The transit facilities, travels and the transients appear genuine and unbelievably real. Even the moods and tempers of the G.I.s are discernible - whether they are advancing or retreating, assaulting or withdrawing, in boats or ships, Tanks or jeeps, marching or flying, victorious or vanquished, home sick or elated, decaying or dying, captured or evacuated, hospitalised or glorified.

Approximately 800 sketches, in various reprints despite their random arrangement, lend the book its uniqueness and make it worthy of its modest price.

— Air Vice Marshal S S Malhotra
AVSM, VM (Retd)

Leaders & Battles : The Art of Military Leadership. By W.J. Wood, *Novato, Presidio, 1984, p. 337, \$ 15.95, ISBN 0-89141-560-2.*

Every war throws up heroes and lessons. That has been the case of battle of Haldighati to the Great Wars and the Gulf War of 1991. These lessons as one looks into the conceivable future revolutions in warfare through Information Technology and the Precision Guided Munitions, portend to show two things: one, the burden of leadership shall not change in any type of war; and two, there will always be men and women who will continue to create the euphemistic Carlyle type of hero-worship.

In *Leaders and Battles : The Art of Military Leadership*, Col WJ Wood recreates a serialised study highlighting the essentials of leadership in war-courage, valour and decisiveness. Around them hover other traits and qualities that show the overall character of a memorable leader. The study spans from BC 106 to 1914. Ilipa to Tangra are two large extremes transcended by technology gap of the millenniums with the exception of leadership constant. Strange but true. And that is what Wood establishes; so have all other historians. Age and time do not seem to have changed the human factors of leadership quotients and the man behind the gun. Wood sees what Napoleon saw in Australia or Hannibal at Carthage or Thimayya at Maungdaw: leadership matters and it has to be a front-line leadership. And whether one exploits imagination, boldness, tenacity, a fine judgement, or exhibit an indomitable will to inspire his command, it manifests the crucial quality of leadership of a successful leader that achieves the goal.

The book enviably examines each battle - some of which have hardly been heard earlier-and focus pointedly at a trait of the leader who succeeded. The two appendices add to the analysis that cover "Conclusions Deducible for the Text and Extended Range of Leaders and Battles". There is more. Wood makes an effective effort at dramatising some of the scenes. Some add romanticism to the study. There are flashes of literary acumen too. Observe a sentence: "Every Infantryman in every corps is drunk with exhaustion..." at p. 242, for example, is exhilarating.

A good book which is readable and sustainable-a fact seen from its reprint. It could be enjoyable too especially for those who, like, Mao Zedong, "accept lessons suitable to one", and discard the others.

— Brig Chandra B Khanduri, (Retd)

Problems of The Modern Middle East in Historical Perspective : Essays in Honour of Albert Hourani. Ed by John Spagnolo, *Berkshire, Ithaca, 1992, p. 309, £ 12.95, ISBN 0-86372-214-8.*

This book is a tribute paid by the scholars on the Middle East in honour of Professor Albert Hourani, a noted scholar on Arab affairs who was the Director of the Middle East Centre of St. Antony's College, Oxford. Fifteen

articles deal with various socio-economic and political aspects of the Arab world covering the period of late Nineteenth Century and first half of the Twentieth Century. Some of the noteworthy articles examine the feminist movement in Egypt and Lebanon, ethnic and sectarian problems of Iraq, interaction between the Wafd and the Muslim Brotherhood of Egypt and water resources of the Middle East. John P. Spagnola, the editor has a perceptive article on how the Western scholars have looked at the contemporary history of this region. Lastly, Mary Wilson has contributed a comprehensive bibliography of the published work of Albert Hourani. The book will be a valuable edition to any library having books on contemporary international affairs.

— Prof. K.R. Singh

NOTICE

Members interested in undertaking research projects under the aegis of the Centre for Research, may submit research proposals through respective service Headquarters, or to the Director, for consideration by 31 Dec. each year. At present, three chairs have been instituted for one year projects, namely Field Marshal KM Cariappa Chair, Admiral RD Katari Chair and Air Marshal Subroto Mukherji Chair. A fourth chair, the Prof DS Kothari DRDO Chair is intended to be instituted shortly. Final approval of projects will be the prerogative of the Board of Management, taking into account the views of Service HQ and DRDO, where necessary. In due course, it is hoped to increase the scope for research activity, including some two-year projects undertaken by serving officers on study leave. Copies of the Rules for Award of Fellowship Grants and Conduct of Research, may be obtained from the USI.

Additions to the USI Library for the Quarter - Ending June 1997

(The books reviewed in January - March 1997 issue have been added to the Library during this quarter but not shown in this list)

Ser No.	Author's Name	Title	Year
Afghanistan - Foreign Policy			
1.	Sreedhar (ed)	Taliban and the Afghan Turmoil : The Role of USA, Pakistan, Iran and China	1997
Bangladesh War			
2.	Jacob, JFR (Lt. Gen.)	Surrender at Dacca : Birth of a Nation 1997	
Biography			
3.	Jarg, MS (Col)	After the Bear Hug	1997
4.	Roy, Arundhati	The God of Small Things	1997
5.	Dunant, Henry	A Memory of Solferino	1959
6.	Nehru, B.K.	Nice Guys Finish Second	1997
7.	Khanna, S.K.	Seasoned Diplomat to Scholar Prime Minister Profile of IK Gujral	1997
Defence - Research			
8.	TIFAC	A Report on Defence Research and Development.	1997
Foreign - Diplomats			
9.	Ministry of External Affairs, New Delhi	Diplomatic List Part I and II Jan. 1997	1997
India			
10.	Subramaniam, Chitra	India is for Sale	1997

