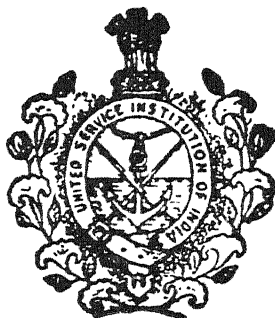


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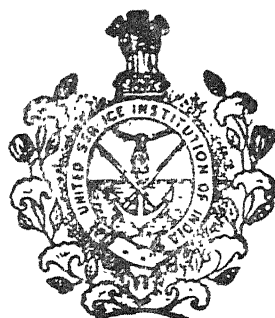
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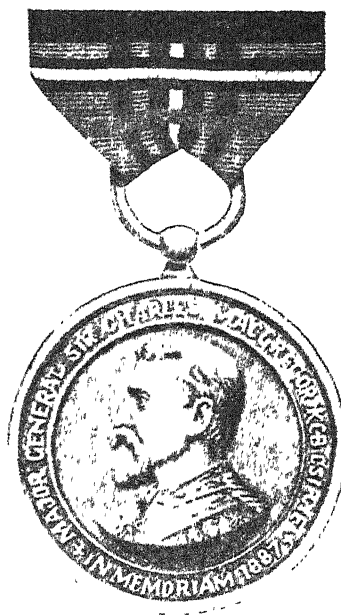
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Supplement



THE MacGREGOR MEMORIAL MEDAL

PRESENTATION

by

GENERAL OP MALHOTRA, PVSM

CHIEF OF THE ARMY STAFF

24 August 1978

RECIPIENTS

Gold Medal

1971 Lt Col CS NUGYAL (IC-12851), SIKH

Silver Medal

1969 Brig ML WHIG (IC-3940) MVC, FRGS

1970 Maj PREM CHAND (IC-21802) VSM,
DOGRA

1972 Capt RAVINDRA MISRA (IC-22574) AOC

1972 Sub BEL BAHADUR PUN (JC-59779),
4/3 GR



Air Marshal IH Latif, President Council USI addressing Members and Guests at the MacGregor Memorial Medal Presentation Ceremony

**OPENING REMARKS BY AIR MARSHAL IH LATIF, PVSM
VICE CHIEF OF THE AIR STAFF AND
PRESIDENT COUNCIL USI**

General Malhotra, distinguished guests, gentlemen :

Today is a red letter day for the Institution and my colleagues on the Council and I appreciate very much the fact that so many of you have found the time and made the effort to be with us this afternoon. It is a red letter day—a great event in the life of our Institution for several reasons. For the first time since Independence this institution is holding a formal presentation of this prized award—the MacGregor Medal. This is also the first time since World War II that a gold medal is being presented as one of the Awards. And again, for the first time since Independence, a Junior Commissioned Officer is receiving an Award—a silver medal.

As you know, the Council of the United Services Institution makes this Award in memory of its founder, General Charles MacGregor. First instituted in 1887, this is an annual award for the best military reconnaissance, a field to which the General devoted his life. In fact, he gave his life for it—I believe he died during his last reconnaissance in Baluchistan.

The Medal is awarded only if an exploration or a reconnaissance in the Frontier areas produces new material which is valuable for the defence of the country; a gold medal when it is decided by the Council that the work has been especially valuable. Since 1888, 50 officers and 42 Junior Commissioned Officers and soldiers have received the award of a Silver Medal; the Gold has been awarded to only 5 officers and 3 other Ranks. Several winners of the Medal have achieved great fame—Colonel Bell was one, Younghusband was another, the legendary Wingate was yet another. In the post-Independence period, among others, Lt Gen EC Bakshi was the first to win the award followed by Maj Gen IC Katoch.

Rarely do we have such a large gathering of the members of this Institution. May I, therefore, take this opportunity to recount very briefly the achievements of this Institution? To begin with, it is undoubtedly the oldest Defence institution in the country, a little more than a century old; and during this period it has developed into a truly national asset. Its library is one of the finest in the country. Its journal is the oldest Defence journal and, I am sure, a source of inspiration to many a military writer. During the last decade, this Institution has made great efforts to diversify the activities. Its correspondence courses have, I am sure, been a boon to its members for their Promotion and Staff College Entrance examinations. During the winter, the Institution runs seminars to study and discuss specific military subjects. We have also published selected papers on national security. Another activity which the institution can be justly proud of is the initiative it has taken in introducing annual National Security Lectures. For the first time, lectures on



Members and Distinguished Guests at the presentation ceremony of MacGregor Memorial Medal



General OP Malhotra, PVSM,
Chief of the Army Staff presenting
the MacGregor Memorial Gold
Medal to Lt Col CS Nugyal.



Brig ML Whig, MVC receiving
MacGregor Memorial Silver
Medal.



Maj Prem Chand, VSM re-
MacGregor Memorial Silver
Medal.

problems of Defence have been arranged on a public platform. The objective of course is to educate the public in problems of National Defence in the country and generate interest in such matters. Side by side great strides have been made in putting the institution on a sound financial footing. You will be happy and relieved to know that from virtual financial bankruptcy, this institution has now become largely self-reliant. This is no mean achievement considering that at one stage in the post-Independence years, the Institution was compelled to sell its property in Simla just to pay its taxes. The services of a full time Secretary and Editor had to be dispensed with. Even a bicycle for the office was a luxury. Today not only have all our debts been wiped out but we have built up a capital of several lakhs of rupees.

And here I must pay a tribute to Col Pyara Lal, the Secretary who has been with the institution for over two decades; it is he, more than any other person, who has been responsible for the remarkable change in the Institution's stability and the services that it has rendered.

And what about the future? You may not know that we are under constant pressure to vacate even the few rooms that we have in this building. But fortunately, as a result of the sustained efforts of my predecessors and the active support of the Ministry of Defence and the QMG we have been able to get from the Govt an allotment of three acres of land in Dhaula Kuan. Our next task is to raise funds so that in the coming years, the Institution will once again have a permanent home, an essential pre-requisite for its expanding activities.

And now on behalf of the members of the Council and on my own behalf, may I congratulate the recipients of the award who now join the very select band of great reconnoiterers in the service of the country.

May I now request you, Sir, to present the Awards.



Sub Bel Bahadur Pun
Recipient of Silver Medal



Capt Ravindra Misra
Recipient of Silver Medal

The MacGregor Memorial Medal

The MacGregor Memorial Medal Fund was founded in 1887 as a Memorial to the late Major General Sir CHARLES MacGREGOR who founded the United Service Institution of India. The Medals are awarded for the best military reconnaissances or journeys of exploration of the year.

The following awards are made annually in the month of June :—

- | | |
|-------------------------|---|
| (a) For Officers | — Silver Medal |
| (b) For other personnel | — Silver Medal
with Rs 100/-
gratuity |

For specially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal without gratuity to personnel mentioned in 2 (b) above for specially good work.

The award of medals is made by the Chief of the Staff of the Service concerned, on the recommendation of the Council of the United Service Institution of India.

The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ :—

- (a) Service Personnel of the Army, Indian Navy and the Indian Air Force.
- (b) Service Personnel of the Army, Navy and Air Force of the Commonwealth Forces, while serving on the Indian establishment.

Note :— The term "Army" includes the Territorial Army Reserve Forces, Assam Rifles and Militias.

The medal may be worn on uniform by soldiers, airmen and ratings of the Armed Forces on ceremonial parades, in such manner as may be prescribed under their respective regulations.

Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has incurred the greatest risk will be considered to have the greater claim to the award.

When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council meeting the medal may be awarded for any reconnaissance during previous years considered by the Chief of the Staff of the Service concerned to deserve it.

The Pragmatic Approach*

MAJOR GENERAL SN ANTIA, PVSM (RETD)

'Peace is the dream of the wise—war is the history of man'.
(Arab Proverb)

IN India there is an articulate section of the intelligentsia (within and outside the media) which advocates that now since a mini-detente has developed between India and its neighbours, Pakistan and China, we should take a serious look at the social and economic costs of our military establishment. They also believe that a low military profile by India will ensure stabilisation of friendly relations more rapidly, instil confidence and reassure our neighbours as well as halt or, if not, at least minimise the escalation of an arms race on the subcontinent. This will also eliminate interested external manipulations and the countries of the region can attend to the urgent tasks of economic development and social uplift of their people.

There are others in the defence services and amongst politicians who expound the theory of 'balance of power' and India's likely position as a ranking power or potential world power in the Indian Ocean region. There are yet others who advocate the forging of regional alliances, particularly a nuclear-free zone, one outside the NPT regime, under India's leadership. These are divergent and conflicting view-points and perhaps not in consonance with our political philosophy, national interests, as well as mature security considerations under the prevailing political and military strategic environment.

In matters of national security, there is no place for an emotional approach nor, for that matter, does ideology or prejudice have a role to play. The sole aim is our national interest. Neither the acquisition of modern armaments, the expansion and modernisation of defence production nor the abundance of manpower are the only means to ensure national security. We must supplement these with an astute and pragmatic foreign policy which ensures us the maximum dividends.

National security cannot be formulated or evaluated in isolation. It must take into account the geographical location of the nation, a foreign policy in which our security needs are invariably taken into

* Courtesy Seminar, New Delhi, May 1978

account, political and military strategical profile, the threats to our security as envisaged now or in the future, as well as the whole gamut of our national resources which include financial and material resources, economic and industrial potential, scientific and technological advancement, communications and transportation and manpower resources. Last, but not the least, the maintenance of national morale and motivation. Only then will a pragmatic approach in evolving a national security posture emerge. This is not a static or one-time concept; it must be reviewed, modified and updated taking into account the changing scenario and fluctuating situations as they arise.

In the light of the above and notwithstanding the process of detente now in progress, how should the development of our armed forces take place both qualitatively and quantitatively, keeping uppermost our national interests in view ?

Geography has placed India in a strategically pivotal role in the middle of the littoral States around the Indian Ocean with the countries of Africa, Arab countries, Gulf States, Iran and Pakistan on one side and Bangladesh, Burma, the South-East Asian countries, Malaysia, Singapore and Indonesia, on the other. The existing status or the future development of our armed forces cannot and should not be considered within the narrow confines of threats emanating from China and Pakistan alone, but also must take into consideration the overall compulsion and impact of our strategical geographical location in relation to countries and their posture and attitudes on both the flanks of the Indian Ocean, considered vital to our own security environment. Free from tensions in the past, the Indian Ocean area has now assumed considerable importance in the great power global strategy.

The Middle East area with its vast oil resources and energy reserves—now a potent instrument of diplomacy--the arming of the Arab and Gulf States, Iran and Pakistan, by the super powers, France, UK and China; the Arab-Israeli confrontation and the role of the super powers to establish their sphere of influence in this region—which also affects the security of southern Europe, the importance of the reopening of the Suez Canal as a strategic international waterway and the recent events in the Horn of Africa must have a strong impact on our overall security considerations.

On the other side of the Indian Ocean, besides the great powers, China too is keen, anxious and determined to exert her political and economic influence on the emerging nations of Asia and Africa. The impact of this on our maritime threat from China, remote as it may seem today, is real and should not be dismissed lightly. The Chinese-inspired

coup in Indonesia in 1965 and in Sri Lanka in 1971 are a reminder to India of this threat.

In the context of India's overall security environment, amongst all the neighbouring countries only two pose the threat of military aggression. These are China and Pakistan.

After the 1962 India-China conflict over the border issue, the threat from China along our north and north-eastern frontiers is one of low profile. By and large, the frontiers have remained quiet. This is mainly due to the Chinese pre-occupation with strengthening their occupation of the Tibetan region. China has also been preoccupied with ideological and military confrontation with the Soviet Union and faced with internal upheavals due to the Cultural Revolution, the struggle for succession and army purges. During this period, China has been content with stoking the fires of 'wars of national liberation' in Asia and Africa, incitement of guerillas in the India-Burma common borders, support of rebel activity in Burma as well as to the Nagas and Mizos in India. Even the vexed question of annexation of Taiwan by force has been temporarily shelved.

Its detente with her one-time arch enemy, the USA, is designed to counter the growing Soviet political and military influence on a global level. The present regime, in spite of Mao's dictum, is in the process of modernising its industry as well as the armed forces to match the Soviet military might. In so far as it relates to her immediate neighbours, China has now accorded high priority to mending her fences with them. The process has already started in Burma and Nepal and is soon to be followed up with India. China proposes to seek and secure her southern frontiers, the approaches to Tibet and Sinkiang, both peopled by restless minorities, by cultivating good neighbourly relations rather than belligerence.

In China's appraisal of South Asia, the image of India figures prominently. It seeks to temper India's stature in the region by creating counter-weights; hence Pakistan is its favourite and Bangladesh may well follow suit. In the larger context, it expects that India will not develop anything like a military alliance with the Soviet Union despite the Indo-Soviet Friendship Treaty and it is always on guard against any Soviet move to encircle from the south with Indian participation. The main dispute with India is over the delineation of Sino-Indian borders and the vacation of the 15,000 square miles of Indian territory.

We have already recognised China's occupation of Tibet, but the areas of Aksai Chin through which run the lines of Chinese communications to Sinkiang and Southern China, strategically so vital to China for her security needs, the Chinese will find extremely difficult to concede in

the quest of an overall normalisation of relations with India. This is an issue of national importance to both the countries and so long as it remains unresolved, relations with China can never be on an even keel and the process of normalisation will remain incomplete. In that case the threat from China will still remain.

The major threat to India's security is from Pakistan. Without going into the genesis of her bitter animosity and hostility towards India—it has its roots in the historical background of events prior to and after partition—the main issue between the two countries is regarding the status of Kashmir. Pakistan's three major attempts to annex Kashmir by force have been unsuccessful and she feels frustrated and desperate about the Kashmir issue which is self-generated.

Apart from being armed to an extent beyond her size and influence on the sub-continent by the USA under guise of Pakistan's membership of SEATO and CENTO, and inspite of the military reverses in the 1971 war and dismemberment of her eastern wing, militarily Pakistan today still poses a strong threat to India. Pakistan still continues to receive substantial military aid from the USA notwithstanding the Carter Administration's assurance to India that the 'tilt' had been corrected.

In addition, she has been aided considerably in military hardware by her political and military ally, China, as well as some Arab States, Iran and other Muslim nations. Now that she no longer has any responsibility in the East, she has been able to concentrate her full military potential in the west. Like China, Pakistan is also in occupation of Indian territory in Kashmir. No political and military leadership in Pakistan, including the mercurial Bhutto, has or ever will be able to mould Pakistani public opinion towards a rapprochement over Kashmir.

Up to 1971, India's defence posture was mainly confined to her land frontiers and the maritime threats to her security were never given the seriousness they deserved. Our pivotal geographical location, the strategic importance of our island territories, the newly enacted Law of the Sea, the extension of our limits of territorial waters to two hundred miles and the security of our vital off-shore assets has now added a new dimension to our maritime threat. These have increased the navy's operational responsibilities considerably. This of course is in addition to keeping our sea lanes of communication open both during peace and war and our vast coast-line on the flanks of our mainland free from enemy interference.

Although in 1971 we did inflict a crushing blow to the Pakistan Navy and practically made it inoperative, paradoxically it seems that the 1971 war has strengthened rather than weakened the Pakistan navy. Now free from its eastern commitments, it has acquired patrol craft, missile

boats, ASW helicopters. Whitby-class, frigates from the UK, submarines from France and China and is now able to concentrate its complete naval effort in the Arabian Sea area. It is possible that naval craft from Iran and the Gulf States may come to Pakistan's aid during hostilities to harass India's commercial shipping as well as serve as warning stations leaving the Pakistan navy free for offensive action. It must be appreciated that the 1965 and 1971 wars must have convinced Pakistan of the futility of achieving any gains against India's western land frontiers or the impossibility of doing so in the next round. It is therefore the Navy upon which Pakistan is now depending to capture strategic initiative.

The air threat is common to the three services in varying degrees of importance. These will involve pre-emptive strikes against airfields in Israel. There will be strikes on troop and armour concentrations, military installations and naval and other shipping in the harbours or near at sea. In the past we have been fortunate to ward off air attacks from the enemy on our vital industrial complexes and communications network. These threats will have to be met by the IAF as well as by the other two services within their own air defence potential.

During the 1971 war, we were not able to fully destroy Pakistan's air potential due to lack of deep penetration aircraft as well as the fact that the Pakistan air force, in spite of having more modern and sophisticated planes, remained battle-shy to take a more positive offensive role. Now freed from its commitments in the eastern wing, the Pakistan air force will form a strong single entity in the western sector. It has acquired more planes and missiles and can also depend upon the support of the Arab States as well as Iran not only to replace the aircraft lost in battle, but also for actual participation by their pilots in air battles. Pakistan air force pilots have actually been assisting some of the Arab States in the Arab-Israeli conflict and they are now assisting Somali forces. Thus, they have been able to acquire combat training and latest techniques on modern and sophisticated aircraft which are likely to be made available to Pakistan in the event of a war with India.

As regards the air threat from China, this will materialise from its forward airfields in the Tibet region. Apart from strikes on troop concentrations, its air effort will be confined mainly to our eastern industrial belt, communications centres and network and ports and harbours. In the event of a war with Pakistan, the Chinese reluctance in the past to interfere physically in aid of Pakistan is no criterion for ignoring this joint threat in our planning for air defence.

Keeping in view the above broad assessment of India's strategic location around the Indian Ocean, and the likely threats to her security from

Pakistan and China as well as sources which directly or indirectly will render assistance during hostilities, how will all these fit into our foreign policy posture ?

We have a nationally accepted foreign policy of non-alignment, non-interference in other nations' internal affairs and a philosophy of co-existence based on the principles of Panchsheel. Yet, it has to be acknowledged that this is no guarantee against aggression by a neighbour who is not similarly minded but persistently inimical, as Pakistan is. Therefore, our security posture compels us to prepare for war. In any future political settlement with China and Pakistan, the pledge given to the nation by the Parliament that every inch of our lost territory will be recovered, must loom large. This pledge still remains unfulfilled. Recent statements by the Prime Minister have indicated that India does not wish to settle the border issue with China by force. This assumes the same with regard to Kashmir.

Normalisation of relations with both Pakistan and China sans the recovery of our lost territories will not eliminate the main causes of our disputes nor will it in any case diminish or lessen our security posture. The status quo will not remove the basic cause for continued hostility. In any political dialogue with China on the border issue, India's close and friendly relations with the Soviet Union are bound to figure prominently and are likely to be the key factor in Chinese negotiations.

We have seen from the discussions of security threats from China of her apprehensions about the Indo-Soviet Treaty and any likely military alliance or coordination of effort by the USSR in posing a military threat with Indian participation. To what extent, if any, then are we prepared to accommodate the Chinese or are willing to modify our posture of friendship and ties with the Soviet Union ? India has maintained that any settlement or normalisation of relations with China will not be at the expense of our friendship with the Soviet Union. Yet, one cannot shake off the impression that in the context of our overall national interests perhaps there could be a price-tag attached to Indo-Soviet friendship.

Likewise, Pakistan will not opt for any settlement on the Kashmir issue until the Chinese attitude is known as here too their strategic interests converge in regard to the road which links Tibet with Sinkiang, passing through Kashmir and built with Sino-Pak collusion. The other disturbing factor in our foreign policy in the context of our security against Pakistan is our inability to mould Arab opinion. In spite of India championing the Arab cause against Israel consistently for the last three decades, it is quite clear that Pakistan is not without influence and that

the brotherhood of Islam does not take India's sensibilities into account in her posture against Pakistan in peace and war.

At the national level, the price we pay for meeting the existing threats and the threats visualised to maintain our territorial integrity and security posture is a paltry Rs. 2700 crores in monetary terms and approximately 3.6 to 3.7% of our Gross National Product. This small cost for national security enables us to function and live under a democratic dispensation and our deep concern to strive for the economic and social development of the nation. Yet the government gives us the impression of being apologetic about our defence expenditure as if we have some kind of a guilty conscience to justify the spending in terms of national security whereas in reality we should be spending two to three times more as a matter of right to ensure that we do have real military stability and not a perceived one.

There are critics who claim that India must recognise Pakistan's sense of military vulnerability and dependence on outside supply of arms. This is not a valid argument. Pakistan's defence expenditure ratio to GNP is 7 to 8%. This does not take into account the massive military aid she received from the USA in the past and is still receiving. This is also apart from the economic aid she has been receiving from various sources. In addition, the Arab countries have been very generous to her by giving financial backing to purchase military hardware. India has offered Pakistan a 'no-war' pact on more than one occasion which has been spurned. Surely here was a golden opportunity for her if she genuinely felt a sense of vulnerability to have accepted India's gesture.

