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Colonel Pyara Lal, AVSM
1916—1987

An Abiding Loss

UNITED Service Institution of India had as its Secretary and Editor Colonel Pyara Lal since January 1, 1957. His death on November 23, 1987 marks the end of a long and crucial phase in the history of the USI. The members of the USI and its staff mourn the passing of its Director and Editor.

Born on August 15, 1916 at Lahore, Colonel Pyara Lal lived a highly motivated and totally dedicated life that ended after a prolonged illness. After graduation from Punjab University in 1938, he went to England for higher education at Oxford. He was called to the bar in 1947 after doing Law at the Inner Temple in 1943. With the Second World War at its height, he was commissioned as 2nd Lieutenant in 2nd Worcesters in 1943 and transferred to 4/5 Maratha Light Infantry in India the same year.

Colonel Pyara Lal served as a Public Relations Officer (Army) in Imphal in Burma Campaign (1943-44), Jammu & Kashmir Operations of 1948, Hyderabad Police Action in 1948, Sino-Indian Conflict of 1962 and Indo-Pakistani Conflicts of 1965 and 1971.

Earlier, during 1948-49 he was Military Advisor, Development Board, Ministry of Relief and Rehabilitation and in that capacity was responsible for the planning and development of the Defence Colony in New Delhi.

His major contribution to Defence Services was his assignment as Colonel, General Staff (Training) at the National Defence College during 1960-72, the formative years of India's highest and most prestigious defence institution. During these 12 years he helped to lay the strong foundations on which the NDC firmly rests today.

However, one special task which was closest to his heart, that of looking after the USI and this Journal, he continued to perform to the last. For more than three decades, day in and day out, he worked

devotedly to bring up one of the oldest defence institutions in Asia to a level where financially it is an independent, autonomous and self sustaining body today with a ready project to build a permanent home of its own.

Col Pyara Lal was also the Founder Director, Correspondence Courses, run by the USI for the benefit of Armed Forces Officers for Promotion Examinations and Entrance Examination to Defence Services Staff College. More than 800 officers join these courses yearly and the high percentage of successful results have been greatly appreciated by the Service HQ.

In 1970, Col Pyara Lal was awarded the Ati Vashisht Seva Medal for his distinguished services to the Armed Forces of India.

In the same year Col Pyara Lal organised the Centenary Celebrations of the USI, with a special Centenary issue of the Journal and an exhibition of rare books from the USI library including photographs on military subjects which was inaugurated by the then President Dr Zakir Hussain.

Thousands of young service officers spanning more than three generations who came in contact with him can never forget the helpful attitude and useful guidance and encouragement that they received from him in their early literary efforts.

In the death of Colonel Pyara Lal, the United Service Institution has suffered its greatest loss during its long history of more than 116 years. He was not only its Director, Secretary and Editor but as one of his very senior friends said "He was the Institution itself".

My Friend Pyara

MAJ GEN S C SINHA PVSM (RETD)

IT was in Sep '58, when I was working at Air HQ, that I first met my friend Pyara. In those days I had little work to keep me occupied and so to fill up time I went around visiting friends in various offices in Army HQ, where Pyara used to occupy the second table in an office in M S Branch. I can still remember the rather scholarly looking person, with long shaggy hair crowning a thin gaunt face, which peered from an even thinner and spare frame. The overall impression was that of a professor in uniform. He was shy and aloof and during my first few visits, apart from a perfunctory nod, in the way of a greeting, he totally ignored me. It was only after several of these visits that I heard the rather typical English accent, in which he spoke.

At that time Pyara was working as a Deputy Assistant Military Secretary in the Military Secretary's Branch and in his spare time looked after the USI as its honorary Secretary. He was then getting the USI to start a preparatory course for officers appearing for the Staff College Entrance Examination and was looking around for suitable officers to help in the project. His interest in me was as a potential help for running this course and I was soon enlisted. I was given some correction work to do and thus met him frequently.

It was during my second spell in Delhi that I got to know Pyara better. In mid '65 I was posted to the Military Operations Directorate at Army Headquarters and Pyara had then moved to the staff of the National Defence College. He was still looking after the USI and his preparatory courses for the Staff College aspirants had bloomed into full scale correspondence courses. Inspite of the heavy load of work that a job in Military Operations involved, Pyara persuaded me again to take on the work of setting question papers and correcting student's work. He appeared to drive a hard bargain with those who worked for him and we found him to be a real slave-driver. He paid us very little for the work we had to do and he insisted on really high standards. We found that as far as he was concerned, the interests of the USI came

before anything else. He was running these courses not only for the benefit of the officers, who took them, but also to build up funds for the USI, which he had taken over in a bankrupt state. He had set his heart on building up a large enough corpus for the USI to make it self reliant in its finances so that it could be a totally autonomous and a truly independent body. To achieve this he was prepared to do almost anything short of robbing a bank and if we were unhappy with the payments he made to us, then it was just too bad. Yet he was able to make most of us to stay the course with him.

It was when I was posted as Director of Military Training that I really got to know well both Pyara and the USI from close quarters. As DMT, I was ex-officio Chairman of the Executive Committee of the USI and I had to work closely with Pyara. It was then that I began to really appreciate his worth and the dedication with which he worked for the Institution. I was also able to see what he had achieved for it over the years and how well he had husbanded its resources by his careful thrift. It was then that he confided to me that his aim was to build up a corpus amounting to a sum of rupees one crore for the USI besides raising the money required for the construction of its new building complex. At that time, to me, it had seemed an almost impossible dream. Surprisingly before he died he had almost achieved what he had set out to do. He had raised a fund of nearly Rs 1.8 crores for the USI building complex besides getting an allotment of 5 acres of land. By 1990 the corpus for running the Institution will have reached the goal he had set of rupees one crore, a target which had once seemed such an impossible task.

In these years of my close association with Pyara I got to know of his numerous qualities. Inspite of his many intellectual attainments he always maintained a very modest profile. He was much sought after by many of our universities to help in setting up their departments of defence studies. Due to his vast experience in public relations he was very popular with our press. But what he talked of least was the help he always rendered so generously to any person who came to him. Of course, like any of us, he had his weaknesses and irritating faults. Of these what perhaps did him most harm was his tendency to prevaricate and put things off. As a result, though he had done a lot of research and had collected a tremendous amount of notes and material, he never got down to completing the history of the 1971 Indo-Pak War, on which he had been working for many years. Neither could he bring out a

book he had wanted to on Air Chief Marshal P C Lal though he had gathered a lot of material for it. It can only be hoped that somebody, some day, will be able to make use of all the notes he had made and complete the work he had set out to do.

In his life Pyara may have lost out on many things and in many ways but he seems to have compensated for it all by his immense attachment to the USI. As far as he was concerned no sacrifice was too great if it benefitted the interests of the USI. He himself worked for over thirty years in an honorary capacity and could not, therefore, understand why it should be considered exploitation if others were asked to work for meagre salaries. Usually people are willing to mortgage their future gains to have it better today. But Pyara would rather deny the benefits of the present to ensure a better future for the USI, even though he knew that he would probably never live to see its better days. It is only to be hoped that when the USI moves to its new building complex and increases its many activities, which it will sooner or later be in a position to do, I hope its members will remember the shy little modest person who made it all possible.

Remembering Pyara

SITU MULLICK

THE death in New Delhi in the early hours of Monday, November 23, 1987, of Colonel Pyara Lal, AVSM, has been equated, by a mutual friend 'of letters', with that of a Shaheed's.

Now, this Urdu epithet loses its nuance when translated in any other language. Very broadly, this 'honorific' becomes applicable to 'the' person who will have made the supreme sacrifice of his own very life for a selfless, self-inflicted, self-chosen 'tortuous' sort of a 'cause' dear to the person's heart, just as does a soldier in defence of his beloved motherland. Being still a student of that language, and one who had known Pyara—as everyone called him—I listened to this 'adjective' receptively and, without a pause, nodded with a tear escaping my Pathan-eye . . .

Pyara had been known to me since 1943 as a colleague in the defence public relations set-up during World War II. After the war we were both included in the British Commonwealth Occupation Forces for Japan (BCOF)—he to be with the Army PR set-up in Kure, and I with the British Commonwealth Airforces based at Iwakuni. Then we lost touch with one another. For, he left Japan in 1947 and was posted to the India House in London, while I was to stay on, being member of a 'court martial' that lingered on and on, finally returning to Delhi 'homeless' only a couple of days before Gandhiji was assassinated . . .

Soon after the mid-fifties, we were, once again, back in Delhi—he as secretary and editor of the United Service Institution (USI) which had by then been shifted from Shimla to the Kashmir House in New Delhi. I continued to be with the PR defence directorate which, by now, was a dually-controlled establishment, nursed by two ministries in partnership—the I & B and the Defence—looking after and guiding the PR interests of a foursome—the Army, the Navy, the Air Force and the defence inter-services establishments, both the civil and the military.

The handsome tributes have already been, and deservedly, paid to Pyara's repeated induction into the PR set-up and to his own affinity for the PR tribe and for its complementary world of the Media. For, Pyara was a 'natural' PR man, and always in preferential demand by the Army chiefs—during the J & K operations (1948), the Sino-Indian conflict (1962) and during the Indo-Pak wars (1965 & 1971).

Pyara's contribution, right from the day the National Defence College (NDC) was instituted in New Delhi (the highest seat of defence learning, in India) right up to its rapid development and its acquiring a global stature, have also been projected in 'obit' notices in homage to a noble, departed soul. But it is what he lastingly contributed to the United Service Institution (USI) that needs to be further touched upon in remembering a life-long friend and, the proverbial, guide and philosopher—as he was to me for as long as he was physically around till the other day . . . And, of course, as a 'Shaheed', he will continue to be around, to 'live' for ever, hopefully . . .

He took over as secretary-cum-editor of the USI at a time when, financially, the Institution was in less than a comfortable position. But Pyara had two rare qualities not given generally to service officers. He was an excellent financial manager such as very few amongst men in uniform are. Secondly, as I come to think of it, he was not prone to time-consuming, self-edifying social pulls and commitments. He would be perfectly contented while sitting on a hard desk all by himself, munching a vegetarian snack and gulping some non-alcoholic downer. He had, of course, prematurely, forsaken '*grahast*'—the domestic involvement, and taken to a kind of 'workoholic' *sanyas*—when he was not fully forty. He had hit upon the track of his life mission earlier than most of us venture to discover when, often, it is too late in the day. And having found the course, he kept plodding on and on and . . .

I have often thought that Pyara might well be a sort of 're-incarnation' of the founder of the USI, Sir Charles Metcalf MacGregor, appearing a century later . . . The unswerving dedication was similar.

The USI quarterly journal, of which Pyara became the editor on the first day of January 1957, has its own difficulties such as are known well enough to many—occasional delays and so on. But Pyara's notable contribution lay in not merely keeping it going, but also in locating new authors and thinkers to be able to offer varied and relishing fare, without changing the journal's traditional format. And the issues continued

to be supplied to its growing clan of members 'free'—in and outside India, in spite of consistently rising cost of production and postage. Pyara had as many as 49 British and one Indian editors bringing out the journal before him—since Sir Charles' days, including such eminent Secretary-Editor 'combine' as Field Marshal the Viscount Slim (when a Major in 6 Gorkhas—in 1930 and again in 1931-33), and Brigadier Rt. Hon. Sir John George Smyth, VC 1926-29 as a Captain with the II Sikhs) and a whole panel of other distinguished soldier-writers.

On the occasion of the USI centenary, celebrated in New Delhi in 1970, the then President of India, Mr. V.V. Giri, had praised the journal as having "rendered invaluable service in inculcating interest for knowledge amongst the members of the defence services". Defence Minister Jagjivan Ram had, similarly, commended it for "serving the cause of knowledge, education and enlightenment". So did the then Service Chiefs pay handsome tributes: "A first class magazine", said Field Marshal Sam Manekshaw. Admiral Nanda spoke of it as one "helping to widen readers' horizon". Air Chief Marshal P.C. Lal thought that the journal was making "a very significant contribution to development and dissemination of military thinking." But it was really left to the late Field Marshal Sir Claude Auchinleck, the last of the British C-in-Cs during Raj days, to present a bouquet to the USI and its journal. Sir Claude wrote: "I think, I became a member of the Institution some 65 years ago when I was a Lieut. in the old 62 Punjabis—one-quarter Sikhs and one-quarter Rajputs of Rajputana. So perhaps I may be the oldest member? If so, it is a source of pride and pleasure to me. May I congratulate you on the remarkable improvement in the journal since partition in 1947, chiefly because for the first few years the contributors seemed mostly to be Americans or British, whereas now I am delighted to see that your contributors are mainly of *our* Armed Forces, which is as it should be, I think . . ." The word 'our', underlined by me of course, speaks volumes.

During the USI centenary celebrations, I came even closer to Pyara, for he solely entrusted me the task of organising an 'Exhibition' on the occasion. Exhibition? I didn't have the foggiest idea how to go about it. The USI had mainly books and more books, and just a handful of old pictures and souvenirs, not at all enough to put up a public display with, particularly as it was to be inaugurated by the President of India. However, through Pyara's inspiration primarily, but also through admirable help of my brother, Brigadier R.L. Mullick, then Director of

Army Education, it became possible to get-up a fine set of dedicated, real 'educated' officers, headed by Maj (later Dr. Colonel) G.P.S. Waraich. And through my old PR connections, Mr. Harbans Singh of the Photo Division of the I & B ministry, mobilised his skills and resources freely to reproduce illustrations and excerpts from the USI's vast collection of rare books—mostly vintage etchings and paintings of great historical and pictorial value, and turned them into striking photo blow-ups, which were effectively hung on the walls of the main hall and other rooms of the Kashmir House with almost all books in the library, divided into 'periods' and exhibited wholly professionally by another friend, Seena Kaul, and her colleagues from the Cottage Industries Emporium. All this retrospection only goes to show that Pyara, somehow could, just as well slave-drive, by his captivating disposition.

In his editorial in the centenary number of the USI journal, Pyara—the visionary—wrote : ". . . There is, however, a scope to expand and diversify the Institution's education programme. For, modern wars demand a new kind of professionalism, which requires knowledge not only of defence matters but also of history, politics, law, sociology, technology and so on, and the Institution has to its credit considerable experience in this field . . . There is perhaps need to make correspondence courses part and parcel of the general training programme of an officer, especially as our armed forces are committed in the forward areas. If this is accepted in principle, the Institution can plan and organise a number of courses, both professional and educational. It could run university degree courses in journalism and personnel management. Indeed, it may lead to the establishment of a regular armed forces college for correspondence courses . . . a clearing house for source material for various colleges in the country . . ." For spreading the gospel of 'security', Pyara further wrote : "There are no illusions in India about the nature of threat from our two unfriendly neighbours, nor is the leadership prepared to take any risk. In spite of our continuously seeking peace, we have been forced to go to the war three times. Indeed, India has learnt from bitter experience that moral conduct,—unless backed by force, is as disasterous as force without moral conduct . . . To make our policy of non-alignment meaningful, it is necessary for the country to have credible defence deterrence."

Pyara pleaded for the Institution to move into areas of research . . . re-writing of regimental histories in a popular series and so on. The list is long . . .

The USI's standing charter of duties covers : arranging of lecture at any station in India, bringing out a journal, maintaining a library and looking after pictures, medals and trophies in its custody. Within the framework of this long-constituted charter, Pyara set in motion a drive for enrolling new members along with a serious fund-raising project. The running of correspondence courses for officers of the Army and the Air Force to prepare for their promotion, staff college, and technical staff course's entrance examinations, all soon proved an escalade. Today, there is a standing annual turnover of around 1500 'student officers'. Besides, the Institution organises orientation courses for military and air attaches and their wives, on behalf of Services' HQ. Besides holding seminars on specific military subjects, publishing occasional monographs on problems of national security by experts has come to stay as a regular activity. And the Gold Medal Essay competition, instituted by Sir Charles himself in 1871, continues to be held uninterruptedly. Were the Founder himself around today, he would be delighted to know the original 11-man roll of USI members has grown 400-fold since his time.'

Thus, not only a near insolvent Institution became financially sound and stable and self-contained, but a Corpus slowly began to mount up and then proliferated. It turned sizeable enough for the USI to aspire to have a permanent 'Home' for itself on the 5-acre land on the Delhi south ridge, near Dhaulakuan which, too, Pyara managed to be allotted to the Institution. Five whole acres...

Pyara explored further and succeeded in this fund-raising drive through donations by the three Services' HQ, and through the Prime Minister's National Defence Fund.

Undoubtedly, such a 'Home' for the USI would, or should, come up one of these days--a sort of lasting tribute to the memory of Pyara. But that lean and lanky and rather fragile-looking frame, dressed in his own distinct Oxbridge attire with his own hair-style, and a distinct note in the manner of his speaking with mute emphasis through shrugs and nods and *mudras*, all 'housing' a stout and determined heart, a fertile and clear mind and sturdy limbs with an infinite capacity for hard work--simply to serve the 'Cause' with a capital 'C'--would no longer be physically there...

Threats to National Security—2

Lt GEN SK SINHA PVSM (RETD)

In the first article Lt General Sinha discussed the threats from the Super Powers and China. He felt that the threat from the US military build up in the Indian Ocean was in terms of interventionism or proxy war, from the USSR the danger lies in our getting too close to them thereby ceasing to remain an independent decision-making centre, and from China of collusive support to Pakistan as in 1965 and 1971, as also of recommencement of aid to insurgents in Eastern India. The author now proceeds to discuss the threat from Pakistan.

PRIOR to 1947, the Muslim League propounded the two-nation theory, so as not to accept the preponderance of the Congress. After independence, the driving passion of Pakistan's foreign policy has been to attain parity with India. Pakistanis chose to misread history and fancy themselves as the descendants of the Central Asian Muslim conquerors. Their romanticised view of martial superiority received a jolt in 1965 and a major setback in 1971, but old beliefs die hard. The 1971 debacle can be explained away on the basis of the misdeeds of a drunken General and the very unfavourable political and geographical situation faced by Pakistan in the East. In the West, their performance was not so dismal. Pakistan is paranoid in its belief that India is not reconciled to the partition of the sub-continent and is out to undo it.

After Soviet intervention in Afghanistan and Zia's rejection of the \$ 400 million aid offer as peanuts, an opportunity was lost to develop an Indo-Pak consensus towards the new threat. A major lesson of the history of the sub-continent was lost sight of. In the past, through disunity, we suffered repeated invasions from across the Khyber Pass with disastrous consequences. Pakistan opted for a massive \$ 3.2 billion US aid. A theocratic Pakistan finds it difficult

to accept that the Muslim majority contiguous State of Kashmir should not be merged with it. This provides the *casus belli* for another round with India. Moreover, the desire to avenge 1971 is as strong a motivating factor in the militarized society of Pakistan as it was amongst the Prussian society of Germany after the First World War. Frantic rearming and expansion of the Armed Forces, attempts to make a nuclear bomb, collusion with China and strategic consensus with the US, are all prompted with one basic motive and that is to settle scores with India.

After the 1971 victory, even the US despite its tilt during the war, was prepared to accept India's preponderant position in South Asia. This led to complacency amongst many in India. They argued that Pakistan had been reduced from being the fifth most populous State of the world to one tenth the size of India. It could no longer constitute any threat to us. They ignored that through thousands of years of her history India was repeatedly attacked and subjugated by countries many times smaller than her. After the announcement of the massive US military aid, the pendulum swung in the other direction. A hysteria was created over Pakistan's acquisition of F 16s. Exaggerated views of Pakistan's newly acquired military potential can demoralise the Nation and the Armed Forces. Lately, the Defence Minister has set the record right. We have an edge over Pakistan in many items of military equipment and the Government is determined to retain that edge. Mirage 2000 and MIG 29 will be an effective answer to F 16s. Individual equipment, no matter how sophisticated should not be viewed in isolation but as part of an adversary's complete military system. The \$3.2 billion US aid has run its course by 1987 and the acquisition of 40 F 16s was completed towards the middle of 1985. Although Pakistan is acquiring various sophisticated equipment like Harpoon missiles, Tow anti-tank missiles and modern attack helicopters, it is not adequately improving its armour fleet. The main battle tank of the Pakistan Army is the T 59 tank. This is the Chinese version of the Russian T 54 which we discarded as obsolete, some time ago. The current US aid caters for only 100 M 48 tanks, which are old vintage tanks. Pakistan has T 59 and M 48 tanks which are of Fifty vintage and we have Vijayanta of Sixty vintage as also T 72 of Seventy vintage. According to Military Balance, India has nearly double the number of tanks, Pakistan has. Our quantitative edge in armour is not likely to get eroded by any threat from across the Himalayas. Pakistan has a combat strength

of 259 aircraft out of which 144 are MIG 19s which are obsolescent aircraft even according to our standards. We have their improved versions in MIG 21 and MIG 23. No doubt 40 F 16s are replacing an equivalent number of MIG 19s and more such replacements may take place in the near future. However, the situation today is very different from what obtained in 1965 when Pakistan had a marked qualitative edge in both aircraft and tanks. She had F 86 sabres, F 104 starfighters and Patton tanks, which were more modern than our aircraft and tanks.

We have a quantitative superiority over Pakistan in the strength of our Armed Forces. The quantitative superiority gets eroded and reduced to near parity because of the need for us to maintain forces to guard our Northern frontiers. Developments in Afghanistan have now forced a two front strategy also on Pakistan. She will have to maintain some forces on Pak-Afghan border which she did not have to do in 1965 or 1971. Thus India should now be able to have a better quantitative ratio of forces against Pakistan.

We must not underplay the threat from Pakistan however. The danger of another war with Pakistan is perpetually present and a war can erupt at any time. However, this threat must be assessed in realistic terms and no attempt be made to make political capital out of it, by raising a war psychosis on the eve of election. Churchill held elections in Britain before the war in the East had ended and Atlee came to power, without any party raising national security as an election issue. National security must always remain above party politics.

OTHER COUNTRIES

Among our other neighbours, Bangladesh is the largest in size, but its economic and military strength, do not permit it to pose a significant military threat. She can cause irritants like border skirmishes, aiding insurgents or create demographic problems, by pushing out refugees. Besides, our neighbours like Nepal, Bhutan, Burma and Sri Lanka as also indeed Bangladesh, can cause us embarrassments by providing bases or routes of entry to forces hostile to us.

CONCLUSION

The security environment round us has no doubt become very sensitive, with Super Power rivalry in the Indian Ocean, the massive rearming of Pakistan and our continued differences with China. Notwithstanding this, we are in a position to deal with these external threats. We need to work on a strategy of strong Himalayan defence against China, a superior force capability against Pakistan and a credible deterrent against any intervention from the Indian Ocean. These challenges are not beyond the genius of our Nation to tackle, if only we approach them with honesty, sagacity and patriotism.

A military strong India, to deal with external threats to our national security, is an imperative necessity. We have to live up to the dictates of history, geography, population and resources. We cannot abdicate our responsibilities flowing from these considerations. These demand that India must be the dominant power between Suez and Singapore and eventually along with USA, USSR and China, be one of the four leading powers of the world.

Unity, Integrity and Harmony

Part IV—The Reality of Social Conflicts

MAJ GEN Y A MANDE

INTRODUCTION

IN the last article,* we had observed that conflicts are part of life. It is impossible to think of any social group be it a family, a village, voluntary association, a vocational group, a religious community or a nation, where conflicts do not take place. But here, we are not concerned with the squabbles that take place in every family, sports grounds, offices, assemblies, stock exchanges and so on. Our concern is with those fissiparous movements which threaten the unity, integrity and harmony of a country. This article is of special significance to comprehend the problem in totality.

We will analyse the problem taking all those factors into consideration which are potential causes of conflict. Each factor will be analysed starting from generalisation purely from conceptual point of view leading to specific issues relating to our country.