India-History

11. Zakaria, R. Sardar Patel and Indian Muslims : 1996
An Analysis of his Relations with
Muslims Before and After India's
Partition.
12. Singh, Kirpal Selected Documents on Partition of 1991
Punjab 1947 : India and Pakistan;
Punjab, Haryana and Himachal -
India and Punjab, Pakistan

India-Nuclear

13. Pande, Savita CTBT : India and the Nuclear 1996
Test Ban Treaty.

Indian-Ocean

14. Mathew, KS (Prof.) Ship - building and Navigation in 1997
the Indian Ocean Region AD
1400-1800

India-Pakistan Conflict

15. Sarkar, B. (Col) Pakistan Seeks Revenge and God 1997
Saves India : A Study of Indo-Pak
Conflicts

India-Pakistan-Nuclear Relations

16. Library of Congress, CRS Report for Congress : India - 1993
U.S. Pakistan Nuclear and Missile
Proliferation : Background Status
and Issues for US Policy

Indian Police

17. Srivastav, V.P. (ed) Indian Police : Law and Reality 1997

Kashmir-Military

18. Ray, Arjun (Maj Gen) Kashmir Diary : Psychology of 1996
Militancy

Memoirs

19. Ramsay, Jack SAS : The Soldiers' Story 1996

New World Order

20. Nautiyal, Annapurna
(ed) India and the New World Order 1996

Ninth Five Year Plan

21. Nabhi's Approach Paper to the Ninth Five
Year Plan - 1997 - 2002 1997

Pakistan-Politics

22. Akbar, M.K. Pakistan : From Jinnah to Sharif 1996

Politics

23. Sher, George Beyond Neutrality : Perfectionism 1997
and Politics

Reference Book

24. Sohan Lal Perspective on Current Affairs Part-I 1997

Religion

25. Hasan, Mushirul Legacy of a Divided Nation : 1997
India's Muslims Since Independence

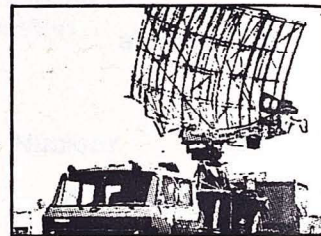
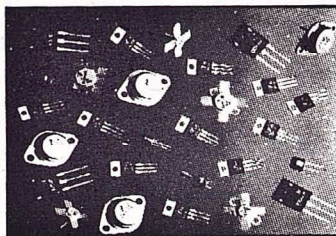
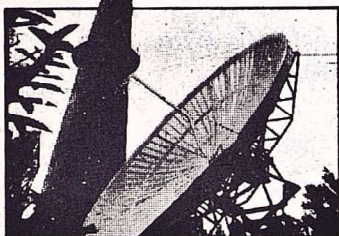
Terrorism - India

26. Kumar, Ram Narayan The Sikh Unrest and the Indian 1997
States : Politics, Personalities and
Historical Retrospective

Tribes

27. Grewal, Dalvinder Singh Tribes of Arunachal Pradesh : 1997
Col. Identity, Culture and Languages,
2 vols.

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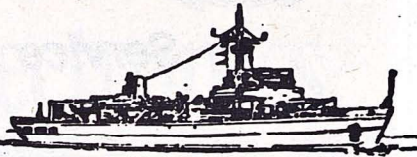
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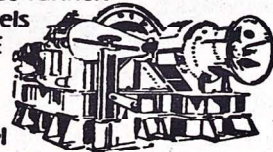
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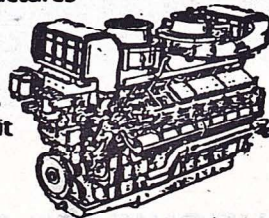
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OUR ACTIVITIES

Library and Reading Room

The library holds over 50,000 books, and journals, including some books of 17th, 18th and 19th centuries, on an astonishing variety of subjects. While the principal emphasis is on strategy and defence, there are a large number of works on different vistas of Indian life. There are memoirs, biographies, recollections, diaries, journals, manuscripts for scholars and researchers. The reading room is air-conditioned, spacious and well stocked in terms of current reading material.

Correspondence Courses

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

USI Journal

The USI Journal is the oldest surviving defence journal in the country and in Asia, having first appeared in 1871. It is supplied free to all members, and in an era when there is a feeling that free expression of views by Defence personnel is not looked upon kindly by the establishment, the Journal in fact provides just such a forum,

without regard to seniority and length of service in the Armed Forces, subject of course, to propriety and quality of the written work.

Centre for Research

A Centre for Research has been established to enable nominated scholars to undertake comprehensive study of selected subjects of topical interest on national security matters.

Gold Medal Essay Competitions

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

Lectures and Discussions

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

Mac Gregor Medal

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

Rules of Membership

1. All officers of the Defence Services and all Central Services Gazetted officers Class I (including Retired), Cadets from NDA, other Services' Academies and Midshipmen shall be entitled to become members on payment of the entrance fee and subscription.
2. Life Members of the Institution shall be admitted on payment of Rs. 1650/- which sum includes entrance fee.
3. Ordinary Members of the Institution shall be admitted on payment of an entrance fee of Rs. 150/- on joining and an annual subscription of Rs. 150/- to be paid in advance.
4. The period of subscription commences on 1 April each year and shall be operative till 31 March of the following year.

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