Our armed forces' existing capability based on the present force structure is one of defensive posture with limited offensive capabilities. The deployment of the army's mountain divisions against the Chinese threat is defensive with only local offensive capability. The strength of the infantry and armoured formations on the western front is more or less at par with that of the Pakistan army. These formations too have a limited offensive capability which precludes any decisive military outcome.

The navy's capabilities with its considerably increased responsibilities is woefully inadequate both in its force structure as well as in the realm of fleet composition, comprising ageing ships and craft and lacking the requisite mobility and punch in armament. Its amphibious capabilities, in conjunction with the army to undertake combined operations to the threats posed to our island territories, is almost non-existent.

The IAF as a single entity is naturally offensively oriented, yet equipped with outdated aircraft to exploit fully its offensive potential against the more modern sophisticated air force which Pakistan now

possesses. It is no consolation that IAF pilots have rendered yeoman service and displayed rare combat courage in the past against Pakistan's sophisticated aircraft to prove that it is the man behind the machine that counts most. Yet, there is a limit to this type of human courage, endurance and combat efficiency. The air force's capability will have to be increased substantially to meet the threats. Our surface to air missile system as well as our early warning systems are not fully responsive to our need. The air defence on the ground which is the responsibility of the army needs considerable augmentation to cover adequately and effectively the vulnerable areas and vulnerable points. We have little or no capacity to cater for low-level air offensive action by the enemy as there is a gap in our air defence between the SAM system and the L 70-gun air defence system.

The role and capabilities of the indigenous defence production within the framework of our national security considerations is no less important. To state that this important adjunct to our security apparatus is managed through State capitalism for a captive arms market is not to appreciate the full significance of its effect on the totality of our national security considerations. Some countries who have solely relied on the supply of military hardware from the great powers and have been largely dependent on the political patronage of their donors (our neighbour Pakistan is one of them), understand fully well that this type of military aid can be slowed down or discontinued, including the supply of essential spares required during combat, depending on the pressures generated and weight of world opinion at the time of hostilities.

Therefore, our indigenous defence production capability has ensured for us an uninterrupted supply of arms, ammunition and varied types of stores and equipment during an emergency. Egypt, Pakistan, and, recently, Somalia have learnt to their bitter cost and experience what it means by not having a strong indigenous production capability to support their war effort. No country can be cent per cent self-sufficient in military hardware and India is no exception. Although we have, over the past two decades, made reasonably satisfactory progress, we have yet to go a considerably long way to fully satisfy our fighting forces' requirements. In this connection, our R & D effort too needs to be stepped up enormously and coordinated with the production effort.

This, in sum, is the broad spectrum of our security posture under the prevailing environment and within the limits imposed by fiscal resources to meet our varied security threats. It would be totally naive to presume, as some critics do, that over the years India has built up a military-industrial complex which is geared not to the strategic environment but to manpower and hardware, and that this giant state of

bureaucracy is loath to consider reductions in force levels or restraint on weapons production.

We must also remember two important aspects in regard to our military capabilities—that the scale of our preparations must be such that even in a defensive posture, offensive preparations must be given the highest rating in our priorities if we have to obtain decisive military results during combat. The second is that we must combine sophistication and quality of our equipment with adequate numbers. Only then will we be able to achieve real military capability which will infuse a sense of sanity amongst the hawks across our borders and, in turn, make detente meaningful.

Is the nation in general and the armed forces in particular fully satisfied that in the realm of national security we have real military strength and stability so that our adversaries fully understand our military posture? Have we got the necessary force structure and the wherewithal to fulfil our tasks or what more needs to be done to improve our capabilities to the extent we desire?

The armed forces of India are made up of professional soldiers, sailors and airmen. We have learnt from experience of the past wars with China and Pakistan that future conflicts too are likely to be of short duration but of great intensity. There will be, therefore, no time for general mobilisation or the call-up of reservists to act as reinforcements to replace the wastages inherent in war. All this takes time and, frankly, we just do not have a rapid and effective mobilisation system on the Israeli pattern to really influence the outcome of a conflict.

At the same time, big power pressures, UN intervention and other forms of coercion manifest themselves rapidly to end hostilities and to effect a cease-fire. It is therefore, imperative that our force structure is such that we must be at peak strength at the commencement of hostilities to achieve decisive results before international opinion exerts itself or outside powers interfere by proxy to bring about a truce—only to prepare for the next round.

Since we are not going to fight a war of national liberation like Viet Nam, we have to be fully ready and prepared since the initiative for an attack rests with the other side. To maintain and sustain a large standing armed force in our conditions is not to forget its purpose.

With the posture of threat from China which has been discussed earlier, the mountain divisions' quantum of force structure needs no drastic changes in the environment they operate or are likely to operate. Only when normalisation of relations with China

takes place, can a draw-down of the mountain divisions be contemplated. Settlement or normalisation of relations notwithstanding, on no account can our borders with China be left inadequately guarded as prior to 1962.

In our future development perspective, there is however a strong compulsion to increase the strength of infantry divisions by a minimum of an army corps as well as another armoured division on the western front to comprise an armoured corps formation to operate in conjunction with an infantry division made fully mobile with APCs. This will ensure our maintaining combat superiority, greater fire power and mobility potential to avoid the military stalemate of the past as experienced during the 1965 and 1971 wars.

To state that instead of increasing the present strength of infantry divisions we could switch over some of the mountain divisions is militarily unsound. Without anti-tank capability as well as lack of mobility when operating in the plains, the necessary impact on our combat potential at that time cannot be made. Our anti-tank capability needs to be augmented in great measure by the introduction of the latest generation of precision-guided missiles as well as by having sufficient helicopter resources with anti-tank capabilities. Cost-effectiveness-wise the PGMs will pay off great dividends for additional tank strength as well as in the destruction of enemy armour. The effectiveness of the PGMs have been well demonstrated during the Yom-Kippur war. The necessity for a fully mechanised army corps has been well illustrated during the 1971 war. We just could not exploit the strategic and tactical initiative in the Rajasthan desert and effectively threaten Pakistan's western flank due to lack of requisite combat organisation, mobility and fire-power.

The army must have its integral air component which is really responsive to its strategic and tactical needs. Undoubtedly, the concept of vertical envelopment by the use of fixed wing or helicopter-borne forces enhances the strategic and tactical mobility of the Army. It places the army on the threshold of a bold new approach in conducting a land battle with greater mobility. It exploits the principles of war, viz., surprise and economy of effort, at the right place and the right time to an unprecedented degree. It is, therefore, vital for the army to establish its own army-aviation potential notwithstanding the professional differences with the IAF on this account.

This is more important when viewed in the context of strategy on our western sector where land battles in the traditional military concept have produced negative results, due to preponderance of defence measures taken by both sides. The value of the army aviation corps in river-crossing operations by exploiting the vertical envelopment concept is tremendous in terms of time, space and effort.

The navy's development programme must surely receive high priority within the overall scheme both in the size of its force structure and modernisation of its fleet which enhances greater mobility, striking capability and effective anti-submarine measures. There is a school of thought which believes that the era of aircraft carriers or capital ships has long passed and no longer serves the needs of our navy. This is not a correct assessment of the navy's important role, the increased threats it has to encounter and the importance and magnitude of its combat responsibilities. The aircraft carrier must not only be retained because of its crucial role in naval combat strategy, but it must have the most modern and sophisticated aircraft and be fully supported by the shore-based air arm of the navy and the IAF to help in combat missions.

Capital man-of-wars are necessary to operate in all types of seas and in all weather conditions and their size and tonnage must provide mobility, a stable platform to fully exploit fire power potential and other fighting capabilities both against naval and armed merchant fleet as well as naval and port installations. The smaller ships of the type of missile craft will provide the necessary close support to augment the fire-power of the capital ships as well as opportunity and other targets to achieve surprise at sea as well as shore installations.

The role of the submarines as an offensive weapon is obvious and here too there is need to augment its numbers to cover the vast area which has now become the operational responsibility of the navy. In view of Pakistan's submarine build-up we must also go in for a greater anti-submarine war effort. The naval fleet must have a balanced force structure which ensures the necessary flexibility for task force groupings and regroupings as situations demand. In view of its commitments and the inherent dangers in the Indian Ocean, the Arabian Sea and Gulf regions, the navy's force structure needs to be almost doubled and its fleet modernised with the latest type of ships, greater fire-power potential as well as ASW capabilities.

The IAF too needs considerable modernisation. The Gnats, the Hunters, the Canberras and some older and outdated generation of transport and helicopter fleet needs instant replacement as their span of combat-worthiness no longer matches that of the Pakistan airforce. The replacement of the strike aircraft can no longer be delayed. There is an unnecessary controversy as to its requirement and its combat role. The acquisition of this type of aircraft is not something new which has cropped up overnight nor is it by any standards aimed at an arms race. The requirement has been under discussion for nearly a decade and a final decision cannot be delayed any longer.

Firstly, it is a replacement for an older type of military hardware and secondly it must take into serious consideration the compulsions of the air threats as well as our combat posture as a whole and the operational necessity for the air force to strengthen its offensive capability. The DPSA is one of the means to achieve this. The 45-squadron air force structure need not be augmented provided modern types of sophisticated aircraft are introduced in service to replace the older types. However, the composition of the squadrons needs review to ensure that the combat ratio is much higher than that of the transport and helicopter fleet.

In the realm of surface-to-air guided missiles a new generation is required to replace the existing SAMs. The paucity of air defence resources on the ground to augment the L-70 guns air defence system brooks no delay as we must fully protect our vital industrial complexes. It is also vital to design and develop or to purchase, off the shelf, a low-level SAM of the British 'Rapier' type—a highly mobile computerised air defence system—for use in the field to fill in the gaps between the high level SAMs and the L-70 gun air defence systems.

Let us be under no illusion that our indigenous defence production is equal to all our requirements. Even without the modernisation programme, to keep our forces in trim as well as equipped, imports must be at least three to four fold of the value of the present level of production.

We have many gaps to fill in our naval and air force design and manufacturing and armament programmes. Our electronic industrial base with defence oriented impact is still in its primitive stage to achieve the degree of sophistication which a modern fighting machine requires. Our armour and artillery production needs considerable augmentation, particularly tanks and armoured personnel carriers and field and medium guns with longer ranges as well as ground to ground missiles like rockets and PMGs. Even in the field of ammunition there are critical gaps.

This is not to suggest that the indigenous defence production has not played its requisite part in the gamut of national security considerations. But it needs to modernise its technology and operational efficiency to keep production at peak level in close and effective coordination with the three services as well as the national R & D effort which, too, is woefully inadequate and bereft of progressive outlook and a sense of pragmatism. The main distortion in our indigenous defence production lies in the fact that in the past the government, as a matter of policy, deliberately confined defence production activities in the so-called defence sector without taking into account the totality of security considerations or the totality of our national economic and industrial potential. We

have, therefore, so far failed to make the maximum use of our opportunities in terms of time, production levels and in modernisation and sophistication.

There is a move afoot now to correct this, but unless this is fully integrated at national level without any mental reservations, we will not be able to achieve more positive and tangible results. It must be understood that the armed forces must have a continuous and even flow of defence armaments and equipment, both during peace and war and, therefore, the integration of the indigenous defence industrial potential at national level must be viewed and undertaken without delay.

The future expansion of our armed forces, the process of modernisation and augmentation of indigenous production effort, will entail large investments. These can be spread over the next decade so as to minimise its overall effect on the national fiscal, economic and industrial perspective. Yet, it would be incorrect to assume that this will be at the expense of economic or social growth, or that weaponry has taken command or the plumage has over-whelmed the peacock as some critics describe. Such investment would be instrumental in generating an economy which will work out to many times more the amount of investment. This will also generate employment opportunities but most essential, it will create an infrastructure for a sound future modernised and sophisticated industrial base. A sense of participation at national level in our security endeavour will ensure a high morale and motivation amongst our citizens.

The armed forces are trained for war in peace time. This implies that the force structure must be built up, maintained and suitably equipped and trained to meet any contingency across the borders. Unfortunately, in peace time the defence services are hamstrung by a three-tier control, viz., ministerial, secretarial and financial. It is the latter particularly which tends to put a stronghold over the rapid progress and build-up of the armed forces in peace time for preparing them for their combat role. It is too late when an emergency is upon us to sanction all proposals on files. New units and formations cannot be raised overnight equipped and trained in a short time to make them fully fit for combat. The suggested development of the armed forces must not therefore be delayed for want of an understanding of the implications of national security of which the armed forces are an instrument to fulfil national aims and objectives.

In so far as it relates to the nuclear threat, India's nuclear policy is correct from all aspects. In the given circumstances, there is no nuclear threat from China. The government realises that the Chinese nuclear threat is more political than military. China would most probably avoid

a nuclear confrontation with India. The existing Sino-Soviet relationships and the possibility of nuclear retaliation will preclude any Chinese attempts to upgrade her conventional war posture.

As regards Pakistan, this is a hypothetical question at present. The resistance of the nuclear powers to further nuclear proliferation is growing and to what extent Pakistan will be able to circumvent the safeguards to use nuclear energy for military purposes will have to be closely watched. Political, economic and other international pressures may deter Pakistan from acting irrationally in this regard. There is no need for India to seek a nuclear umbrella and, if such an umbrella is provided for in the Indo-Soviet Treaty, it will only deter China and Pakistan to be wary of the danger that may confront them.

There is also no reason whatsoever for India to assume any leadership of a nuclear-free zone alliance as this is not according to our philosophy or national interests. The theory of 'balance of terror' or nuclear blackmail is outdated and without any validity. No one has yet resorted to such blackmail, nor is there any possibility in the future of doing so. In an era of detente, the main theme now is to reduce international tension.

While India desires peace and wants to live in peace, in the light of our post-Independence history, on no account can we be complacent about our national security with all its ramifications. We must therefore view the future development of our armed forces even in a situation of detente in its proper and pragmatic perspective and ensure that, should a threat develop to our territorial integrity, it be met effectively with all the resources at our command. Our approach to economic and social development must not blur our security vision nor must it ever create an atmosphere of the pre-1962 era.

We owe this not only to the present generation but also to the future generations of our countrymen. In international affairs there is no permanent hate or love relationship, nor can national emotions or jingoism take precedence over mature reasoning, restraint and the pragmatic approach which best serves our national interests. It is to be hoped that the spirit of detente now being developed between India and China and Pakistan will replace an era of animosity and hostility by that of friendship and good neighbourliness.

*'Those who do not remember the past are condemned to relive it'—
George Santayana.*

An Officer and a Gentleman

(The Soldier's Honour Code)

BRIGADIER NB GRANT (RETD)

MRS Gupta, may I present Lt Kesar Singh, an officer and a gentleman", the lady (cat that she was) immediately retorted, 'Oh, another one of the Dr Jekyll and Mr Hyde type!', thereby implying that gone are the days, when an officer was automatically also a gentleman.

Only a few months ago, 5 June to be precise, my wife was put in a most embarrassing position, when a service station petrol pump attendant refused to accept a cheque stating that, the management had given strict instructions not to accept cheques from Service officers. Even our own Service canteens, leave alone not cashing our cheques as they used to do in the past, today they do not even accept a cheque for payment of bills. What a come down from the days, where a Service officer could go to any shop or establishment and just sign a piece of paper in token of goods received or services rendered.

I remember as a three days old newly commissioned 2nd Lieutenant, opening an account at the Grindlays Bank in Lahore in anticipation of my first pay to be deposited there. While I was leaving, the bank manager asked me whether I wanted some cash. I told him that as much as I would like to have some, I had no money in the Bank. I remember his exact words, "Lieutenant, how much do you need, after all, you are now an officer, as such your cheques will always be honoured by us even if there is no deposit in your account".

Those were the days when everyone always regarded the soldier as truly an officer and a gentleman,—today he still continues to remain an officer. In those days to receive a commission in the armed forces, was one of the highest honours that could be bestowed on a citizen, and once he received it, he was accepted in the best of societies, and enjoyed the highest trust of the nation and its civilian population without any reservations. The whole picture now seems to have changed, and the soldier is no longer placed on the same pedestal of trust that he once was, and has come down from his past social standing and prestige. The aim of this paper is to analyse the reason for this apparent loss of respect and trust for the Service man. However, we need not be unduly alarmed about it,

as the soldier's code of honour even in other countries like UK and USA has, of late, come under fire.

HONOUR AND PRESTIGE

Society in all countries, has imbued the soldier with sterling qualities of character such as patriotism, integrity, courage and self-sacrifice. In this respect, it was felt that, although some lapses of character may be accepted amongst civilians, they can never be forgiven in a soldier. The latter is expected to have a higher sense of duty and moral character than his civilian counterpart. This aspect however, is difficult to understand from a purely psychological point of view. For, if two men are raised in the same environment, brought up in the same home and educated in the same institutions, generally they should normally be expected to have similar characteristics and mental make-up. Yet, if one of them should join the army, he is automatically expected to behave and act differently from the other who is a civilian. On the face of it, this does not seem logical. Nevertheless, if a soldier has to fight, and, in the process he is willing to die, he must have these very characteristics ingrained in him. This can be achieved only if the reputation and prestige of the soldier is built up right from his NDA days, to make him feel morally superior to his civilian counterpart.

Studies of wars have amply proved that, ultimately a soldier makes the supreme sacrifice not because he is more courageous or more patriotic than his civilian fellow mate; he certainly does not do it for the army pay he receives; the only reason he dies without batting an eyelid is because, he believes that he is morally a superior being and, as such, cannot let himself down in the eyes of the nation. The question therefore arises, as to how this feeling of moral superiority can be inculcated in the soldier in peace time, so that it becomes a part and parcel of his entire mental make-up and automatically manifests itself during a crisis in battle.

While the relative importance of different motives for a man joining the armed forces is difficult if not impossible to reconstruct, an official questionnaire study of about 8,000 graduates of West Point, USA, concluded that, relative to compelling factors for entering West Point, almost all indicated that honour and prestige were the most important reasons. Whether one enters the military service because of a sense of mission or for career reasons, constant pre-occupation with fighting engineers a distinctive self-conception. The fact that the soldier considers himself distinctive explains why, in a society in which the military is held in doubtful esteem, whether coerced or voluntary, social inheritance of the profession takes place at all. Military honour and prestige has always meant that officers were gentlemen. It

also meant that officers were members of a cohesive brotherhood which claimed the right to extensive self-regulation, and that officers fought for the preservation and enhancement of traditional glory. Regarding the first factor, the military officer is considered a gentleman, is truly suited for the particular set of responsibilities which the military officer is expected to execute. As long as members of the military hierarchy consider themselves to be special because they embody the martial spirit, it is indispensable that they also consider themselves gentlemen.

In this respect it was accepted that, as the military officer lives with a selected group, he has never to worry about a man's word, because he is as good as his word. This then was the central focus around which the soldier's honour code revolved. This code regulated the soldier's entire life period. It affected his standards of self, his expectations, and even how he raised his children. In all this, the emphasis always was the importance of being able to trust the word of a fellow officer.

THE HONOUR CODE OF THE US ARMY

As a result of the My Lai incident during the Viet Nam war, the honour-code of the US Army came in for severe questioning. It will be recalled that, Maj Gen Samuel Koster, the Commander of the US Division which included the platoon led by Lieut William Calley at My Lai, had to resign after he was accused of lying by taking part in the campaign to cover up the facts about the massacre at My Lai. Koster was demoted, censored and retired in disgrace. Two years ago, West Point (the US equivalent of our NDA) was shaken by the most serious cheating scandal in its history. The scandal revolved round the honour code of the US cadet corps, which states with neither equivocation nor mercy: 'A cadet will not lie, cheat or steal, or tolerate those who do'. The 'toleration' clause includes those who know that others have cheated, but have not turned them in. For all found guilty, there is only one punishment—quick and automatic dismissal from the academy. Times may have changed and values faded, but West Point continues to rely on its uncompromising code, no matter how impossible to attain it may seem to the rest of the society.

The military honour-code may seem an anachronism and trivia, but the prime reason for the US Army having such a code is because they feel that, in battle any combat officer must always be able to rely on the word of another. In support of this it gives the following incident from Viet Nam which perhaps apocryphal, but best illustrates this. A company commander radioed one of his platoon leaders to move his unit out of a particular area. The platoon leader, deciding that his men

were too tired to stir, later radioed back that the manoeuvre had been completed—but he actually let his troop stay in place. Relying on this false statement, the company commander ordered an artillery unit to open fire in the area. The entire platoon was blasted away.