HISTORICAL PROCESS

In the process of evolution the human society has passed through three successive stages as under :—

- (a) Communal customs.
- (b) Differentiated communal institutions.
- (c) Differentiated associations.

The primitive, simple societies were governed by all pervading codes and customs. They were totalitarian in character. There was

*(a) Part 1—General, appeared in Oct—Dec 1985 Issue of the Journal.
(b) Part 2—Powers of the People, appeared in Apr—Jun 1986 Issue of the Journal.
(c) Part 3—The impact of Culture, appeared in Jan—Mar 1987 Issue of the Journal.

no distinction between cultural pursuits and utilitarian activities. There was no difference between means and ends. To them ritual was as important as craftsmanship and prayer as important as arms in the conduct of war. Their utilitarian pursuits such as hunts, weaving and trade were invested with cultural aspects such as ceremony, legend, tradition and tribal lore. They led the life of utmost social solidarity where no one could enjoy individuality or freedom.

From primitive societies of communal customs, over the centuries, the society moved to a stage where institutions were differentiated. In the second stage there was only one political institution for the community and one set of religion recognised by the community. The families were differentiated from the group and cultural activities separated from vocation.

From the second stage, we have moved to elasticity of modern society of free and voluntary associations, which is still developing itself, not yet fully evolved. Admittedly there is only one state, but there are various political parties with diverse ideas; there is not one religion but many religions; people are free to form and dissolve, choose and quit various forms of political, economic, religious and cultural associations. And yet, they maintain their entity as a nation. The concept of national solidarity today is much different from that of primitive simpler societies. The human being can no longer live in a wholly integrated and all-inclusive community. Such a change has come about after centuries in which science and technology have played a major part, coupled with the desire of man to seek freedom. The modern means of locomotion, economic practices and interaction do not admit any rigidity.

The evolution of society has not taken place in clear cut stages; the old exists along side with the new. At no point of time we can say that one stage is over and we have moved on to the next. Although we are in the third stage, the forces which were in play during the second stage raise their heads off and on. We have for example certain religious groups seeking fundamentalism, trying to move the clock backwards. Similarly, we hear slogans of regionalism which are against the evolutionary trend. The fact is that minds of the people are not yet developed, education and modern concepts have not reached masses and to this end, we have yet to develop. The developed countries have overcome these problems which remain a potent force for internal conflicts in developing countries.

CLASH OF INTEREST

The social conflicts are due to clash of interests. The clash of interest is the greatest problem of our civilisation. On the one hand, the nation-states are coming close to each other; the aspirations of human being no longer recognise barriers of their own religion and communal codes; the economic practices trespass freely the boundaries of states and yet their separate interests, mutual fear, suspicion and jealousies are by far the most formidable danger to the existence of civilisation. Even within the nation ethnic groups, cultural groups and vocational groups clash endangering the country's unity. The interests being peculiar to a group, they disregard the interest of nation and human beings as a whole. One wonders if in their action programmes, they ever realize sanity expressed by Francis Bacon, centuries back :—

“All things are endowed with an appetite for two kinds of good, the one as this thing is a whole in itself, the other as it is a part of some greater whole and the latter is more worthy and powerful as it tends to the conservation of a more complex form”.

It is of significance to note that clash of interest is created by people and hence there is every possibility of overcoming them provided we keep our heads cool. Let us examine some of the important interests which clash.

ECONOMIC INTEREST

Economic interest, more than anything else in the modern societies, governs social relationship. In the medieval period the cultural and moral values, family and group ties, religious and caste callings etc were of greater significance. The change has taken place because survival is assured. Relatively safe from epidemics, floods, cold and vagaries of nature with life expectancy ever increasing, the attitude of human beings has turned to more pleasant things of life. These pleasant things have one common factor ie money which satisfies all other material wants. No wonder money governs relationship in and outside families, between the social groups and the countries.

It is not our contention that economic interest is the only factor but nonetheless its importance must not be undermined. In the

developing countries and India, who are in transition stage with carry forward of past moral values and new economic intrusion in value orientation, there is bound to be a confusion. People talk of moral values, cultural continuation and religious virtues but one can clearly see that behind all such sermons is the reality of economic interest. The developed world openly admits the importance of economic interest, we are hesitant.

There is something terribly wrong in the modern economic practices relating to production. Consider for example modern textile factories of the West which hardly employ any labour, poultry farms which hatch millions of birds and employ not even a dozen men and ever increasing use of automation, conveyor belts and robots. Now, such practices imply that there must be a market. The developing countries with their teeming population are a necessity for the few of the developed world. It is in this respect that Gandhian teaching of self contained units, producing their own requirements, assumes importance. But surely, no developed country used to comforts of life, dependent on exports will ever accept Gandhian teaching.

There is an obvious element of struggle and adjustment in economic activity. It is not necessarily dialectical process which Marx advocates of thesis and anti-thesis. To start with few people take advantage of economic activity. As the time passes, out of struggle and natural aspirations of the people, more and more people come to share economic benefits. This process of levelling is a continuity. But the fact remains that economic equilibrium is ever disturbed trying to restore itself by adjustment. This disturbance in economic equilibrium is the reason for social conflicts ranging from agitations to wars.

We can say with certainty that US or USSR will wage war even with their allies if their economic interest is threatened. The developing countries possessing oil and rare minerals will remain a bone of contention leading even to world war. Within the country, the economic interest has become the cause of conflict between the states and the Centre. Assam is an obvious example, its agitation was based on protection of economic interest of Assamese people; Punjab, despite its economic edge cries for the share of public sector and "son of the soil philosophy" has become a common reason for many conflicts between people of the state and outsiders. Terrorism

to be sure, is a profession for many who cannot earn wealth otherwise.

This does not mean that realisation of inter-dependence is lacking. Indian geographical condition is such that states have to depend on each other. However when regional emotions are aroused it is always at the cost of reason and Centre. We will do well to note that agitations as a rule are for the economic benefit of its sponsors; people remain where they were. The economic factor should warn us that there must be a balance in the regional development as imbalance in a vast country like ours will lead to conflicts.

POWER

Where is the man who had not dreamt himself as monarch. There is a common craving for power, the majority of the people reconcile with their station in life but for some, it is life's ambition. The desire for power must create clashes and conflicts. Whereas the craving for power has remained constant over the centuries, its acquisition and manner of exercise has undergone considerable change in the modern times. It is no longer the individual will for power like that of Julius Caesar to become emperor or Cleopatra to rule half of the world. The acquisition of power in the modern societies is based on following of the people. The power game is played continuously by some individuals who want to become leaders to pursue their interest. On the other hand, people toss up and throw out leaders for protection of their interest.

In international relations, the governments openly admit that their policies are governed by national interests. Human interest is secondary. US and USSR vie for supremacy whereas other countries, developed or developing, pursue their interest either by alliance or neutrality. Every country in their foreign office maintains desks to watch situation in other countries of the world. Obviously the desks which are most important are those of US and USSR who have global interest. On these desks the game of chess is played; every possible move is made such as military and economic aid, invasion and sanction, promotion of unrest and destabilisation and so forth. Here no moral values are involved; supremacy has to be acquired and retained at all costs either by hard work or keeping other's head down.

It was well known that in the power game there is always a crisis of succession. In the ancient and medieval period, the transfer of power was hereditary. Institutionally the heads of family, tribe or state were invested with superior powers with all the ceremonies, halo and majesty, and even religious approval. Some of the monarchs claimed divine rights tracing their ancestry to sun and moon gods and yet no social institution could prevent crisis of succession. In the modern times, democracy is an attempt to get over the crisis of succession. The elected parties assume and quit offices without disturbing the state's governmental machinery. The concept is good but there is always a difference between principles and practices. Very often we get disillusioned by the practices and sometimes wonder whether principles themselves are right. In the developing countries the democracies have not worked. They have been displaced by dictatorial or military regimes. India is one of the exceptions but not without problems.

It takes time for the institutions to develop strong roots, traditions to establish and above all for the people to get accustomed to changed situation. The past continues to haunt the present and people do not change as rapidly as the individuals do. On one fine morning the country gains independence collapsing the power structure of an established colonial empire and the landlords and princes are dispensed with soon after. The new power pattern in politics, which is open for acquisition by any one, has threatened the unity, integrity and harmony in our country.

We were lucky to have a continuity due to charismatic leaders like Jawahar Lal Nehru and Indira Gandhi but surely this has to disappear one day. Earlier we had observed that there are people whose life's ambition is power. Democracy accepts competition for votes and leader to be worthwhile must make a public base.

Any leader who seeks power must explain to the people the weaknesses in the ongoing system, convince them that their interests are not safe and that there is a better alternative. It is not very material whether the people are happy or unhappy. Perfectly happy people can be made to feel unhappy by propaganda. This is the common strategy in democratic countries followed by opposition and emerging leaders to throw out the party in power. Such political games are within the democratic norms. However, in our country

there has been a lamentable difference. In the stabilised democracies of the West, the unity and integrity of the country has never been made a political issue, which in our country has been raised time and again.

Power corrupts minds with the result that people disregard means for acquisition of power and stoop to the worst follies. When the political parties lean on to the religions, little do they realise that they will be side-stepped and it is the religious leaders who will acquire power. And when religions propagate violence, little do religious leaders realise that it is the extremists who will acquire power. From extremism to terrorism is the next step, and when terrorism spreads, the various factions of terrorists begin their infight for power leading to chaotic conditions. Such is the vicious circle of power.

Earlier we had stated that no social institution could prevent crisis of succession. History is the woeful tale of struggle for power by monarchs, lords and religious heads. Democracy alone prevents crisis of succession. We have to learn that the craze for power must be kept in check. Power politics cannot be entirely unscrupulous.

POPULATION

In the previous article, we had quoted Bertrand Russell's remarks that the greatest achievement of mankind has been to multiply its numbers at the cost of others. It is an interesting story, which the anthropologists tell about the conquest of man over the vagaries of nature, mighty dinosaurs and the wild beasts. It is amazing how puny little man with soft skin, weak jaws and lacking speed survived against the mighty adversaries. The supremacy of mankind had solved the problem of survival but opened new problems, much more destructive. The problem began centuries ago in the pre-historic period, when the human species left with no other adversary started fighting amongst each other. Today we have reached a climax situation, where due to nuclear weapons the end of civilisation is in sight. Surely one does not need crystals to see the end.

Any concept of progress must be based on people living with people in harmony with the nature. There must be mutual love, fellow feeling, understanding of each other and cooperation. But what have we got? Competition, people against people and clash of economic and power interest.

The multiplication in number of people is causing and will cause maximum problems in our country. A number of times during the ancient and medieval period, people from outside came to India and settled down. The land could absorb them. The differences in colour, race and religion were easily absorbed in the Indian culture. Since independence, with population more than doubling itself, the pressure on land is becoming more and more felt. Poverty remains despite progress. The fact is that economic interests of the people are clashing and hence regionalism and the philosophy of 'son of the soil'. The political parties exploit the economic reality.

Our values and attitudes are dictated by expediency, utility and situation. Farmers love male children because they are helping hands but amongst the cattle they like milch cows and in poultry the hens which lay eggs. The farmers of Punjab welcome Bihari labour only during harvesting season. The Nepali soldiers and chowkidars were welcome when there was demand. With increasing wants for more material comforts and mechanisation, we cannot absorb increase in population. This surplus in population is a grave threat for the unity and integrity of the country. In the West due to limited population there is a respect for human beings. In Europe, after black death which wiped out a large percentage of population, the workers and labour acquired respect. Suppose by some catastrophe half of our population is wiped out, the problem of unity and integrity will get resolved overnight.

Let us ponder for a while on a very theoretical proposition that population of our country had remained at the same level as pre-independence days. The impact of such a situation would have been far reaching. The per capita income would have tripled and unemployment would have posed no problem; on the farm front we would have been in a very happy state of major food exporting country; the forests and environment would have been preserved; mechanisation and modernisation would have got tremendous boost and in every way we could have called ourselves as a developed country. All these benefits we have lost due to the growth in population, but perhaps the worst effect of growing population is yet to be seen. It is going to affect unity, integrity and harmony. Had we maintained old population level, the people from one region would have been welcomed by others, the son of the soil philosophy would have never taken roots, regionalism would have had no ground, religious com-

munities would have lived peacefully with each other as they did in the past and the leadership which wants to thrive on factionalism would have had no appeal. These are the dangers which we have to watch affecting unity and integrity.

Every educated person knows the dangers of growing population and yet there is no mass movement. Obviously the political parties are afraid of losing votes, but even the youth who are affected most, have not included population control in their programme. The only plausible reason is that population control lacks social acceptance particularly from those sections of the society who need it most. Do we realise that our growth is based on a very explosive base ?

THE FOREIGN INTEREST

Destabilisation is a much talked about topic; some agree, others call it a mere propaganda. Here are some simple facts. Any one in power cannot permit others to challenge his authority. Super powers cannot allow even their allies to threaten their status. A political leader cannot permit others to replace him, much as the kings did. No business magnate allows others to overtake him. In every hierarchical organisation, be it army or bureaucracy, the number one man does not allow number two or three to get closer to or bypass him.

The relationship of a country with other countries is based on furtherance of its interest. Now, destabilisation is a simple, low-cost game. In every developing country there will be people who are dissatisfied and those who can be bought over by money. Arms and funds pose no problem. For those in power, if another country does not behave destabilisation is a simple solution. But here, we must caution that foreign interest is not restricted to destabilisation alone. The factors that govern foreign interest are many and complex, and the super powers have genuine interest in that others develop because it is in their own interest.

CONCLUSION

Behind every fissiparous movement, there is always a professed ideology of language, culture, communities ignored, religions over-

looked and so on, but there is also a clash of interest. Let us take a live situation of Punjab and identify clashes of interest :—

- (a) There is an interest of political party which lost election.
- (b) There is an interest of political party which had won election.
- (c) There is an interest of religious leaders who want to establish their supremacy including in-fighting amongst them for the top place.
- (d) There is an interest of that section of society who want to make full use of every riot, violence and agitation. This section of society is ever keen for social acceptance and legitimacy.
- (e) There is an interest of those who want to make money in the name of religion and social reforms.
- (f) There is an interest of those who want to grab property by displacing people of other community.
- (g) There is an interest of youth who are ever keen to do something new including down with everything.
- (h) There is an interest of those who have been affected by violence.
- (i) There is an interest of those who would otherwise be condemned but now seek martyrdom.
- (k) There is an interest of industrialists and business community who want wider field of inter-action and inter-relation.
- (l) There is an interest of those Sikhs who live outside Punjab.
- (m) There is an interest of silent majority who want peace and harmony to pursue their simple life.

We can add on to the above list. All that we want to highlight is that clash of interest is responsible for fissiparous movements. We should note that the interest-groups try to win the sympathy of the silent majority who hold the key to their success. These interest-groups follow various methods to influence people, but undoubtedly the worst is terrorisation of people.

Few years back, we were talking about the role of students in Punjab agitation. An elderly lady stated that the youth can be taught,

can be brought back by persuasion and counselling. Who would deny the lady's views ? But the facts are that the youth do not obey their own parents. How can they obey their teachers and elders ? The reality of the situation was that the lady who wanted to reform misguided youth was murdered by the terrorists. This leads us to the age old problem of idealism versus realism and morality versus reality. We examine this aspect in the next article.

(To be continued)

Motivation Today*

CAPT H S RATNAPARKHI

*OF ALL THE FORCES WHICH ARE OF INFLUENCE IN
WAR, THE SPIRIT OF THE WARRIOR IS THE
MOST DECISIVE ONE*

— POLYBIUS

INTRODUCTION

THE history of world is largely a man fighting man in groups of ever increasing size with weapons from bows and arrows to the nuclear and missile age of the present times. The attainment of success by modern means alone seems impossible as man alone will still remain to be the supreme force in battle field. Motivation constitutes a unique single force in making the fighting soldier give off his best under the worst circumstances. The recent advancement in warfare techniques and frightening effects of the destructive nature of the latest weapons are likely to influence his behaviour. This will create greater stress which will consequently place a greater premium on the ingenuity of leadership. In addition the recent economic growth, social and political changes have made a soldier more materialistic and changed him a lot. There arises a need to change some of our ideas and concepts about motivating a soldier.

AIM

Aim of this essay is to find out how best we can motivate our men so that they give their best in times of future crisis keeping in view the economic growth, rural and political attitudes and the social milieu prevailing in the country today.

THE SOLDIER

Let us first analyse the changes that have taken place in the soldier of today from his counterpart of yesteryears before we come to

*This essay was awarded the COAS Silver Medal for the Competition held in 1986-87.

ways of motivating him in the new era. The advancement in science and technology has not only revolutionised the arsenal of weaponry but also had an unprecedented impact upon the soldier. That soldier is fading out who in the past exhibited immense pride in wearing his sword, considered being in uniform or carrying colours as a distinguished position of nobility and never thought it too great to lay down his life on the command of his superior.

The new generation is more comfort oriented, attuned to divergent beliefs socially and politically and it is becoming increasingly difficult to fill the armies with loyal diehard warriors that forces had in the past. Heretofore bulk of soldiers of most of the countries came from rural areas where the youth was accustomed to a hardy life and adjusted easily to military service and discipline. Today in contrast the urban youth lives in a free and more permissive society. The new generation is more comfort oriented and the new soldier is bound to be influenced by a number of factors. These are as under : -

- (a) Increasing psychological and emotional tensions.
- (b) Dislike for routine and resistance to discipline.
- (c) Progressive attitudes and varying ideological and political affiliations may mean the questioning of validity of wars and the necessity to maintain the unproductive organisation of armed forces.
- (d) Greater zest for accumulation of wealth.
- (e) Fast growing concept of individuality due to rising standards in education which may lead to a challenge to authority.
- (f) Greater requirement for recreational facilities than army can afford.
- (g) Lack of martial inspiration due to negative attitude towards hard physical work.
- (h) Diminishing allegiance to religion and country.
- (i) Addiction to drugs and other vices.

Such a youth is bound to join the army in a big way in the years to come. Motivating him, is not going to be an easy task. There is therefore in this youth a challenge no less important than the future strategy of employment of nuclear weapons.

PATRIOTISM

Popularly accepted ingredients of motivation cannot be applied to present day as these have to change due to changing conditions and one such casualty is patriotism. In the Western Armies it is believed that it has lost its value as a motivator. In our country it has not died down totally but the day is not far when this aspect cannot be used blindly. This does not imply that it should be totally scrapped from the list of tools for motivation. We will still come across some highly committed men—however anachronistic their motivation may have seemed to others but the fact remains that this aspect cannot now be used blindly to motivate soldiers.

RECRUITMENT

Due to changing environmental conditions the human element available may not meet the desired standards but one has to depend upon the material available. What may appear prudent is to ensure that appropriate laws are enacted concerning education systems, physical and social standards and other standards of recruitment. It may also be necessary to so mobilise public opinion that future young men are equipped with the qualities of audacity and boldness, motivated to brave dangers and imbued with the spirit of patriotism and loyalty, free of unacceptable political affiliation. Once proper selection of men is made at the grassroots level (which is a real uphill task) the next important step is to organise them into groups capable of high motivation.

ORGANISATION

Once suitable men are selected it is essential that they are effectively integrated in an organisation so as to form a highly motivated group. To form such an organisation following things are to be borne in mind. Any haphazard organisation will lead to a disaster in the hour of crisis :—

- (a) *Compatibility.* A group will not be motivated unless its members are compatible. The organisation should be such so as to minimise the opportunity for inter personal clashes and to position side by side those who work together best.
- (b) *Turbulence.* Inevitable continuous rotation of individuals is going to have an adverse effect on motivation. This practice

is not only wrong but unless we keep in mind the effect of disruption we cannot sustain a positively motivated group.

(c) *Size of the Group.* Smaller the size of the group it is easier to establish and maintain motivation. Soldiers will identify themselves more in a smaller group viz platoon or section size than in company or battalion group. Importance of junior NCOs-Section Commanders therefore cannot be underestimated. To a rifleman the most important and immediate source of motivation is the section commander and it is easier to understand why both Napoleon and Marlborough were nicknamed as "Corporal" by their troops. We may flatter ourselves as Commanding Officers, Company Commanders and Subedar Majors thinking that we are central in the minds of soldiers but when the pressure is on we are vague distant figures compared to section commanders.

From the above it is clear that for our army we must continue with the old system of single caste battalions to have a motivated force. The battalion must consist of same caste or even become an affair of villages. A young soldier thus might be related to several of the Non Commissioned Officers and Junior Commissioned Officers in the battalion. He knows that if he did not do well in battle he had not only their displeasure to face but eventually perhaps the scorn of his own village. It is therefore essential that such a system must at least exist in the teeth arms. If having single class battalions clashes with the policy of national integration at least at company level single class entity must remain. A battalion can have four companies of different class composition, any dilution below this level will have an adverse effect on motivation.

TRAINING

Once proper selection during recruitment is made and their organisation is proper the next important step is to undertake realistic, objective and progressive training of all ranks professionally under warlike conditions. It is sad to note that our training today lacks motivation; we do not create enough attention and interest amongst our men for learning. We still harp on the age old method of motivation by reward and punishment.

Training should involve complete mastery over skills at individual and group level which require error free performance

during the stress period. A person should be so well trained that he uses these skills automatically. A controlled competition of these skills will also have a positive effect in fostering motivation. Another aspect is physical fitness. In good old days physical fitness of a soldier was taken for granted due to his rural hardy background, however in the new environment extra attention is to be given. A soldier having capability to endure relentless physical strain is bound to be more motivated.

A well trained soldier is therefore more motivated than his counterpart who is less confident about his job. While training men, finding faults is the easiest of things. However, such fault finding and criticism should be on a limited scale coupled with recognition of good performance; as such praise is one of the most effective means of motivating soldiers.

WELFARE

Welfare of men is key to good motivation and yet we are not clear as to what is welfare? Most of us believe that welfare is provision of canteen, cinema and concert. Quite often we have pampered our men by emphasis on wrong welfare aspects. Some of our highbrow ladies indulge in durbars in Mughal style in so called family welfare centres. Our present day leaders fail to ensure that the basic needs of our men in terms of water, food, warmth, rest and sleep are met to the best of circumstances. We feel shy to inspect an other ranks latrine or a cookhouse and see to it that his dwellings are clean.

The materialistic trends which have set in today's life also have an effect on the minds of the soldier. His awareness of money matter has increased a lot. If we are to ensure that persons of right calibre are to join the armed forces the pay scales of ours should at least be comparable to other walks of life if not more. Commanders at the highest level must project this in an appropriate manner to the concerned authorities. Recent concessions of grant of free rations to the officer cadre and also the pay commission proposals are sure to have an impact on the men in uniform.

RELIGION

Religion still plays an important role in motivating our soldiers unlike the western countries. However, it is evident that the material-

istic trend is creeping in and eroding our religious values thereby adversely affecting the validity of religion as a tool for motivation. The aspect of following religious faiths is being adequately catered for by us and there is no need for further elaboration. We must understand that all men become emotional in war and it is sure that many of them will turn to a God whom they might have disregarded or even rejected in easy days of peace i.e. "Men's religion often overlaid becomes real in the presence of great events and impending danger." Thus sound religious faith is still a component for motivation—a war winning factor. It is clearly the duty of every officer whatever his private beliefs to ensure that facilities for following proper religious faith of his men are provided.

DISCIPLINE

Discipline is essential in any military force. It results in soldiers performing well under stress but society outside army is not accepting army discipline as it may have in the past. One should not feel that due to constant criticism of strict discipline in the army we should become more lenient. It still remains the bedrock of a highly motivated force. The only difference is that officers must understand the changing conditions and realize that soldiers can be allowed to question their directions as we also are a part of the liberal society outside army. However, a limit should be laid down. Officers must not be partial or selective about discipline at all as either you have it or you do not. Another new aspect that can be cultivated is self discipline as soldiers of today are more educated and can comprehend things more easily. Discipline should be an integral part of development of motivation and never a means to destroy it.

MOTIVATION IN WAR

The aspects discussed earlier also form a part of motivation in hot war period in addition to their use in peace time conditions. However, there are some aspects which need special emphasis during war and these are discussed here. Needless to say it should be ensured that in any future war units are sent to battle well balanced and well prepared. The task given should be well within the units capability and a fatigued unit must never be put into battle. Before the battle wherever possible the Commanding Officer definitely, and the Brigade and Division Commander possibly, must address the men as to what is required of them and what they will have to face.

Gallantry Awards and Promotions. No amount of screening can ensure that only the deserving get the awards, it would only cause unnecessary delay. As quick punishment is the best deterrent quick awards are the best motivation. The present system of ours is too slow and needs drastic improvement, but on the other hand much still remains to be done at the unit level. It is how a citation is written by the unit and progressed by the brigade that will determine the final outcome of awards. As the Commanding Officer is generally busy and heavily committed in operations it is suggested that Second-in-Command of a unit should be an expert in writing citations. It is well known that many units in Second World War were given awards out of proportion to the remainder. Not all of it was solely due to gallantry. It was also dependent upon the pains taken by the Commanding Officers and their capacity to write citations. In an unit another important means of motivation is battlefield promotions for singular acts of gallantry or initiative. There will generally be vacancies in various ranks and immediate battlefield promotions to the deserving will set a good example to the rest.

Leadership in Battle. Leadership plays an important role in motivating a soldier in both peace and war. However, in war a leader's role becomes more important. Field Marshal Montgomery has rightly said "A man does not flee because he is fighting an unrighteous cause, he does not attack because he is weak. He conquers because he is strong or his leaders have made him feel stronger". To relate to, we have Alexander the great captain of war, but on the banks of Beas he failed to motivate his soldiers and had to retreat; whereas Babar when faced with a similar situation after the battle of Panipat in 1526 succeeded in motivating his tired and unwilling soldiers to fight the army of Rana Sanga. Alexander's empire broke soon after his death but Babar's empire endured for three centuries after his death. It is, therefore, of utmost importance that leaders of today are competent enough for the tasks ahead.

Success in Battle. Success in battle is also a good tonic for motivation hence a leader must try and get initial success by choosing lighter missions. Success achieved by the other sub units of the battalion must be communicated to all others by fastest means as this is sure to step up motivation.

CONCLUSION

The changes in the social, economic and political conditions have changed a man joining the armed forces but the need to motivate him remains as important as ever. It is therefore essential that all leaders of today's Army must understand the scientific aspects of motivation viz organisational aspects, human behaviour etc. They should also ensure that whenever they are in a position to do something i.e. whether in recruiting organisations or in training establishments for the cause of motivation they must do justice. Any folly on their part at grassroots level is going to have long term repercussions. We may not be able to use patriotism or religion as blindly as in the past but the fundamental strands of motivation that impell the man in war and peace have not changed. The rapid advancement in science and technology should never come as an obstacle between the leader and his men at any level. Motivation is an amalgam of different strands which are used in motivating him to join the army, keep him motivated in peace and ensure that he remains motivated in war. Whatever method used, the goal for motivation must be to get a soldier to be always wanting to do what he has got to do.

Some Lessons of the 1962 NEFA Debacle*

L T G E N A M V O H R A P V S M (R E T D)

COMMENTING in the *Times of India* in July 1986 on the Chinese intrusion across the McMahon Line in the Kamang district of Arunachal into the Sumdorong Chu Valley, Nikhil Chakravarty wrote, "If India uses force to dislodge China, this will be used to show up India as an unfriendly power, unreliable where its smaller neighbours are concerned. If India does not go in for such a move, this restraint will be misread as proof of being supine in her dealings with China."¹

One wonders if the latter part of this comment was the sort of reasoning—to avoid being labelled supine—which led the Army being ordered on September 22, 1962 to evict the Chinese from Dhola. The Chinese had crossed the Thagla ridge on September 8 and had come down to the Indian post at Dhola on the Namka Chu in Kameng and threatened to cut it off. It is necessary to recapitulate events leading to this incident which culminated in the Sino-Indian conflict commencing on October 20, 1962.

"LIBERATION" OF TIBET

When the Chinese moved into Tibet in October 1950, India expressed its concern and the hope that "the last voice in regard to Tibet should be the voice of the people of Tibet and nobody else."² However, India, like the rest of the world, accepted the Chinese action. In December 1953, the Government of India initiated negotiations in Beijing on the relations between India and Tibet in the hope that by settling all outstanding issues which had been inherited from the past, the relations of friendship and cooperation between the countries would be greatly strengthened.³ On April 29, 1954, the

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Sino-Indian Agreement on Trade and Intercourse between the Tibetan Region of China and India was signed. The Government of India then relinquished all extra-territorial rights and privileges in Tibet which were inherited by New Delhi from the British government and recognised that Tibet was a region of China.⁴ These included the right to station an Indian political agent at Lhasa, the right to maintain trade agencies at Gyantse, Gantok and Yatung as well as post and telegraph offices along the trade route to Gyantse and the right to maintain military escorts at Yatung and Gyantse...⁵

After their move into Tibet, the Chinese concentrated on building roads, establishing garrisons and generally strengthening their military potential in Tibet. India was anxious to maintain friendly relations with China. The 1954 agreement had enunciated the five principles of peaceful coexistence, Panchsheel and the 1950s were a period of cordiality marked by the slogan. "Hindi-Chini Bhai-Bhai" Although a committee headed by General Himmat Singh was constituted in 1952 to study the military threat to our northern border, its recommendations even in regard to creating the communications infrastructure were pursued with no urgency. The Border Road Development Board was set up only in 1960. No thought was given to raise, train and acclimatise forces for operational tasks in high altitude areas. The Indian Army, which was over two million-strong during the second world war, had been drastically run down immediately after the war. In the fifties, a "post-trouble" Army of 300,000 was being talked about. Because of India's adverse relations with Pakistan, the actual strength in the period 1960-62 was about 500,000. It was only after the 1962 hostilities with China that mountain divisions organised to operate on India's northern border were raised and the strength of the Army went up to 900,000 in 1970.⁶

BORDER DISPUTE

Chinese maps published in 1950 soon after the establishment of the Peoples Republic of China showed its boundary with India right up to the Brahmaputra foothills. In reply to India's protest in February 1951, the Chinese assured the Government of India that these maps "are not official maps" but were old maps prepared during the Chiang Kai-Shek regime.⁷ During his visit to China in October 1954, Jawaharlal Nehru mentioned to Chou En-Lai that he had seen some maps recently published in China which gave a wrong borderline between the two countries and the latter repeated the

explanation given in 1951, that they were reproductions of old maps. However, in 1958, a magazine, *China Pictorial*, published maps which claimed four divisions of NEFA (Kamang Subansiri, Siang and Lohit), some areas in the north of UP, large areas in Ladakh and a big slice of Bhutan.⁸ India's protest dated August 24, 1958 and offer of its Political Map brought a reply dated November 3, 1958 that the boundary of China will be drawn after survey and consultations with neighbours.⁹

Dispute over the Sino-India border surfaced in 1954. On July 17, 1954, the Chinese counsellor in India gave a note to the Ministry of External Affairs that Indian troops armed with rifles had crossed the Niti Pass on the UP-Tibet border and intruded into Wu-Je. The Indian reply of August 27, 1954 stated that "A party of our Border Security Force is encamped in the Hoti Plain which is Southeast of the Niti Pass."¹⁰ India maintained a seasonal post at Bara Hoti which withdrew in winter. On June 28, 1955, India informed the Chinese Counsellor that a party of the Chinese was camping at Hoti.¹¹ Apart from claim to Bara Hoti, the Chinese claimed area up to Hupsang Khad on the Indian side of Shipki La in Himachal Pradesh and their patrol crossed Shipki La in September 1956.¹²

The most serious claim came to light in 1958 when, in reply to an Indian note about its patrol of nine men in Ladakh that was missing since the end of August, the Chinese replied that the men had been arrested by their frontier guards on September 8-12, snooping on the Sinkiang-Tibet highway¹³. The Chinese had completed the Lhasa-Sinkiang highway in 1957 which, according to the Indian note to the Chinese, "enters Indian territory just east of Sarigh Jilganag, runs-north-west to Amtogar runs north-west through Yangpas, Khaiti Dawan and Haji Langar which are all in indisputable Indian territory...¹⁴ This road through Aksai Chin continues to be perhaps the most contentious issue in the Sino-Indian border dispute.

POLITICAL ASYLUM TO DALAI LAMA

In June 1951 China formalised the "unification" of Tibet by a treaty, but ideologically Tibet remains unreconciled to date. The first major revolt in Tibet took place in early 1956. Unrest continued and in 1958 the Dalai Lama is reported to have sought asylum in India. Early in 1959 trouble spread and he crossed over to India on March 31. Jawaharlal Nehru confirmed this in the Lok Sabha on April 3 and

announced that political asylum had been granted at his request.¹⁵ The Chinese government expressed great displeasure at this and the warm reception given to the Dalai Lama.

Several border incidents took place in 1959. On August 7 a section strong Indian border post at Khenzemane in the Kameng Frontier Division (FD) of NEFA was pushed back by 200 Chinese troops to the bridge at Drokung Samba. On August 25, another weak Indian post at Longju in the Subansiri FD was surrounded by two to three hundred Chinese troops. On August 26 the Chinese encircled this post again. There was exchange of fire and the Indian post withdrew under pressure.

The Chinese do not accept the McMahon Line; they contend China was not signatory to the Simla Convention of 1913-14. Further, there is dispute over its alignment. In the Thagla Ridge-Khenzemane area, China holds that the line runs through Drokung Samba bridge. There are differences also in the alignment of the border in the Western (Ladakh) Sector, the Central (Himachal and UP) Sector. There was protracted and exhaustive correspondence between Jawaharlal Nehru and Chou En-lai between December 1958 and December 1959. The two prime ministers met in Delhi in April 1960, and subsequently three rounds of discussions were held among officials of India and China by November 1960, but no progress was made and the matter was left unresolved.

Basically, China maintained that the Sino-Indian boundary is not formally delineated and some differences exist between the boundary lines drawn on the maps of the two countries which require survey and mutual consultation. India contended that in three different sections—Ladakh, Sikkim and NEFA, covering much the larger part of the border—the boundary as shown on its maps is supported by geography, in some cases by tradition and treaties in others. (The 1842 treaty between Kashmir and the Emperor of China and the Lama Guru of Lhasa in respect of the Ladakh sector. The Anglo-Chinese convention of 1890 in respect of Sikkim and the McMahon Line in case of NEFA). The remaining portion from the trijunction with Nepal to Ladakh is also traditional and follows well-defined geographical features. The meeting of the two prime ministers in April 1960 could not devise a way out and the official talks failed. It is believed that China indicated that it would accept the McMahon

Line in the eastern sector if India would accept the line of actual control in Ladakh.¹⁶

FORWARD POLICY

In October 1954, Jawaharlal Nehru visited China at the invitation of the Chinese government. On his return, he stated in November. "I am convinced that China, entirely for its own sake, wants peace, wants time to develop itself and thinks in terms of three or four five year plans."¹⁷ After the August 1959 incidents mentioned earlier, he made a statement in the Lok Sabha on August 28 in which he gave information about the road through Aksai Chin, a post established by the Chinese at Spangur in Ladakh, the incidents at Khenzemane and Longju and said, "we have, in fact, placed this border area of NEFA directly under the military authorities."¹⁸ What this implied in effect was that the Assam Rifles in NEFA were placed under the Army. The overall assessment even after the Khenzemane and Longju as well as the incidents in Ladakh was that these were isolated incidents. "I cannot imagine that all this is a precursor of anything more serious. I do not think they will attack."¹⁹

This assessment accounts for India adopting the policy of establishing forward posts to assert its claim on territory it felt was its own. The strength of the post or the ability to maintain it or build up on it were supposedly of no consideration as China was not likely to start a war. If India did not assert a claim on its territory, China was likely to establish its posts and claim the territory. Therefore, it was argued that India should establish as many forward posts as possible. It was in pursuance of this policy that a post was established in June 1962 at Dholi which the Chinese maintained was north of the McMahon Line.

Thorat, who was GOC-in-C Eastern Command from May 1957 to May 1961, records his amazement at the fact that during this period, the Government of India refused to admit that there was any danger to India from China. Thimayya agreed with his recommendation that the defence of NEFA should be included as an operational task of Eastern Command and it should be provided additional troops for it, but this recommendation was brushed aside by Krishna Menon.²⁰ Thus, Eastern Command had no troops to induct into NEFA when it was made its operational responsibility in August 1959. 4 Infantry Division was ordered to move from Punjab to Assam

and one of its brigades concentrated in the foothills area of NEFA by the first week of December 1959. In the absence of roads for induction or subsequent maintenance and as the availability of air supply was limited, it was necessary to restrict the quantum of troops for deployment. It was therefore possible to locate only one battalion at Tawang by August 1960. The other two battalions were kept well back at Tenga Valley.

As is well known, there is a marked difference in the terrain on the Indian and the Tibetan sides of the border. The Indian side receives fairly heavy rainfall and the mountains are covered with dense forests. There is thick snow in the winter. The Tibetan side is bare and cold, with light snowfall. It is easy of access and arterial roads with link roads to the border had been taken in hand since 1951 and had been well established by 1960. India set up the Border Road Development Board only in 1960 and it takes time to construct roads in the prevailing terrain conditions. Only a start had been made in 1962 when India gave its Army the task to evict the Chinese.

Secondly, as mentioned earlier, in the fifties, India was anxious on force reductions. The 5,00,000 strong army of the early sixties was Pakistan-oriented and so deployed. The specially tailored mountain divisions with animal transport for first echelon loads of weapons and ammunition of combat units and artillery suitable for such terrain were raised only after the 1962 hostilities. In these circumstances, in October 1959, Thorat proposed plans for the holding of defences along the line Tawang-Ziro-Along-Hayaliang which should be provided road and airheads and forward of which strong posts should be established to give warning and to impose delay. He felt that dispersing his force on a thin red line all along the border would serve no purpose. Rather, the aggressor should be drawn in to add to his maintenance difficulties while Indian forces would be deployed on such tactical features where these could be maintained and supported.²¹

He opposed the so-called forward policy. "It was my unshakable conviction that if I were to listen to the Defence Minister, adopt his Forward Policy and send troops to the McMahon Line without adequate maintenance cover, I would be sending them to certain defeat and death."²²

All the same, with the background of his assessment of no possibility of a war with China, Krishna Menon implemented his policy of establishing forward posts in small strength purely to show the flag and some of these were established in disputed areas, like the one at Dhola.

THE NAMKA CHU BATTLE

Dhola post was established in June 1962. On September 8, the Chinese descended from the Thagla ridge and threatened to cut it off. It was a smaller Assam Rifles post, under the command of a JCO established on the south bank of Namka Chu in keeping with the belief that the Chinese would not attack and the basic philosophy of forward policy mentioned in the foregoing paragraph. The Chinese had occupied the Thagla ridge and had sent about a company-strong force to Dhola.

7 Infantry Brigade was the only Army formation in Kameng FD. 9 Punjab and 1 Sikh were its two battalions and it had just one battery of mountain guns in support. Its third battalion, 1/9 Gorkha Rifles, was concentrated at Misamri near Tezpur on its way to Yol in Kangra Valley. Its task was the defence of Tawang; Bum La-Tawang being the main axis of ingress in Kameng FD.

Brig J. P. Dalvi, the brigade commander, had instructions issued to the post commander at Dhola to hold his ground, conveyed to him that a link up will be established, and had the Assam Rifles post at Lumpu alerted (Lumpu is two days' march from Dhola).

9 Punjab located at Tawang, four days' march from Dhola was also alerted. On September 9, it sent a detachment to Lumpu. These precautionary measures were taken in consultation with 4 Infantry Division with its headquarters at Tezpur and 33 Corps which was operationally responsible for the Sikkim, Bhutan and NEFA border with Tibet.

On September 10, 9 Punjab was ordered to move to Lumpu and 7 Infantry Brigade was warned to be prepared to move forward to deal with the Chinese investing Dhola. 1 Sikh was to be left behind at Tawang with the task of defending the Bum La-Tawang axis. Thus began the diversion of 7 Infantry Brigade from its task of the defence of the vital ground of Tawang. The tactically insignificant post at

Dhola on the Namka Chu; a gorge with dominating heights on both sides; on a mountain stream which could be crossed anywhere in the winter months, a post established purely to stake the Indian claim right upto McMahon Line, became the cause of this diversion. The implementation of the "forward policy" had put India into this military precarious position.

Dalvi records that the corps and division commanders conferred with the Army Commander at Tezpur on September 12, 1962 and informed him that the task of clearing the Chinese was beyond the capability of troops in Kameng FD.²³ At a conference held in the Ministry of Defence on September 14, General Thapar, the Army chief, warned the government of the consequences of any armed action by the Indian Army in view of the many deficiencies from which it suffered there. Lt. Gen. Daulat Singh, the Western Army Commander, stated that the Chinese were in a position to annihilate the defending Indian forces in Ladakh. Lt. Gen. L. P. Sen, the Eastern Army Commander, was equally blunt about the weaknesses of the Indian forces in NEFA²⁴.

In the meantime, the deployment of 7 Infantry Brigade on the Namka Chu continued. On September 13, 9 Punjab was ordered to move forthwith and it started deploying on this stream on September 15 where it encountered Chinese shouting in Hindi, "Withdraw from Namka Chu. It is Chinese territory. Do not mar friendship by border incidents." The brigade commander reached the Namka Chu on September 19 and commenced detailed reconnaissance with officer commanding 9 Punjab. This battalion was now deployed on bridges I to IV. The move of 1/9 Gorkha Rifles ex Misamari was cancelled and this battalion as well as 2 Rajput awaiting move to Mathura ex Charduar were directed to join 7 Infantry Brigade and reached Lumpa area around September 26.

While these moves were taking place, a meeting was called in Delhi on September 22 to discuss the Thagla situation presided over by the Deputy Minister for Defence. The Prime Minister and the Defence Minister were abroad. At this meeting, Thapar asserted that the Chinese could easily reinforce their strength opposite Dhola, retaliate elsewhere in NEFA or attack our posts in Ladakh.²⁵ He was told that for political reasons there was no alternative but to undertake the task of evicting the Chinese from Dhola area. Thapar

demanded a written order which was issued under the signature of a joint secretary.²⁶ This task was given to 4 Infantry Division through Eastern Command and 33 Corps. 7 Infantry Brigade was the only formation available to do this task and it had hardly any artillery support. Lt Gen Umrao Singh, who was GOC 33 Corps, repeated his protest about the impossibility of evicting the Chinese without a massive build up. Therefore, there was a situation of a reluctant military being overruled for political reasons.

The Defence Minister returned on September 30 and the Prime Minister on October 2. On October 3, the 4 Corps HQ was created and Lt Gen B M Kaul was appointed its GOC. This was obviously to overcome the reluctance of Umrao Singh to accept what he and his formation commanders considered militarily unrealistic tasks. These tasks of eviction of the Chinese from the Namka Chu and containing Thagla were now given to 4 Corps and through 4 Infantry Division to 7 Infantry Brigade which was all GOC 4 Corps had by way of resources.²⁷ Furthermore, the build up of even this brigade to around Namka Chu was held up due to logistical reasons; the one ton road axis to Tawang was in a precarious condition. Beyond Tawang it was four to five day's march and maintenance would primarily be by inadequate air transport in difficult terrain by para/free drops.

On October 4, Kaul reached Tezpur and accelerated the concentration of 7 Infantry Bde. He flew into Lumpu on October 5 and ordered 2 Rajput and 1/9 GR to move to Namka Chu the next day. He was at Dhola on October 7 where he met Dalvi and was sobered somewhat on seeing the position on the ground *vis-a-vis* ammunition holdings, supplies and difficulties in the way of air drops and, what was even more important, the tactical unsuitability of the Dhola post as well as the domination of the Namka Chu by the Chinese at Thagla.²⁸ Dhola post on the Namka Chu had no tactical significance. Thagla ridge on the North of Namka Chu with the Chinese and Tsangdhar plateau-Hathungla on the South in Indian hands, were the areas of tactical importance.

According to Dalvi's assessment, by October 4-5, the Chinese had already located a well-stocked and well-supported brigade at Thagla and were moving a whole division to this area.²⁹ By October 10 Kaul was convinced of the untenability of the Indian

position in the Namka Chu gorge and that the task of expelling the Chinese was beyond Indian capability.³⁰ In response to a signal he sent, he was called to Delhi where, at a conference held on October 11 presided over by Nehru at which Krishna Menon, the COAS, the Army Commander and Kaul were present, it was decided to change 4 Corp's task to that of the defence of the present position.³¹ In light of the observations already made in regard to the tactical unsuitability of the Namka Chu gorge, this was militarily a disastrous decision even if 7 Infantry Brigade had been well-stocked and well-supported both operationally and administratively which it wasn't. The brigade and the divisional commanders had no doubt that in the face of the Chinese build up, the brigade should hold a compact defence at Lumpu, south of the heights of Tsangdhar-Hathungla. However, Kaul records that Krishna Menon, the COAS and the Army Commander visited him at Tezpur on October 17. Menon emphasised the political importance of holding on to our defensive position at Tsangle.³² This post was north of Namka Chu and was reached via Bridge V on this stream. Thus, the orders to hold the present positions from Bridge I to Tsangle, a 12-mile stretch along the Namka Chu, was a political decision and ensured the decimation of the brigade.

The Chinese attack came at 5 a.m., October 20. Dalvi estimates that two brigades attacked the Rajput and Gorkha positions in the Dhola area (bridges III and IV) while a brigade was directed to Tsangdhar between bridges IV and V and another towards Hathungla on the Khenzemane-Drokung Samba-Zimithaung axis to cut off the routes of withdrawal.³³ The Rajputs and the Gorkhas fought valiantly but by 8 a.m. their positions, which had no artillery support to speak of, were overrun. The Grenadiers and the Punjabis, in areas of bridges I and II, were bypassed. One column of Chinese proceeded from Nyam Jang Chu towards Tawang.

LESSONS OF 1962

Lessons that follow from the events leading up to and including the battle of Namka Chu are worth deliberating upon as history has the habit of repeating itself. Firstly, India did not expect the Chinese to take any largescale aggressive action in regard to the border dispute and had made no preparation for the defence of the Indo-Tibetan border. On the other hand, China had made all military

preparations; infrastructure of arterial and link roads, adequate and well-supported forces, development of forward posts and the stocking of warlike stores and supplies. In these circumstances, it was most unwise to work the country into a frenzy over Chinese ingresses in Ladakh and NEFA over a period of time and make them believe that the situation could be dealt with militarily. A tough military posture is ill-advised when a nation is not in a position to back it by military strength.

Secondly, military courses of action adopted by a country should be in keeping with its military capability. Adversaries have a fair idea of each others' strength and weakness. China knew fully well that India had inadequate forces and no infrastructure in Ladakh or NEFA to position and sustain forces of the size that could resist the strength that China was able to field in these sectors. The adoption of provocative forward policy was, therefore, not advisable and the sound advice of Thimayya and Thorat should not have been disregarded. India should have adopted a low military profile and made intensive preparations.