In light of Watergate and its aftermath, and the My Lai cover-up, the US Army feels that its honour-code has to be applied to the full letter. The word of one officer to another has got to be utterly reliable. One can't afford to have any doubts about somebody's word in combat. In the words of Maj Gen Berry, the present Superintendent of West Point, "The code's a statement of ideals that I think is sound. Imperfect human beings don't measure up to ideals. It's a pretty demanding code, but then the battle field is a pretty demanding place". He goes on to say that, "the West Point influence is like a drop of blue ink in the entire nation's glass of water. It isn't much in volume, but it influences the colouring of the whole glass. West Point permeates our entire national resource".

THE HONOUR CODE OF THE INDIAN ARMY

What is true of West Point is also true of the great traditions of the Indian army. If the honour-code is the archstone of West Point's stern motor—Duty, Honour, Country, the Indian army's code based on the moral interpretation of Lord Chetwood's now famous lines, is even sterner—

"The safety, honour and welfare of your country come first, always and every time.

The honour, welfare and comfort of the men you command come next.

Your own ease, comfort and safety come last, always and every time".

Upto a few years ago, we believed, that our military officer corps mirrored the nation's credo, and more secretly than publicly, they held the self-conception of standard bearers and conservators of great traditions in the changing social environment. One cannot be average and still fill such a role. The integrity of the military establishment was thus an ideal for the rest of the nation to aim at. However, today, honour and prestige, which were of a fundamental value to the pre-60s military officer, and which is still a most important dimension of self-image of the present officer, has been somewhat strained.

THE TOLERANCE FACTOR IN INTEGRITY

Of all the other reasons, the factor most responsible for the present state of our military honour and prestige is our tolerance to lack of integrity. Today this tolerance is not just endemic, but is fast reaching

epidemic proportion. I remember reading that, when Robert MacNamara first took over as the US Secretary Defence, he called all his Pentagon brass and told them "I want each one of you to take decisions all the time; the worst decision you could take is taking no decision. If 51% of your decisions are correct, you can forget about the 49% that were not, provided the latter were taken in the best interest of the nation. However, even if one of your decisions makes me believe that I was being led up the garden path, you will have to face automatic dismissal".

The same analogy was also expressed by Mr Appelby who was invited by the Govt of India as adviser on its administrative reforms. To quote from Appelby's report, he says "If you fully trust 100 of your employees, 95% will not let you down. The 5% that will let you down, will do so in any walk of life and in any strata of society. If an employee makes a mistake, you may forgive him even 10 times, if he has acted in the best interest of the organisation. If however, his intention has been malafide even once, then he must be sacked without reservations".

Unfortunately, we today do neither—we merely pay lip service to the former i.e. Trust, and tolerate the latter i.e. Lack of Integrity. In the 'honourable old days', any bank respected an officer's cheque blindly, as it fully knew that, if that cheque ever bounced, the officer would be immediately cashiered. I would like to hear from any reader of this article to tell me, as to how many cases he knows of in the last 15 years, of officers being cashiered for cashing 'rubber' cheques. I would be most surprised even if 1% of the offenders were ever brought to book for so 'trivial' an offence.

As with West Point, our own honour-code must be rigorously ingrained and enforced in our officers as an integral part of their training at the NDA. In that Institution, we seem to be more interested in forcing our cadets to know the number of steps leading upto the Sudan Hall, or the number of lights in the Science Block, or forcing a cadet to run up two floors of the barracks, don a uniform and get back in 3 minutes, the punishment for failure of any of the above may be extra drill, or the sadistic practice of doing deep knee-bends, or confinement to barracks. However, these very punishments make the cadet cut corners, and develop in him a trait of being always on the defensive, which must ultimately lead to lying and cheating. The crux of the matter however is that, although the failure to know the number of steps in the Sudan Hall is severely punished, the subsequent cover-up (or lying) is tolerated. We have also had our store of the My Lai type of cover ups during the Chinese invasion of 60s and subsequent wars, and will continue to do so in future wars unless we recognise that, in this integrity game, there can

be no compromise, no tolerance. Military honour requires the officer to play the game without reservation, for, to do otherwise would be in bad form. There must once again be a premium on an officer's word, any infringement of which must be severely dealt with.

It may always be argued that, unfortunately today we're living in an age in which the foundations of moral conduct and social order have been badly shaken. False philosophies have produced 'thought-quakes' that challenge the validity of traditional standards of truth and honour. Institutions and their leaders are scoffed at. The golden rule appears to have been debased into 'Do unto others before they do unto you'. I dare say that although the majority of officers still respect and believe in traditional military standards and guide-lines of behaviour and values as it shows in their daily dedication to their duties, however, they soon get tired, careless and indifferent—and tolerant to small lapses of cheating and lying, which may not be of much consequence in day-to-day life, but fatal in battle.

Again, we can even argue that, a thing like cheating and lying is not endemic but it's in an epidemic proportions in all our civil colleges and universities in the country—thus our military academies have lots of company when it comes to cheating. Some cite our present national moral climate as a fundamental reason for the phenomenon. They argue that, there is a morality problem in the external world, and its hard to wall it off from the military institutions.

The question to be answered is that, although certain lapses of integrity or character may be tolerated in civilian life, can they be condoned in the military, no matter how trivial they may seem to be at the moment under peace time conditions. The answer to this will naturally depend on the effect of such lapses of character when perpetuated on the battle field. History shows that, the consequences of the latter have been very grave. If we accept this, then our tolerance of such lapses in peace must be very small, and the penalty very severe.

CONCLUSION

In any form of government, in the ultimate analysis, its social and political stability hinges on its moral fibre. From time immemorial, it was always the officer corps of the armed forces, that mirrored the nation's credo. In this the former held the self-conception of standard-bearers and conservators of the nation's inherent traditions, as the military establishment was a reflection of the civilian social structure. The civilian society was therefore prepared to maintain the soldier's code of honour and prestige, by placing him on a higher pedestal than the rest of its citizens. Right upto

the end of World War II and perhaps a few years after, the soldier was able to stay on that pedestal, because he was able to maintain without tarnish his code of honour and prestige, which was of fundamental value to him, and the most important dimension of his self-image.

The above image however has since been dimmed, and the soldier is no longer looked upon as the standard-bearer of the nation's moral worth. The main reason for this appears to be that, whereas formerly although some lapses of character were accepted as normal amongst other citizens, the same was never tolerated or forgiven in a soldier. Unfortunately, today that tolerance has increased to a proportion where, a soldier's word is no longer respected without reservation, and his signature no longer honoured without question.

The soldier must again endeavour to get back to the position where, when his wife goes to a petrol pump and finds no money in her purse, the pump attendant would say "Madam, there is no need for any concern, we never worry about an army officer's account not being settled, we know the penalty for any default therein".

The author wants to acknowledge with thanks, for being allowed to use certain opinions and quote from the following :—

- a) 'What Price Honour—The West Point Scandal'—TIME magazine June '76.
- b) "The Professional Soldier"—Mr Morris Janowitz.

The Need For a Parachute Division

RAVI RIKHYE

PRESUMABLY as a reward for 2 Parachute Regiment's successful Tangail drop in 1971, Army HQ reduced the role and the size of the Indian parachute force. One of the two parachute brigades was converted to infantry, so that the Agra brigade had to affiliate all battalions, and thus greatly reduce its tactical capabilities. A Mahar parachute battalion reverted to infantry configuration. Further reversions were stopped only when the Chief of Staff changed.

No one has ever accused the Indian Army of bold and original thinking. Nonetheless, it is surprising that after the successful experience of mobile war in the 1971 Eastern Campaign, the Army should downgrade a prime element of mobile war, its parachute force.

The old, old excuse about a lack of air drop capability has been repeated till the Army accepts it as true. Yes, Iran is building up a 100 C-130 transport force that at today's prices would certainly cost more than a billion dollars. But who said we need a hundred C-130s before we launch major drops? The Indian Army is proud of its record of improvisation, so let us improvise in this important matter.

The Indian Air Force alone flies 60 Avro 748s in transport and trainer roles. Indian Airlines has more Avros. Equip the lot with paratroops doors, and 60 planes could drop 2500 men in one go. And that still leaves the An-12s, C-119s, C-47s, Otters, and Caribous.

The IAF might argue that its transport capability is already so strained that sparing 60 Avros and supporting transports is impossible. One suspects this is like the 25-squadron IAF telling the Army in 1965 that ground-support was difficult, if not impossible. In 1971, with just a few more combat squadrons, the IAF had available so much ground-support that the Army was unable to use it all. The matter is simply one of attitude: once the IAF decides the job can be done, it will be done. Cargo-convertible civil planes will, for example, make up any shortages of transport capability caused by wartime diversion of tactical transports to Army uses. This will cost some tens of crores. Surely, however

none is seriously arguing that over a three-year period this money cannot be found.

What might a parachute division look like ? It could be organised in three brigade groups with a controlling division HQ. Each brigade group could have three light battalions, each of 650 men, a field regiment of 400 men, a HQ element of 50 men, a signal company of 100 men, an engineer squadron of 100 men, and a support company of 300 men, for a total of 2900 men. The division HQ could have 300 men, mainly HQ and signal troops. The whole division will have 9000 men. Most of a brigade will fit easily in 60 Avros; the real problem will be heavy lift for vehicles and equipment. On strict scales, possibly 20 An-12s and 10-15 C-119s could suffice. An An-12 should, for example, be able to drop five jeeps or three 1-ton trucks. A C-119 can drop about 10 tons with ease.

Taking the 1971 Western Campaign as an example, it is obvious how large-scale parachute drops could help us in a future war.

(1) In the 11 Division sector, starting operations with a brigade drop at Chor would have enabled us to reach this important intermediate target within three days. A subsequent drop further to the west would have given us a good chance of reaching the outskirts of Hyderabad. Similarly, in the 12 Division sector, a brigade drop near Rahim Yar Khan would have given us a good chance of cutting the Karachi-Lahore railway.

(2) In the Fazilka sector, we were following a defensive strategy, but a brigade drop behind the tenacious Pakistani 105 Brigade would have cleared the way for an attack by our 1 Armoured Division. And certainly such a drop would have prevented Pakistan II Corps from attacking. The diversion of some 33 Division elements to Sind was not enough to weaken this corps, which was still stronger than our forces, and could have attacked with a good chance of success.

(3) In the main XI Corps sector, India deployed more than the equivalent of three divisions whereas Pakistan deployed 2 1/3rd divisions. A brigade drop against Pakistan IV Corps would have vitiated Pakistan's dense canal defences and given India the chance to make some real gains here.

(4) In the Sialkot sector, if India had been able to drop a brigade on each of two days behind Pakistan I Corps frontier defences, by ceasefire we would have had a good chance of fighting along the Jhelum-Gujarat-Gujranwala axis instead of being outside Shakergarh. Similarly, a drop behind Pakistan 23 Division would not only have broken up its attack at Chamb, but also in all probability forced it to withdraw, exposing the flank of Pakistan 15 Division out of Sialkot. This could have offered us the possibility of turning Pakistan's entire defences in the sector and moving north to outflank its Kashmir defences.

(5) In such a turning movement, brigade drops ahead of advancing Indian forces would have dislocated Pakistan's defence very quickly, enabling us to make serious gains in western Kashmir.

In the Eastern sector, had three two-battalion drops being conducted, the war might have ended days earlier. Pakistan could not have concentrated more than two battalions against any brigade drop, as its forces were widely dispersed; any such concentration would have opened the way for our forces to advance frontally.

While the potential of large-scale parachute drops is obvious, many problems remain to be worked out before the possibilities are fully exploited. Some of these problems are considered here.

First, should our aim in these operations be strategic or tactical? Crete and Arnhem aimed for strategic gains, Tangail aimed for tactical gains. Clearly the first offers far vaster possibilities for success in war, but it requires a complete reorientation of our Army towards mobile warfare. This would appear to be asking a bit much at this stage. The more ambitious the operation, the greater chance of failure, and the more likelihood that the whole concept will be wrong discredited, as happened to the crack German parachute forces after Crete. Tactical operations carry the risk of heavy casualties, because the effect of surprise is less extensive than in strategic operations; gains in successful operations will be limited. It would appear that tactical drops would be more suited to our way of working.

Second, how do we propose to hold off enemy armour and aircraft? In the past, these have been the greatest threat to an airborne bridgehead. Here we must count on surprise as being the greatest single factor in minimising losses: the greater the surprise, the more time the enemy requires to concentrate his heavy forces, and the more time we have for the link-up. Nonetheless, technology provides us with possibilities not available in the past. Anti-tank and anti-aircraft missiles enable the paratroopers to hold off the enemy better than was true in the past.

Third, parachute operations do not imply that every single man and piece of equipment has to be flown to the bridgehead. Today there are available short-take-off-and-landing aircraft like our Caribou and Otter. These use unprepared strips a few hundred meters long, and can prove of great use to reinforce the air-dropped element. Then, it is possible to send in, say, two battalions to seize an airfield by drop, and fly in everyone else. The advantage here is that if the airfield thus seized is a major one, then heavy civilian transports like Boeing 707s, 737 and 747s, and the Airbus can be used to bring in reinforcements. These can be standard infantry, not just paratroopers. (Think of landing two divisions at Lahore !

Fourth, in all airborne operations, the link-up remains a major problem. In most conditions, even with surprise, it is unreasonable to expect a parachute brigade to fight on for more than three days inside Pakistan, because Pakistan can concentrate at least a division against the brigade. Against such odds, the mere fact of the paratroopers being shock units cannot compensate for the slowness of the link-up. Arnhem 1944 is the classic case in point : the British 1 Airborne Division took 70% casualties in its epic defence of the Dutch town, losses rarely seen after the American Civil War. This sacrifice was to no avail as the British Guards Armoured Division, leading three British corps, could not effect the link-up in time.

For the link-up, however, technology has provided a weapon not available in the last world war, the all-weather helicopter. The helicopter can be used to leapfrog enemy defences and thus enable faster movement. 30 Mi-8s could easily take two rifle brigades over the Ichogal in one day. No one will be willing to give much for the chances of the Pakistani Corps commander out of Lahore if he has to face a frontal attack by three divisions, a leapfrogging by two brigades, and a rear drop by a parachute brigade. Conversely, a warning : dont assume we can hold Amritsar for long if a two-battalion Pakistani Ranger drop closes the Beas crossings against us while the Pakistani Puma/Chinook force jumps two brigades over our frontier defences in conjunction with a corps frontal attack.

The helicopter has another use too. Equip it with nap-of-the-earth blind-flying equipment, and it can infiltrate enemy territory at night. Ten Chinooks with such equipment could easily cost Rs 50-crores, but in a single sortie could put 40-tons of supplies and 250 troops into the bridgehead, while taking out 200 casualties, and accomplish this in any weather. This kind of reinforcement added to normal clear-weather reinforcement should enable the bridgehead to hold on longer than it might otherwise. Admittedly I personally would not like to fly as a passenger on such a sortie. During the Vietnam War, however, American Search and Rescue helicopters routinely penetrated upto 200-miles into enemy-held territory to get out downed airmen. If they can do it, we can do it.

Why have a division when most of the operations will be conducted by brigade groups ? Because many opportunities will arise when a division HQ will be useful, not only to control two or more parachute brigades, but also to control other troops helicoptered or airlifted in. Also important, a division will give the paratroopers more political clout in the intra-Army battle—which many a cynic has asserted is the real war.

The inherent potential of our present transport and helicopter forces should not obscure the real need to modernise these elements. Suggested here is just a starting point. For one thing, in any Army the size of ours, two parachute divisions are about the minimum requirement. Remember that we also face China and have a vast sea frontier studded with islands. A powerful airborne force could prove invaluable should some day the Government decide on a more active foreign policy. A division lift is decidedly useful, and for this about 100 medium tactical transports are needed. Similarly, we need about 100 medium transport helicopters to provide simultaneous lift for a brigade.

One way of affording 100 medium transports would be to set up a civil haul airline for domestic cargo lift to supplement the Air Force's lift. During peace, the transports could make a vital contribution to development. During war, they could offer the possibility of brilliant, decisive campaigns.

Just as India is still to find its Guderian, it must yet wait for its Student. Let us hope we do not have to wait long.

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Hitler : A Great Captain ?

BRIGADIER DE HAYDE. MVC

THE primary purpose of the study of military history is to develop an understanding of the art of leadership, a subject of vast importance to every potential leader in the nation and it is unfortunate that this is generally relegated to uniformed class-rooms alone. It is interesting to speculate that had Hitler won the Second World War would history have accorded him the title 'Great Captain' ?

There is a finality about war that compels a changing of destinies and dictates the shape of the world to come. The ultimate testing ground of military leadership is the field of war yet, more important, is that heads of state are put to the supreme test in their overall conduct of such events, so conclusive that the very integrity of their nations are at stake. It has so happened that during most of history, heads of state who became engaged in warfare were soldier kings and it has naturally followed that military history, as opposed to general history, has recorded their deeds and accorded the exceptional among them the title 'Great Captain'. Because of the very nature of war the winning of battles and their feats of conquests have high-lighted the performance of the Great Captains, yet they were in fact men of distinct individual genius possessing outstanding qualities of leadership, with an inherent ability to extract every bit of value out of human endeavour. They could have achieved equally great results had a better field for the exercise of their talents existed. Unlike most of them, Hitler was not born to rule, he rose by sheer individual brilliance. He took a defeated nation and made it the overlord of all Europe. How much of a leader was Hitler and what was the stature of his undoubted genius. Did he have qualities of intellect and character in such abundance as to merit a place alongside Alexander the Great, Hannibal, Julius Caesar, Genghis Khan, Gustavus Adolphus, Frederick the Great and Napoleon ?

It was Frederick the Great who gifted the German people with the concept of a unified Germanic nationhood, after which Germany moved steadily towards domination of Europe during the nineteenth century. After Austria, France became the main contender and thereby her traditional enemy and at the turn of the century was still considered to be

the strongest military power on the continent in spite of the severe reverses of the 1870 war. But Germany had her measure and the contest which started in 1914 was to be final reckoning, except that Germany failed to correctly assess the balance of power policy of Great Britain and the capacity of that nation to weigh the scales in favour of her ally. Militarily, Germany lost that war but at the time of armistice her armies stood everywhere on foreign soil so the German people could never rightly understand why the terms forced on them by the Versailles Treaty and the Paris Peace Conference were so abjectly final.

The world would probably not have heard of Adolph Hitler, an Austrian, had he not fallen in with the German people. Like most politicians, he had no chosen profession and joined the German army in the ranks because it gave him something to do, like many an Irishman who joins the British army. But there is no doubting that Hitler himself, like Napoleon, felt that he was not in the normal run of human being and was destined for greatness in some form. It is possible that even in the act of joining the German army he was on his search for a vehicle. During the 1914-18 great war, he displayed the first essential personal quality of bravery, was wounded in battle and awarded the Iron Cross. Like Caesar, he was undoubtedly born into the right times because it was soon apparent that Germany was to need a single strong hand. While the strictures of the Versailles Treaty and the Paris Peace talks had plunged the German people into a state of understandable gloom, the German General Staff, supposedly dissolved but as always the moving spirit to the German characteristic of aggression, quietly carried on with the unspoken assumption that they would try again, except that next time they would make a better job of it. Though jobless and dispirited like everyone else, Hitler even at this stage probably sensed the inevitable re-emergence of Germanic pomp, glory and power and moved towards his share in it by joining a minor political organisation. His natural rhetoric and tremendous organisational ability not only soon captured for himself the position of party leader but, grasping within weeks the high potential that the Nazis offered, both to himself and possibly to the nation, also raised the party to the level of a strong political power. He suddenly emerged as a likely man capable of giving the German people what they wanted, secure and dynamic leadership in an uncertain world. Upto this time, Germans had been subjected to the influence of industrialists, imperialists, nationalists, conservatives, communists, anti-communists, sundry political parties and the onrushing demoralisation of the depression. The genius of Hitler was that he was able to isolate the communists, while getting all the other factions moving towards the meeting of his ends, in the belief that they could later put him in his place. He was

able to win great public appeal for his Nazi party. He pandered to German love for pageantry and colour by the elaborate flag waving and eye-catching uniforms that went with Nazi parades and conventions and chose a symbol, a red flag with a white disc in the middle on which was imprinted the Swastika, suggestive of violence and offering a feeling of power which was like elixir after the years of frustration following on from Versailles. The German General Staff had been clever enough to manoeuvre a politician into signing the armistice in 1918 so their image with the people remained completely untarnished and every German now watched these two symbols of power, the army and the Nazis, with rising interest and hope. Hitler made a miscalculation, carried away by outward signs of mass support, to attempt a premature take-over by force, which landed him in jail on a five year sentence. But he was out after one year with a new plan of action spelt out in his *Mein Kampf*. His election to the Reichstag, his blending of diplomacy and arm twisting and his nomination to Chancellor in spite of his representatives being a minority were achievements that one would only associate with a seasoned politician. Suddenly things began to happen, representatives disappeared, others were beaten up, some had their property burnt down or attacked by hoodlums and Hitler managed to blame it all on the Communists, who had to take the rap for the burning of the Reichstag while he was granted emergency style personal powers. Events followed with breath-taking speed supported by the mass hysteria of a population gone berserk. While the public was kept busy with orgies against Jews and communists, Hitler dissolved state and local governments, sent the unions packing, curtailed freedoms of the press, assembly and private property, overhauled the judiciary and civil services and finally, when he found their presence and strength embarrassing he turned on his own private army and carried out a massive purge. Only he and the General Staff remained, himself being now President and Chancellor and at the pinnacle of power, the German people his slaves since he had declared them to be the master race and the General Staff unreservedly sworn in allegiance to him. By any standards, Hitler's rise to national leadership had been meteoric, he had attained the figure of a gigantic personality in a short ten years by displaying remorseless diplomacy and force and an outstanding ability as an organiser. Behind his success were not these qualities alone as he had shown a quite unexpected ability to make a study of cause and effect, the work of an intellectual, in his *Mein Kampf*. Like Napoleon, he understood that he could only assume power with the consent and support of the people. Further, very much in the traditions of a Gustavus Adolphus, he was soon to display the practical ability to convert theoretical concepts to action.

The terms of the Versailles Treaty were designed to ensure that the Germans would not rise again to threaten world peace but a new power was bothering the western world, Russia. Hitler played on this fear and trumpeted the evils of communism and Russian bolshevism to further their pre-occupation to his advantage, while the Russian had too many problems of their own to pay much attention to the crash of jackboots which their already perceptive intelligence reported to be on the move. Hitler's next stop, like that of Frederick the Great, was to bring all Germanic races under his flag before furthering his adventures. To test the supervising powers, he withdrew Germany from the League of Nations and the Disarmament Conference, when there was no reaction he began to openly rearm. He announced a policy of non-aggression and by signing a pact with Poland caused that nation to strengthen its frontiers with Russia while her border with Germany lay defenceless. France would have liked to forget its commitment under the Versailles Treaty to hold a plebiscite in the Saar, but for Hitler, after which a few million Germans were back in the fold. With this he stated, "we have no further territorial claims on France" and that country turned its attention elsewhere. He continued to trumpet the dangers of communism, announced universal conscription as a necessary measure of security and got Britain to shed some of her naval tonnage, sanctioned under the limitations to military power at the Paris Peace Conference, to Germany. Hitler was now ready for his first gamble, the re-occupation of the Rhineland. The German army was nowhere near ready for a fight and the General Staff came closest ever to imposing its veto. German troops moved in with cancellation orders in their pockets in case France had showed resistance but the very boldness of the event robbed the future allies of initiative in the matter, a characteristic now becoming evident in Hitler that was common to all the Great Captains. More millions came to the German fold and it was the last time the General Staff were to make a stand against him. To justify his own masquerade in German uniform and to bring more power to the nation, Hitler had long since planned the take-over of Austria by its own Nazi party and had held his hand only because of possible Italian intervention. He was to learn at a much later date that Mussolini was only a sheep in wolf's clothing. Against the advice of both foreign office and General Staff, he launched the anchluss and brought in another six and a half million people with their abundance of iron and timber. Hitler now made his final move to consolidate the domestic front and removed all chances of a possible alternative to his personal rule, he dismissed the old school of General Staff, brought in Keitel and Jodl and nominated himself Supreme Commander.

Hitler had so far carried his bluffs and could possibly have been check-mated by a show of force. Hereafter it would be too late and he would even be prepared to go to war, if absolutely necessary and if he could obtain the correct moment. The German army and its galaxy of outstanding generals had fairly clear concepts of how the next war would be fought by land forces. Guderian had developed and trained strong armoured forces for mobile warfare. But Hitler had already shown himself to be a man of considerable intellect, he was also a student of military history as his training directives at this time show, "I shall never start a war without the certainty that a demoralized enemy will succumb to the first stroke of a single gigantic attack". It was he who seems to have matched the complementing strengths of armour and air that the world was to come to know as Blitzkrieg. The move of armour alone during the Austrian anschluss had revealed the possibility of too many hold-ups, now integrated ground/air forces were got ready and Hitler moved in on Czechoslovakia. As usual he had a cause, the alleged maltreatment of the minorities of German descent. He provoked internal dissension and carried out extensive manoeuvres on the Czech border, holding out to the Western powers that he was prepared to go to war yet backing down on the first show of a confrontation, only to get back to the same position a short while later. Quite overcome by their own initial temerity at showing Hitler the sword, Britain and France found it expedient to advise the Czech Prime Minister to negotiate. He resigned and the German army entered those parts of Czechoslovakia occupied by nationals of German descent. This was just the first move, within a few weeks the whole of the country had been taken over bringing to Germany more millions, a powerful mechanised modern army and the excellent Skoda munitions works. It was a magnificent bluff, the world was aghast, the German people elated beyond measure and the entire General Staff finally convinced that this man was worthy of their obedience.

Now it was the turn of Poland. Hitler had become mightier and was yet to test his new machine of war, the blitzkrieg; before turning on the major enemy, France. The western powers finally woke up to the inevitability of war but Hitler correctly divined that they would not be ready to take the offensive immediately and that he would be able to choose his own moment later. This time there was no subtlety about his methods, the operation was launched before most Poles were even aware that war had been declared, 'deception, fraud, surprise and overwhelming force'. The campaign was swift, overwhelming and violent and it was all over in five weeks, an operation that all leading military brains of that day would not have believed possible in less than a year. Britain and France declared war but there followed that period called the

phoney war because the 'first stroke of his single gigantic attack' had left Hitler's enemies bewildered and not too sure what to do next. Britain sent her expeditionary force across to France but as the spectre of Genghis Khan had induced a paralysis in those along his line of march stemming from a belief that resistance was sheer folly so also that of Hitler compelled the Netherlands and Belgium to adopt a posture of hopeless passivity and these nations refused to even consider a defensive arrangement with France and Britain though the lessons of the first war made their embroilment unquestionably inevitable.

Hitler made no excuses for Denmark, Norway and Sweden, he just took them over, but while this was happening he was busy with the equivalent of Hannibal's making alliances with tribes, along the way, the native fifth columnists and espionage elements of the countries he was yet to attack. The operation against Holland and Belgium was like a one-sided tennis match, yet it also put the British and French defence lines out of array and the magnitude of the German devastation of those armies during the Ardennes offensive and the conquest of France is history. So over-powering was the moral ascendancy achieved by Hitler and the Germans over the French that a seasoned campaigner like Petain was forced to sue for whatever terms were laid down by the conqueror, all within a few weeks from the start of the German offensive. The world had seen nothing like it since the whirlwind rampaging of the Mongolian army. Hungary, Rumania and Bulgaria were quick to ally themselves with Germany and the magic wand of conquest was waved over the Balkans right down to Crete. With this, Germany had full dominion from the northern tip of Norway to the south western ports of France with Spain allied in a sort of way and French North Africa held firmly under German supervision. Hitler stood on the threshold of fame as a great conqueror and leader of a resurgent Germany. Had he remained satisfied with these achievements, he could have changed the shape of today's world. England was isolated and insulated on her little island, the Battle of Britain was not necessary; America was yet unprovoked, in fact her Nazi party could still draw a lot of admiration for Hitler, and the general trend of political utterances fell around the maxim that "No sacrifice made by others is too great for the cause of peace". Hitler could have unilaterally declared his boundaries, the conflict would have died out and Russia would have been contained. There would have been some struggles for independence but Hitler could have dealt with these as Russia does today. The great nations of the world would probably have been Germany, USA and Russia, in that order, with an emerging China. Hitler would have certainly had the status of a Great Captain.

The General Staff had always viewed France as the main enemy and military planning had not included operations in Russia. On the other hand, Hitler, firmly declared that the destruction of bolshevik Russia was his final aim and within the directive given by him, to destroy the Russian army and to capture Leningrad, Moscow and the Ukraine, the General Staff supported the invasion. The blitzkrieg of Russia was a total success and her army was in the main destroyed but, due to tactical interference by Hitler, conquests fell just short of Leningrad and Moscow. The General Staff now favoured a defensive wall down the length of Russia which, though left with untold reserves of manpower but very limited warlike resources, that nation would have found well nigh impossible to breach anywhere in the near future. Festung Europa was factually now in existence and Hitler could again have established an almost impregnable domain stretching from the East along the Russian line to the west European coast. Germany had the technical capability to rapidly consolidate the potential strength now at her disposal and to integrate the economies of the captured nations. Her power and authority had never reached such a height before, nor it is likely to ever again. The great powers today would have been Germany and USA. Hitler had entered the field as a nonentity in 1919; cast among a despondent and demoralized people whose resources for earning a living had been heavily appropriated. By 1923, he was leader of the Nazi party, by 1933 Chancellor of Germany. By 1938, Europe stood in fear and trembling before the spectre of the Swastika and just three years later, in December 1941, there was not a single visible opponent in the field. It is inconceivable that anyone but a genius of organisation and a leader of outstanding personal qualities could have so dynamically shaped a new destiny for Germany. Leaving Hitler as the leader of such a Germany for the moment, let us review briefly the achievements of the Great Captains.

Alexander the Great. Even before his father died, Alexander remarked, "Persia belongs to the man who has the courage to attack it." Into this statement can be read his intention to some day put a stop to the internecine slaughter of Greek by Greek and to lead them to war and as a nation of conquerors, the first example in history of the upsurge of a nation. When his time came, he left a homeland which was burdened with debt and gathered to Greece the enormous wealth of the world then known to him, marching his armies 19,000 miles in a ten year saga of conquest. Alexander provides the first example of grand strategy, though Persia was his ultimate objective, he spent many preliminary years in ensuring the protection of his flanks and rear by conquest of the Mediterranean coast and Egypt. Lower in the order of strategy, he always sought out the enemy's army in the field and was

not distracted by rich provinces and cities. As a leader, he was immensely ingenuous and won battles fought on land or on sea, by siege and over swollen rivers, burning deserts and high mountains, nothing deterred him and he was always at the focal point of danger. He had more scars on his body than any soldier in his army, as a man he could hold his head high and the men loved him. He converted the massive seige engine into the equivalent of modern field artillery by mounting these on wagons, example of an inventive mind. Sound in statesmanship he said, "Military victory, unless followed by acceptable political settlement, is an exercise in futility," and he set up governors of conquered territories from among their own people. He gave Egypt the Ptolemy dynasty and its long line of Pharaohs down to Cleopatra. As a tactician, even though he fought all his major battles with a numerical inferiority of five to one, his first rule was to seize the initiative. Alexander gives to military history two classic examples, one of a simple plan encompassing all the principles of war at the Battle of Arbela: the other an attack of a river line at the Battle of the Hydaspes. Though outnumbered 47,000 to 1,000,000 at Arbala, he massed his strength against a weak centre, broke through and scattered one wing. When the enemy fled the field, he persued them to the extreme limit of horse and human being. Again vastly inferior at Hydaspes and faced with the novelty of elephants, he immediately forced Porus into a defensive posture and deceived him as to his intentions, timing and place for crossing the river. He was strong in cavalry so he used this as the ultimate weapon, by attacking the flanks he forced Porus to turn his elephants and opened them to attack from his infantry held back for the purpose. The battle ended with the pursuit and complete destruction of Porus' army. Alexander above all was a leader by personal example, he was outstandingly fit and an agile and competent warrior. He contracted a contagious disease and died while still campaigning.

How does Hitler compare with Alexander. He too brought to a nation loaded with debt vast resources and wealth and an examination of any map will reveal that he stands next only to Genghis Khan in the immensity of his conquests. Like Alexander, Hitler was mentally committed to the offensive over defence and all his victories were obtained in the face of a quite adverse relative strength. With the occupation of all the conquered countries, he was holding in subjugation peoples twice in number to that of Germany and Austria combined. He took a leaf out of Alexander's book by installing Petain to govern France but forgot the lesson of following military victories with political solutions when it came to other occupied nations. As a strategist, Hitler proved every bit the equal of Alexander; he strengthened Germany right up to the occuption of Czechoslovakia without a shot being fired; when he

attacked in the west his eastern flank with Russia was secure by treaty and when he attacked Russia he was secure on all flanks and rear. Where Alexander was fit, Hitler was afflicted by a terrible mental disease which was responsible for his loss of strategic grip in the second phase of the war.

Hannibal inherited his army and purpose from his father and it is sometimes felt that had this not been so we might not have heard of him as a Great Captain. It is true that Hasdrubal had differed with the Senate of Carthage on the manner in which the war with Rome should be prosecuted and had set off with his own army for the conquest of what is now known as Portugal and Spain. His son was his most reliable and competent general and therefore naturally assumed his mantle when he died. But then Hannibal really came into his own. Where his father was content to conquer places distant from Rome, Hannibal conceived an attack on powerful Rome itself with the intention of drawing Roman ambitions away from his native land, to deny it the conquest of Carthage. He was able to match this high ambition with commensurate command, organisational and outstanding strategical and tactical abilities. He put the matter fair and square to his troops and eliminated all who did not care for the venture and the fact that he could lead Africans and elephants over the frozen winter heights of the Alps would alone have guaranteed him his place in history. The Roman armies in Italy were withdrawn to winter quarters at the time, Hannibal having made shrewd alliances with tribes along the way to deny information of his passage. To appreciate what followed, one must understand that Roman power was waxing, the Roman was a better soldier, better equipped and on his home ground while the Carthaginians had no base of supplies, no reserves and no reinforcements. Yet during the next thirteen years, Hannibal not only defeated a galaxy of Roman generals over the length and breadth of Italy but also destroyed their armies with forces inferior by at times three to one. Such was his moral ascendancy, that after some time none wished to fight him, the strenuous efforts to this end by one General Fabius giving rise to the first coined military phrase 'Fabian tactics'. The Battle of Trasimene is an example of sheer intellectual ability in assessing what will happen from an adopted course of action, he set a trap, the Roman walked into it and 42,000 Carthaginians utterly destroyed 70,000 Romans. A victory of exactly similar dimension was won at Cannae by application of superior intellect, a simple plan and the personal leadership of Hannibal at the critical point. Throughout their time in Italy the Carthaginians were never beaten and their morale never wavered, a measure of their intense devotion to Hannibal. His is the first example of active leadership supplying an indomitable moral force. It stands to the credit of the Roman nation and its political

leadership that their will to resist was never destroyed and Hannibal just had to go back to Carthage in the end.

What similarities are there common to Hannibal and Hitler? The most outstanding is that of supplying a moral force to his army and people; it was only such a force that could keep the Carthaginians fighting in Italy for thirteen years as much as this force motivated the German people firstly to rise en masse at the call of Hitler and then to fight so whole-heartedly against what would appear on the face to be overwhelming odds. It was this indomitable moral face which was later to keep the German people going right to the bitter end even after it was abundantly clear that all was lost. Then, as Hannibal was not impressed by the so-called better Roman soldier, so also Hitler did not hesitate to plan an aggression against the thought-to-be strong military power. In fact, he went one step further and took on all comers and in no time at all obtained a complete and mastering moral ascendancy. Hitler's intellectual grasp was equally amazing, from the moment he took his first gamble with re-occupation of the Rhineland, all his guesses proved correct in the event. As Hannibal made shrewd alliances along the way, Hitler's concept of such an arrangement was the fifth-column, no doubt already a well handled method of espionage but given the finer touches by a master.

Julius Caesar, had those qualities which, if possessed by an army general, would cause many a politician to sit up nights. He was not a soldier and became a military leader through circumstances yet it was his brilliant soldiering that made him great. He was fortunate to be born into the right times as Rome reached the zenith of its power with no strong hand at the helm, a jealous Senate ensuring that no single individual became too powerful and keeping the formidable Roman army under tight political rein. It was in those circumstances that a not too young Caesar was made a Proconsul, one empowered with civil administrative and military responsibilities with a force of four legions under command. It was a natural step from military administrator to conqueror and Caesar was soon well on his way to the conquests of the regions today known as France, Belgium, Luxembourg, Holland and Germany west of the Rhine, setting up an empire that was to be held for four hundred years. Caesar taught himself as he went along, displaying an amazing capacity to learn from his own and others mistakes. He never repeated a mistake and through his own natural ability he emerged as a great general. He found in the Roman soldier a perfect tool, well trained, professional, disciplined, obedient, immune to hardships and meticulous in carrying out orders. Caesar followed the same code, this and his personal courage and ability to

inspire men soon established a bond of mutual confidence between him and the army, which trusted him and felt that he was worthy of being obeyed. When an alarmed Senate summoned him to Rome, he marched with his army and there followed the civil war which was to make him more famous as a soldier. By now he was sound in battle-field tactics, use of intelligence, mobility, boldness and a perfect sense of timing. At his first civil war battle, Lerida, he manoeuvred a larger force into an isolated position, to surrender and join his own army. He once suffered a serious reverse and when everyone else thought that all was lost, he inspired his men to overcome, appointed new leaders to inject a fresh spirit, drew the enemy out into the plains where he could manoeuvre and defeated them by better tactics. His victory at Pharsalus was epic in terms of relative strength and casualties, losing just 230 killed to Pompey's 15,000 casualties. Julius Caesar finally dominated Rome which in turn dominated all Europe and the Mediterranean. Caesar understood the requirement for a sound professional army and his is the first example of the understanding of morale, he knew the precise sentiments of his troops and despite years of arduous campaigning there was never a mutiny or discontent. His greatest personal quality was that he never accepted defeat. Caesar's later campaigns in Britain tend to play down his military talents but it must be remembered that by then he was an old man.

Hitler had more similarities in circumstances than characteristics with Caesar. They were both born into the right times, when a strong nation waxing in power needed the right kind of leadership, and both rose to the position of virtual emperor through political contest. Strangely enough, they both conquered the same territories and had empires of almost the same size. Both found in the Roman and German soldier a perfect military tool, the difference being that Caesar fought and grew with the Roman army and was his own general while Hitler never directly entered the field, nevertheless he showed his army that he was a man like Caesar worthy of obedience and inspired his soldiers every bit as much. About the only other common human characteristic between Hitler and Caesar was that neither of them ever gave up, though in this Caesar was more altruistic, otherwise there were wide differences; Caesar had a love for the Roman people, not so Hitler for the Germans; Caesar blamed no one else for his mistakes while Hitler blamed everybody but himself; finally, Hitler had not the slightest understanding of morale.