Thirdly, when the forward policy was challenged, the new military leadership cautioned their political bosses. Heed should have been paid to professional opinion. The politico-military interaction in an environment of impending hostilities in September-October 1962 was most unsatisfactory. In the absence of the Prime Minister and the Defence Minister, the government ordered the eviction of the Chinese from the Dhola area, ignoring professional advice and the evidence of their build up. This is an important lesson in the field of decision making at the national level. The supremacy of the PM and the Cabinet is unquestionable but decisions should take cognisance of professional advice. Even if Krishna Menon had been assured by Marshal Chen Yi in Geneva that China would not resort to war to settle the border dispute, note should have been taken of the Chinese build up.

The forth lesson relates to political interference in the organisational field of the Army. The military leadership in the field, the brigade, division and corps commanders, protested repeatedly against the plan to evict the Chinese from Dhola area. This was taken as reluctance on the part of Umrao Singh, the Corps commander, to get a move on. A novel solution was worked out : to raise a new

corps headquarters with a new commander to be given the responsibility of operations in NEFA. Kaul, who was appointed the commander of 4 Corps the new corps which took over the NEFA sector from 33 Corps, records that it was decided on October 3 by the government and the Army chief to raise a new corps.³⁴ This apparent political decision created a situation where a new headquarters occupied with mundane chores like finding accommodation, collecting furniture, typewriters, stationery and waiting for officers and personnel to arrive, was made responsible for dealing with a live confrontation situation. Posted from an instructional appointment at the Staff College, as GSO-I (Operations) of this headquarters at 12-hours notice, I arrived in Tezpur to find my earnest effort to grasp the operational situation diverted somewhat by such chores. If Umrao Singh's refusal to toe the line was considered the problem, the responsibility of NEFA could have stayed with 33 Corps, which could have been moved to Tezpur and given a new commander. Umrao Singh could have raised the new headquarters at Shillong, retaining responsibility for the remainder of 33 Corps territory—Assam and Nagaland.

Fifthly, when at the PM's conference on the night of October 11 it was decided to rescind the orders to evict the Chinese, the choice of the defensive position to be held by 7 Infantry Brigade should have been left to the Army. Tying it down to holding the Namka Chu gorge was disastrous. What ground the Army should hold is a tactical issue. Admittedly, the pulling back of the brigade to either Tsang-dhar-Hathungla or further south to Lumpu would have involved loss of face. The cardinal sin was the diversion of the brigade to Namka Chu from its task of defence of Tawang. Having committed this, India should have cut its losses and taken up a compact brigade defence on tactically suitable ground. The military defeat it suffered by not doing so was worse than the loss of face involved in a tactical withdrawal.

THE PRESENT POSITION

India is now better prepared. The infrastructure and logistics are on a better footing. The border is held by adequate forces, acclimatised and trained for operations at high altitudes. There is, however, scope for better artillery support as also for provision of sufficient heliborne capability to enable a speedy build-up of troops for crucial cross country offensive and defensive missions.

India has ten to eleven mountain divisions, primarily for the Sino-Indian border. In addition, there are local and paramilitary forces like Ladakh Scouts and Indo-Tibetan Border Police. Tibet is reported to have only eight regular infantry and six local force divisions under the South West Military Region (MR) of China with its headquarters at Chengdu. Of course, the PLA has 12 armoured, 119 infantry and 97 local force divisions deployed in 11 MRs. A large force is deployed in the MRs bordering the USSR and Mongolia. Improvement of Sino-Soviet relations could lead to a pull-back of forces but is not likely to result in any change in the overall allocation of forces to various fronts in the foreseeable future. In these circumstances, the order of battle currently earmarked for the Sino-Indian border is fairly balanced.

China has also increased its logistical capability in Tibet. A petroleum pipeline has been brought into Tibet from mainland China. A three phase 834 km-long railway line has been completed into Tibet from Qinghai. The logistical support available to the Chinese in Tibet has been assessed as the ability to sustain 21 divisions for 70 days. If hostilities break out on the Sino-Indian border, China is likely to make a show of force in all the areas of its claim and choose two or three objectives for a somewhat deeper penetration, within its claim, for temporary occupation. Its aim would be achieved by such peripheral operations. The paucity of communications in the way of axes would limit operations to brigade fronts except in the case of axis Bum La-Tawang and the Chumbi Valley. The latter could sustain a corps front operation from either side of the border. However, a series of major thrusts into the Brahmaputra Valley for long-term occupation would not be sustainable particularly during the winter months.

So much for respective military strengths, capabilities and the likely peripheral nature of the Chinese objectives. In this connection, the relevant issue at this juncture is to assess why China has ingressed into Sumdorong Chu Valley, particularly as an understanding was reached at the fourth round of official talks held at Beijing in 1984 to maintain status quo all along the border pending a final settlement. Most political commentators are agreed that the Chinese wish to stress that their package offer does not imply the acceptance of the McMahon Line as the border in the eastern sector. Rather, it is a

concession offered by China in return for which it would like India to make concessions in the Western sector.

The Government of India's stand to continue to strive for a peaceful settlement of the boundary dispute is, therefore, commendable. The media should also ensure that the first lesson of the NEFA episode is taken note of and no unnecessary agitation is caused in the minds of the people suggesting military courses and eviction.

The military factor is, of course, very pertinent to the solution of the border dispute by negotiation. In this context, plans for the defence of the Sino-Indian border must ensure capability of counter-riposte : the vulnerability of the Lhasa-Xinjiang highway via Gartok-Demchok-Rudok is worthy of note. The relevance of the other lessons of 1962 to any situation of confrontation that might develop is too obvious to need any elaboration.

NOTES

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3. D.R. Manekkar, *The Guilty Men of 1962*, The Tulsi Shah Enterprises, 1968, p. 11.
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6. See *The Military Balance*, IISS, London.
7. B.K. Desai, *Op cit*, page 137.
8. Indu Patel "The Border Problem" in *China Invades India*, *Op. cit.* p. 187.
9. *Ibid*, p. 187.
10. *Ibid*, p 183
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14. *Ibid*, p 186
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16. D.R. Manekkar, *Op cit*, page 31-32.
17. *The Hindu*, November 14, 1954, quoted by B.K. Desai, *Op cit*, p 155-156.
18. J.P. Dalvi, *Himalayan Blunder*, Thacker 4 Company Ltd., Bombay 1969.
19. Jawaharlal Nehru, quoted by J.P. Dalvi, *Op cit*, p 42.
20. S.P.P. Thorat, *From Reveille to Retreat*, Allied Publishers Pvt. Ltd. New Delhi, 1986.
21. *Ibid*, p 197 and 198.
22. *Ibid*, p 202.
23. J.P. Dalvi, *Op cit*, page 192.
24. D.R. Manekkar, *Op cit*, page 46.
25. J.P. Dalvi, *Op cit*, page 229.
26. D.R. Manekkar, *Op cit*, page 47.
27. In his book "*The Untold Story*", Allied Publishers Pvt. Ltd. 1967, on his appointment as GOC, 4 Corps consisted only of 5 and 7 Infantry Brigades under 4 Infantry Division (Page 366). Of these only 7 Infantry Brigade was deployed in Kameng.
28. B.M. Kaul, *The Untold Story*, *Op cit*, pp. 370, 373, 375-376.
29. J.P. Dalvi, *Op. cit*, p 259 and 269.
30. B.M. Kaul, *Op cit*; p 383.
31. *Ibid*, p 386.
32. *Ibid*, p 389.
33. J.P. Dalvi, *Op cit*, p 367.
34. B.M. Kaul, *Op cit*, p 364.

AWACS—The Force Multiplier ?

MAJOR R K BHONSLE

INTRODUCTION

THE concept of C³I (Command, Control, Communications and Intelligence) is soon graduating into that of C⁴I (Command, Control, Communications, Computers and Intelligence) as technology races human ingenuity. The first innovative use of the C⁴I concept is the AWACS (Air borne Warning and Control System). It incorporates the marvel of electronic surveillance into that of computing to create a system that can provide real-time information in a scenario that changes at the rapidity of Mach 1.4, to 2. It is therefore being regarded as a panacea for all ills that had hitherto riddled warfare in the air. Its introduction in the Indian subcontinent where the state of the art of surveillance of air threat is based on ground based radars thus alarmed many though very few seem to understand the true implications of using such a system. The reactions range from AWACS having virtually swept the IAF (Indian Air Force) out of the sky to its being only marginally effective. The truth of course lies somewhere in between. The potential of the AWACS is so vast that to call it marginally effective would be deliberately blinding oneself to reality. But so was the potential of the Sabre Jet fighter and the Patton tank in 1965. It was by finding counters to these weapons that the war was stalemated if not won for fortunately human ingenuity can still outpace technology. In the wake of the announcement by US Secretary of State, Mr Weinberger of prioritising allotment of AWACS to Pakistan and subsequent debate in the country on the issue it is now essential to examine the subject in greater detail.

AIM

The aim of this paper is to highlight the concept and technological potential of AWACS and envisage its likely employment on our western borders by Pakistan.

CONCEPT AND FUNCTION

THE CONCEPT

The concept of AWACS involves two basic sub systems, those of surveillance and control. The surveillance is desired from raised platforms to overcome the deficiency of a ground based radar that of its lack of over the horizon capability. The control aspect involves control of weapon systems that can be used to counter the threat once detected. The whole gambit revolves around the factor of time for it overcomes the greatest deficiency in ground based air defence system that of the reaction time that is available for countering a Mach 1 plus threat. It is the AWACS alone which has the potential to do so in the air environment of the 1990's if not 2000 AD.

THE PRINCIPLES

The radars came to fame during the Battle of Britain when the RAF demonstrated its potential in detecting Luftwaffe strikes. Radars do suffer from certain disadvantages. It is basically a line of sight system, and hence is affected by the curvature of the earth as well as solid objects between them and the target thus creating factors commonly known as "radar horizons" and "radar shadows" respectively. Radars are also highly susceptible to jamming. These anomalies can be overcome by elevating the radar from the ground to few hundred feet above the earth thereby providing airborne surveillance capability, to enable tracking of number of targets simultaneously as well as such unimaginable feats as tracking of pilots voice signature, code signs and other electronic signatures. Equipping these aircraft with direct communication links with a variety of weapon systems which can be controlled by computers further reduces time and provides varied options of counter attack within a limited time-frame most of which would have been humanly impossible.

The AWACS thus not only provides airborne early warning but facilitates dedicated control within the early warning system itself thereby reducing response time.

A normal ground based radar has a maximum range of 45 kilometres against a low level air threat which could provide a warning of two and a half minutes only whereas the AWACS E-3A 'Sentry'

system provides a range of 470 Kms for low flying aircraft and even longer ranges against aircraft flying at higher altitudes. Thus in terms of range itself the multiplier effect is over ten times. In practical terms it would mean nullifying the effectiveness of airfields in a radius of 450 Kms of the border and any aircraft taking off would be immediately sighted thereof.

The second aspect of the multiplier effect is the ability to guide own fighters and missiles from different bases to intercept the attacker and obtain a kill. No dedicated agency was hitherto available which could oversee the entire battle area and direct aircraft to gain advantage over the enemy. This is now possible with AWACS giving the air defence forces a shot in the arm.

THE AIRCRAFT

Presently three US companies are producing AWACS for the US Government. The more capable and hence the more famous one is the Boeing's E-3A Sentry while the Grumman Corporation's E-2C Hawkeye comes a close second. A third version being that of, Lockheed P3 AEWC.

The E-3A Sentry is a converted Boeing 707—320B commercial liner. It is easily distinguished by its large elliptical cross sectioned roto dome which contains surveillance radar which operates in six different modes. This aircraft can operate at heights of 29000 feet and has a cruising speed of 530 miles per hour. Being a well proven aircraft gives it better mobility and operatability while its large space can house a multitude of electronic equipment designed to carry out a variety of tasks.

The Sentry can operate for six hours 1000 miles from its base; with in-flight refuelling this can be increased to 12 to 18 hours. The Sentry has a four man flight crew in addition to which 13 personnel man the equipment. It has extensive crew space and in flight cooking facilities thereby extending its survivability under ideal crew working conditions.

The main frame computer on the Sentry is an electronic marvel. It can process 1.25 million operations per second and if necessary can communicate with upto 98,000 air and ground users by means of its

Joint Tactical Information Distribution system (JTIDS). This digital communication system is resistant to ECM. Thus it is said that on initial introduction into the USAF (United States Air Force) its technical capacity had tended to outrun the imagination of those responsible for its operations. It has the capability to interact with other aircraft of its kind such as E-2C Hawkeye or the British Nimrod.

For the ELINT (Electronic Intelligence) role electronic support equipment is added to the aircraft thus providing it capability to penetrate and distinguish enemy command and control procedures, surveillance radars, SAM (Surface to air missile) guidance wavelengths and even individual aircraft call signs.

Its vulnerability lies in an attack from enemy fighter aircraft using BVR (beyond visual range) air-to-air missiles. This vulnerability is being reduced to some extent by modifications and fitting of hard points under the wings and the fuselage which can carry chaff dispensers and other air-to-air defensive weapons.

The Sentry thus provides a mobile, flexible, ECM resistant surveillance and command, control, communications system capable of all weather, long range, high or low surveillance of all air-borne threat including aircraft, drones and helicopters, manned or unmanned above all types of terrain.

ROLES

1. The roles that can be performed by the AWACS are multifarious making its omnipresence felt throughout the battlefield. These are as under :—

- (a) Surveillance And Area Coverage.
- (b) Early warning
- (c) ELINT
- (d) Intelligence collection
- (e) Command and Control.

The entire gambit of its potential is explained thus. It is reported that AWACS deployed by NATO can detect Warsaw Pact

aircraft taking off from their airfields in Eastern Poland or even as far off as the Soviet border. Thus in case of surprise attack the Sentry could give a warning of upto 30 minutes negating the aspect of surprise itself.

When rotation of USSR based squadrons is carried out by the Warsaw Pact forces it can be detected by the changing voices and call signs of the new crews.

An increased reconnaissance by the enemy can be detected by the presence of higher density of SLAR (Side Ways looking Radars) Synthetic aperture radars and digital information data links.

Use of practice ranges close to the border by aircraft cannot only be detected but individual aircraft approaches tracked and actual ground attack procedures deciphered.

Deployment of aircraft and helicopters to forward bases preceding outbreak of hostilities will also not go unnoticed.

Having detected the likelihood of a hostile air offensive the AWACS can be used to scramble interception flights and place them at intercept positions with a 20-30 minutes warning to tackle the enemy threat.

ORGANISATION

To obtain full benefit of the AWACS an organisation dedicated to exploit its potential would have to be created. To cover the entire frontage of the West European frontier at least three aircraft are deployed at all times. These can continue on a six hour normal flight routine and hence for a 24 hour time-frame a total of 12 aircraft will be required to operate on a single day. An organisation of an Airborne Warning and Control wing consisting of 36 aircraft would provide sufficient degree of safety with something to spare. Pakistan would require two permanently manned AWACS stations to carry out surveillance of its Eastern border. Working on a six hour run there would be a requirement of eight aircraft or four aircraft with twelve hour run with in-flight refuelling and spare crew. These would have to be regularly rotated necessitating the minimum requirement of six aircraft with refuelling tankers for efficient operations

during emergency. An AWACS Command and Control Centre would have to be established to fully exploit the potential of these aircraft where the staff would be employed to integrate the data obtained and induce reactions in a real time scenario.

THE COST FACTOR

The E-3A Sentry is so exorbitantly costly that even the United Kingdom has to consider its purchases with scepticism. Five E-3A Sentrys and Eight KC-130 in-flight refuelling tankers are said to have cost the Saudis \$ 3.2 billion. Pakistan would have to carry out an investment of similar magnitude, funds for which may not be easily forthcoming. On the other hand the E-2C Hawkeye is much cheaper but its performance is diluted to 50 percent to that of the Sentry.

Unit price of Boeing E-3A Sentry is estimated between \$ 125-150 million. Though a Sentry derivative is being sold to the RAAF (Royal Australian Air Force) for as low as \$ 75 million. The fuel cost, of the Sentry based on a 1200 hours per year utilisation is also estimated to be the highest, four times that of Hawkeye and three times that of P-3 AEW, the third option available in the market.

EMPLOYMENT BY PAKISTAN

BORDER INTRUSION

Pakistan's plea for demanding the AWACS from the USA is that of detecting the border violations from Afghanistan. This plea does not really hold water due to the following reasons :—

- (a) It would be difficult to detect intrusions across rugged mountainous terrain which is undemarcated.
- (b) Intelligent flying especially by rotary wing aircraft could easily exploit radar shadows provided by the mountain ranges.
- (c) The Pakistani airbases are located in the interior and away from its western border thus greatly reducing the response time that would be provided by the AWACS.

US CENTCOM

The AWACS if acquired by Pakistan could form a link in chain of stations being established to support the United States Central

Command. Pakistani AWACS could link up with the AWACS provided to Saudi Arabia and being provided to Oman, thus providing the Centcom based on the formidable force of three aircraft carrier battle groups, ten tactical fighter wings and seven marine/Army divisions, a reliable surveillance and command and control infrastructure.

EMPLOYMENT AGAINST INDIA

Of greater concern would be employment of AWACS to provide early warning and surveillance against India. Thus deployment of two AWACS by Pakistan one each over Gujrat (Pakistan) and Jacobabad linked with an AWACS Command centre would provide it adequate early warning against aerial attacks from Indian airfields at Srinagar, Avantipur, Leh, Jammu, Pathankot, Adampur, Halwara, Jullundhar, Jodhpur and Jamnagar, to name just a few.

All take offs from these airfields whether by day or night could be monitored by Pakistan giving adequate reaction time to its air defence command to use suitable options to negate effectiveness of the air strike.

This is of course in a hostile scenario. In fact over a period the Pakistan air force as well as air defence command would have built up a detailed picture of each aircraft and pilot of the IAF including characteristics and peculiarities in a manner as to exploit its weakness to the fullest. The fears of the IAF being swept off the skies would then seem justified.

COUNTERS TO AWACS

An AWACS is not invincible and has a number of chinks in its armour which are essentially electronics based. Thus though there is no counter to the electronic emissions of the AWACS there are a number of counters to its otherwise infallibility.

Offensive Measures. The vulnerability of the AWACS to a BVR system has already been touched upon. The effectiveness of chaff dispensing systems of the Sentry is still an unknown quantity. It would therefore be possible to bring it down with impunity at the opening stages of the battle itself though in all likelihood it will be

provided with a dedicated fighter escort. A future air battle over Pakistan skies could well commence with a pre-emptive strike on the AWACS; once lost its physical and psychological impact would be tremendous.

Passive Measures. Under the shadow of the AWACS the IAF would have to undertake some stringent passive measures to retain its overall superiority, these could be summarised as under :—

- (a) Deployment further eastward as a long term programme to escape detection from the earliest stages.
- (b) Dummy operations from a number of air fields will have to be undertaken in conjunction with actual attacks.
- (c) Greater signal and radio discipline.
- (d) Training to reduce aircrew dependence on ground control.
- (e) Introduction of digital secure communication links. Of immediate consequence is a diplomatic initiative to thwart Pakistan's bid for acquisition of an AWACS from the USA.

INDIAN AWACS

On the battle field scenario of 2000 AD the AWACS has become a necessity. There is no doubt that India would have to go in for such a system. This would not be a counter to the Pakistani AWACS as is erroneously felt to be in some quarters. It would be a force multiplier to be used in conjunction with the IAF and the SAMS.

The methods of acquiring an AWACS are two fold firstly by direct purchase from outside and the other is development indigenously.

ACQUISITION FROM OUTSIDE

India's choice of acquisition is likely to be limited to the Soviet AWACS based on IL-76. Political and economic constraints are likely to come into the way of acquiring an AWACS from the USA. The British Nimrod is an abandoned project and is an AEW rather than AWACS. Details of the Soviet AWACS are not available though it is presumed to have lesser electronic potential than its western counterparts.

Indigenous Production. A project is already in hand with Indian scientists for development of an AWACS based on the AVRO. It is in its initial stages of development, hence it would not be fair to comment upon its efficacy.

CONCLUSION

The force multiplier myth of the AWACS is very much closer to reality and not a product of the American soft sell. Its entry into the subcontinent would pose unprecedented threat to air operation by the IAF. The IAF would have to now devise counters to it, in addition to those already existing from a well knit Pakistani ground based radar network. By raising the state of the art it has forced our hands into acquiring a similar capability to nullify the edge gained by the PAF. While not making the IAF ineffective AWACS would certainly make its life worse over the subcontinental skies though presumably with its penchant for professionalism the powers that be at Vayu Bhawan are likely to have already developed counters to this threat.

Training of Higher Commanders

BRIG S S CHANDEL, SC, VSM

TRAINING for higher command in the Indian Army begins with the selection of officers for the Defence Services Staff College which is done on the basis of an open competition for officers of the seniority of service between six years and an upper age limit of 35-37 years. Almost every officer aspires for it. Approximately 1150 officers take the examination in subjects such as tactics, technology, current affairs, military history, administration, and law. The selected lot, 200 from the Army, go through a 45 weeks course. Hereafter these are the marked men from amongst whom will emerge all senior commanders and staff officers who will originate, shape and mould all major developments in the Army. More of this all important course later.

Higher Command Course (HC) is the next vitally important course where the officers who have performed in an outstanding manner upto that point are selected to go through a 40 weeks course at the College of Combat. The selection is entirely on the basis of the profile in dossier and great pains are taken to reduce everything to what will seem to appear like esoteric 'Numerology' so that the selecting authorities can justify their selection to the COAS. No one else is allowed any look or say. Interestingly, the panel for nomination of officers for higher command and for going abroad on 'plum' posting of military attachés is the same. Thus the one who has attended the cocktail circuits and the one who has gone through the grind at HC course are equated 'numerologically' when it comes to selection for brigadiers' rank or higher command and staff. Analysis of the course and its methodology will follow subsequently.

The next course in the line is the course for brigadiers at the National Defence College. Selection for this course is also based on dossier profile and as in the case of HC course, officers slated to go abroad as military attachés are clubbed together in the panel. Once

again the syllabus and the methodology of the course will be discussed subsequently in the paper.

Between the DSSC and HC courses, senior Majors and Lieutenant Colonels go through a Senior command course which has been lately made mandatory for the command of an infantry battalion. Although an extremely educative course, it has negligible bearing on selection of officers for 'higher command'. Another course which is equated albeit a shade lower with HC course, is the long Defence Management Course. The left-overs of the HC course are sent to study defence management and having completed the course, are deployed to man operational jobs for which the HC graduates were trained who by the same logic go to man the administrative jobs.

Before we get down to analysing the relevance of the contents of these courses which provide major inputs to our prospective higher commanders, it will be worth our while to have a peep into the selection procedure for our elite. After the entry into staff college, which is by means of a highly competitive written examination, all others are nomination based on one's performance upto that period of time. The grading obtained at staff college continues to be a constant and the most important factor in any further selection for higher command. While the syllabi and methodology of the staff college will be examined later, the assertion that a 'B' grading is 'Sine Qua Non' for a fighting chance for nomination for LDMC, HC and later for a NDC may be made here itself. And *ipso facto*, is equally a 'Sine Qua Non' for parallel promotions. And if you have been lucky enough to get an instructor's grading and do end up acquiring the symbol psc+, well sky is the limit, Inshallah and you generally behaving yourself. No further demonstration of your breadth and depth of thinking, reading and reflection of your creativity is needed any more. Therefore it is absolutely vital for us to analyse the contents and methodology of the input at the Defence Services Staff College.