Genghis Khan. Genghis Khan is alone among his fellow Captains in that he raised a nation and an army from scratch and went on to form an empire that spread all over the continent which later on gave the world Timur and Babur, and whose last vestiges only disappeared in

1555 when Ivan the Terrible of Russia wrenched away his eastern territories. In 1162, the year Genghis Khan was born, a Mongol's life was that he fought to live, his tribe fought other tribes for sheer survival, every Mongol was already highly skilled in the use of weapons endurance and fortitude. Genghis Khan brought each tribe under his banner by the slow process of defeat and formed a nation of warriors in which no male was a non-combatant and the only unfit were the wounded, and then some. The Mongol army has been the only all cavalry force the world has ever known, supreme in organisation, skill and discipline, led by a galaxy of generals who won their place by ability and valour on the battle-field, every man cast in the mould of the Great Khan. Imagine for a moment, an empire that laterally encompassed Eastern Europe, right across Asia to the Pacific Ocean, and vertically the middle regions of present day USSR down to northern India. One gets an idea of the immensity both of the Mongolian empire and of the man who created it. Comprehend that this was achieved by an army of no more than 235,000 at any one time, produced out of a population of just over one million, and that it subdued thirty nations and killed more than eighteen million people, one gets an idea of the fighting efficiency of the Mongolian army which accomplished military feats that even a modern army would find difficult to duplicate. The Mongols achieved all this because of quality, and not quantity, by complete and absolute organisation under the genius of Genghis Khan and by simplicity in planning and execution. The aim of every engagement was complete destruction, rendered necessary for the security of the force, leaving vast areas on the flanks and rear uninhabited. To do this, columns swarmed all over the countryside in a swath of destruction and combined for major engagements by sheer mobility and an unbelievable system of communication. Tactics were uncomplicated, while one column held the enemy from the front another got on to his communications and rear but, in the final analysis, victories were gained through ruthless fighting efficiency, so ruthless in fact that within six days the city of Kiev ceased to exist. Mobility was also their means for obtaining strategical surprise; during the conquest of Hungary the king of that country summoned a council of war when he heard of the Mongol approach, but they moving two hundred miles in three days were already on the other banks of the Danube when the council assembled. Genghis Khan set up a way of life for his people, he brought home to Mongolia learned men, women, craftsmen and slaves and his Yassa ran writ all over the vast Mongolian domain for more than two centuries. He died an old man but still in the saddle and his empire continued to expand,

Hitler was every bit as ruthless and lacking in compassion as Genghis Khan and he had at his disposal an equally efficient machine of destruction. He too formed almost the entire German people into a massive army, in one uniform or the other. The German army alone has come close to emulating the scale of conquest and bloodshed of the terrible Mongols though much of it was not on the battle field. There is similarity in an almost all cavalry force, the simultaneous immensity of successful warfare over large areas arising out of ruthless fighting efficiency, fire power, communication and concentration. Equally, the aim of every engagement was complete destruction, the battles won under Hitler's direction match in decisiveness anything the world has ever known. It is a coincidence that at Kiev again, four German armies destroyed ten Russian armies, captured 66,500 prisoners, almost four thousand guns and one thousand armoured fighting vehicles, in addition to securing the Ukraine. It would be unfair to say that this was because Hitler was served by an army that was naturally outstanding, the fact is that he understood the tremendous potential that lay behind discipline and training, characteristics common to both the Mongol army and the German, and he pushed the people and army of Germany to limits of achievements, and later on also of endurance, that have few parallels. Hitler was clear in his directives, in keeping with all the teachings on war. It was within his reach, in December 1941 to set up a German empire as forbidding and indestructible as the Mongolian. The spectre of the Swastika was every bit as alarming as that of the Yaktails and anyone looking at a picture of Hitler would see in the reincarnation of all that was evil in Genghis Khan with most of his better qualities subtracted.

Gustavus Adolphus. The Great Captains so far named have at one time or another been mentioned even while we were at school whereas it often comes as a surprise to many to hear of one called Gustavus Adolphus. A new weapon revolutionises tactics, as happened when the machine gun made its appearance in the first world war. When gunpowder was adapted to military use, it brought about a change from the bow and catapult to the rifle and cannon. In course of time armies would probably have adjusted to their use but it required an intellectual to make the transition more drastic and such a dynamic one was Gustavus Adolphus. While it was the fashion to make an army as large as possible and arm it in every and any way, Gustavus went for selective recruitment, specialized training and the maximum effect of modern weapons by use of integrated combat teams of infantry, artillery and cavalry. He improved the musket and gun and clearly defined

the tactics for their use. He continually analysed and improved, much as our inspectorates exist for today, and introduced so many innovations and improvements that his armies were always well ahead of their contemporaries. We know that Alexander had read the works of Xenophon, the first recorded military historian, and that Julius Caesar was a voracious reader but Gustavus first set the trend for a study of cause and effect to record and apply them. We talk today of the norms of tactical doctrine and may be do not realize that it was he who gave us the first lessons. We read the works of Jomini, Clausewitz, Liddell Hart and others and study their application by the practical masters of warfare but in Gustavus there was one who was both the theoretician and the fighting man. During eighteen years of warfare, he fought six major campaigns and won the famous battles of Breitenfeld and Lutzen against two of the redoubtable generals of the day, Tilly and Wallenstein, and through his military accomplishments Sweden was able to conclude advantageous peace treaties with her opponents. Gustavus was not present to see the culmination of his efforts as he was mortally wounded at Lutzen. He was only 35 when he died and had he lived longer there is no doubt that he would have preceded all as a writer on military strategy.

Like Gustavus, Hitler too had new weapons for innovations. Much separate military thought had been given on both sides to use of armour in mass and the development of fighter aircraft but no one had visualized combat teams of aircraft and tanks as used in blitzkrieg. It is inconceivable that Goering would have got together with the General Staff on this and the credit must go to Hitler. Hitler also went for specialized training and select groups but in a different manner. The enormous contribution of individuals like Skorzeny and special task forces such as those who dropped among the advancing Americans as also the high level performance of Nazi trained espionage teams show a powerful brain behind each concept. Hitler was undoubtedly an intellectual, capable of applying cause to effect and converting theory into practice as he did with *Mein Kampf* and the conquest of all Europe.

Frederick the Great. Europe probably failed to see in the Prussians under Frederick the Great, the harbinger of a German might that was to fructify under the iron hand of Bismarck, to menace the world under Kaiser Wilhelm and to reach its zenith under the evil genius of Hitler. Frederick first broke Prussia away from vassalage to the Austrian empire and declared it an independent nation. He then brought in more Germanic people with the acquisition of Silesia and proceeded to defend his country against external aggression. Probably goaded

more by territorial and personal ambitions, his enemies tried to subdue him but the genius of Frederick is that a new, powerful Prussia (Germany) emerged regardless of their best efforts. His opponents were Austria, Russia, France, Sweden and Saxony, they were all at war with him yet he never allowed them to fight him at the same time. He fought the Austrians at Prague in August 1757 and in the same year the French at Rossbach in November, the Austrians again at Leuthen in December and finally the Russians twice at Kustrin in 1758 and Kunersdorf in early 1759. He succeeded in isolating his foes by masterly resolution to always dictate the terms of battle, there was not a single instance when he did not take the initiative, even when he had to pick up the remnants of an army thoroughly defeated in Silesia while he was away fighting the French and with these to win the epic battle of Leuthen, a master-piece. Following the trend set by Gustavus Adolphus, Frederick was an avid student of military history, as seen when he used the same technique at Leuthen as Epaminondas at the battle of Leuctra. Frederick the Great and Gustavus are alone among the Great Captains in that each was not a conqueror, yet Frederick's title to greatness is undisputed for the manner in which he enabled his newly formed nation to survive against almost insurmountable odds and an almost hopeless strategical situation. He imbued the German people with that spirit which was to be the final downfall of Napoleon and convinced them that discipline and thorough training could overcome the greatest handicaps. With an army of 150,000 derived out of a population of only five million he consistently defeated the combined opposition of over 450,000 derived from a total population exceeding 100 million and wore them down until each nation separately sought peace. His innovations were boundless in trying to preserve his limited manpower. When infantry reserves ran low, he substituted guns for men and organised them to such a high level of performance that artillery accompanied his most mobile columns. Towards the later stages of his campaigns he began to manoeuvre so as not to expend troops in battles not wholly decisive and not only confused his enemy as to his strength and dispositions but also made the end appear to them so hopelessly inevitable that they all separately negotiated a peace. Frederick the Great is said to have brought skill to the game of war.

Hitler was a great admirer of Frederick the Great, in fact he took him for his mentor and was a natural successor down the line. He followed the same style of first gathering in people of German blood and imbued them with the same conviction of invincibility. He would have done well to also accept the same limited ambition of Frederick, to strengthen the nation and to safeguard its integrity instead he went

whole hog as a conqueror. Like Frederick, Hitler always took the initiative and planned to fight his enemies separately, he generally succeeded in this except that he failed to conclude the issue with Britain and finally dragged America into the war. He fought his enemies under the same numerical disadvantages both in army strength and population with remarkable results. He was able to put new spirit into defeated armies and the continued resilience of his soldiers bears comparison with any similar feat. Like Frederick, Hitler was an outstanding motivator of the German people and army but unlike him he failed to improvise when his reserves of manpower ran low, in fact he squandered his last reserves in a manner that was thoroughly detrimental to the best interests of Germany.

Napoleon was blessed with a canny and precise mind and to this he added diligence of study, of those subjects only which were to be his tools, history, geography and mathematics. Madame De Stael said of him, "For Napoleon no one exists but himself. He himself felt, from his first conscious moments, that he was to be a man of destiny, his own, and continually looked around for the means. First, there was Corsica, the island of his birth, whose struggle against French suzerainty he aided even after obtaining a commission in the French artillery. Then came the French revolution and his opportunity, to the very end he was to use France and her people as his vehicle to glory. The Convention, or Directors, seemed ever involved in one or other international and domestic crisis, very nearly beyond their means, and a single strong man to show a resurgent France the way that would have the nation at his feet. The recovery of Toulon from the British brought Napoleon the rank of Brigadier General and public acclaim. His plan for the conquest of Italy was set aside but when his presence as General of the Convention and in the Committee of Safety, during which he unhesitatingly used heavy cannon to shoot down the National Guard and the people of Paris, caused stirrings of unease among the Directors, they offered him command of the Army of Italy and set him on his path to glory. He found the army to be a demoralized body of 30,000 ill-equipped soldiers, living on half rations, supported by a handful of guns and frustrated by two years of stalemate in the narrow valleys of the Alps. His address to them and the unbelievable results of the next two weeks were of a style that France and the world were soon to get used to. "Soldiers," he said, "you are half starved and half naked. The government owes you much but can do little for you. I will lead you to the most fertile plains in the world, to reap honour, glory, wealth." Looking down on the plains of Piedmont two weeks later, he tells them, "All this is yours", it is no wonder that the army was ever ready to believe him after. A

long practiced master of words, his reports electrified the people of Paris and he became an instant national hero. Inevitably, the Directors did not last long and Napoleon was elected as one of three Consuls to govern France. He soon arrogated to himself the role of leader of the three and after three years was alone elected Consul for life. It was then a natural step to assume the title of Emperor and to be crowned by an Assembly that only twelve years earlier had voted for the execution of its King and for an end to the monarchy. The genius of Napoleon then literally blazed forth and he led France to the greatest heights it has ever achieved. His succession of military victories against all the leading armies of the world read like the battle honours of a two hundred years old regiment. As a strategist, politician and statesman his domination and achievements are astounding. To his Court, he said, "There are only two powers in the world: the spirit and the sword, the latter always to be conquered by the former." Never in Paris or in negotiating peace, alliances, treaties did Napoleon raise the mailed fist. Though valuing the sword for its uses, he never allowed the clash of arms to deafen him to the voice of the people, that silent power that many politicians still fail to heed. Yet he said, "Both savage and civilized man needs a lord and master who will impose discipline yet lead him to the chase. Obedience is man's destiny and he has no rights." Napoleon was indomitable and incorruptible, to his victorious armies he said, "Looting enriches very few, dishonours all, destroys the sources of aid, and makes us hated by those who would otherwise be friends. Anyone who harms a woman is looked on as a monster." He remained the supreme egotist and even ventured to think of a united European state under his personal rule and it was out of a fear of this, ironically, that his monarchist inspired enemies were able to acquire the impetus that continued the conflict until he was finally brought down.

Hitler had with Napoleon an amazing number of similarities beginning with a canny mind and the personal conviction that he was to be a man of destiny. Neither was placed at the head of state by birth but had to come up the hard way. Their vehicles to power were those countries which till recently had been their own peoples' greatest enemies. France and Germany each needed a strong hand at the time and Napoleon and Hitler, though not truly nationals, were at hand. As Napoleon displaced the Convention which unwittingly brought him to power so also did Hitler deal with all his co-assistants, but in more drastic fashion. They both alike realized the danger of assuming supreme power through otherwise than the vote of the people or their duly elected bodies which alone, short of assassination, gave each of them an almost unassailable position. The French and German armies were like pots ready to boil Napoleon and Hitler provided the impetus for their resurging might to

blaze forth in professional elan. The French and German front line soldiers were alike gallant and well behaved, it was the second line that was to let down the name of the German soldier. Napoleon and Hitler were both ardent admirers of Frederick the Great, well versed in his strategical and tactical genius. Both aspired to personal glory in the form of European overlordship and as this proved too much of a bad dream for Napoleon's monarchist inspired enemies so also the evil that reposed in the form of government by Hitler completely determined Roosevelt, the most powerful man of the day, to weigh in on the side of the allies. In a material sense, Hitler was like Napoleon, he required few personal comforts or gains and was quite incorruptible.

There is no doubt that had Hitler retained his and Germany's circumstances as they existed in December 1941 he would have gone down in history as a Great Captain. As a conqueror he was second only to Genghis Khan and in the winning of battles incomparable as the world had hitherto seen nothing in the scale of violence, totality of destruction and massive concentration of force as in the Ardennes offensive, the conquest of France and the Battle of Kiev among others. While Alexander the Great and Hannibal are generally conceded the highest place in strategy, that of Hitler undoubtedly rises above theirs not so much in concept as in his unbelievable sense of timing, boldness and imagination. As to distinct individual genius and outstanding organisational ability, Hitler shares so much in similarity of character, intellect and circumstances with every one of the Great Captains that they would probably be sitting below him had he reached the halls of Valhalla. As a leader of individuals, of groups and the nation, there was some diabolic and unfathomable unearthly quality about him that makes it impossible even today for the German people and their leaders to explain how it happened that they were so led away into the path of ultimate evil. As an individual, he alone took all the shocks of decision and anxiety during the most critical phases of Germany's resurgence which showed him to be fit and mentally robust and his reaction to the July 1944 bomb blast left him quite unmoved inspite of severe injuries. If only he had won the war.

Unlike the others, Hitler did not consummate his conquests and victories or the strength of his situation. His own follies go most of the way to depriving him of his rightful place among the Great Captains. Surprisingly, for one who had already displayed such a perceptive strategical mind, Hitler allowed himself to be blinded by the petty emotion of hate for Russia. This nation was already out of the war for all practical purposes, holding as she did only the north eastern region of the country, a far way separated from the materially and strategically important

Caucasus by a Ukraine whose people had welcomed the Germans as liberators. The Caucasus would have succumbed to the slightest pressure through Turkey, which only waited for an excuse to join the side that appeared to be winning. All that really remained was for Hitler to complete a contiguous land circle of conquest to include Egypt and the Middle East, half the resources tied up on the Russian front would have enabled Rommel to open up this axis, where the people were friendly to the Germans, and beyond where an eager India waited to attain a non-committed independence. The Berlin-Tokyo land link would have been unbroken and Britain would have lost the sole land based opening to facilitate the induction of American troops into the war, as was to happen with the North African landings. The loss of the Middle East, with the richest oil fields in the world, and its already wavering people to the German cause would have had a much greater morale and material effect on the British war effort than all the bombing of the Battle of Britain and would have rendered quite unnecessary Germany's fight for survival through the battle of the Atlantic. So while the Allies strained every effort to keep Russia in the war, Hitler obliged by carrying on the game with a ball that had already gone flat and continued to pump it up with a life line that could have brought a decision out of all proportion to the effort by turning it to the western desert. Meanwhile his senseless measures of repression against the conquered peoples raised banners of revolt where a political solution, as in the case of Petain and France, would have ensured resurging strengths in population and material and Germany could never have been defeated for at least a century to come. It is surprising that Hitler made his best decisions from a position of weakness and his worst from a position of strength, something that seems a common phenomena when we take the military government of Pakistan's fauxpas in Bangladesh.

There were also military reasons why Hitler lost the war, which was in effect a continuation from where the first great war left off. German Zeppelins had bombed London in 1918 and forcefully brought home to the British that in a future war they must have an adequate air defence fleet, by the time of the Battle of Britain they were able to put the formidable Hurricane and Spitfire into the air. It is surprising that such an august professional body as the German General Staff overlooked the inevitable fact that they had to develop a strategic air arm to knock Britain out of the war. In producing the Stuka for its unquestionably decisive role in the land battles, Germany in fact went a long way to losing the war by her neglect of the other vital components of air power. The opposite is true in relation to the armoured tank, which turned the scales at the most critical stage of the first war, in fact because of this weapon alone Germany had to ask for a cessation of hostilities

though the soil of the homeland was itself unspoiled by war. Surprisingly again, the side that introduced the tank took no notice of the ardent fulminations of Lidell Hart and Fuller for full scale commitment to armoured concepts of warfare; while Germany advanced this style to such a fine art that she almost won the war in the first round. Britain, France and Germany were all tottering on the brink of exhaustion when America entered at the sag end of the first war and it was apparent that, had a ceasefire not been negotiated, her contribution would have been decisive. Neither Hitler nor the General Staff seemed to have related the potential of America to anything beyond the fighting capabilities of her armed forces and failed to understand that she had the industrial capacity to outfit the whole world with an unending supply of war materials, with the means to convey these to the most distant battle fields.

Only three of the Great Captains could boast of a clear ultimate strategy. Hannibal aimed to deflect Roman might from Carthage but failed for reasons beyond his control; Genghis Khan designed to set up an everlasting Mongolian empire, which was achieved for all practical purposes; Frederick the Great succeeded in preserving the integrity of a fledgling Germany. Hitler all along made mention of a Festung Europa but the manner in which events progressed is not indicative of a clear ultimate strategy. It is always easy to be wiser after the event but the nearest to being wise enough before it is to apply to continuous study the proper level of intellect, which has not in all of history been possible from among people in uniform. The German General Staff proved itself the most efficient professional body to ever conduct massive war but was of no use to Hitler in a clear study of cause and effect, which would have kept America out of the war, made a proper calculation of the value of sea-power with especial regard to the contribution of the submarine, carried out a much earlier assessment of Italian calibre, better developed air power and artillery, an arm that proved to be surprisingly weak in comparison even to Russia, coordinated the massive resources made available through captured countries and prevented the self destroying policies of repression, and finally cut the coat of conquest to proper size. In this respect, Hitler was opposed by a man who continually smoked a cigar and seemed to read a pattern of events into the smoke that swirled upwards. Even at England's darkest hour, with the threat of invasion imminent, Churchill had the conviction and courage to send the Empire's single armoured force to the western desert to keep open the only land theatre through which American power could be inducted, when the evil force represented by Hitler's Germany made that nation's entry into the war inevitable. Churchill was prepared to fight on at all costs, from any place within the British empire even if England fell. After the Italian debacle, with the dramatic entry of the

Afrika Corps to the desert theatre. Churchill sent every available unit from every part of the empire, India, New Zealand, Australia, South Africa, along with the Free French, Poles and others, to hang on. Already garnered of visions and intensely hostile to the impending monolith of a gigantic communist world under Russia, he still placed first things first and decided that every effort must be made to keep Russia from collapsing.

After Stalingrad and Alamein, Hitler began steadily to lose the war. His mental affliction, from which he would otherwise probably have shortly died even if the war had not put an end to him, and the fear and distrust pervading all sections of German command and control in ever expanding circles wrought a cataclysm of rapid disaster which reduced the German nation to nonexistence almost as fast as it had climbed to the heights. True to the finalities of war, Hitler's effort changed the shape of the world. He weakened the anti-bolshevik combine and destroyed the resistance potential of the Balkan states, in fact doing Russia's dirty work and making it easier for her to take over. He aided in obtaining what the great powers ardently desired but had up to this time, been unable to achieve, the irrevocable division of Germany, placing a large part of her people at the complete mercy of their bitterest enemy. America was content to remain a Pacific power, in fact her complete unpreparedness for a commitment in European affairs led her more to suspect British motives than Russian, until it was too late, but Hitler dragged her into the war and her present day position in world affairs. In every respect, Hitler is comparable to the Great Captains and would have been one of them, had he won the war. The ball having hit the wicket, the balls did not fall, Hitler lost the war in a showing only ten per cent in adverse content to his otherwise gigantic performance and since good is easier forgotten than evil, we must come to the conclusion that he does not qualify as a Great Captain.

Employment of Combat Engineers During Emergencies

LIEUT COLONEL MM KUMAR SM

The armed forces of a country constitute a multi-purpose instrument in the hands of their government. Whereas the primary role of the armed forces is to maintain sanctity of the frontiers against external aggression, the government, may in addition, call upon them for their secondary role of assistance to the civil authorities, namely—maintenance of law and order, maintenance of essential services, assistance during natural and other calamities and any other type of assistance. This article is an endeavour to focus attention on various aspects of military technical assistance to maintain essential services during periods of emergencies.

WHAT ARE ESSENTIAL SERVICES

TO define the scope of this study, it is necessary to define essential services. "These are the services, essential to the continuance of corporate existence. Their disruption may seriously affect the life of the community ; hence the importance of their protection and maintenance". The public utility (essential) services have been spelt out in detail, in the Industrial Disputes Act of 1947.

A perusal of the Act reveals that, the government is armed with the constitutional clearance, to employ the armed forces, to maintain a broad spectrum of technical activities—considered essential for society. The more important ones among these are—Railways, Postal and Telegraph Services, Telephones, Power, Water Supply, Sanitation, Transport (air, land or water), Medical and Fire Brigade Services. The employment of troops during natural calamities like floods, earthquakes or development projects of national importance like Assam Rail Link, Bhakra Dam and the Kudremukh Iron Ore Project, though important, have not been discussed here, being beyond the purview of this article.

The employment of armed forces to assist civil authorities during emergencies, is not peculiar to India alone. This is an accepted form of employment in other countries also. One might recall numerous newspaper reports covering port and dock workers' strike in the UK, when troops were called out. In the early seventies, the Dust Men's strike in Glasgow resulted in such a health hazard that, the Sappers had to be called out. In the USA, the range of military activities in support of the civil community is even wider, covering new fields like safety and traffic, combating crime, assisting the FBI and arranging emergency aeromedical teams. An extract from the ARMY October 1973 (US Magazine) reads "The strike by the postal workers in New York City in March 1970, resulted in the use of active Army.....".

Nearer home, in Sri Lanka, during the months of December 1976 and January 1977, there was a flood of strikes, which paralysed the nation for about three weeks. It started from the Railways, spread the postal services, and subsequently engulfed the remainder network of essential services. "The biggest strike for over a decade", reports the Indian Express of January 17, 1977, was called off on January 16. The news of the strike was only partial, after the Government imposed press censorship. However, the government coerced the workers to resume duty by 16 January 1977, by calling out the troops, and adopting stern legislative and administrative measures.

In India, troops have been deployed to man essential services from time to time. The main areas of their activities were—operation of telephone exchanges, hospitals, power houses, and water and sewage pumping stations. For obvious reasons, such activities were confined primarily to large cities. The Railways strike of 1974, if not of 1960, is fresh in our minds, when the Government ordered large scale deployment of technical troops, including Railway Territorial Army Groups, to maintain rail services.

Apart from the tasks like manning railway engines and providing railway guards, which came into the lime light, there were numerous other tasks, where the Army's helping hand was provided. Sappers worked in electric sub stations, water pumping stations, assisted in repair of high voltage traction wires and what not. The Corps of Signals personnel maintained communications, and the Corps of Electrical and Mechanical Engineers Craftsmen assisted in repair of motor vehicles, engines and running of workshops. During early seventies, the doctors of the armed forces were employed in major civil hospitals of Calcutta and some other cities, during the doctors strike in the state of West Bengal.

The technical resources of the Army were mobilised to tackle State Electricity Board Strike of UP during 1973, as also in the South, the same year. In September 1974, the Calcutta Corporation strike of water and sewage services was called off without pre-conditions, soon after the troops were employed. The Sappers proved a reliable deterrent against this strike, as it was called off unconditionally in all departments "within 12 hours of its beginning". The *Hindustan Standard* dated 2 October 1974 reported, "Such unconditional withdrawal of strike is un-precedented in the history of Calcutta Corporation". A point to note is, the increasing call on the Army and an expanding range of activities, despite the endeavour of the Government, to meet such situations by other means and, to call out troops only as a last resort.

There were numerous occasions of Ports and Docks workers' strikes, during which, technical personnel of the Navy and some crane operators of the Army capable of handling heavy duty static cranes were requisitioned for loading and unloading of cargo ships at major ports like Bombay, Calcutta and Madras.

Strikes seem to be unheard of in totalitarian regimes. However if they do occur, state controlled publicity media appear to ensure that, such news items receive no publicity whether within or without those countries.

THE CONCEPTS OF EMPLOYMENT OF COMBAT ENGINEERS

The concepts of employment of technical combat personnel in the maintenance of essential services, as dealt in the subsequent paragraphs, relate specifically to the employment of the Corps of Engineers personnel, though these are generally applicable to the employment of the technical personnel of not only the other technical branches of the Army, but also the Navy and the Air Force.

PRE-REQUISITES TO EMPLOY TROOPS

According to the Indian constitution, before troops are employed on the task of maintaining essential services, the following pre-requisites are to be arranged :—

- (a) Strike to be declared illegal by issue of State Government notification.
- (b) State Government to explore all civil resources, before seeking military assistance.
- (c) Declaring the public utility service as an essential service, by a Central Government notification, issued under the provisions of the Armed Forces (Emergency Duties) Act 1947.

- (d) Sanction of the Central Government to provide military aid to maintain the above essential service.

MORAL IMPACT

Whenever the troops are called out to assist in the maintenance of essential services, it generates confidence among the loyal staff to continue to perform duty. Technical prowess of the troops notwithstanding, which is an asset in any case; the biggest immediate dividend which accrues is, the normal impact, in which the 'illegal' elements are deterred from pursuing their ends and, the loyal elements are encouraged to stay at their posts, with comparative impunity. Further, it demonstrates the determination and ability of the day, to handle the situation with force, if necessary.

POLITICAL ASPECT

Among the many internationally recognised freedom guaranteed in the political system of our Government, collective bargaining is one, but within the limits drawn by the constitution and the parliament. Despite well defined "rules of the game", strikes do occur and troops are called out to maintain essential services. The troops, so engaged, need neither get involved with the political aspect, nor take sides, but should inspire confidence among all, on the twin props of impartial stance and technical efficiency. When deployed, their sole aim is restoration of the affected essential services, so that the community is not inconvenienced beyond reasonable limits of endurance.

"TAKE OVER" VERSUS ASSISTANCE

In civil disturbances, the civil authority hands over the situation to the Army, when beyond their control. And the Army hands it back either when normalcy is restored, or, when the civil authority so requires. In essential services, the keystone of aid is assistance, which may vary in type, quantum, location and timing. Considering the high degree of sophistication in technical equipment, the concept of "total take over" does not appear to be a technical feasibility. It is only fair that, the capabilities and limitations of Combat Engineers are made known to the state governments and civil chief engineers concerned while preparing joint schemes. This will make assessment of military resources accurate and relating of troops to tasks more realistic. It is worth knowing that :—

- (a) Military engineers are not specialists in generation, transmission and distribution of power. Therefore, their capability is perforce limited in this field, and particularly, in the handling of high tension equipment.

(b) The operation of water supply and drainage installations is not so new.

(c) Combat engineers can provide effective assistance only, if the officers and essential supervisory staff of the installations concerned, provide necessary technical guidance and supervision, where required.

NUCLEUS OF TRADESMEN IN GENERATING STATIONS

Since the capability of combat personnel is relatively limited in power generation, it may be better to arrange the nucleus of personnel for such installations from specialist units whose tradesmen are expected to be technically more proficient. For instance, high grade Electricians of Electrical and Mechanical Engineer companies should constitute the hard core of the combat personnel, earmarked to assist receiving stations and generating stations. However, this is subject to the availability of suitable specialist units.

RESORT TO TWO SHIFTS WORKING

To overcome shortage of suitable technical staff, it is reasonable to plan on two shifts of twelve hours each, rather than the normal three shifts of eight hours each. This should be confined to a limited duration only—say two weeks. Should the emergency last for a much longer duration, staff will have to be arranged for all the three shifts, considering the factors of human endurance and requirement of alert handling of sophisticated equipment.

TECHNICAL DILEMMA

With the advance in technology in India, and increase in sophistication of equipment, it is growing difficult to find suitable substitutes from the Army, to man installations of essential services. Apart from the lack of requisite qualifications in specialised technical fields, the Army's biggest handicap is lack of experience on the plants and machines which it might be asked to operate. It is pertinent to note that technical personnel of the Army, whose training is oriented to combat engineering, may on occasions be asked to man installations, where experience of permanent incumbents ranges from a decade to two, or even more. To organise reorientation of a Sapper, from field engineering to such tasks, requires a certain amount of psychological re-adaptation and technical reorientation, even for the handful of personnel who are specially trained and "man" smaller plants and machinery of the few such specialised units in the armed forces.

RESOURCES OF AIR FORCE AND NAVY AND COORDINATION

Although, traditionally, the employment of the Air Force and the Navy, have thus far been generally confined to assist Indian Air Lines, Air India, and docks and ports, yet they have adequate reserve of technical manpower concentrated at certain places, which could assist in maintenance of other essential services also during emergencies, either on their own, or in conjunction with the other services. Where more than one service is employed, the responsibility for coordination should rest with the service located in close proximity of the area of trouble, the quantum of technical manpower available and, degree of familiarisation training conducted on the concerned installations. That would lead to optimum utilisation of the scarce available technical resources.

TECHNICAL STAFF OF MILITARY ENGINEERING SERVICE (MES)

MES is a semi militarised cadre of the Army designed to cater for engineering requirements of all the three services. Being engaged in day to day operation of essential services for the armed forces in all peace stations, and selected operational areas, it appears to be ideally suited for employment on maintenance of essential services in emergencies. The staff of the MES is functionally deployed in operation of military installations. Therefore, diverting these personnel to civil installations, would denude the military installations correspondingly. Further, the employment of the civilian staff in breaking strikes is fraught with some constitutional complications. Nevertheless, since MES is a good source of technicians, some of its combatant personnel pooled partially from the military installations of essential services (third shift), and partially from other staff appointments could be profitably employed, during emergencies. This will suitably fill up the near-void of such officers, junior commissioned officers and non-commissioned officers in field units, who are qualified (Degree/Diploma in Electrical and Mechanical) and experienced in operation of somewhat similar type of equipment. However, should such an employment be planned, the concerned staff will require periodical familiarisation training also. This implies that, the selected MES staff would be away from their day to day work during spells of familiarisation training and actual employment during emergencies. Such frequent absence would have corresponding adverse effect on efficient functioning of the works services; in as much as it affects the combat training of the Sappers or Signalmen. This fact would require due consideration, while deciding the employment of the combatised cadre of the MES, for employment on maintenance of essential services, during emergencies.

INDUCTION OF TRADESMEN

The requirement of some essential tradesmen like Electricians is so large and, their availability in Engineer Units so meagre, that in a grave

emergency, this category of personnel may have to be pooled not only from the entire Army, but also from the other services of the armed forces. The resources of the Corps of Signals and the Electrical and Mechanical Engineers may also have to be tapped in contingency plans, as done during the UP State Electricity Board strike in 1973.

TRADE SUBSTITUTION

Where equivalent Army trades are not available, nearest akin trades may have to be provided. But, there are certain civil trades, for which the Army has no easy substitutes, eg, Boiler Attendant. The normal training period for this trade is three years and, the individual must be passed fit by the Boiler Directorate of the State, before he is actually engaged on this task. Yet, in an emergency, an intelligent Electrical and Mechanical tradesman could foot the bill, when placed under the direct supervision of an expert.

COMMERCIAL EXPERTISE AND NEIGHBOURING STATES

During emergencies, situations may arise when certain essential category of technicians are neither available with the installations, nor with the armed forces. However, this requirement could be at least partially met from resources of the trade, particularly in big cities like Calcutta, Bombay, Delhi, Madras, as also the neighbouring states, where similar installations are not involved with strikes, then. Intelligent anticipation and timely negotiation with the trade and neighbouring states at appropriate level, could telescope the time-lag in obtaining the requisite personnel.

SECURITY OF INSTALLATIONS

The security of installations should continue to be the responsibility of the civil police. But, strikes are seldom without an air of unrest and violence. Therefore, should law and order situation grow beyond the ability of the police to handle, the civil government may requisition Army's aid specifically for maintenance of law and order. However, Sappers engaged on maintenance of essential services should be so equipped as to be able to exercise their 'right of private defence' if required.

JOINT SCHEMES

Schemes for maintenance of essential services should be prepared jointly with the installations concerned. Combat Engineers study the layout and functioning of installations on the ground, and, obtain the data regarding operational, maintenance and general shifts, and numbers

of personnel employed in each shift, by category. They make an estimate of the minimum requirements of troops, eliminating non-essentials ruthlessly. Now, they co-relate this pruned requirement with the available resources and, work out the additional bid. Once such schemes are vetted by superior technical heads, these may be issued by Commanders; under whose jurisdiction these installations are located.

The assessment of minimum manpower required at important installations must be realistic. If the resources are inadequate, which is usually the case, eliminate relatively non-essential installations from a scheme, rather than accept such thin allocation of troops, as would be obviously insufficient to keep the installations running.

CONCEPT OF TASK FORCES

Troops employed in plants should not be a mere conglomeration of Engineer tradesmen, but properly organised task forces, complete with elements of command and control, operation, transport, logistics and, if necessary, local protection. Only then, the impact of troops would be felt, as intended. Engineer tradesmen should continue to receive orders from their military superiors, who, in turn, seek technical guidance and assistance as necessary from civil expert, where required.

The manning of small installations located in isolated areas of towns will present peculiar problems. Even though a couple of operators might be considered sufficient to keep them running in normal times, yet the strength of Sappers posted there in emergency will invariably be required to be boosted upto a section (10-11 persons) or plus, to make the detachment viable—complete with the elements of command, operation, logistics, transport and local protection. Being 'the last resort' of the Government, the soldier technicians must function in a military manner, making sure of their success, rather than accept deployment of ones and twos, which could render them vulnerable, and jeopardise their success.

TOOLS AND EQUIPMENT

Troops called out to assist in maintenance of essential services need not carry tradesmen's tools, until, specifically so requested by the state authorities. It is for two reasons. Firstly, the tools are likely to remain available in the installations even during strikes. And, secondly, the required tools are of specialist equipment, and are not likely to be available in military units, in any case.

MOBILE REPAIR SQUAD

To cater for breakdowns in un-manned electric sub stations and transmission system, as also pipes of water supply, mobile repair squads consisting of technicians, tools (from installations); transport and security personnel (Army) may be grouped together and located centrally near telephones, to attend to emergency calls for repairs—a sort of fire brigade role.

FAMILIARISATION TRAINING

To ensure success during emergencies, troops earmarked to assist installations are required to familiarise themselves with their tasks. The general scope of this familiarisation may be to see locations, learn layout and general functioning, observe detailed functioning of machines for which assistance is planned and, try and obtain a 'feel' for operation of the equipment, under supervision, where permissible. This must be done on those machines, which would be expected to man during emergencies. This single factor has profound influence on degree of success expected to be achieved during actual emergencies.

The instructors for such training and syllabi, could best be provided by the installations concerned. In this, they are severely handicapped, not being staffed and equipped for this task.

Spells of familiarisation training, or changes in equipment of installations may at times, necessitate a review of a scheme to keep it upto-date.

Frequent spells of such "on the job" training of Sappers at installations, are not viewed kindly by the working classes for obvious reasons. But, this, the troops must carry out with their usual thoroughness and ingenuity, so that they can be effective when the occasion so demands during emergencies.

During actual emergencies, it may happen that some of the 'familiarised' and trained personnel are not available to assist the installations, due to exigencies of service like move of units, postings, courses and temporary duty. This fact highlights the necessity to repeat spells of familiarisation training periodically. This should be made known to the civil authorities also.

HOW TO TACKLE SO MUCH WITH SO FEW ?

Ideally, all troops earmarked for employment in essential services schemes, should go through spells of familiarisation training, periodically. But, actually, this may not be possible due to large areas of responsibility allocated to the few available troops. In such a situation, trying

to familiarise the same troops at all the installations would not only divert them from their main role, but will also give a false impression of having trained large numbers, which are actually just not there. Therefore, it may be better to arrange ground reconnaissance, assessment of task and preparation of schemes by experienced officers, and confining familiarisation training to the priority installations, located in state capitals and a few important cities. Though this may not be the ideal course, yet this may be the only practical course in the existing circumstances. The tendency of the civil authorities to cover all installations even at the risk of too thin a deployment is understandable, but it must be curbed, to ensure that the task accepted by troops is such, for which, matching resources are available.'

RAISING TAILOR MADE SPECIALISTS UNITS

No combat technical unit can have the requisite number and type of personnel required to meet situations of strikes in sophisticated installations of essential services. Therefore, even a planned intervention by combat personnel would amount to an "Improvisation". Therefore, it is for consideration, whether Army should raise one or more specialist unit or units for each Command. The strength, trade structure and equipment of such a unit should be tailor-made for its tasks. The organisation, norms for selection of personnel, training, location and budgetary control of such a unit, are some of the points, which require due deliberation.

COMBATISATION OF KEY STAFF OF INSTALLATIONS

So far, the officers and supervisory staff of essential services have generally displayed a sense of responsibility by not resorting to strikes as a bargaining counter, except the electrical engineers strike of Kerala and UP in 1973 and 1974. In such emergencies, technical personnel of the armed forces have kept the essential services going fairly successfully. Should the Government apprehend a total strike involving all categories of technical personnel simultaneously, thus threatening a total paralysis of an essential service, it may be forced to consider not only legislation prohibiting such a strike, but also arranging a combatised cadre of key staff from among the permanent incumbents, as is the case of Railway Engineers of the Territorial Army.

FREQUENCY OF CALLS ON THE ARMY AND IMPLICATIONS OF "STAND BY"

In the recent past, the occasions when the Army was made to stand-by had increased in certain places, though the actual deployments were not so frequent. It can get on nerves of the troops, ordered to remain

stand-by for days, and rather frequently. To enable troops to remain in a high state of readiness and, retain their 'sword-sharp' efficiency, restraint may be exercised in calling them out—as a 'last resort' and not as a routine exercise. "During the period 1961 to 1970, the Army had to be called out in aid of the civil power on no fewer than 476 occasions". As the Army is the last resort for the Government to implement their decision, it may affect its effectiveness, if put on "alert" too frequently irrespective of the fact whether it is actually employed or not. It is a point to note that, the incidence of strikes in essential services, as also in other spheres, grew negligible during the twentyone months of state of internal emergency proclaimed in the country on the 26th of June 1975 and, revoked by a presidential proclamation on March 1977.

GOVERNMENT GENERALLY SUCCEEDS IN A SHOWDOWN, IF DETERMINED

In the past it has been noticed that during a crisis, state governments and the Central Government not only enjoy sympathy of masses but also have adequate resources at their command, which, if deployed timely and with imagination, can run at least skeleton services in selected places, till normalcy is restored. Some of the recent examples which illustrate the point are the strike of pilots of Indian Airlines. All India strike of the Railways in the year 1974 and, till very recently, the strike in essential services of Sri Lanka, in January 1977.

ARMY CIVIL RELATIONS

Today's industrial workers are aware of their inalienable right to go on strike, to extract higher wages or whatever demands they may have from time to time. They want this right to be held sacrosanct. In this context, they may look upon troops with suspicion and, view them as strike-breakers. On the other hand, the common man, who during strikes undergoes inconvenience in water, electricity or rail services, does not necessarily share such views of strikers. In any case, troops employed in the role of breaking strikes cannot grow popular, as opposed to, when employed during natural calamities like floods and earthquakes.

Troops in strike-breaking role are likely to face confrontation. This cannot project a healthy image of the armed forces amongst the strikers. Further, frequent deployments might blunt "the edge". Therefore, for obvious reasons, the troops should be the least employed in such roles and should retain credibility as an effective deterrent.

LEGAL ASPECT

When troops render aid in maintenance of essential services, NO special legal rights or powers to overcome resistance are vested in them.

"Suppression of disorders is entirely the responsibility of the police. The troops should not get involved in the dispute between the strikers and the civil authorities but must maintain strict impartiality..."

FINANCIAL ASPECT

There is a major difference in the incidence of expenditure incurred in maintenance of law and order as compared to, for maintenance of essential services. In the former case, "all expenditure on the employment of armed forces will be borne by the Central Government although it will be open to the State Governments/Union Territory Administrations to contribute towards the cost, if they wish to do so". However, in the case of maintenance of essential services, there are certain heads of account, on which, the states have no liability to bear, and yet there are some others, where it is obligatory for them to either bear the entire expenditure, or share a part of the expenditure incurred in rendering such aid, as under :—

(a) No recovery will be made from the states/union territories requisitioning aid in respect of :—

- (i) Normal pay and allowances, ration and clothing of the troops employed.
- (ii) Equipment and Vehicles used by the troops in rendition of aid.
- (iii) Supervision charges.