DEFENCE SERVICES STAFF COLLEGE

The DSSC course has set down training of grade 2 staff officers i.e. of the rank of major, as its aim. However, since it is perceived as a nursery of future higher commanders, the input is sought to be given a wider perspective and depth. Thus all the situations are set in the perspective of a Corps level operation and then are brought

down at Divisional and Brigade level to make the officers tackle the problems at brasstacks level. In the process, they learn minor staff duties which is basically presenting the bill O' fare with all the 'i's dotted and the 'ts' crossed, spaces done aright, capitals where they ought to be, appendices neatly attached and annotated and so on. They learn making of movement schedules, drafting of messages, operation and administrative orders and instructions, do a few war-games, two superficial studies on the supposedly conceptual level (which more often than not degenerates into clip, paste and stapling jobs due to rush of time); one military paper; and passable to indifferent coverage of a host of other subjects. The input of the staff college course is of the calibre that it was originally intended to be ie that of a grade 2 staff officer. The stress, despite the lip service to the superior intellectual matters, is primarily on the form, neatness and presentation. Thus one would observe that almost all psc+ are men with neat, calligraphic hand writing and meticulous in their attention to details and presentation. So far, so good. Now for the snags. The strength is equally the weakness. As Edward De Bono the renowned pioneer in the sphere of lateral and creative thinking postulates,¹ there are two stages of thinking. "One is the first stage thinking, where concepts and perceptual parcels are put together. Most of the trouble with our thinking results from our inability to do anything about this first stage which are created by the natural patterning processes of mind with all their limitations and arbitrariness, choice of attention areas, choice of entry point, choice of facts are all parts of first stage thinking. The second stage pertains to processing the details pertaining to what the first stage 'ordains'. However, no amount of processing can make up for the deficiency of the conceptual stage. Mathematics can get to work once we have chosen to look at things in a certain way. But mathematics cannot by itself choose the way we are going to look at things. In fact the solidity of the second stage processing (which the staff college rightly emphasises for its avowed aim) only worsens the error in first stage patterning by giving it a spurious validity, when the staff college graduate is required to do a patterning by himself at a later stage.

The flaw seems to lie in the fact that the staff college course has assumed that its syllabus, instruction and perspective designed to train a grade 2 staff officer is good enough input for higher command

1. Edward De Bono - Lateral Thinking Pelican Books 1986.

equally. This may have been due to the reason that we simply inherited the current mode of instructional input from the British who on their part themselves had a vested interest in keeping their Army leadership at a lower edge of sharpness. We ourselves did not feel like reviewing the validity of it in the context of accelerated pace of change in strategic, technological and internal security environments. In the meanwhile, the generally competent but by no means brilliant alumni of the DSSC were able to discharge their duties in passable though mediocre manner. But perhaps the most compelling reason was the non-availability of any alternative option. None of our brilliant national leaders felt like sparing a thought for the Army except as a necessary evil to be endured. The shortcoming began to be realised in the late sixties when the idea of Higher Command course was mooted and brought into being. However, the DSSC course remains by far the most important single course the requisite input in which alone will ensure an improved overall performance. In this connection our most appropriate model can be none other than the German model who were the progenitors of the system and who under the compulsion of circumstances and due to the dedicated contribution of a succession of brilliant generals such as Friederick The Great; Scharnhorst, Gneisnau, Clausewitz, Helmuth Von Moltke, Schlieffen, Kleist, Manstein and a host of others. Herbert Rosinski² one of the foremost scholars of the system describes the salient features of the system thus : "Founded originally by Scharnhorst, the Prussian general staff system was finally consolidated by Helmuth Von Molke in the decade after 1871. It had three main features, namely an extremely severe process of selection; extraordinarily hard training not only for technical assistance but for intelligent cooperation in the higher conduct of operations; and finally a wholly unbureaucratic procedure spirit and procedure". As James Fallow³ remarks "The generals' efforts were dictated not by the convenience of internal' routine but by the need to perform on the battle field".

SELECTION AND TRAINING— GERMAN MODEL

Competition for selection for the general staff was fierce. Competition was mostly by written exercises mostly of tactical nature. Entrance examination to the military Academy dealt strictly with

2. Herbert Rosinski—THE GERMAN ARMY University of California Press — 1940.

3. James Fallows—NATIONAL DEFENCE.

military matters, and not as in other countries such as England and our own with the candidates linguistic and scientific abilities. Hence they did not favour men with methodical habits of thought at the expense of more irregular or more original minds. Length of initial training needs to be similarly noted which was three years followed by two years later in the proper general staff. Here once again the stress was entirely on basic tactical, logistic and operational training. The study of other areas was relegated to own time work in summer holidays. Further the training of the general staff officer did not end with his years at the Academy but was carried on throughout his career.

Another interesting feature of the German staff was to concentrate the work in minimum hands which made for the awareness of the whole picture in the mind of the officer and equally made him feel so totally accountable. There were only three or four in a Corps staff and only one in the Division. This small number could cope with work due to exclusion of other than operational work from their purview besides of course their prodigious capacity for hard work, superb training and high quality. Rejection did not automatically exclude an officer for ever from the general staff career. By exceptional service in the line, he may prove his worth and be called directly into the general staff. Here they were yet on probation of sorts, being given weekly tactical exercises on maps followed by more ambitious exercises supervised by the departmental heads. Finally they took part in two or three strategic exercises set by the Chief himself. In these exercises, the objective was to accustom even the youngest potential general staff officer to envisage all decisions from the broadest point of view. Under this system, the future general officer acquired the great capacity for work, the faculty of concentrated effort over long period, the ability to deal swiftly and effectively with masses of material on which the efficiency of the German general staff rested.

At the end of this period stood a third and final examination from which four or five out of the original class of 140 to 160 were ultimately assigned to the general staff. It is worth emphasising that by this time, rankwise the officer was merely a captain. The danger of letting this solid system of training degenerate due to any attenuation was keenly realised so that when during the First World War, due to acute shortage, the period of training was shortened to

two years, this was promptly discontinued. It was felt that such an abridgement will lead to mere inculcation of mechanical rules and a cheap superficial smattering of general lore.

The description would have perhaps given some inkling of the comparative stature of our general staff system which is about 46 weeks duration, fritters away its time to every conceivable variety of subjects under the sun, covering NBC warfare, conventional warfare, counter insurgency operations, psychological warfare, ADP systems, management, works procedure, economic studies, political studies, project papers and so on. Our stress as stated earlier is on calligraphy and presentation rather than on substance. Who are the teachers ? No chief of the general staff, nor the acknowledged experts taking time off to teach but Colonels who have just finished Commands. The big wigs come once in a year to talk inanely on whatever subjects they are assigned. Do we need to do something about it ?

HIGHER COMMAND COURSE

Gradually, indeed glacially the shortcomings in the system of military education that we had inherited from the British began to be discerned by our more perceptive soldiers. The humiliation of 1962 and the stalemate of 1965 must have accelerated the pace of thinking. It began to be appreciated that our military planner need to be something more than an excellent calligrapher/neat paper binder/sketcher. That he needs to have greater vision and depth which implies study and an exposure to varied strategic, tactical logistic scenarios. This perception brought into being the Higher Command Course. This course as presently conceived is of 40 weeks' duration. It's student body comprises three armoured corps officers, 14 infantry officers, seven artillery officers, five signals/Engineers officers and four officers from services—a total of 36. The major segment of 40 weeks is devoted to familiarisation tours of our various theatres of war followed by war-games pertaining to these; two weeks each are allocated to discussion of various aspects of offensive and defensive operations. In the remainder period are crammed in such diverse subjects as counter insurgency warfare, NBC warfare, automatic data processing and management capsule, a whiff of Air Force and Navy and discussions of the views of the great masters and theorists of war such as Clausewitz, Liddel Hart, Mahan, Mackinder etc. Having gone through this course, these officers are posted to administrative appointments while their logically trained counterparts who have

been attending Long Defence Management Course, are posted to man operational jobs. This amusing travesty of reason aside, a few points need to be made with regard to the whole concept. Firstly, intellectual preparation of the officers detailed to attend the Higher Command Course. They are detailed on the basis of a 'numerology' alluded to earlier wherein points are awarded on the basis of performance on courses attended earlier, gradings and recommendations in the ACRs, and of course on the quota allocated to an arm or service. As to the intellectual preparation, our officers, as a general rule tend to read very narrowly. The military classics and humanities hardly find a place in their general reading diet. Therefore deep perception of military issues as related to the society and future perspective is beyond their ken. As to the importance of such a background we may do well to listen to General Beck's (the then Chief of the German General Staff) address to the German Military Academy in 1935, "It is imperative that military questions must be traced back to their inner coherence, to their origins in systematic intellectual labour"⁴ or for that matter listen to Barbara Tuchman's analysis, albeit in different context, of the mind (and by implication, the training) of the general staff, "A hundred years of German philosophy went into the making of this decision (launching of the First World War). The voice was Schlieffen's but behind was the hand of Fichte who saw the German people chosen by providence to occupy the supreme place in the history of the universe, of Hegel who saw them leading the world to a glorious destiny of compulsory 'kultur', of Nietzsche who told them that supermen were above ordinary controls, of Treitchke who set the increase of power as the highest duty of the state".⁵ While the thrust of Tuchman's argument is to condemn the body of accumulated egoism which stickled the German people the fact remains that the quality and breadth of input was something extraordinary which filled the German officer Corps and specially the elite amongst them with missionary zeal, dedication and tamper.

In the revitalised General War School in the years between 1808 and 1814, Scharnhorst first and later Gneisenau, Boyen and Grolman had demanded that the lessons of the 1806 and 1807 be studied intensively. Grolman devoted particular attention to the continuing improvement of officers' education. First by establishing high

4. Rosinki Herbert—The German Army University of California Press—1940.

5. Tuchman Barbara—The guns of August.

intellectual standards a prerequisite to obtaining a Commission, and second by constantly improving the military schooling system. The emphasis was on scientific education, both in substance and in method. The Prussian officer, particularly the General Staff officer was expected to think of the educational process and individual study as objective searches for truth.

The insistence on that quality of intake and input was quite definitely the reason behind the most remarkable performance of the German Arms from 1870 onwards, their defeat in the two great wars notwithstanding. Here we may do well to look at our selection process for the elite we are shaping. As a rule to which there may be one or two odd exception (based chiefly on considerations other than merit) these officers are the ones who had done well in the DSSC course at Wellington where we had noted that the aim set forth was to train a grade 2 staff officer. Therefore the input and stress was towards that end. Hence the man who came on top in that institution was not necessarily the best military brain, from the point of view of the requirements of higher command. However our selection system in the absence of any other norm or yardstick and following the safety of precedence takes him as such and gives him an additional handicap. He gets another handicap should he be grade 'B' or above. One more, if he goes there as instructor. Now, in our current system of assessment, 80 to 90 percent of officers being awarded 'fit for promotion' recommendations, the personnel selection system has no choice but to give weightage to the DSSC course, where the officers came in by an open and fair competition. However, it must be understood here that the requirements of a Higher Commander have more to do with conceptualisation, depth and breadth of perception and skill and resoluteness in execution. All these are ignored because the ACRs are a mass of homogenised 'grey'. Then how to get the best suited men for this course? The obvious answers would seem to be once more another written competition on the pattern of DSSC Entrance Examination but with the standards pitched suitably higher. All the Lt Cols and Cols should be eligible for it. The subjects should be the ones that are going to be taught in the Higher Command course namely Processes of Policy formulations, Economics, Strategy, Military History, applied technology, international affairs and such others. The result would be intensive and regular self study by the aspirant officers, more fair and broad

based selection, and superior output by the officers undergoing that course.

As to the syllabus, it is suggested that it should concern itself mainly with tactics as applicable upto corps level within the broad frame work of a theatre (Army). For a senior Colonel or a Brigadier is not much involved in decision making process at policy level. It will be more economic use of his abilities if he is intellectually equipped to do his own job. Now it may be time to look at the training of a brigadier, which is attempted at the National Defence College.

NATIONAL DEFENCE COLLEGE COURSE

SELECTION PROCESS

Our National Defence College boasts of producing the final finished product as far as the training for higher command is concerned. The course is an inter-service one. A large number of students from foreign armies of friendly nations, (approximately 20 per cent) also attend the courses as well as members of Civil Services such as IAS, IFS, IRS, IPS, IASS, Railway Services, whose understanding and association is deemed vital to the understanding of the National Security management. It is a different matter that rarely any of these gentleman (and occasionally ladies) are posted to the Ministry of Defence after graduation or even later). The duration of the course is 46 weeks. From the Army, officers of the rank of Brigadiers who have successfully commanded their Brigades or equivalent organisations are nominated to attend the course. The mode of selection is the same as for higher command course or LDMC ie by perusal of dossier. Since, once again, due to the constraints of our flawed system of initiation of Confidential Reports, most of the Brigadiers are given inflated ACRs, the selection for the NDC course too has to resort to the same system of 'numerology' as was done in the case of Higher Command course. Thus, the officers who had attended HC or LDMC course or were selected to go as military attachés abroad are given additional quantitative weightage. If in the same way they had served as instructor in the DSSC, some more points are added. Let it be reiterated here at the risk of repetition that firstly the DSSC course was meant to train officers for performing the job of grade 2 staff officers and so the inputs and assessments were in that regard. In the meanwhile, without the benefit of any

additional input or further scrutiny by means other than dossiers, they were nominated for the Higher Command courses or LDMC. Based on the same criterion, they were nominated as instructors in the staff college. And at every step of this 'Punching of the ticket' process, they collect additional points, which provide them further ballast to keep afloat and rising on the basis of their first major effort at the DSSC with which they get away from the gravitational pull of the system applicable to the other ordinary officers. The basic disadvantages of our present selection process is that it narrows down its base, removes incentive for the late starters, and makes the 'chosen ones' complacent. Therefore a once sharp, and enthusiastic mind tends to get jaded or cynical thereby bringing down the overall level of the class.

The remedy once again would seem to lie in an open competition. Syllabus having been laid down, the officers should be tested at a higher level for additional abilities. What should be the syllabus? Before we come to do that it will be worth our while to analyse the current syllabus of the NDC course.

ANALYSIS OF THE CURRENT NDC SYLLABUS

The syllabus encompasses an intimidatingly broad spectrum. It begins with socio-political study and goes on a course of economic study of India, Science and technology, super power and Europe, India's neighbours and Indian ocean, Japan, South East Asia and Australia, China, West Asia and North Africa, Pakistan and Afghanistan, Africa and Latin America and finally the National Security study. The general pattern of conduct is that eminent scholars and authorities in their fields are called to deliver lectures or do a panel discussion for the benefit of the students. At the end of each study, the officers are asked to hand in their papers. Then there is a central discussion on two days on the study. Thus on a *prima facie* view the syllabus seems to be well conceived, thought out in detail and executed flawlessly. Till some disturbing questions begin to nag one. What are these officers being trained for? Will the perspective that they acquire by their inadequately short exposures to a bewildering array of knowledge help them in providing better solutions to purely technical, military problems? Alternatively, will the policy makers in the high places be better disposed to listen to these gentlemen? What say can they have in policy formulations? What access has a Brigadier, Major General or even Lieutenant

General got in any of the forums discussing National Security matters, barring entirely the technical ones ? If that be so, then why are these officers not given due inputs which are more relevant to their jobs which they are likely to perform ? How much heart one can possibly have in the business which one knows for definite that one is never likely to encounter again ? One of the graduates of NDC course remarked that the only point of the NDC course is getting nominated for it puts you in a selected category. Rest is all waste. Another NDC graduate thought that if one has been reading the centre page of any newspaper regularly and viewing the TV programme such as FOCUS or NEWS LINE for one year, one has done the NDC course. There may be an element of flippancy or cynicism in the above statements. But the core is largely true. Once again, as in the case of our pre-commission training we seem to be getting confused in our aim. What do we wish to fashion ? A scholar or a soldier ? The answer ought to be quite clear. However the confusion seems to be deliberately compounded by 'non soldiers' who would like to have a finger in this pie too. Now for the civilian angle. Since the military segment of the course is approximately 10 percent of the whole. So how wise of understanding does the civilian bureaucrat become at the end of the course ? Does it induce any fundamental change in the thinking pattern that Dr De Bono alluded to earlier ? I doubt.

It may be noticed that the country spends about half a million rupees per officer in his training at the NDC. Whether a revised orientation to the syllabus and intake may not be more useful return for the country ?

A SUGGESTED SYLLABUS FOR NDC COURSE

It is felt that the present syllabus at the NDC course is far too non-military to be of professional use to the Brigadiers who are going to handle basically technical military matters after graduation. His interface with civilian counterparts of his is rather restricted. More so after the mass scale upgradation of appointments subsequent to the cadre review. Therefore what he needs to do is more and detailed wargaming at Division and Corps level with all the detailed aspects and complexities of artillery, engineers and air support; command control and communications in various situations; logistical support with all its ramifications from the ports, factories, farms, road, rail and air transportation, to distribution to farthest troops on the

ground. To bring home correct lessons actual battles/campaigns preferably our own or if suitable ones are not available to bring home the intended lessons, then from anywhere in the military history should be incorporated in the syllabus.

Study of military history should form a very substantive portion of the curriculum for didn't the great Napoleon advise us to read and re-read the campaigns of the great Captains in order to master the conduct of War ? And have'nt we very woefully lagged behind in the matter ? In fact its an exception rather than a rule to encounter even very senior officers reading any military history beyond what was obligatory for their promotion examinations and DSSC entrance examinations. These were meant as hors d'oeuvre only and not the whole meal.

Technological education in the form of a month's capsule may be imparted to the students. However, here I suggest a change in the form. Generally such capsule tends to degenerate (my perception) into class room lectures where the students' perception of the subject matter is vague and the mind has a tendency either to switch off or to wander. I would suggest physical handling of the equipment in use such as tanks, guns, radars, combat engineer tractors, tank transporters, missiles and atleast travel in the aircraft, ships and submarines. One touch, look and smell of the hardware is worth ten lectures.

There could be certain numbers of talks on subjects such as history, culture, politics, economics and sociology of the Indian people. The stress should be on our own ambience and not on countries or problems which are of only remote concern to us. Focus should be on India and others brought into picture as related to us. Varied and even contradictory views should be presented to the officers to let them have the perspective. However, like the Germans, we should make these subjects of evening fare or summer break business, the hard military matters remaining the staple diet.

Next point and perhaps the most significant one to be introduced here is that, this course should be a compulsory course for all officers approved for Major General's rank. For this purpose, if necessary, boards should be held two or three years ahead of schedule. Army will be the gainer in another manner too. Such officers will have additional incentive both to walk 'straight and narrow' as well as to

put in their best to be high class professionals. Finally this course should be restricted to only Indian Officers. For it is well nigh impossible to discuss national security matters vital to you with all the foreigners present.

BEYOND NDC

The education must not cease only because one has risen to a major general's rank. Therefore at the level of Major General, another dose of input should be planned. This should be an improved though abridged version of our present NDC. Major Generals who have finished commanding Divisions and are likely to handle either higher staff or rise to command corps and Armies themselves should be exposed to the broad spectrum of national resources and problems and international power play. The officers selected should be those who have been approved for the rank of Lieutenant Generals or equivalent.

CONCLUSION

The burden of the theme has been that in our efforts to be gentleman and therefore acquire all the trappings and mannerisms of gentleman, we soldiers have let the substance slip from our hands. We have been left holding merely the shell of higher military education. It will be good to remember that, however noble and lofty the thoughts and poetry of great men like JS Mills, Locke, Shakespeare and Byron, the British empire was won by hard military men like Hawkins, Drake, Clive and Wellington; that there is no way to master one's job than to get to the ship's floor and soil your hands in the nitty gritty of it all. That combat is the sum and substance of military. This is what it must learn and master right across its officers' careers. To that end it must choose and train priests in uniform who must seek their salvation via Arms.

Indian Wars in the Indian Press

Lt Col A K SHARMA

INTRODUCTION

THE Greek warrior Thucidides, after running a marathon twenty six miles, brought news that the Athenians had succeeded in holding the invading Spartans at the Battle of the Thermopylae Pass. I think, he was the first one to have reported war. The American Civil War was the first one to have been extensively covered. Then there was the Boer War which gave opportunity to Churchill to explode into his brilliant rhetoric and graphic despatches from the front. Reporting for war, as it exists now, came to its own at the outbreak of World War I. The Spanish Civil War produced some very interesting and absorbing reading from Hemingway. World War II was the best reported of all wars till then, bringing out explicitly, the staggering task of reporting a global conflict. Security restrictions, difficulties in acquiring quick means of sending out despatches, press censorship and personal risks and hazards to the war correspondents were amply brought out with repeated consistency. This war was covered by radio, telegraph and the press. It was also photographed both in still and movie, bringing the war to the common man with a lasting impact.

Television brought the Vietnam War to the drawing room of the American home. This war was covered in its minutest detail by war correspondents. The Middle East Wars produced very good and analytical studies of battle. These were again covered extensively on paper and film. This trend has continued through the Korean War, the Gulf War still being fought, and to a limited extent, the conflict in Afghanistan. Advancement in technology has made reporting from the battle front easier, faster, graphic and realistic on the one hand; but on the other, it has also necessitated the imposition of stringent regulations in the interest of counter espionage and leakage of classified information through press reports, the Falklands war is a case in point.

Coming on to the Indian scene, our wars have also been covered in the media, but not with the same gusto and zeal as wars abroad and elsewhere. Some very interesting books and articles appeared after campaigns, but as far as actual reporting during the battles was concerned, it remained superficial. This is because of existing policies and regulations pertaining to prevention of security leaks and counter espionage activities etc, but the inability and hesitation of reporters to cover our wars has also been a major reason for their not having been covered well.

PRESS COVERAGE OF INDIAN WARS

The Indian Press has, by and large, only given a broad brush to the war front. Screaming headlines, yes, and possibly some photographs of troop movements, but no meat or substance in stories. The coverage has been stereotyped characterised by generalizations and vague reports from "Somewhere on the Western Front" type. Even during the tense periods immediately preceding the Sino-Indian War of October 1962, our press was pre-occupied with its first love, viz politics only.

Correspondents reporting war in the Indian Press appear to have a limited understanding of defence matters, leave alone a thorough grasp of military strategy, tactics and the defence services. This results in their producing and projecting only lopsided stories laced with emotional patriotism. The latter can be heady medicine in times of national stress when it can sway the masses towards undesirable directions. It can also produce inflammatory, inaccurate and misleading reporting, which is synonymous with "journalistic jingoism".

The 1965 operations were slightly better covered and the 1971 Indo-Pak war, even better. The crux of the matter is that though a number of good after battle human angle stories, anecdotes, articles, editorials have been appearing in our press, the actual coverage of battles remains shoddy. Our correspondents, taken as a whole, are not analytical enough. They do not come out with in-depth studies owing to the lack of expertise and also possibly owing to their tardiness in doing research.

HANDICAPS AND CONSTRAINTS

In the previous paragraphs the lacunae in reporting Indian wars has been brought out, as also, some reasons for these have been attributed. Now it is proposed to highlight some of the handicaps and constraints under which the press had to function in the Indo-Pak war of 1971. Parallels to these can be drawn to the earlier border conflicts.

The 1971 War was covered both by our press as well as that from overseas. For foreign reporters, covering it, it was a "nightmarish experience, test of patience, perseverance and reportorial ingenuity" as stated by the Newsweek team. They had to rely only on official briefings for first reports of fighting. The situation was made more confusing by a barrage of claims and counter claims by the adversaries. The briefings appeared to them to be farcical.

The telegraph clerks cleared only the favourable copy in the national interest. Full scale censorship was not imposed, but too much journalistic initiative was, nevertheless, discouraged. We in our euphoria of prospective winners, asked the foreign journalists to submit copy for 'informal reading'. Classified statistics were deleted and rightly so. These reporters had to work in the face of red tape, logistical problems, angry and agitated locals on both sides and privations. Two of them even landed up in jail for violating security regulations enforced.