(b) Recovery will, however, be made in respect of the following heads of account :—

- (i) The cost of consumable stores including petrol, oils and lubricants at payment issue rates.
- (ii) Non-consumable stores and equipment used including cost of depreciation, repairs, maintenance and replacement of equipment, where rendered unserviceable, as a result of use in such aid.
- (iii) Incidental expenditure in move of units and equipment and, extra allowances, rations, clothing and amenities, where provided.
- (iv) Hospitalisation and medical treatment of the service personnel injured whilst employed in maintenance of essential services.

(c) The pensionary liability in respect of any accident to troops, caused during rendition of aid, will be exclusively of the Government of India. For this purpose, troops would be treated on duty. The states shall not be asked to share any expenditure on this account.

(d) If there is any compensation payable to civilians as a result of such aid, it will be the responsibility of the State Governments/Union Territory Administrations concerned.

POINTS COMMON FOR ALL TYPES OF AID

Aspects like operation of joint control room, communications, exchange of liaison officers, maintaining continuous liaison at various levels of commanders, staff, technical personnel and, administration, have not been covered here - being common to all types of aid to civil authority.

NECESSITY TO REORIENT TRAINING OF TECHNICAL TROOPS

Considering the increasing load of essential services on troops, as also the trend that, this load may well increase in the future, there is an obvious requirement to give a bias in favour of this aspect of training in practical terms, in technical training establishments of the Army, the Navy and the Air Force.

REHABILITATION OF 'TRAINED' PERSONNEL

Those military personnel, who go through repeated spells of familiarisation training in technical installations of essential services, require due consideration for this experience in matter of rehabilitation, after retirement from the military service. This could best be dealt through the Director General of Resettlement (DGR).

CONCLUSION

If the nation could be convinced of destructiveness of strike as a means of protest, by education and even coercive legislation, as also if alternative means of protests like wearing of black badges and submitting 'memorandums' could attract the same attention of the Government for redressal of grievances as strikes, the nation could be rescued from the evil of strikes and their attendant disadvantages.

Whenever the Government calls out the armed forces to maintain essential services during strikes, it inevitably generates friction and resentment against the troops, so employed, as a result of direct clash of interests. So long as the constitutional and parliamentary sanctions exist for such an employment, it is needless to discuss its political ethics. The military practice of a soldier demands that, troops master their task, rehearse it and, execute it with the traditional efficiency of an operation of war, except that, the opponent here, are NOT enemy, but own "misguided" countrymen. Needless to say that, however important the task of essential services may be, soldier engineers must not lose sight of their primary role, that is, combat engineering in war.

Army Statistical Organisation— Are We Making Full Use Of It

MAJOR PARMODH SARIN

Men, materials, machines, facilities and funds have always been considered the main constituents of industrial operations. For that matter these very ingredients have invariably figured prominently whenever we have taken any Defence requirement into consideration. Therefore, the concept is equally applicable to our Armed Forces where economics of a subject, more often than not, guides a management decision. The scientific management techniques ever since their inception and introduction in our context have been providing guidelines for improving the utilization of the ingredients mentioned above. However, in recent times an additional element has increasingly gained in importance—that is information. Facts analysed, interpreted and evaluated for specific situation and geared to some particular purpose constitute this information. Army Statistical Organisation is one central agency which has capabilities and resources for providing this ingredient for almost the entire range of men and materials.

BRIEF HISTORY

THE need for a specialised agency for dealing with statistics of the Armed Forces of India was recognised near about the commencement of second world war. A beginning was, therefore, made in March 1938 with a small staff of three. The growth of the Armed Forces and the increasing demands for information necessitated fairly rapid growth and the Organisation in 1946 had 45 officers and 358 other staff. After independence the Naval and Air Force statistics sections were separated and centralisation at Army Headquarters was carried a step further by bringing all Branch statistical sections into what eventually became the present ASO (Army Statistical Organisation). The Hollerith equipment was also centralised and was located in the mechanized section of ASO.

ASO now functions as a centralized Statistical Agency in the Army and provides statistical data for planning, provisioning, administration, research and other purposes. Information is maintained regarding Manpower, Transport, Armament and Equipment, Quartering, Animals

and Health. With the induction of electronic computers and mechanical devices it envisages to meet complex needs in the fields of statistical quality control, operational research, war games, logistic surveys and analysis.

THE STATISTICAL SYSTEM

This is a subject under the control of the Adjutant General (AG) in the Army Headquarters. Reports and Returns are the accepted medium of generating statistics for the Army. These flow from all levels starting with units. ASO centralizes data compilation for Army Headquarters. The basic entities in the Army for purposes of statistics are :—

- (a) The unit as a whole (with its historical, cultural and technical characteristics and role in current activities of Army as a whole).
- (b) The individuals (Officers and men) comprising the unit.
- (c) Vehicles.
- (d) Armament and equipment and selected stores.

STATISTICS AT LOWER LEVEL

There are Stat Sections in Command Headquarters and they function in the similar way. ASO exercises only technical control on the layout and output of these sections. Qualified Stat personnel have been inducted at working level, therefore, their involvement to a greater extent in the activities of the various branches of Command Headquarters is highly feasible. Presently there are no distinct statistical agencies at lower levels; the data are generated by them as part of their general duties.

METHODOLOGY

In the Army, unlike civil, there is no special team to go around, have a dialogue and collect data by interview or by extracting from the ledgers. Instead 'Mail Method' is adopted i.e. by means of returns from units information is obtained. Depending upon management requirements, periodicity of these returns is laid down. ASO is also designated to check the need for any new questionnaire/return proposed and have it registered. Without ASO registration number, units are not under obligation to supply information. Duplication in data compilation is thus avoided. Whenever any new return is proposed to be introduced consultation with the 'Computer Centre' is also undertaken with a view to accommodate future or present automation requirements.

In fact, the present statistical system entails two approaches to data collection i.e. micro and macro. In the micro approach every unit, officer, person and vehicle is tracked from the day the Army gets them till wasted

out. ASO maintains serial number system in all these cases. Basic characteristics are tabulated from time to time from these records to reflect the current situation on individuals or group of persons or batches of equipment. In the second approach, which is macro, information is needed in the form of aggregates collected from units and formations, Recruiting Officers, Record Officers, Depots and Command Statistical Sections. The Directorate of AFHQ are provided with such data, eg strength position, equipment state, wastage rates and so on. The Ministry of Defence and the Ministry of Finance (Defence Division) also depend on ASO for data as they do not have separate agencies for this purpose. The statistics developed by ASO on various fields generally cater to the management information system (MIS) ie data needed for planned maintenance of the Army.

STATISTICS IN WAR

The present statistical system does not cater to the spurt in activity in war time; ASO does not consider it as a gap since reports and returns thrown up during operations are to be treated as part of informatics rather than statistics concerning operative Directorates instead of ASO. However, after the operations, statistical data are gathered and analysed for purposes of revising the norms in light of latest operational experience.

IMPORTANCE OF CORRECT REPORTS AND RETURNS

The discussion so far highlights one very important aspect ie unless units give correct information no realistic analysis can ever be made. Accuracy, after all, depends on primary source. Entire planning, particularly where finance is involved is based on the data available with the Higher authority and this data in turn is generated from the unit return. More often than not a Unit Commander who in any case has diverse responsibilities does not have enough time to scrutinise these returns. Although, he signs these giving a certificate as to the correctness of information, yet the number of faulty, incorrect and incomplete details given in some cases do indicate a lack of due importance being given at the source stage. ASO sends letters to various units highlighting the errors and mistakes in their respective returns but the spectrum being large some important mistakes like wrong SUS number do miss notice. Where this faulty data is fed to the computer there is no chance of any manual correction. Any unit which sends incomplete/incorrect details projects a wrong picture vis-a-vis its own state of holdings. Besides generating a faulty overall picture, this obviously affects the unit as well adversely. Therefore, it will be pertinent to suggest that these returns

be thoroughly scrutinized at unit level before despatch so that management gets correct information—for data of doubtful quality will defeat the very purpose of its generation. Till such time quality of unit return improves the recognition that errors exist will be constantly before the management.

TIME LAG IN INFORMATION SUPPLIED BY ASO

The most glaring drawback of the present statistical system is the time lag between the date to which the data relates and the date on which the compiled statistics are made available to the users. The information is generated from the returns sent by the units, processed/coded manually and compiled on machines or computer. Non-adherence to the time schedule or errors at the originator end cause additional delay. From an operational point of view a delay of more than two weeks may be considered excessive. The remedy generally suggested is mechanization using modern electronic equipment. However, unless quality of source documents improves and electronic facilities are available in the intermediate channels like Commands/Corps Headquarters such time lag will perhaps continue to occur.

ROLE OF COMPUTER

Statistical work in the Armed Forces is still regarded as chiefly consisting of compilation and presentation of data for which no special knowledge or training in modern science of statistics is considered necessary. However, the methods of obtaining significant and meaningful conclusions which will be of practical value have in recent years developed into a new technology which is constantly expanding. During the last two decades there has been a phenomenal increase in the use of statistics and statistical methods in management of Government as well as private enterprises. A very significant portion of this development has been in the Defence Sector. Statistical Quality Control, Operational Research, 'PERT' etc had their initial impetus from applications in Defence in advanced countries. The most important development has, however been the emergence of electronic computer into a flourishing industry speeding up work in a large variety of fields. This has had a powerful impact on statistical work in the Defence. With the expansion of the Armed Forces the problems of management has become more complex than before and the demand for numerical information has increased in volume and urgency.

With the addition of computer facilities in the Army, the ASO is re-orienting its existing functions. Routine sifting of huge mass of returns and consequent arithmetical work is being diverted to computer. More

stress is being laid on the analytical and developmental work. This has been taken in hand so that ASO can deliver statistically analysed "decision matrix" to the management rather than "figures" and "tabulations" as at present. However, sometimes an impression is created that a computer is an essential element of management information. This is not so. Despite the fantastic growth and range of computer applications, manual information systems continue to outnumber in quality of systems and information handled, even in developed countries. The popular notion that 'Top Management' can ring up the EDP Centre, place an urgent demand for a brand new job and expect an answer within minutes if not seconds, is quite incorrect. Remarkable speed can be achieved in jobs for which the routine is already set. For other jobs the necessary preparation time has to be provided. And for certain types of demands conventional machines or even manual methods may deliver the results quicker and cheaper.

SCOPE FOR USING ASO

Earlier data collected through certain large scale statistical projects by other Ministries of the Government of India were also entrusted to the ASO through the Ministry of Defence for processing on contractual basis. All India Labour Enquiries for the Ministry of Labour, Tabulation of Refugee claims for the Ministry of Rehabilitation, Educational Statistics for the Education Ministry, Programme Evaluation Surveys for the Planning Commission are amongst the important jobs initially carried out by the Deptt of Statistics was prepared by ASO.

RESEARCH CONTROL AND DEVELOPMENT

ASO has a section called RCD (Research Control and Development), a 'mini' Bureau for devoting constant attention to statistical investigations for developing new techniques and for deriving operationally useful conclusions from available data. Briefly RCD of ASO is equipped to deal with the following :—

- (a) Technical advice on application of statistical methods to Army problems.
- (b) Design and execution of experiments, surveys and investigations for research purposes.
- (c) Collection of data on topics of importance and interest to the Army for administrative purposes.
- (d) Analysis and interpretation of the data collected for stipulated purposes.

- (e) Preparation of the reports and brochures for the information of management.

Contacts are also maintained with Central Statistical Organisation and state statistical offices for the latest data on various economic/social matters and for up-to-date methodology in statistics by participating in their conferences and seminars. Thus, the ASO has developed a tradition of acceptance amongst the national statistical agencies and is in consequence able to draw from the civilian offices any logistics data on national economy that may be required from time to time by the Defence management agencies.

When some specific requirement is given by the management data is also called for from concerned agencies. Where necessary 'Sampling Techniques' are objectively applied. Some Branches and Directorates do ask ASO for studies to be carried out where norms have to be laid or parameters are to be defined. As an illustration it may be mentioned that Statistical analysis for providing relevant data in respect of Armed Forces for the Third Pay Commission was done by the ASO. Recently recruitment standards have been revised on the basis of a study of physical standards of those offering themselves for recruitment. Studies on accident pattern involving Army vehicles, wear and tear of tyres, engines etc have also been carried out. However, there still remains a vast spectrum where ASO can render useful service in providing information to the management. Some of the following subjects could give us useful guidelines :—

(a) *Intakes.* Aspirants for an Army career and those aspiring for bettering their career appearing for examinations and courses after joining the Army are yet to be accounted for statistically and the incentives and norms prescribed for passing etc are to be evaluated. Statistical studies in this direction would be very useful to Recruiting, Org and MT Directorates in meeting the demands from various quarters for reviewing from time to time.

(b) *Non-effective Personnel.* Information on non-effective personnel needs maintenance on a regular basis to provide accurate and detailed wastage rates to facilitate forecasting of demands for the future. There perhaps at present, is no complete census of ex-servicemen and hence no idea of even the total number drawing pension in each district, let alone data on their economic and social plight.

(c) *Career Studies.* Comprehensive cohort studies are yet to be made on intakes, training, promotion prospects and wastages by enrolment, batches of officers and men. Even though physical

standards have recently been revised based on a study carried out by ASO, there is still room to examine dietary, economical, social and religious requirements vis-a-vis changing trends within the Army and the country's general populations' changing economic and social patterns. A study on present and future requirements of technical manpower would also appear to be necessary.

(d) *Study on wastage Rates and Inventory.* Investigations for working out "Planning coefficients", for the so called "wastage" rates of equipment, vehicles and stores in peace and war, statistics of life and performance of vehicles and other equipment, technological ratio required to work out manufacturing programmes are some of the results which will stem from such a study.

FUTURE TRENDS

Management information service has become one of the most important tools required for effective and economical utilization of resources—both men and materials. Almost all advanced countries of the world have set up a separate network to provide information in desired form to the management for reaching speedy and correct decisions. In consonance with the advancements made in the field, it is natural for Indian Army to keep abreast with the changing times and its needs. With the expansion of Armed Forces the problems of management have become more complex than before and the demand for numerical information has increased in volume and urgency. Making the computer and statisticians work in concert will, therefore, be a step in right direction.

CONCLUSION

There is always a necessity to possess right kind of information before any decision is taken. It is more so at higher levels, where decisions vis-a-vis men and material are made. Timely, relevant and accurate information is always required when management has to consider future trends and plans based on past experiences and patterns. Reliable data base leading to a study on the subject does provide such guidelines. Decision making process becomes much more realistic and specific when use of statistical data is made. There is no denying the fact that the decisions which are based upon a policy, a procedure or a rule are likely to be better and economical. The degree of usefulness, however, should be a prime factor in choosing methods and frequency of collection and transmission of this information.

Indian Politics*

A REVIEW ARTICLE BY PROMOD KUMAR MISHRA

INDIAN politics as a systematic study is of comparatively recent origin. Whether it is the history of freedom movement or the political developments in the post independence era, the traditional approach of scholars from India and abroad was to describe the major events in a chronological order. But gradually the behavioural and post-behavioural revolution of the west gradually penetrated to this part of the world. The major thrust of the present day scholars, is to focus various dimensions of the political process. Any political event, whether in the past or present is measured in terms of a certain basic dynamics of political behaviour. When a political decision was taken or an act was passed, then a modern researcher would obviously cross-examine the basic infrastructure in economic, social and political terms, judge himself the definite circumstances which made the actors involved to take a particular course of action. He should also visualise the other alternatives available during that time. Thus with an open mind he should pose the following questions i.e. "Why, How and What else" in order to attempt an objective assessment of any political crisis or happening.

Moreover it must be kept in mind that the study of government and politics of particular country, the historical events, particularly of the recent past, provides a connecting link. In the Indian context the national leaders who were in the forefront of the national movement are particularly controlling the destiny of the nation until now irrespective of their changing party affiliations. As revealed by a number of studies, the influence of caste, religion and social status was really great in the political life of the nation, both before and after independence. The major communities of India, the Hindus and Muslims were in the forefront of the freedom movement. Indian National Congress and Muslim League were the two rival organisations representing the Hindus and Muslims. The germs of partition of the sub-continent were really sown on the day, the British rulers formally conceded a separate electorate for the Muslims. No doubt the British must equally share the blame for creating a scism between the Hindus and the Muslims. However, some

* Indian Politics by Darbara Singh, Sundeep Prakashan, Delhi, 1978. pp. 182.

of prominent leaders of the two major communities were no less responsible by their projecting a short-sighted and parochial outlook. Some of them even became willingly a toy in the hands of the British power.

Since the partition of the sub-continent into two separate states of India and Pakistan, the political life in both of these infant nations, has been plagued by group rivalry, inter-party and intra-party squabbles, communal riots and narrow provincialism. The national leaders of both the nations, in place of facing the basic challenge of improving the socio-economic life of the common man are over-involved in solving these political crisis.

The personality cult and hero-worship which were cultivated during the freedom struggle, still continue to poison the political life of the nations of the sub-continent. Party ideologies and programmes have been sacrificed at the whim of a few coterie of individuals. There is a complete lack of political integrity and rationality in the life of these nations. In order to project a populist image of their regimes, the national leaders have sidetracked the major problem areas facing their nation and highlighted on petty and sectarian issues. These are the maladies facing not only India, but other countries of South Asia as well.

Any research work or treatise, which focus their attention to the above mentioned issues, are welcome for serious students of government and politics of the nations of the sub-continent. Under these perspectives the attempts by K.C. Chaudhary and Darbara Singh * have to be reviewed. The first one is a systematic research work and the second one is a journalistic exercise supplemented by a number of documents here and there.

Chaudhary has discussed in details the role of religion in the shaping of freedom movement of the country with a special focus on the first quarter of the twentieth century. Justifying the importance of religion and world history and international politics, he cites "The crusades in Europe, the spread of Christianity in England, the beginning of Reformation in Germany, the revolt against a demoralised priesthood in France during the days of the revolutions." (P.1). He even cites examples from Indian history by highlighting the role of Ashok in the spread of Buddhism, attempts of religious persecution by some Mughal emperors

* 1. K.C. Chaudhary, *Role of Religion in Indian Politics (1900-1925)*. Sundeep Prakashan, Delhi, 1978 pp. 347.

2. Darbara Singh, *Indian Politics (1968-1978)* Sundeep Prakashan, Delhi, 1971, pp. 182.

and the spread of the gospels by christian missionaries. He highlights the role of religion reform movements in India like the Brahmo Samaj, Arya Samaj and Rama Krishna Mission. Talking about the contribution of Brahmo Samaj to the growth of nationalism in India, he writes, "It profoundly influenced the social and political ideas of the time and gave to the early leaders of Indian National Congress an almost ready-made programme of political action which they followed with great zeal and enthusiasm" (p. 8). He points out the basic differences between Brahmo Samaj and Arya Samaj by pointing out that the later was not imitative of Christianity or Islam and its battle cries were "Back to the Vedas and India for Indians". Pointing out the impact of Arya Samaj and Rama Krishna Mission, he rightly comments, "Both sprang up in vindication of India's ancient culture, glorified the past so as to derive inspiration for present and aspiration for the future. They stressed that Indian society purged of its evils, could boast of a culture infinitely superior to that of the west" (p. 18). The Deoband School, according to him was wedded to the teachings of Quran and other Islamic scriptures keeping its followers confined to narrow sectarianism and a rigid fanatical outlook on life and thereby rendering them unfit to contribute substantially to the social or political progress of the country (p. 19).

Chaudhary makes an interesting diagnosis of the growth of the Extremist movement in India. This school was represented by veterans like Balgangadhar Tilak, Lala Lajpat Rai and Bipin Chandra Pal and its metaphysical foundation was provided by Aurobindo. The author while focussing the basic features of the movement writes, "From the very beginning, the movement exhibited two distinct trends of the spiritualization of politics as represented by Sri Aurobindo and of diverting the religious enthusiasm of the people into political channels with a view to prepare them for the struggle of independence as advocated by Tilak" (p. 27). However even if he provides adequate illustrations to make such sweeping remarks, he fails to trace out the communal outlook of Tilak which in the long run alienated the Muslim Community from the Indian National Congress.

He hardly justifies the nomenclature of the chapter which throws light on the reaction of the people of India towards the partition of Bengal. Even he makes too sweeping an observation that Lord Curzon's partition of Bengal in 1905 "set into motion two diametrically opposite forces, imperialism and nationalism which clashed with each other in a deadly manner resulting in the triumph of the later" (p. 86). It seems the author hardly recognises the contribution of the Liberal School represented by Gopal Krishna Gokhle and others to the growth of nationalism in the country.