The foregoing gives an account of experience of foreign correspondents against whom, as is the practice in most nations additional restrictions must have been imposed for the sake of security and counter espionage. Yet, the plight of our own reporters could have been no better, if the type of reporting that they did, is an indicator. Their reporting was good for the already rising morale of a winning side but it was far from analytical. The Indian press also relied mostly on the formal handouts and briefings by the Services PROs. I doubt if the best talent ventured into the field for fear of risk to his person. Low remuneration and wage scales must have kept the others of better calibre at a safe distance too. Reporting from the front must also have been squelched by the censor, normally very active in times of national crisis. Reasons of tactical security too, must have kept most reporters confined to the comforts of the briefing rooms.

HOW IT SHOULD BE

Reporting war can be considered to be a 'Technical' type of reporting, because a normal run of the mill reporter will not be able to do justice to the task of reporting a battle. A war correspondent should have a basic military grounding so that he can comprehend tactical manoeuvres and evaluate them and their ramifications on the overall strategic plan. He should have an analytical mind so that his reports can be incisive. And last, but not the least, he should have a spirit of adventure and a feeling for life at first hand.

The press barons must have the best in the field to cover war. The free lancers should receive remuneration commensurate with the worth of their stories and risks they expose themselves to in obtaining them. The staffers must be paid better. Increased emoluments will attract the best talent, all other things being equal.

To enable our reporters to cover our battles well, it is imperative that, the war correspondents be allowed access to the battle front. Avoidable prohibitive restrictions should not be imposed. National security requirements dictate that enemy intelligence organisations do not have any access to our war effort, nevertheless, objectivity in reporting must be maintained in the larger interests of the masses, who in a free society, have a right to know as to what is going on. This requirement can be met by authorising accredited correspondents to fighting formations, after having them cleared by the intelligence. This is the practice in a number of foreign armies.

Reporters covering war have to be assisted by experts. These experts should be seasoned servicemen or re-employed ex-servicemen. They can vet the copy as also provide a professional insight to civilian correspondents. They can also act as liaison officers, who can arrange interviews with personalities and speedy clearance of despatches, assist in formal briefings and lastly ensure security for the life of the war correspondents by getting suitable protection parties detailed. The last mentioned aspect is important because casualties to reporters in war are quite heavy and now, even more so with advent of sophisticated rapid firing weaponry. In World War II, 37 war correspondents were killed and 112 wounded. This casualty rate works out to be four times that of the fighting forces. The point has been made. Liaison officers can do a lot in this regard. These figures, besides, highlighting the hazards to the war correspondents, also illustrate

their dedication and sincerity to their job and also to the national cause of their fighting friends. The latter, beyond the call of their duty. This should be emulated by our boys too.

All issues and information connected with the war effort is classified. Obtaining and publishing it is punishable under the existing laws of the land. This state of affairs militates against accurate and objective reporting. Certain information in all security conscious organizations is disseminated only on need to know basis. We are also much worried about security vis-a-vis freedom of the press. Some let up ought to be made albeit in conformity with the dictates and requirements of counter espionage. Journalists must abide by these or else face the consequences personally. Besides the wrath of the administration on them, precipitated by their own actions, they must also realise the immediate ramifications of publishing injudicious reports which can be used by the enemy to its advantage. This sort of thing is disastrous.

A writer has to adopt a style best suited to his way of thinking. The story at hand will influence and dictate modifications to meet the ends of clarity, speed, accuracy, impact and objectivity. A war correspondent has to be direct in his approach whilst describing battles. Clarity is of the essence. The battle should be so put across that the average reader is able to comprehend manoeuvres. The language has to be 'de-jargonised' and military syntax and phraseology avoided. War, since it leaves a lasting aftermath, has to be covered bringing out the human angle in all its glory and poignancy.

Whilst reporting from the battle fronts, good photographs of the action are invaluable. It has been said that a good picture is worth ten thousand words. This may not be wholly true, because the impact is brought about by both the picture and the story that supports it.

War has to be covered from the point of view of both the adversaries in order to lend credence and objectivity to the narrative. The enemy's point of view must be stated with great care, after evaluating it for correctness.

Military campaigns can be best explained with the aid of sketches and maps. Campaigns must also be covered in all their

facets; for example the overall strategy, the tactical situation prevailing, the plan, its execution and its after effects, all these should be brought out.

Reporters covering war must abide by the stringent regulations imposed. Coupled with this, they must observe journalistic ethics also, otherwise, they can be in for trouble. Apart from ethics, war correspondents must avoid yellow journalism (or sensationalism), scare heads (shrill excitement depicted in bold type), faked pictures and interviews to build up the story.

In foreign armies, camp newspapers are brought out. The object of these journals is to create esprit-de-corps. These journals concentrate on informal writing, humour and allied light reading contributed entirely by the troops. These papers go a long way in promoting camaraderie, boosting morale and relieving anxiety and tension in war. We also have something on these lines—"The 'Sainik-Samachar'". We bring out other service journals and professional magazines too. The first and foremost are the Regimental Journals (akin to house journals). Amongst the leading professional magazines are USI Journal, and the journal of the IDSA. These are stimulating, albeit, serious reading. The "Combat" is taking rapid strides in covering a wide spectrum as also in publishing non-establishmentarian views. This is a healthy sign. "The Infantry" magazine is the oldest.

CONCLUSION

All that remains to be said, in conclusion, is that our wars need to be covered better in our press. War correspondents must produce objective, easy to read reports. To do this they must go to where the action is. Papers must appoint reporters with discretion. Correspondents with military background are ideal, as they will understand war in its glory, tragedy, poignancy and its wider ramifications.

Our press must cut down the hysterical undertones during the conflict. It must build up the morale of our troops and their near and dear ones. A good press is good public relation for the Army at war.

Computerisation : What Goes Wrong ?

SQN LDR M K RANA

THE DATA PROCESSING PROJECTS IN UNDER DEVELOPED COUNTRIES SUCCUMB TO TACTLESS PROJECT HANDLING AND POOR PLANNING OF SYSTEMS GROWTH

INTRODUCTION

THE computers have made their presence felt almost everywhere in the world including the government and defence organisations. We, in the Indian Defence Forces have also followed suit. One naturally stops to ponder, as to how good these complex machines are in our context. In what manner do they contribute to our striking and defending power ? Are they really necessary if we could manage without them all these years ? In profit oriented organisations people also ask, and rather vehemently. "What is the cost effectiveness of these machines ?" Do they contribute any savings in manpower and its associated problems ? Many other questions of this nature keep lurking in the minds of people who have so far not been associated with these wonderful machines; and they are many.

A computer hardware salesman would probably answer all such questions with surprising ease. Many a time, based upon his arguments the management may even adopt automation as a solution to problems at hand. More often than not, this decision is rather right. But later, something goes wrong somewhere and implementation results realised, are far from satisfactory. Haven't we heard discouraging remarks, sometimes from the data processing (DP) professional themselves. Things like :—

—I told you our organisation was not ripe for computerisation
—Then, why don't you get a bigger computer ?

- I thought this aspect was covered in the scope of the new system
- This is not as per the latest government instructions
- My chaps were not consulted on this change
- You should have known we can't start this month
- I thought you removed all the bugs
- Don't we know a computer is faster than what you achieve ?

The story of unsuccessful implementation is not only harmful to the concerned application area but it creates a general apathy in the mind of management in regard to the usefulness of computers. An impression is created as if the decision to go in for automation itself was wrong. And this kind of feeling travels faster in organisations than the news about relative successes elsewhere. The management may even develop a complex that the organisation is not yet ripe for automation. And from then on, interest flags in computers. People start saying, "If people do their jobs honestly, computers are not required".

The growing opposition to computers is unjustified and needs to be rectified. Instead of getting disillusioned by the unpleasant impressions about past implementations, we must identify factors which cause failures so that we can eliminate them. In any case, even if the computer venture in an organisation fails completely, it still provides a very good means of improving inter-departmental communications and in-depth understanding of a particular situation. There are organisations who have still not had a go at automation and are hesitating from getting committed to large scale computerisation, inspite of being aware of proliferation in the usage of computers all over the world. They are eager to know what can and what does go wrong. They would also like to find out the best method of adopting automation; big machines, minicomputers or microprocessors; content of automation—large scale or in parts; philosophy of systems growth—top down or bottom up.

This article attempts to explore a few factors, the effect of which might well be the thin dividing line between success and failure of automation.

EVOLUTION OF DP SYSTEMS

If we trace the evolution of automation in organisations, it goes back to the unit record equipment and the codex systems, which were

primarily aimed at mechanisation and optimisation of office work. The computers merely replaced these systems. People involved with these very systems turned into EDP managers, who later made policies covering the use of computers. Automation in their view was akin to mechanisation and therefore computerised systems developed through their efforts bore this stamp. They often used computers merely as sophisticated typewriters and printers. In the bargain they missed out exciting computer applications like scientific computations for R&D, process control, simulation and wargaming, artificial intelligence etc. Therefore, full advantage was never secured for the organisation and management saw no real benefits. This has happened the world over, but the advanced countries recovered from this inadequacy due to overall development of computer culture and education. In India, we are just beginning to pass through this phase.

'Data Processing' was the term used to cover all activity associated with computers. Even within the limited scope of data processing that the organisations adopted, people were too impressed by the immense power of computers and they concentrated on processing activity alone. Data, which was the basic concern of the organisation received little attention and got degenerated. The result was, accumulation of user (management) dissatisfaction due to inaccuracy of data held in computers and lack of dependability on information presented by the computers. In this manner, the management started losing such faith that it had acquired in computers.

This drew the attention of some brilliant persons in the DP field who advocated separate management of data as a solution to this problem and separated the domain of data from that of programming. People were specially employed to study the nature and usage of data in the organisation, and they evolved organisation wide definition of data. In this context, one can realise the confusion that is likely to occur if data is not defined uniformly across the organisation. For example if a commercial airlines company cannot define the meaning of 'down time' or 'serviceability' unequivocally, the maintenance and the operations staff would perpetually differ while evaluating their resources. Due to the introduction of independent management of data, the accuracy and dependability of systems

greatly improved and they became more acceptable to management in organisations in which this approach was adopted.

This concept of data independence was also called 'Data Base' and it later led to the evolution of the term 'Information Systems'. Probably the name 'Information Systems' was adopted because the systems design revolved around the usefulness and significance of information pertaining to the organisation. Present day DP professionals claim that they design information systems and not DP systems. They attach great importance to information in the decision making activity. In their aggregated form and when viewed at higher levels, the information systems are also referred to as Management Information System (MIS).

THE FUTURE TREND

Many organisations are still carrying on without the computer and the associated EDP activity. The importance of information for performing management functions is felt, but only implicitly, in such organisations. The DP community must be given due credit for highlighting this significance. But at the same time, the disproportionate importance attached to the study of information flow through the organisational structure, even to the extent of suggesting organisational restructuring to suit the information flow, is rather questionable.

One reason for overselling the importance of information is perhaps the fear that the management is ignorant of this fact. But the results of overselling are far more serious. It gets the management involved deeply in the systems work, which is beyond its comprehension, and a complicated picture emerges. The management out of sheer frustration withdraws its association from the systems work, getting suspicious or feeling underconfident. Nothing then prevents the DP professionals from imparting sophistication to the developing information system, which becomes difficult to operate and may even fail.

Sometimes, new systems are proposed and developed just because the computer is available and not because the management feels the need for them. The result is that systems are produced which are no doubt used by the management, but their absence

probably never missed. An environment must therefore be created wherein the information systems already developed, are used thoroughly, with frequent demands for extension of their scope. This kind of experience would then generate genuine demand for automation of new areas, and success would be reasonably assured. The DP professionals must only come in to advise on priority of initiation depending upon the importance of information generated in a system and its consequence upon others. They can also advise on availability of DP resources and help draw overall plans for the organisation.

There is yet another trend which needs to be checked. The DP professionals have a tendency to develop sophisticated information systems and they even manage to operate them smoothly. The problem appears when the manager wants to take a decision depending on information presented. Sometimes he cannot visualise the manner in which the calculations have been made or a particular inference is being drawn by the computer. He then prefers to use his own methods to assess a situation and take decision. In this manner the usefulness of a developed system is lost. So, while developing a system, the solution to a problem must be obtained in exactly the same manner as the human element would normally do, rather than resorting to complex algorithms or adopting not easily comprehended approaches.

DP MANAGEMENT PHILOSOPHY

The data processing section in most organisations is established on the basis of project management, irrespective of whether the DP resources are internal or external. This means that the design and development of information systems is taken up as a project. Therefore, the DP manager must not only be trained and experienced on project management techniques but also have a fair amount of knowledge on the idiosyncrasies of DP projects.

DP projects normally inherit following problems when they are turned out :—

- Become operational later than scheduled
- Prove costly
- Have inadequate scope
- Poorly designed

- Inadequately tested
- Cryptically documented
- Difficult to hand over to new incumbent
- Incompletely implemented

Over and above these attributes, a peculiar problem is associated with the DP projects. Normally, the end of a project is defineable and performance criteria exist, which can be used to evaluate whether the project is successful or not. In the DP projects the determination of the end itself is as difficult as the determination of its success or failure. The DP projects never seem to end, because of perpetual increase in user requirements and expectations from the project. If somehow an end seems near and the project appears heading towards failure, the DP staff has ready excuses to offer. If the organisation is new to automation, the DP staff gets away with quoting limitations of the machine, whereas after the expertise builds up, they always have something more sophisticated to offer and can manage delay of success or failure determination.

In any case even if the project is successful on implementation, it may later grow into inadequacy because its usage will be governed by the actual users and it will get overextended as compared to the original settings.

To counteract all these fallacies, the DP manager has to adopt a threefold role during the tenure of the project. In the beginning he must be able to freeze the system specifications by proper political alignment with the management. During the development stage he must resist the temptations of improving the DP techniques suggested by his staff or that of enlargement of scope desired by the users. These two activities are likely to adversely affect his schedules. Thirdly, he must acquire skills to absorb criticism during the implementation. During this phase he should be able to get the changes incorporated into the project smoothly, making them obvious whenever they are in response to management requirements.

MANPOWER DEVELOPMENT POLICY

Computer work requires long gestation periods to acquire operational skills. In many organisations, therefore, separate DP departments exist and professionals continue in the DP field, thereby

building up the required specialisation. Otherwise resort is made to external consultancy services.

We, in the defence services follow a policy of generalisation to provide job opportunity and enhanced promotions in the higher ranks. A separate EDP cadre has not been conceived so far, may be because of insufficient quantum of work involved, but more so because automation in our context cannot be isolated from the basic operational work. The situation calls for a carefully thought out long term personnel policy to acquire the desired level of competence in this field of automation. If a suitable deployment policy is not indoctrinated automation would continue to suffer as it has done so far.

It is often stated that due to the policy of transfers, the hard core individuals remain inadequately utilised after attaining the working knowledge and experience. They are inhibited from delivering optimal performance because much of their time, particularly in the later part of their valuable tenures, is consumed by either formal documentation for handing over or by imparting on-job training to their successors.

While there is enough truth in the above mentioned situation, yet more crucial is the harm done by the over-enthusiasm of a DP manager due to the fear of his own transfer. We are not unaware of the rather natural tendency of individuals to show results within their tenures, without consideration to long term requirements and repercussions. Sometimes his whole establishment has a temporary status and is fast approaching its expiry. Things can only be rectified if the management arranges suitable environment for the DP professionals to grow effectively. A new technology requires a new policy on various fields providing support, including personnel.

SYSTEMS GROWTH APPROACH

Whenever an organisation starts to think in terms of computers, a few important doubts arise. It is important to decide as to who should be allocated with this responsibility and what will be the relationship of the DP set-up to the rest of the organisation. Should the systems development work be entrusted to the specialists or to the users themselves ? Much space is required to discuss this aspect and it is therefore not being pursued.

Another question that looms large is whether to use large computers, minis or microprocessors. In Defence forces of large dimensions as that of ours, three important areas of application exist; namely Management Information System (MIS), Command, Control and Communications (C³), and R&D applications. It is needless to say a mix of the three types of computers as mentioned above, would be required to cater for the requirements of these application areas. It would be interesting to explore the real differences between an MIS application and a C³ application.

For the present, we may confine ourselves to the subject of systems growth. Broadly, this term covers aspects like what areas must be taken up for automation and in what sequence. The most important factor in determining this sequence is to first determine the status of organisation with reference to automation. There are two ways of doing so. Firstly by the proportionate amount of budget allocated for automation and secondly by the state of art and technology which will be utilised eg batch processing, real time processing or networking etc. Many organisations have suffered because they plunged into automation without evaluating their present status in these terms.

There are normally four stages in the growth of systems; initiation, expansion, formalisation and maturity. The only point to be noted about these stages is, that the information processing is of evolutionary nature and the management must not jump stages in an attempt to get there faster. In the long run it just does not pay.

Keeping these factors in mind the organisation must determine what areas it can take up for automation at a point of time. It will be quite easy to determine as to which area is more significant than the others from the management viewpoint, but it may not be the most deserving case for starting with. More often it is that area which provides input to other areas, that must be taken up first. Otherwise the developed system will have to wait for implementation till the output of some other system becomes available. For example, it is no point going in for a sophisticated inventory control system without having developed and proved an effective cataloguing system. The result would be a syndrome of design, patching and redesign. And this has been a rather popular mistake.

It is not enough to stop at that. The organisation must also develop and freeze an overall systems plan, which defines the sequence of induction of application areas to support the management functions. While following these plans the development phase must be kept short and the start of new projects must be delayed till the old ones start giving out results, even if additional resources can be marshalled towards the new project. As the systems are pressed into service, the overall plan may need amendment but one must remember that planning must follow a top-down approach whereas the development a bottom-up one.

CONCLUSION

A few factors have been explored and some remedies suggested towards more successful implementation of automation. There are many more kinks in the process. But all this is easier said than done. At the same time let us not forget that we cannot reap the coveted fruits of automation unless we are as logical and disciplined in our approach as the computer itself is. One specific feature needs to be highlighted at the end. Keeping the abovementioned peculiarities of automation in mind is not enough. The organisation needs the services of prudent and imaginative DP staff, both in technique and in outlook.

The Law of the Sea* (A Review Article)

Lt Gen S L MENEZES, PVSM, SC (RETD.)

THIS book, published in December 1983 but received for review in 1985, is the first detailed and comprehensive account of the new UN Law of the Sea Convention, and the other treaties and measures that complement it.

The signing of the UN Convention on the Law of the Sea (UNCLOS) at Montego Bay, Jamaica, in December 1982 by over 140 countries has been described variously as the beginning of a new era in international law, or as another example of chaos, under the auspices of the UN, unleashed by the developing nations.

The Convention provides a legal framework within which nations may be able to resolve both long-standing, as well as future, disputes. The convention, if eventually ratified by all UN members as was then expected, would establish in law a country's right to claim a limit of 12 nautical miles (13.8 statute miles) for its territorial waters; a 200-mile exclusive economic zone (EEZ); a 350-mile continental shelf as its territory; and for an archipelagic state to claim as its internal waters all the sea enclosed by a boundary drawn around the outermost islands of its group. The Convention deals with virtually every aspect of the Ocean's use; Navigation, Fisheries, Seabed Mining, Maritime Jurisdiction, Environmental Protection, and Marine Scientific Research.

This book, written to be intelligible to all concerned with maritime affairs, will be of particular interest to those specialising in maritime studies. What, however, have been the developments since December 1983, when this book was published?

*By R R Churchill and A V Lowe, Manchester University Press, Oxford Road, Manchester M139 PL UK, Pages 321, Price £ 19.50.

After the original 1982 signing by certain countries, the preparatory commission of the International Seabed Authority set out to elaborate the section on Seabed Mining. The Convention had set December 1984, two years after the original signing, as the final date for the signatories who wanted to claim 'pioneer status' for seabed mining, under a provision called Preparatory Investment Protection (PIP). A PIP signatory's mining companies could be the first to lease from the Seabed Authority areas of the ocean floor, particularly in the Pacific and Indian Oceans, where nodules that contain manganese, copper, cobalt and nickel are in plenty. This deadline prompted Belgium and Italy to join the original signatories, some of which (Canada, France, India, Japan, USSR) may well be the first to exploit these nodules even though this may only be in the next century. Britain, the USA and West Germany however have declined to sign, even at the second invitation in December 1984. The refusal by these major industrial countries was prompted by the sections on Seabed Mining to which alone these countries have objected, presumably being averse to the supranational policies of the Seabed Authority and its concomitant 'taxing' powers.

Other immediate tasks in implementing the Convention are marking channels through international straits and archipelagos, agreement between neighbouring states on maritime boundaries reaching out 200 miles, and regional co-operation in controlling maritime pollution. Thus while the convention was meant to solve current problems between nations, it has, by circumstance, provided the basis for new ones, which would have been unthinkable in the 1960s and have arisen only because of provisions in the UNCLOS.

Commercial shipping in Asia is almost totally dependent upon the various straits controlled by Indonesia, the Philippines, Malaysia and Singapore. Indonesia and Vietnam have overlapping claims to the continental shelf area north of the Natuna Islands. Numerous islands in the South China Sea have been used by various nations to claim conflicting EEZs, on account of the oil-bearing seabed sub-structures, and China has made a historical claim to most of the sea itself. Also under the UNCLOS, coastal states are supposed to index the living resources, such as fish, that exist in their newly defined territorial waters, and determine whether there is any surplus to which foreign nations could be granted access. Certain countries would choose to wait to develop their own fishing technology, for such

exploitation, before taking a view, even though other nations may have traditionally fished there.

Sequentially, what is the actual practice today? The USA, a non-signatory, has asserted its fishing right in 1983 in its own 200-mile EEZ, while not explicitly recognising the right of other states' EEZs. Its vessels have recently been arrested while fishing tuna in the EEZ of certain South Pacific states. Separately, while it has said it would accept the judgment of the World Court in the fisheries dispute with Canada in the Georges Bank, it has proposed a long moratorium. In another context, Britain, also a non-signatory, has stuck to a three mile territorial limit around its coasts, but has been awarded a 12-mile zone around the Channel Islands in the case Britain and France took to the World Court. Separately, the UN Environment Programme's regional seas project has brought together Caribbean states in the Cartagena Accord on conservation and pollution. The USA however has argued that these matters are already covered by state practice or customary law.

So is the Law of the Sea Convention already a dead letter?

Book Reviews

COLD WAR OR DETENTE: THE SOVIET VIEWPOINT

BY GEORGI ARBATOV

Published by Zed Books Ltd., 57 Caledonian Road, London N 19 Bu
1983 pages 219. Price Hardbound £ 12.95 Pocket Ed £ 4.95.

THIS interesting book with a preface by British Labour Party Leader, Michael Foot, is a collection of carefully drafted questions by a noted Dutch author, Willem Oltmans, and answers there-to by the distinguished Soviet Academician, historian and member of the Central Committee of the Soviet Politburo, Georgi Arbatov. The questions and answers extended over several sessions but Arbatov's answers were all extempore.

Senator William Fulbright has contributed an excellent introduction in which he points out that this "unusual treatise presents serious and responsible Americans with the Soviet point of view. It is vitally important to our future that we make no mistake in understanding it".

The Arbatov—Oltmans discussions centred round the cold war and detente between the two superpowers, and Soviet proposals for the reduction and eventual elimination of nuclear weapons. Consequently the superpowers' arms race, the Star Wars programme of USA and its doctrine of first use of nuclear weapons have figured prominently throughout the discussions.

The end of the Second World War no doubt brought peace to Europe—peace of a kind. That war was unlike all previous wars. The end of the war saw a devastated Europe and a stunned Japan, the victim of a destructive and mutilating nuclear attack. However, very soon bitter adversaries during the war became allies and an ally, the Soviet Union, 30 million of whose citizens had sacrificed their

lives in defending their country and had played a major part in enabling the allies to win came to be treated as an adversary by its erstwhile allies, USA and Britain.

This was the beginning of the first cold war, which had the potential of becoming a hot war—a nuclear one at that—in which USA would subject the Soviet Union to a nuclear first strike. As Arbatov notes, “By end 1945, top US brass had begun preparing for a nuclear attack on the Soviet Union. Twenty cities in the USSR, populated by 13 million people were selected as targets for 196 atom bombs in a first strike” (p. 56). Winston Churchill, on two occasions, had suggested that US ‘rain atom bombs’ on the Soviet Union, as recorded by Alan Brooke in his Diary. This was the beginning of the first Cold War, which gained general acceptance in the USA when Winston Churchill in his Fulton speech spoke about the Iron Curtain that enclosed the Soviet Union. This cold war was basically due to fears on the part of the USA as well as of the Soviet Union, ‘fears which were unjustified but none the less real’ according to Arbatov.

Bainbridge Colby, US Secretary of State during the Twenties, held the view that the new Russia’s aim was to overthrow the governments of civilised nations. There were no coinciding interests between the US and the new Russia to justify the establishment of normal relations with such an antagonist, he had said (pp. 50-51).

USA stuck to this view until President Roosevelt moved into the White House in the early Thirties. After 16 years of its existence, the Soviet Union got recognition from the USA under Roosevelt in 1933. The two countries then had pledged that they would not interfere in the affairs of each other. World War II helped bring the two countries closer together. However, Roosevelt’s death, Truman’s succession and USA’s emergence as the sole possessor of the atomic bomb and in consequence as the world’s supreme military power brought about a sea change in USA’s world view. This had its inevitable impact on Russia.

American leaders felt that the Soviet Union was out to export ‘revolution’ and hence had to be ‘contained’ while Soviet leaders suspected that USA with its might was out to undermine the Soviet Union’s existence and the social order it had built up.

The cold war had begun. This, the first cold war gave place to detente during the late Sixties and early Seventies under President Nixon. Nixon extricated America from the Vietnam quagmire and wanted a period of relative peace so that his country could rebuild its image. It was in this comparatively tension free environment in the early Seventies that SALT II accord was signed by the two super powers and ratified by USSR. This treaty though not formally ratified by it was none the less observed by USA. Since each superpower was conscious of its strength as well as its vulnerability a form of peace prevailed. The situation however has changed significantly since President Reagan's assumption of office.

Detente was formally 'buried under the sands of Ogaden' as former Presidential Adviser Brzezinski had declared shortly after Soviet troops moved into Afghanistan. From 1983 onwards the United States intensified its efforts to build space weapons. Arbatov, probably because his questioner did not draw attention to this has not referred to the fact that USA, not the Soviet Union, was the first to deploy ground based anti satellite (ASAT) weapons. It would interest readers to know that a western scholar, Paul B Stares, in his¹, 'Space Weapons' and US Strategy : Origins and Development' has noted that USA had started work on 'satellite recce systems' in the early Fifties itself.

Kennedy's space programme helped immensely, enabling USA to acquire mastery in building and launching orbital systems and in utilising them for communications, reconnaissance and other military purposes.

As Senator Fulbright had observed, Soviet leadership has all along felt that USA wants the Soviets to change their internal system, before having normal relations. Soviet suspicions were not unfounded either, since a key foreign policy document of USA, NSC-68, put forward the proposition that basic changes in Soviet domestic structure are as *sine qua non* for peaceful coexistence. Soviets also felt, as Arbatov observes, that "somewhere deep in the American political conscience, there lives the thought that we are something illegitimate, created not by God but by the Devil and that our existence in its present form should be ended somehow".

(1) Croom Helm; London and Sydney 1985.

Extreme intolerance of Soviets had somewhat abated in USA during the Seventies but was revived under president Reagan who considered the Soviet Union as the 'evil empire'.

War mongering has been quite popular in USA, especially at election times but the effects of fiery speeches generally outlast election meetings. In 1980, an election pollster said² :

"Oh ! a little war does a lot for your rating in the polls. But the absence of war does not translate into political points. Any President can force the country to rally round him with decisive martial action. Eisenhower had Korea and Lebanon; Kennedy had Cuba and Vietnam; Johnson, Nixon and Ford had Vietnam".

Such a policy of waging a shooting war in some country in order to gain electoral advantages at home is much too risky in the nuclear age as Arbatov remarks. "The task of improving relations between the two most powerful nations in the world, who have been antagonistic for decades is a tremendous challenge. But is required by the realities of the nuclear age".

Because of the enormous risk involved in continued confrontation and arms build up which is being extended into space, Arbatov pleads for an end to confrontation and for nuclear disarmament. Because USA and the Soviet Union have different social systems it does not mean that they should go to war. In World War II, the same two countries cooperated while countries with similar social systems fought each other, points out Arbatov.

Arbatov's call is relevant and timely considering that "for the first time in nearly two decades, war with the Soviet Union has turned from seemingly theoretically possible to seeming actually possible—and not just a cold war but a hot war".³ And USA's operational doctrine continues to be to hit first, with nuclear weapons, if necessary.

(2) Patrick Caddell, White House Pollster in President Carter's time said this in an interview with a newsman; 'Play boy', February 1980.

(3) Stephen Rosenfield, Chief editorial writer, Washington Post.

Thus Arbatov's appeal for peace, reduction and eventual abolition of nuclear weapons and discussions in place of confrontation elicits spontaneous response from non-aligned countries.

—COL R RAMA RAO (RETD)

THE DEVIL'S BIRTHDAY : THE BRIDGES TO ARNHEM, 1944

BY GEOFFREY POWELL

Published by Buchan & Enright Publishers, London, 1984.
pages 276. Price £9.95

THE book is an account of Operation "Market Garden" by Geoffrey Powell who was himself a regular officer and commanded a parachute company in the 'British Airborne Division' in the region of Arnhem. The fact of his having been there in person lends an authentic colour to the description of action, though it could also have prejudiced his views on the performance of the planning staff and the . . . direction of the battle.

The author has done considerable research and consulted not only British and American sources, but also German material. The result is a comprehensive account of the battle giving credit where due.

Most of the shortcomings in the plan probably stem from the haste in which it was conceived. There was the Allied Airborne Army available with nobody prepared to use it. This was the time when Montgomery was trying to convince Eisenhower of the superiority of the narrow front strategy over the Broad front one. It suggested that Montgomery probably went for "Market Garden" in the hope that by using the airborne element to force a rapid advance of his Army Group over the maze of Dutch rivers and canals, he would so commit the Allied forces on this axis that SHAEF would have no alternative but to give preponderant support to him.

The plan for "Market Garden" based on a much more modest "Count" was finalised in a mere ten days. The principle premise seems to have been that German resistance had crumbled and the resources of the Reich were exhausted, yet the plan lacked real boldness for no attempt was made to drop troops on or very close to the

objectives. The build up too was cautious and no second lift was accepted on the first day. No heed seems to have been given to the intelligence gathered through "ULTRA" about the presence of Parachute and Panzer Divisions in the region. In the battle itself, the 82 and 101 US Airborne Divisions achieved most of their objectives though they may have taken a little more time to do so than planned. A battalion of the British Airborne Division reached the Divisional objective—the Arnhem Bridge and dominated the North end of it for longer than envisaged in the plan, however, the rest of the Division could not fight their way to the support of this Battalion.

The reaction of the Germans was superb. The Generals in the area—Student, Model and others fought brilliantly with whatever they had and reacted effectively to every Allied move. They also conducted themselves with great rectitude. Frost, the Commanding Officer of 2 Para which held the North end of the Arnhem bridge is on record that "the Germans were kind, chivalrous and even comforting." This was in the context of treatment of the wounded and the Germans concerned were the SS, much maligned as they have been so far.

Shortcomings of the airborne portion of the battle may have been overcome had the land tail—XXX Corps pushed on energetically. Somehow this Corps led by a proven and dashing Commander Howrocks, did not perform as expected. It could be that Howrocks was put back in Command too soon after being seriously wounded in North Africa.

A very reliable book which ought to provoke thought on the creation and use of airborne and other specialist groups. The maps could have been better arranged.

COL R RAMA RAO (RETD)

THE COMMANDOS 1940-1946

BY CHARLES MESSENGER

Published by William Kimber, London, 1985.

Pages 447, Price £12.95.

THIS is yet another book on the Commandos in the Second World War, for which the author has claimed a definitive historical

character. In view of the fact that a large part of the activities of the Commandos, especially those in conjunction with the SOE, MI 6 and SIS, are certain to be still classified, the claim to definitiveness may be questionable but there is no doubt that a serious attempt has been made in this book at a comprehensive presentation of Commando operations in all theatres of war in which the British were involved.

The Commando concept was conceived to meet a specific psychological need. The British people, till then, used to considering themselves the premier world power found their vaunted BEF convincingly beaten in France, Belgium and the Low Countries and faced what they then believed, imminent invasion across the channel. The national morale needed propping up. It was typical Churchillian flair which extolled the so called "Epic of Dunkirk". In the same spirit, he expressed a desire on 3 June 1940, that "we should immediately set to work to organise raiding forces on those coasts where the populations are friendly".

Initially, thought was given to the training of a specially selected regular unit for the purpose, but then it was realised that not even a single unit could be diverted from the primary role of defence of Britain, hence volunteers were called for from all units whether infantry, supporting arm or services. These were given special training and formed into Commandos.

Keeping in view the psychological need, the initial raids were of a very limited nature across the channel, the earliest ones being no more than for reconnaissance of unoccupied or very lightly held coastal areas. These raids were given wide publicity. As the situation . . . stabilised Commandos were sent further afield to the Middle Eastern Command, North Africa, Sicily, Italy and to North Western Europe with "Overlord". Finally, they were committed in the SEAC. With time, the strength of parties also grew, till in the final stage they were committed in brigade-size strength.

The author concludes by giving an assessment of the usefulness of the Commandos. Though justifying their usefulness from operation "Torch" onwards, he is rather apologetic about their earlier performance. In this, one would think he errs for it is in the early days that they really played their part in the psychological build up of the British people and really justified their creation.

The author has presented a mass of details gleaned from records and private diaries which would be of use to a serious student of the subject. Unfortunately, the book is poorly served by maps and sketches.

COL RAMA RAO (RETD)

SOE—AN OUTLINE HISTORY OF THE SPECIAL OPERATIONS EXECUTIVE
1940-1946

BY M R D FOOT

Published by University Publications of America, Inc. Maryland
21701, 1984

Pages 280, Price £24.00

COVERT operations in the form of subversion though not unknown in the past, have assumed great significance today in view of the wide media coverage and near parity that the Super Powers possess in the means of mutual destruction. Techniques, ages old, have been honed and brought to a frightening state of perfection. Along with activity, such as bribery, covert aid to dissidents or worse, misinformation and disinformation are being used with fiendish ingenuity to change public opinion, topple governments, denigrate and even eliminate national leaders. The desirability of this form of aggression, in the eyes of the practitioners is that any culpability can be denied and a high moral stance maintained in public.

Third World Countries that are making an attempt to stand on their own feet are most vulnerable to this form of aggression and hence it is important that all thinking people in these countries make themselves aware as to what can happen to them or is happening. Fortunately, a number of books on the subject have been published lately, the book under review is one such.

As the publishers themselves confess, SOE, the Special Operations Executive, 1940-46, by MRD Foot is no more than an "Outline History", understandably so, for the deeds of such an agency are either classified for all times or not recorded at all.

The author traces, all too briefly, the situation as it obtained at the time when the SOE was born, the civil service inter-departmental

wranglings it had to weather, selection and training of personnel, development of special devices, control and coordination, political attitudes, followed by a mere glimpse of some of its activities and concludes with his assessment of its usefulness.

The British have a flair for subversive and covert action. A brilliant instance is the occupation of India, by merchants of the East India Company. When it found itself caught on the wrong foot in the late thirties, with a resurgent Germany on the march again under the inspiring leadership of Adolf Hitler, it had to buy time in order to prepare itself for the inescapable confrontation. This it did covertly through diplomatic channels and by stepping up the activities of its secret agencies called "the dirty tricks department" by the irreverent. Once the war started and Germany's might was revealed, it was decided to create a super secret agency to wage subversive warfare in the occupied territory—it was the Special Operations Executive.

The SOE was created in July 1940 by putting together the propaganda cell in the Foreign Office and covert operations cells in the Special Intelligence Service, the SIS, and the War Office. Its charter was written by the supposed arch pacifist, Neville Chamberlain, though as the author says, there was no pacifism in the Charter whatsoever. The agency was to be free of Parliamentary control, with unlimited funds, its activities directly overseen by a senior Cabinet Minister, the first one being Dalton of the Ministry of Economic Warfare (MEW). This came in handy for the staff of SOE used the MEW as their cover. Dalton visualised that the SOE would use "many different methods including industrial and military sabotage, labour agitation and strikes, continuous propaganda, terrorist acts, boycotts and riots. Churchill was more brief, he is supposed to have said "now set Europe afame".

Finding recruits for such a super secret organisation whose very existence cannot be acknowledged, cannot be a straightforward affair. In the SOE, the first ones inducted chose the upper echelons on the old boy net. These, the author states, but naturally came from the old ruling class, people from public schools belonging to the "Headmasters Conference" and Universities, though not specifically mentioned, indubitably not the "red buck" variety. For personnel to man the lower levels all avenues were exploited and the SOE had

in its ranks, burglars, forgers, lock breakers, colonial policemen, besides representatives of even more interesting professions. The author mentions that at least one particular burglar, a member of the SOE received the DSO. The people in the field, the operatives in actual contact with the enemy were mostly nationals of the occupied countries.

In this conclusion, the author admits that any claim that the SOE could have won the war by itself is absurd but it did divert enemy attention away from the main fighting fronts towards the rear areas. Probably the most important factor was that the diversion of British manpower from other spheres of war actively was trivial.

The SOE was closed down in 1946. Its activities were taken over by others such as the Special Intelligence Service and the Special Air Service (SAS).

An important fall out of the SOE was the creation of an identical agency by the USA, called the Office of Strategic Services, (OSS) which on disbandment at about the same time as the SOE achieved reincarnation as the well known CIA, the Central Intelligence Agency.

COL RAMA RAO (RETD)

THE UNITED STATES NAVY IN WORLD WAR II

COMPILED AND EDITED BY S.E. SMITH

Published by Quill William, New York 1966, pages 1049; price : 15.95 \$

THIS is a compilation of articles published previously in various books and journals by participants in the U.S. Naval actions during the Second World War. These reprints have been grouped in seven parts which cover the entire history of US Naval operations from 1941 to 1945.

Beginning with Pearl Harbour, the articles cover the War in the Atlantic, Battle of the Midway, Guadalcanal, Mediterranean and the victory in Europe. The latter parts of the book contain articles on the War in the Pacific and the end of the Japanese Empire.

The authors include well known War leaders and writers like Winston Churchill, Gen. Douglas Macarthur, Fleet Admirals Ernest King and Chaster Nimitz and Ernest Hemingway.

Besides, the book contains 18 useful maps, a number of photographs, and an Index. The Introduction has been written by E.M. Eller, Rear Admiral, U.S. Navy (Ret.), Director of Naval History.

Although there are well-known military histories on the subject, such as Rear Admiral Samuel E. Morrison's multi-volumed *History of the United States Naval Operations in World War II*, Captain Walter Karig's *Battle Report* and the U. S. Naval Institute's Volumes, entitled *Destroyer and Submarine*, the book under review gives the reader an instant history of many a naval action fought by the authors as members of the U.S. Navy in different parts of the Oceans during the Second World War. The reader gets the feel of the situation, smells the gunpowder, hears the cries of horror and joy, and confronts the undaunted human spirit defying devastation and death.

The Second World War burst like Apocalypse upon the U.S. Navy and America at Pearl Harbour on 7 December 1941, appropriately enough it was on board the Missouri of the U.S. Third Fleet that the Japanese formally surrendered to the Allies on 2 September 1945 (the cease-fire had already taken place on 15 August). The price of V-J (victory over Japan) was, however, very high as the U.S. Navy, including Marine Corps and Coast Guard, suffered casualties of 56,206 dead, 80,259 wounded, and 8,967 missing in the 3 years and 8 months long naval warfare,—the greatest war in naval history.

All those who are interested in first-hand reports of this great naval saga of the Second World War, will indeed, find the book interesting and instructive.

—DR. B.C. CHAKRAVORTY

NUCLEAR FIRST USE

BY NAVILLE BROWN AND ANTHONY FARROR-HOCKLEY

Published by Buchan & Enright, Publishers, London, 1985 on behalf of the Royal United Services Institute for Defence Studies, pages 108, price £ 5.50

THE RUSI MILITARY POWER SERIES

THIS book is from one of the series produced by the Royal Institute of Defence Studies, a professional institute of the British Armed Forces founded in 1831 and which incidentally, had the Duke of Wellington as its first President. The book gives an interesting exposition of various defence issues concerning a 'No first use' nuclear philosophy in a European scenario, between NATO and Warsaw Pact countries. The authors are two leading British commentators.

The question as to whether 'No first use' is a matter of moral superiority or would be merely a 'Procrastination' has been commented upon in detail as this could also lead to a limited war. Before coming to conclusions, the authors have considered various aspects concerning deterrence in Europe. Also, some serious disadvantages which they consider, the NATO alliance suffers from in view of its defensive strategy and a multi command machinery. As a result of this defensive strategy therefore, a redeployment of forces may be forced, in case Warsaw Pact countries take the initiative to launch an offensive.

Further, it is considered that because of standard mobilisation procedure based on the Russian pattern, the Warsaw Pact countries are in a position to mobilise far too quickly. Even in the matter of using nuclear weapons, Supreme Commander allied Forces Europe 'SACEUR' would have to first refer the matter to the various heads of governments who would then decide whether to give permission or not? On the other hand, Warsaw Pact alliance has a much freer hand and lesser obstacles so far as the use of chemical and nuclear weapons is concerned. Their doctrines stress the use of all weapons as required by the situation. The authors therefore do not either support or subscribe to a 'No first use' or 'No early use' philosophy as this would place the NATO alliance in an inferior position. This matter however continues to be debated.

The authors also feel, that it is difficult to control escalation as so many diametrically opposing factors are involved. As a result it is difficult to keep the conflict localised. Further, Russians do not subscribe to a theory of Flexible or a Graduated conflict. Therefore, the option to early use of the most potent weapons in one's armoury should not be denied. That a strategy which involves an early first use, would involve lesser risk to the West and indeed to the world rather than a 'No first use'. The authors have also considered other connected aspects such as the changing face of war with the impact of technology. Also, though a joint 'No first use' would legitimise a non-nuclear war and yet lack credibility unless supported with appropriate force restructuring and reduction.

This is a book for those initiated in the theory of nuclear war and if one may say, strictly professional. So far as a 'No first use' philosophy is concerned, it is indeed difficult to come to a clear cut answer. But considering that "essence of war is violence and moderation would be imbecility" those concerned with winning a war would not like to be saddled with restraints of the 'No first use' type.

MAJ. GEN. V.K. MADHOK, VSM

AMERICAN DEFENCE ANNUAL 1985-1986

EDITED BY GEORGE E. HUDSON AND JOSEPH KRUZEL 1985 pages 277
Price Not mentioned.

AMERICAN DEFENSE ANNUAL 1986-87

EDITED BY JOSEPH KRUZEL

Published by Lexington Books, Lexington, 1986, pages 293 Price :
\$ 13.95

AMERICAN Defence, if that is what American military endeavour since World War II can be termed, unlike the defence endeavours of most countries do not stop at its frontiers but spill out globally touching the political and security concerns of a large number of other countries, irrespective of their political alignment, size, or distance from the United States. The ubiquity of US military shadow is one of the fundamental contemporary realities. It defines not only

the general tenor of international relations, but frequently even the domestic political, social and economic concerns of most countries, and of course, the United States. In fact, so large has the American Defence establishment become that it now employs every twentieth US citizen, and on which more wealth is lavished than what Africa, Asia and Latin America combined do on their defence. And what's more under the Reagan Presidency, it's defence budget and global spread is growing, at an unprecedented rate. In the five years of the 80s, alone, the US has spent more than \$ 1000 billion on defence which is roughly what India would spend at the current rate on its defence in the next 50 years. Yet amazingly the American political and military elite seems to be in the grip of near constant paranoia.

What impels US defence policy, defines its strategy, force structure, budgets, arms procurement drive, and such other arcane issues relative to US security policy and practices are the focus of the *American Defence Annual* which its editor claims has been done by no other publication in the same way. The purpose of the *American Defence Annual* according to the inaugural issue (1985) is to "layout an agenda for the US public on the 'legitimate' issues of US defence policy. The legitimate issue is not, however, 'what foreign policy the US should pursue' (ie whether it should sponsor Wars against Afghanistan, Nicaragua or Cambodia) but the "strengthening of US military posture in view of the failure of detente and the continuing soviet build up of forces". It further adds that "under present day world conditions, there is no substitute for strong clear articulate deterrence". ie, there is no option but to continue with the aggressive expansion of US forces. In sum, the politico-military premise of the *American Defence Annual* reflect those of the Mershson Center, the sponsors of the annual. The Mershson Center is a conservative conglomerate of establishment academics which "mobolizes faculty and other researchers to investigate issues in national security". Given the political preferences of the Mershson Center it is not surprising that out of the 46 contributors to the two annuals almost everyone has either been a member of the US State Department or the Department of Defence, or such prominent think tanks as the Rand Corporation. Amongst the contributors are such current publicist and advocates of intransigence as Colin S Gray, Paul H Nitze and Lawrence Korb to name a few. The Annual's close government connection, however, makes it authoritative. The current US chairman of the Joint chiefs of staff, Admiral William Crowe has called the

annual a "valuable reference for scholars, diplomats and military men". There is little doubt that the annual is valuable reference tool. For instance combined together the two annuals have some 80 tables and figures. In addition there are Annual American defence chronologies, and a comprehensive defence bibliography. The format which the editors note is to remain standard, consists of chapters on defence strategy, defence budget, strategic forces, theater forces, seapower and projection forces, manpower, organisation and management, and arms control. In addition each Annual has a special supplement of two chapters each to cover contemporary US defence concerns. The 1985 Annual has a supplement on The Strategic Defence Initiative and Low Intensity Conflict, and the 1986 Annual on intelligence Policy and New Dimension of National security.

Judging by the array of influential contributors to the first two Annuals, the scholarship of the articles, the excellent production, the well conceived format and the multitude of tables and figures, the *American Defence Annual* seems to have a secure future. And notwithstanding the slanted politico-military premises of the annual it remains a valuable record of the contemporary debate and controversies that surround US defence effort. It decidedly deserves attention of all those interested in US military policy and practices.

—MAJOR VIJAY TIWATHIA

THE 25-YEAR WAR : AMERICA'S MILITARY ROLE IN VIETNAM

GENERAL BRUCE PALMER, JR.

Published by the University Press of Kentucky, 1984; pages 236, Price Not given.

WHATEVER the apologists of the U.S. involvement in the Vietnam War may say, the war was fought by the U.S. with the sole aim of containing communism in South Vietnam. No other war except the American Civil War has shaken the U.S. psyche as much as the Vietnam War, 1 May 1950-30 April 1975. The very name Vietnam evokes deep emotions and bitter memories in the citizens of the United States. But the author says that Vietnam War should not be blamed for all the domestic ills of the USA, because the problems of

urban decay, racial disharmony, drug abuse, etc. were bound to plague the Americans whether they became involved in Vietnam or not. "Indeed, one can argue that in the 1950s, well before we became heavily committed in Vietnam, a sense of national direction and purpose appeared to be lacking in the United States."

The book is of special significance, as it has been written by a veteran of the Vietnam War who held important positions in the field and also in the highest command echelons. After barely touching upon the early years of U.S. involvement in Vietnam, 1950-1963, the book really deals with the subsequent period of the War, beginning with President Diem's assassination and ending with the fall of Saigon in April 1975. While, Part I examines various stages and major aspects of the War, Part II evaluates the performance of U.S. troops and the conduct of the War, drawing lessons from it.

According to the author, American strategy suffered from many grave weaknesses and lack of a decisive thrust. He has drawn the following lessons from this War :— "From the beginning our leaders realized that South Vietnam was not vital to U.S. interests. Yet for other reasons the nation became committed to the war. As hostilities dragged on interminably, with no clearly discernible end in sight, more and more questions were raised—some people even questioning the morality of the war. Finally, legitimate questions were raised as to whether our goals in Southeast Asia were worth the high costs. Was the war in our national interest? Coupled with this growing questioning of the war and our deepening commitment was a heightened public feeling that the executive branch of the government was not dealing honestly with the American people. So one obvious lesson is that public acceptance and support of a war require a consensus of understanding among our people that the effort is in our best interest. Whether Vietnam was vital or not, however, the fact remains that the president committed the nation to war without involving the Congress and the people in that crucial process. Ironically the United States misjudged the cohesion of the communist alliance opposing it—the Soviet Union, China, and North Vietnam. We were slow to recognize the depth of the Sino-Soviet split, overestimated the threat of Chinese communist expansion, and misunderstood Chinese equities in the Vietnam War. It is supremely important that our national leaders, civilian and military, have a fundamental understanding of the capabilities and limitations of military power.

Vietnam demonstrated how the lack of such understanding can lead to disastrous failure. Willingness to fight a limited war implies that vital interests, such as survival, are not at stake, and that although important interests nevertheless are involved, they do not warrant the employment of all available military force. Goals must be clearly defined, decisive, and attainable. The second principle, the offensive, states in broad terms how the objective will be attained. We lacked a clear objective and an attainable strategy of a decisive nature, and we relinquished the advantages of the strategic offensive to Hanoi. The final major principle I will mention is unity of command (vesting a single commander with the requisite authority to obtain unity of effort towards a common goal). It did not exist with respect to U.S. efforts in Southeast Asia. Command and control, planning, and conduct of operations were essentially decentralized to the American, South Vietnamese, South Korean, and other Free World commanders operating in South Vietnam. Although a combined campaign plan was developed annually, it was essentially a U.S. plan dominated by American concepts. There was no combined command with a combined planning, operations, and logistic staff. Instead, the various national commanders mostly developed their own plans and ran their own shows according to their assigned missions and geographical areas of responsibility. In Vietnam, moreover, unity of the U.S. intelligence effort was lacking. Reorganization cannot compensate for the lack of capable, experienced people in key positions, nor can organizational changes accomplish much when key personnel do not remain in a job very long. Civil military relations in the United States, especially at the highest levels where political and strategic issues become entwined, have not always been close and harmonious. The central point, however, is that our military leaders failed to get across the message that the U.S. strategy was not working and over time would probably fail to achieve stated U.S. objective."

The author has strongly recommended for the improvement of the civilian-military interface in the highest councils of the government. He says, "This is the best way I know to better the chances that our civilian leaders truly understand the risks, costs, and probable outcomes of military actions before they take the nation to war. The United States cannot afford to put itself again at such enormous strategic disadvantage as we found ourselves in Vietnam. How deep Vietnam has stamped its imprint on American history has yet to be determined. In any event, I am optimistic enough to

believe that we Americans can and will learn and profit from our experience."

The book contains useful maps and charts and other interesting illustrations, besides a selected bibliography, a glossary of acronyms and an Index. Undoubtedly, it will be found educative and stimulating by students of military history, diplomacy and international relations

— DR. B.C. CHAKRAVORTY

THE WARS OF NAPOLEON

BY ALBERT SIDNEY BRITT III

Published by Avery Publishing Group Inc. Wayne, New Jersey, 1985
pages 184, Price \$ 25.00 (cloth), \$ 18.00 (Pbk)

THIS is a profusely illustrated book, the product of many dedicated people at West Point, in the U.S. Army, and in countries abroad, especially France, USSR, Germany, Austria and England. Interesting illustrations have been collected from several musea of different countries, and some useful sketches of battles have been incorporated in this book. Primarily conceived as a text of military history for the instruction of the Cadets of the U.S. Military Academy, this treatise combines both operational and institutional treatments of military history and deals with generalship, military professionalism, strategy, logistics and sociopolitical factors. "A Military History and Atlas of the Napoleonic Wars" has also been prepared as a companion volume for the U.S. Military Academy.

The French Revolution drew military and public interests together. As a military leader Napoleon has few peers in the whole history of mankind. His brilliant generalship and battle tactics were equally matched by great strategic concepts. His uncommon intellect, tirelessly exercised, calculating the opportune time and place of his decisive strokes baffles the students of military history to-day as it did his friends and foes one and a half centuries ago. Inspite of his great successes in civil administration, e.g. his Code Napoleon, which became the basis of civil law almost throughout entire Europe, he is known more for his military genius than anything else. As Byron said : "Whose game was empires and whose stakes were thrones, whose table earth—whose dice were human bones."

However, inspite of the great Napoleonic victories, the French army remained poor in military professionalism, as Napoleon did not allow his subordinates to take independent decisions or initiatives, nor any effective school system was created for the training of promising young officers for higher level command and staff positions. He also failed to build up an effective logistical system to cater to the needs of his continuous all-European campaigns.

One of his teachers at the military school in Paris observed Napoleon's potentialities when he was a young Cadet. He said : "Retiring and diligent, he prefers study to amusements of any kind, and delights in the reading of good authors; loves solitude, is obstinate, proud and exceptionally inclined to egotism; speaks little, is energetic in his answers; ready and severe in his refutations; possesses much love of self, is ambitious and hard-working. This young man deserves to be pushed on."

In 1809, he reportedly said : "I have only one passion, only one mistress, and that is France. I sleep with her. She has never failed me, she has lavished her blood and her treasures on me. If I need five hundred thousand men, she gives them to me." But Wellington's successful guerrilla campaigns in spain were followed by Tsar Alexander of Russia in his defence against Napoleonic invasion in 1812. Napoleon was the son of revolution, he was also the destroyer of revolution, but the European peoples' war ultimately brought about his downfall. In his memoirs dictated in St. Helena he said : "I have unscrambled Chaos, I have cleansed the Revolution, ennobled the common people, and restored the authority of kings."

This is a well-researched, well-illustrated military history, and every student of Napoleonic War will certainly enjoy and profit from reading it. It contains a good bibliography, a Glossary of technical terms and an Index.

—DR. B.C. CHAKRAVORTY

YES, YOUR EXCELLENCY

BY V E O STEVENSON—HAMILTON

Published by Thomas Hornsworth Publishing, London, 1985,
Pages 229, Price £9.95

THIS is mainly a memoir of the author's adventures in India as an officer of the Indian Army during the 1930s and 1940s, till 1947,

when he left India for pastures anew. Born in Scotland in 1907, in a family with a long history of distinguished soldiering, he retired as a Lt. Colonel, and now a member of the Queen's Bodyguard for Scotland, the Royal Company of Archers. During the Second World War he opted for service in one of the two first ever parachute brigades, broke his back during a training jump, and after recuperation at the end of 8 months, saw active service in Burma and Italy.

In the initial chapters of the book he has given us vivid pen-pictures of his early childhood in Scottish Castles, in the care of a foster-aunt, when his father was seeing service in India. After being educated at Uppingham and Royal Military College, Sandhurst, he got commission in the 4th Prince of Wales' Own Gurkha Rifles in which he saw most of his military service on the North-West Frontier of the then India in the Waziristan, Bannu, Khajuri Plain, Malakand, etc. In 1935, he took up a three-year appointment as A.D.C. to the Governor of Punjab, Sir Herbert Emerson, and travelled with him throughout the Punjab, in addition to Simla, Delhi, Kulu-Manali, and Mandi. This was among the happiest period in his life "and the most interesting." He has enriched his book with anecdotes of Roerich, the Russian painter-cum-traveller, who lived in Kulu, and had mystical correspondence with his disciple, U.S. Vice President Henry Wallace; his "first Indian girl" (the daughter of the famous Mr. Jinnah), who "talked wistfully of all the London night spots," with whom he danced in the Cecil Hotel of Simla where he received the news of the terrible earthquake of Quetta. At Manali ('Minali' according to the author), he saw piccolo like flutes, probably of Turkish origin, which are seen in military museums of Europe, because it was the Turkish troops who introduced military bands to Europe during their invasions. He also noticed the strange similarity between the interlaced scroll work on wood in the temple of demon goddess Hidimba and those cut on old stones in Ireland. He has told us of interesting tit-bits, — the lengthy Sanjauli tunnel, a couple of miles from West Simla, wherein Lord Kitchener fell and broke his leg when riding a horse; the collapse of the shamiana on the head of the Viceroy, Lord Linlithgow, and other V.I.Ps, due to a sudden squall during the presentation of new colours to the 2nd Bn. The Dogra Regiment, at the Brigade parade ground of Lahore, and his witty reply : "Never felt better in my life", when asked how he was; and the subsequent crashing down on the ground of the flag mast flying the Union Jack, portending evil for the British Raj in India.

In the Chapter, entitled "Indian History", he has made some interesting remarks : "Plain for all to see, the recipe for successful rule in India had been first to smash all opposition and then adopt a policy of religious toleration and political conciliation"; and about the Sikhs : "They are a religious body, not a race, notable for their bravery, their cleverness, their martial spirit and their relish for intrigue. In 1762 they were subjected to a great disaster when Ahmed Shah Durrani, the Afghan returning from destroying the forces of the Mahrattas at Panipat, routed their forces completely, destroyed Amritsar, blew up the Golden Temple, filled the sacred lake with mud, defiled the holy places by the slaughter of cows and continued on his way. ***One of the secrets of Ranjit Singh's success was his employment of European adventurers of every race, many of them veterans of the Napoleonic wars : English, Scots, Irish, Italian, American, Spaniards, French, Dutch, Swiss, Armenians and Eurasians. One weakness of all the armies in India was the handling of their artillery. There were a number of excellent cannon foundries making cannon of all calibres but the actual gun drill was lamentable. The European mercenaries sped up the gun drill to three and four times its previous rate, the crews achieving a shot every 20 seconds. The Sikh hand was heavy upon conquered races. The Sikhs attacked and looted Peshawar, then an Afghan city, after which Ranjit Singh put in his own Governor, an Italian named Avitabile so renowned for his cruelty that travellers mentioned it in their records and even the locals were impressed. ***In due course the Sikh army did fight the British. They had 50,000 excellently trained troops and on top of that double that number of ill-disciplined semi-trained fighting men. The whole lot were fantastically brave, a characteristic of their race. Besides this they had 200 guns with properly trained crews. Against them we had 22,000 fighting men and 30 guns. Nevertheless, we somehow defeated them after four pitched battles, after the last of which Sir Henry Hardinge, the Governor General, who had himself been an officer under Wellington in the Napoleonic Wars and presumably knew what he was talking about, said :—'Another such victory and we are undone!' This was the first war in which the British had to acknowledge that Asiatic troops could be every bit as good as our own. Indeed it was only because of the quarrels between the leaders of the various Sikh contingents which reached such a pitch, that not only would they refuse to support one another but actually passed on to us vital information about each others plans, that we won. It also seemed that some of the Sikh leaders did not mind who won the battle provided that their rivals did not."

The author appreciated the Muslim League's cooperation with the British During War, when the Congress launched its "Quit India" movement. He was also critical of the Indian and Pakistani leader's ability to rule their respective dominions, and he could not be reconciled to the premature transfer of power to the native hands. He is particularly critical of the lack of planning for the world's largest ever exodus of population between the two new states and the lack of safety measures against communal massacres to which he himself was a witness. Even his own Gurkha Battalion was attacked and decimated by the Pathans during their passage through the hilly tracks of the North-West Frontier, towards Amritsar in 1947. He says that it was the tribal invasion of Kashmir that saved his Battalion, as the tribals left them alone after a siege of several days to fight for a better prize in Jammu and Kashmir.

The Army pensioners expressed grave concern to the author, when he was A.D.C. to the Punjab Governor, about things to come after Independence : "Will things be the same? Here we are, drawing government pensions, but in the old days before you British conquered the country no Indian ruler ever gave a pension to common soldiers; Hindu now sits with Mohammedan—did that happen before? We can go back to our homes safe in the assurance that they have not been looted and burnt in our absence; our grandfathers could never do that: even twenty years ago this land was desert: now look at the crops, all the result of these canals, your doctors have stamped out plague: could our hakims ever do that?" The author himself rounds off by saying: "I was then and am now quite unqualified to forecast the political futures of either India or Pakistan".

It is a nice book, containing beautiful photographs of men and places, and a map of Waziristan. It has been written in such a racy style that once you start reading it you do not like to leave it before coming to the end. It gives the reader quite a good glimpse of the British Indian regimental life with its charms and risks, and also the British officer's psyche during a turbulent period of contemporary Indian history. The reader will certainly smell of the aroma of a bygone period of Imperial glory.

— DR B C CHAKRAVORTY

SPACE WEAPONS AND INTERNATIONAL SECURITY¹

ED BY BHUPENDRA JASANI

Published by Oxford University Press; 1987 pp. 366, for Stockholm International Peace Research Institute, (SIPRI)
Price not stated.

SIPRI's Space Weapons and International security contains a valuable introduction by its editor Bhupendra Jasani which forms Part 1 of the book. Four other parts of the book discuss in detail :

- (a) Technical aspects of space weapons consisting of contributions by Stephen D. Rockwood, Richard L. Garwin, Kosta Tsipis, and Androi A Koshin and his colleagues, the last mentioned contributing two useful papers;
- (b) Space weapons vs deterrence : Policies and arms control. This part consists of contributions from Barry R. Schneider and Colin S. Gray, Sydney D. Drell, John B. Rhinelander, Sune Danielson, Alexey G. Arbatov and Boris G. Mayorsky, Walter Slocombe, and Donald M. Kerr.
- (c) International Dimension :
This part is made up of five papers, one each by—Sanford A. Lakoff (Implications of SDI for NATO) Ronald Mason (Strategic defences : facts and opinions); Benoit D' Aboville and Michel Guionett (How ASAT and BMD developments could affect third countries); Yao Wenbin (The Impact of SDI on international security) and Ryukichi Imai (Implications of high technology for disarmament);
- (d) Politics of space weapons :
This is the concluding part of this extremely useful book and consists of four papers each dealing with a particular aspect of the problem.
 - (i) Y. evgeniy Velikhov presents the "Soviet attitude to strategic defence";
 - (ii) Frank Gaffney deals with the strategic content of SDI and USA's assessment of Soviet attitudes towards mutual vulnerability;

- (iii) Mujkund Dubey (one of India's very knowledgeable and experienced diplomats) appropriately, presents non aligned nations' viewpoint on SDI; and
- (iv) John Wilkinson deals with 'strategic defence in Western Europe'.

The book is valuable not merely because of the views, which may be taken to represent unofficial but authentic views of knowledgeable persons from the two power blocs as well as some neutral sources, but also for the five useful appendices included in the volume.

These appendices include texts of Partial Test Ban Treaty (1963); Outer Space Treaty ((1967); ABM Treaty (1972) and Protocol (1974); Moon Treaty (1979); and Soviet Proposals of 1981, 1983 and 1985, besides a special report on strategic defence.

This useful and authoritative reference book would merit careful study by all those interested in national defence and strategic and international affairs.

COL R RAMA RAO (RETD)

WAR IN KOREA

BY MAJ GG DWIVEDI PSC, M.SC (DEFENCE STUDIES)

Published by Mr O.P. Dwivedi, Megodena Farm House, Hoshiarpur, 1985, pages 172, Rs. 40.00

A remarkably concise book covering all aspects of the Korean Campaign. A good book for the examination oriented. It is well-illustrated with maps depicting various stages of the campaign and contains a chronology of important events during the period June 25, 1950 and August 5, 1953, the beginning and the end of the Korean War.

—COL T MUKHERJEE

ORIGINS OF SEA TERMS

BY JOHN G ROGERS

Published by Mystic Seaport Museum Connecticut 06355, 1984 Pages 215, Price \$ 15.00

A N essential addition to all naval libraries John G Rogers' compilation will hold the interest of all who like thinking about words.

The promise of the high seas have lured thousands of young men onto boats and ships from times immemorial. These men had their own way of calling things and virtually have their own vocabulary. In delving into the origins (possible origins) of these terms Mr Rogers has simply expressed what seamen have always wondered about.

The book makes highly interesting reading even for the staunch land lubber even if he may wonder why the Phoenicians or the Egyptians or the Sumerians made (apparently) no contribution to the maritime vocabulary.

—COL T MUKHERJEE

THE DICTIONARY OF ESPIONAGE

BY CHRISTOPHER DOBSON AND RONALD PAYNE

Published by Harrap Ltd., London, 1984 Pages 234, Price £ 9.95

*A*N excellent book for reference as a Who's Who of spies and espionage organisations. Divided into three parts (if one does not count the rather well written introduction) the book covers all the well known (obviously) spies of the world in the first part; in the second part, countrywise organisations are covered albeit with the inherent handicap of acquiring such knowledge; in the last part the authors have explained some important terms alongwith a vocabulary. The last part would be of particular interest to the uninitiated.

Possibly because of their not being taken seriously in the espionage world a number of countries (in fact, only seventeen are discussed) are not even touched. Also prominent by their absence from the book are Mata Hari (Margaretha Geertrulda Zelle) and their likes.

—COL T MUKHERJEE

ETHICS DETERRENCE AND NATIONAL SECURITY

BY JAMES E. DOUGHERTY AND OTHERS

Published by Pergamon-Brassey's, Washington, 1985, Pages, 95 Price Not given.

QUESTIONING the credibility of what is right is a take off point whenever we discuss relationships involving the superpowers. Is

peace a genuine desire? Is peace attainable? Peace at any cost? These are some of the questions tackled in the book (compilation really) Ethics, Deterrence and National Security. The influence of religion (Christianity), in policy making and even crystal gazing, has been brought to the fore in the articles.

All the six papers, put together in this book, analyse the perceptions, cost, religious acceptance and so on of peace via nuclear deterrence, arms buildup and upswing of defence budgets.

A highly readable compilation, though with an understandably Western viewpoint.

—COL T MUKHERJEE

WARLORD SOLDIERS. CHINESE COMMON SOLDIERS 1911-1937

BY DIANA LARY

Published by Cambridge University Press London, 1985 Pages 177, Price £ 17.50

CHINA, with her great heritage, has always been slow to part with information. Getting to know the Army would be even more difficult as information would not be forthcoming.

Despite the handicaps Diana Lary has put together an excellent book giving and insight into the Chinese Army of early 20th century, 1911-1937 to be exact.

Power meant big Armies and that philosophy seems to have guided their army organisation right through till modern times. Since defence of the country was a rare happening, Ms Lary analyses that maintenance of internal order became the order of the day and with it all the ills like looting, indiscipline, forcing authority came to be linked to the Army.

Lineage was important for getting into the Army but so was the basic tendency to be mercenaries. (aptly named) Warlord Soldiers is a rather readable record of the Chinese Army of the period and a "Must Read" for all serious thinkers of the armies of the world and in our context of an immediate neighbour.

—COL T MUKHERJEE

BATTLE FOR HUE : TET, 1968

BY KEITH WILLIAM NOLAN

Published by Presidio Press, Novato, CA 94947, 1983, Pages 201, Price \$ 14.95

TET, the Vietnamese New Year, of 1968 saw a month long battle for Hue. This book is a blow by blow account. This is a surprising book because it is difficult to believe that such a book could be written based simply on interviews. In the true tradition of the fact based novels Battle for Hue is a gripping book. It provides a ring side view of the Marines fighting in Vietnam.

Centred around the cultural city of Hue the author runs through the buildup, the battle, the aftermath with great clarity and narrative quality.

The book highlights esprit de corps, motivation and the pride an army man takes in being competent in the job he is paid for. It is a no holds barred account of fighting as it appeared in Vietnam. By and large the Americans thought very poorly of the South Vietnamese soldiers.....equated with spectators.

Battle for Hue deals with buildup area fighting at its bloodiest. It clearly brings out how small things have a large influence on battle : for example a short break of 5 minutes in intense shelling may allow all those being shelled to pick up their weapons and ammunition and be ready for the inevitable attack. The book also highlights the humane aspects that are not always forgotten in war. The plight of refugees as also the functioning of war correspondents have also been covered.

For the lay civilians interested in the military this book is an excellent starter. For the initiated this book tells the soldiers what fighting is all about. A rather well produced book which must be read by all young officers of the Infantry.

—COL T MUKHERJEE

THE SIGNALS : A HISTORY OF THE CORPS OF SIGNALS**BY COL V A SUBRAMANYAM**

Published by Macmillan India Ltd, Delhi, 1986, Pages 303, Price Rs. 75.00

COL Subramanyam's book fills a void in the recorded history of the Army.

In battle today confusion will reign supreme if communications fail. The coming of age and the activities of the Signals had not been documented. In this book Col Subramanyam has compiled lots of interesting details and traced the history of the Corps in a clear fashion.

Passing references to the "originators" (Page 174) could have been avoided as these don't form part of history. The photographs could have been better reproduced and datelining them all would have been very useful.

All in all a very comprehensive book for all libraries.

—COL T MUKHERJEE

THE AK 47 STORY : EVOLUTION OF THE KALASHNIKOV WEAPONS**BY EDWARD CLINTON EZZEL**

Published by Stackpole Books, Harrisburg, PA 17105, 1986, Pages 256, Price \$ 29.95

BORN in a hospital bed in 1944 (Page 104) from a tank driver's creative mind the AK 47 has come a long way to be accepted in the world as the most popular (and certainly the most used) weapon of the small arms family.

This book is about the "rise and rise" of the AK 47 (Avtomat Kalashnikov). Mikhail Timofyevich Kalashnikov designed the weapon in 1945 but it came to be really accepted after four years. A mind boggling 30 to 50 million AK 47 rifles (or their likes) exist today in the world.

Ezzel traces the history and the evolution of small arms in Russia since Napoleon's times. In addition, an insight (may be a personal view) is given of the peculiar systems in the Soviet hierarchy controlling individual efforts.

The AK 47, its further evolution and influence on other small arms designs is a treat to read. Variants of the AK 47 have also been covered. Of particular interest is the basis of the AK 47 design which allows for improvements and also introduction in a family of weapons.

All infantry officers need to read this book and all the right thinking ones need to study it.

—COL T MUKHERJEE

KOREAN WAR 1950-53 A MILITARY STALEMATE

BY MAJOR RK BHONSLE

Published by Himalayan Books, New Delhi-110001 1986, Pages 220, Price Rs. 35.00

FOR the examination oriented student of military history a very good book to revise with. The Korean War and General MacArthur, the American chief of the UN Forces, as a biographical study, have been covered in adequate detail.

The book contains a large number of maps, tables and charts which provide useful data to enable a more thorough understanding of the war and various battles which were important landmarks in the final outcome.

The author has made considerable effort to present in one short volume a lucid study of the Korean war, with a focus on the essential features of the campaign with main emphasis on a detailed analysis of the strategic, tactical, logistics and leadership aspects of each battle. The book ends with a set of questions and answers which will be of help to students preparing for DSSC examinations.

—COL T MUKHERJEE

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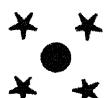
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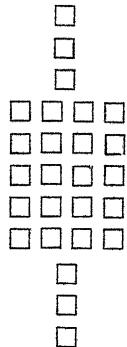
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