His two chapters on the movement for national education, spread of literature in Indian languages and the outbreak of the underground movement, deserve a special mention. The basic goal of national education as championed by Ravindranath Tagore and others, was to reinvigorate the dormant feeling of national pride among Indians. Chaudhary very rightly writes "It stimulated national pride and. (sic), focussed the attention of the younger generation on the achievements of their ancestors in the religious and other spheres. It enriched vernacular languages, made education available to the masses and narrowed down the intellectual and cultural gap between the classes and masses "(p. 100). He makes an interesting analysis of the heroic fight given by individual patriots like V.D. Savarkar, Shyamji Krishna Varma, Lala Hardyal, Madan Lal Dhingra. All of them according to him were "fire eaters" who believed in the path of action rather than in the path of appeal (p. 131). But he fails to highlight that irrespective of any personal bravery and sacrifice, their overall contribution to the national movement in India was negligible because of a lack of coordinated approach in their agitations.

Although the Muslims were equally responsible along with the British for the division of the subcontinent into two separate states, one does not find any probing by Chaudhary on the role of Hindu Communalists towards the making of Pakistan. One hardly finds anything new when he writes, "The Simla Deputation had infused a new spirit among the Indian Muslims who were now bent upon creating a political forum for themselves on their own interest" (p. 174). Moreover the author also makes an observation on the following words, "The problem of minorities encouraged fissiparous tendencies in Indian society, damaged its solidarity, weakened the national spirit and in course of time assumed so dangerous proportions as to jeopardise even the unit and territorial integrity of the country". Although one can hardly refuse these observations, the author as a researcher was expected to suggest other alternatives available to the Muslim minorities and even the majority community in the prepartition days.

Chaudhary catalogues a number of repressive measures taken by the British like the Seditious Meeting Act 1907, The Explosive Substances Act 1908, The Indian Criminal Law Amendment Act, 1908, The News Papers (incitement and offences) Act 1908, and the Press Act 1918. Even he very rightly focuses the attention of historians by pointing out the real intention of the British power to blackmail the Indian freedom movement, while he writes, "The Morley-Minto Reforms of 1909 mark a watershed in the constitutional and national development of India. They were an answer to the repeated demands of the moderates in the Congress for constitutional reforms and of the powerful Muslim minority for special

protection of its political rights. At the same time they served the purpose of a smoke screen for the British imperialists to hide their real intention of retaining political power in their own hands" (p. 197).

A separate chapter on the life and mission of Gandhiji is befitting because of the fact that it was Mahatma Gandhi who translated religion into politics. His rationalization of politics and championing the cause of liberation by non-violent means was a unique political style by itself. But in this context also one cannot overlook the author's lack of objectivity because of excessive quotations.

It is interesting to find a separate chapter on the role of Sikhs in general and Akalis in particular in introducing an overdose of sectarianism and anarchism into the mainstream of Indian politics. Of course one may not entirely agree with Chaudhary when he writes that the Akali movement "damaged respect for authority, inculcated a spirit of defiance and desperation, confused religious and political issues, encouraged social reforms and on the whole disturbed the peace of the country and the mind of the Government" (p. 278).

In his concluding observations, Chaudhary's thesis revolves round the point that in spite of several attacks and counter attacks on the Indian sub-continent the Hindu cultural life never really changed much. Moreover in the first quarter of the present century, as he rightly perceives there was a triangular contest for supremacy between the Hindu and the Muslims and the British. The net result was that even if the British left India after sometimes, they left a permanent source of discord between the ruling elites of the two successor states of India and Pakistan.

The author equally subscribes that "religion also became a handle in the hands of our rulers for the application of the policy of divide and rule and much of slaughter and bloodshed were subsequently perpetrated in its name in the form of communal riots" (p. 294). He fails to elucidate his viewpoint that religion was the common goal of the three parties—the Britishers, the Hindus and the Muslims, with varying techniques to achieve the same. Although religion played a prominent role, it only presents a one sided scenario of the freedom struggle.

Darbara Singh's hurried and hap-hazard work on the recent political development in India, is a typical narration of the political events. His overall preoccupation is to highlight the misdeeds of Congress government under Indira Gandhi's leadership. According to him Mrs. Gandhi's authoritarian character was already revealed prior to her declaring an internal emergency in the country.

In his introductory chapter he highlights a number of interesting incidents which ultimately contributed to the imposition of her authoritarian rule. One such interesting instance arose when Justice Mathew, Ex-Chief Justice of Allahabad High Court visited Justice J.M. Lal Sinha during the final judgement of the famous election petition case. He told him that if the judgement was in favour of Mrs. Gandhi, he (Justice Sinha) would be elevated to the Supreme Court. Former Home Minister, Charan Singh is reported to have said that Justice Sinha was offered a sum of rupees four lakhs as bribe for a favourable judgement. Then he describes the behind-the-scene activities going on between the Prime Minister House and Rashtrapati Bhavan before the actual imposition of Emergency. It is interesting to note that when Mrs. Gandhi wanted the imposition of Internal Emergency prior to its being discussed and decided by the Union Cabinet, President's the-then Secretary Balachandran advised President Ahmed to the contrary. According to him (Balachandran) it would be constitutionally impermissible for the President to act in the matter as suggested by the Prime Minister (p 21).

Making a sharp attack on the 20-Points Programme, Singh writes, "Thus hastily devised programme fell short of its objectives and huge sums of money were wasted on its propaganda in the press, posters, and meetings." The author cites a number of instances of misuse of power by Indira and her henchmen, but he avoids, for reasons best known to him, to cite any authentic source of information.

Highlighting on the Supreme Court's unanimous verdict to reverse the decision of Allahabad High Court, Singh rightly comments, "Though the court has not nullified her election and not disqualified her for six years, it has held her responsible for making effort to destroy the constitution for her selfish ends."

He points out a number of statistical information about the number of newspapers censored, newsmen arrested and the number of High Court Judges transferred, without of course authenticating the source.

His comment on the non political role of Indian armed forces is highly unbecoming on his part. In his obsession to criticize the misdeeds of Emergency, he seems to suffer from a lack of judgement.

One certainly agrees with Singh in his observation on the Time Capsule when he writes, "This Capsule is not an excess committed against the laws and people of the country during Emergency but is an excess against the history of the country and is surely very condemnable" (p 94).

In his assessment of the Janata Party, Singh projects a partial outlook. When one looks at the present intra-party fight within the ruling party, such an over-optimistic picture about the future of the party appears most unrealistic. Even his statistical details about the Shah Commission is a futile exercise. Rather he should have focussed on the objective needs for such Commissions of enquiry to highlight on any excesses committed by a party in power.

Without denying Singh's contribution which mainly lies in highlighting on the untold stories of the dark days of Emergency, it must however be pointed out that some of his observations are misleading and negating a sense of proportion. It seems the author has not taken pains to edit his manuscript. The following omissions and printing errors could have been avoided. For example in page 17, in place of Lieutenant Kishan Chand, it should be Lieutenant Governor Kishan Chand. In page 55, in place of Om Sukla, it should be Vidya Charan Sukla, In page 57, in place of former Vice-Chancellor, it should be Vice-Chairman. In page 110, in place of Ashok Kumar, it should be Kishore Kumar. Besides one comes across a number of spelling and other mistakes here and there, which should have been rectified.

Book Reviews

ECOLOGICAL CONSEQUENCES OF THE SECOND INDOCHINA WAR

by STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

(Published by Almqvist & Wiksell International, Stockholm, Sweden, 1976)

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THE First Indo-China war culminating in the defeat of beleaguered French forces under the unlucky Gen. Navarre at Dien Bin Phu in 1954 is now part of history. This was a classical type of war between a colonial power which had realised that it had to withdraw sooner or later and a people taking advantage of the arms left behind by Japanese occupation forces and fortified by the conviction that the previous colonial power which had been so easily overpowered by Japanese forces in the early stages of World War II, could likewise again be overpowered by the new people's army.

The Second Indo-China War for which the seeds were sown by America's unfortunate decision to retain hold on the country after Dien Bin Phu, developed with an inexorable logic of its own given America's irrational fears regarding the spread of communism and propensity to treat all movements for national emancipation as communist inspired.

The war was, relatively speaking, neither very intensive nor did it encompass the whole of Indo-China so long as United States refrained from active participation. It was only after 1964-65 when President Johnson in an effort to deter North Vietnamese liberation forces began the induction of American forces that there was a qualitative change in the tempo of operations. Characteristically, air operations increased and with that the quantity and types of bombs dropped over Vietnam—North and South. Ground operations including massive artillery barrages over suspected guerrilla hideouts increased concurrently.

An even more serious escalation of the conflict occurred in 1967-68. When the Vietnamese in their 1968 Tet offensive had reached the outskirts of Saigon. So serious was the situation that General Westmoreland then C in C of US forces in Vietnam reportedly sought Presidential Sanction for the use of tactical nuclear weapons in selected areas of North Vietnam. Mercifully the nuclear threshold was not crossed, but the destruction wrought by the massive and indiscriminate use of conventional (conventional only in the sense that they were not nuclear) weapons has been no less.

SIPRI in their "Ecological Consequences of the Second Indo-China War" give a sober but detailed account of the types of munitions used and the areas over which they were used year by year since 1964 when large scale commitment of American forces in the Indo-China conflict came about. The full significance of the massive use of high explosives, incendiaries and herbicides can be realised only after a careful study of the wealth of statistical data presented by SIPRI. A few points, however, may be highlighted. For example, the strength of US forces involved in Indo-China rose from the relatively modest figures of 9000 in 1962 (most of whom were Air Force, logistic and intelligence personnel besides 'advisers',) to 60,000 in 1965. It then sharply increased to 268,000 in 1966 and 535,000 in 1968; remaining nearly at this level till the end of 1970 when President Nixon virtually conceded American reverses.

Predictably the tempo of operations as may be judged by the quantities of high explosives and incendiaries rained on the hapless country, as well as the quantities and types of herbicides sprayed was in direct proportion to the number of American troops deployed.

At the height of the War, (in 1968) almost 3 million tons of munitions were burst and over 19 million cubic metres of herbicides sprayed over the heads of the people of Vietnam, their cattle, their crops and their forests. Over the 11 year period of America's active involvement in Indo-China (1962-1973) the ammunition expended exceeded 14 million tons and herbicides used, 73 million cubic metres (about 90mn tons). On a per capita basis, it meant 306 kg of munitions and 1.6 litres of herbicides for the entire group of countries—North and South Vietnam, Cambodia and Laos. Ironically, the heaviest punishment was reserved for South Vietnam, and especially the Southern most region of South Vietnam, and the Saigon region, the former having received 1833 kg of munitions and 16.3 litres of herbicides per capita and the latter, 890 kg of munitions and 7.9 litres of herbicides. South Vietnam, as a whole, the country which the US was ostensibly protecting from communist attack, was itself the target of US air, ground and naval forces most of the time and was at the receiving end in respect of 71 per cent of all ammunition spent by US forces in Vietnam.

During the 11 year period (1962-1973) of the Second Indo-China war, American forces lost a total of 46,165 men in killed. Assuming a ration of 4 sustaining wounds, injuries or otherwise becoming casualties needing evacuation, to every person killed, almost 200,000 Americans would have been wounded. Considerable as these figures are, they would be very small in comparison with the men, women and children—combatants and non combatants among the people of Indo-China who

were killed or wounded during this entirely uncalled for war. A proportion of 50 Vietnamese to 1 American casualty may be a fair assessment on which basis, the total number of Indo-Chinese killed or seriously incapacitated as a direct result of the war, would be about 2 million. This in a total population of about 46 million gives a measure of the horror of the Vietnam war. But this is only a part of the grim tragedy. Over the same period, $14\frac{1}{2}$ mn tons of munitions were rained on the country, statistical analysis of the types of munitions used and their frequency suggests that roughly 21 mn bombs dropped and 229 mn shells were fired on Vietnamese soil leading to the same number of craters. This has left near permanent scars over a good part of the country, not counting the damage done to dwellings, farm and forest, animals and trees. So extensive has been the damage done to the soil that teams of American academics who visited the country shortly before American withdrawal from Vietnam remarked that parts of the country side look like the moon's surface, barren and pock marked. The damage over some areas could be near permanent.

Far more damaging, in some respects, has been the effect of the use of herbicides. Three obnoxious herbicides code named *Orange* (a 1.124:1 mixture of 2.4.5 trichlorophenoxyacetic acid, (a4,5T) and 2-4 dichlorophenoxyacetic acid, (2-4D), *White* (a 3.882:1 mixture of tri-iso-propanolamine salts of 2-4 D and 4-amino - 3,5,6, - trichloropicolinic acid) and *Blue* (A 2.663 : mixture of sodium dimethyl arsenate and dimethyl arsenic acid) were used. *Orange* and *White* consist of mixture of plant hormone mimicing compounds which kill by interfering with the normal metabolism of poisoned plants. *Blue* consists of a dessicating compound which kills by preventing a plant from retaining its moisture content.

In all, over 44 mn cubic metres (cm) *Orange*, about 20 mn cm of white and a little over 8 mn cm of *Blue* were used over the forests, rice fields and marshy swamps of Indo-China. Forests, including swamps (.5 mn hectares), account for 10.4 mn hectares and cultivated fields 3 mn hectares out of South Vietnam's total geographical area of 17.3 mn hectares. Of this a total of 1.467 mn hectares of forest land and .241 mn hectares of rice fields were subject to one or more herbicidal attacks. A quarter of the area sprayed could have sustained serious damage and another quarter fairly serious damage.

This taken with the damage wrought by incendiaries and high explosives gives some indication of the ecological havoc that was thoughtlessly and needlessly inflicted on Indo-China.

What distinguished the Second Indo-China War from earlier wars is that although every war leaves behind a tale of woe and destruction,

during the second Indo-China war, American planners used ecological destruction as an essential element of their strategy for overcoming their opponents. One reason for this, as noted by the author of this publication is that at no time during this long war did American forces really control Vietnam or even a sizeable portion of the country. American forces at the best of times exercised direct physical control only over selected enclaves of the country. The South Vietnamese, controlled more such pockets which gradually shrunk in numbers and in area, till in the final stages of the war, South Vietnamese and American forces and their supporters among the local population came to be confined to a number of defended localities leaving the rest of the country as "no man's land" where North Vietnamese forces in regular or irregular formations could operate as opportunities arose.

It was in this setting that American forces tended to assume that areas other than those occupied by them or their allies could be enemy hideouts and therefore suitable targets for mass bombardment using ground, air or naval weapons as convenient.

Also in order to prevent North Vietnam from using Laotian mountain tracks as their arteries of communication, the hilly and forest areas of Vietnam and adjoining Laos and Cambodia were chosen for sustained and intensive bombing and attacks using Orange, Blue and White herbicides.

There is no doubt that a significant fraction of the total area of Indo-China under forests has been destroyed, and prolonged afforestation efforts would be necessary to rehabilitate the area. The effects of denudation of forests on Vietnam's economy would be serious in terms of increased danger of soil erosion and alteration of rainfall patterns, and consequent floods and droughts. These adverse effects would be reinforced by the simultaneous destruction of mangrove forests (swamps) at the estuaries of water courses. Besides, there is the direct destruction of almost a quarter million hectares of fertile rice lands.

"Ecological consequences of the Second Indo-China war" an excellent publication, full of useful information compiled from authentic sources, is one that students of contemporary affairs can ill afford to miss.

STALIN : AS WARLORD

by ALBERT SEATON

(Published by B.T. Batsford, London, 1976) pp 312. Price £ 5.95

THIS is a fascinating book by a former British Army officer, who has, for the twelve years since his retirement, been engaged in academic research on the Russian and Soviet Armies and the German Army of the Third Reich. The author's knowledge of his subject is immense. The select bibliography reveals the depth of his study and the degree of his interest. More than half the references are to works in the Russian language, of which, presumably, he has more than a nodding acquaintance. The portrait of Stalin, therefore, he has drawn for us, is not only as he appears to Western eyes, but also to such of his contemporary countrymen as have chosen to record their opinion of him. The outlines of the man, however, are still not clear. Was he, as claimed by many, (himself at the forefront), the sole architect of the Soviet Union's success in stemming Hitler's invasion of Russia in June 1941? The Communist system, unfortunately, does not help in providing us with a dispassionate, detached answer. The contemporary impressions mainly, are either those of sychophants, only too anxious to paint their master in the rosiest of colours; or of those living in real fear in a totalitarian state where, in the expression of any opinion, discretion is infinitely preferable to valour. For, let us be in no doubt of Stalin's power in the Soviet Government hierarchy during his life time. He was an absolute dictator, conscious of power and crafty in its use; cruel and ruthless in his methods; vindictive and with an utter cynicism for personal relationships. Objective accounts of the ugly side of this man, in such a terrible atmosphere, understandably, are few.

He appears to have started fairly early on the revolutionary path. At the age of twenty he was expelled from the theological seminary in Tiflis and imprisoned thereafter no fewer than six times. A fellow prisoner described him as a rude and unpleasing speaker with an outstanding memory, crude and lacking in principle, having little educational background or culture, with 'an aptitude for striking secretly by the hands of others while remaining in the background himself'. A truly perceptive assessment. Colonel Seaton quotes another assessment by Trotsky, who said of Stalin that his ambition had acquired an untutored Asiatic cast of mind, intensified by European techniques, so that he had to have the press extol him extravagantly every day, publish his portraits, refer to him on the slightest pretext, and print his name in large type. Everything had to revolve round Stalin. At a later period Khrushchev said much the same. There could hardly have been a better description of

incipient megalomania, from which all dictators begin to suffer, to a greater or lesser degree, till they reach the incurable stage.

The first three chapters of this work describe the part played by Stalin in the Civil and Polish Wars fought in 1918-19. The atmosphere of intrigue, bloodshed and confusion is gripping. There are some sobering revelations too, of the differences in ideological precept and practice. The election of commanders by the troops, in the early period of revolutionary fervour soon gave way, on strictly practical grounds, to the appointment of Bolshevik military councils, jointly accountable to their superiors up the line, to the Politburo. The pre-war cadres of former tsarist officers, who alone had the experience, filled the principal command and staff appointments in the Red Army. Trotsky regarded the 'idealistic officer' as an insignificant minority and Lenin admitted that the Red Army could not have been created without the former officers. Their recruitment was put on a compulsory basis. The penalty imposed by Lenin for evasion of mobilisation was shooting, and the taking of hostages from the families of officers and the bourgeoisie, as a safeguard against desertion and treason. Between 1918 and 1928, 48,000 former officers were mobilised into the Red Army. So much for the revolutionary zeal of the proletariat, and their capacity to throw up leaders.

The remainder of this book deals with the growth of the Red Army, immediately prior to the outbreak of World War II, and the great battles fought in that war by the Russians against the Wehrmacht. The great Stalinist purges of the late nineteen thirties, when tens of thousands of Red Army Commanders were arrested, shot or sent into concentration camps, are mentioned only in passing. One would have wished to know more about this horrifying aberration, but the author has obviously been pressed for space.

There is little doubt about the supremacy of Stalin's role in directing military operations against the Germans. He was, the prime warlord. but this is not to say that he tolerated no discussion, or that his directions were invariably sound. The underlying impression one receives is of a suffocating atmosphere in all deliberations at which the dictator was present. Harry Hopkins, President Roosevelt's personal representative noted that his request for information met with evasive answers; only Stalin could oblige. His subordinates regarded him with 'awful fear'. Lord Ismay has recorded that when Stalin entered a room, every Russian froze into silence and the hunted look in the eyes of the generals showed all too plainly the constant fear in which they lived. It was nauseating said Ismay, to see brave men reduced to such servility. Be that as it

may, the Russian steam roller, under Stalin's tutelage, lumbered its way to ultimate victory. The reader must judge for himself whether the frightful cost of this deliverance justifies the classification of Stalin as the sole architect; or whether, under Communist dispensation and Stalin's rise to power between the two World Wars, the people of the Soviet Union had any alternative. One thing is clear beyond doubt. But for the stoicism of the population and the numerous acts of heroism performed by the Soviet Armed Forces, the outcome of the war may have been quite different.

A very readable book, strongly recommended to scholars of military history. Colonel Seaton's narration is lucid and his judgements are balanced. We should be grateful to him for culling the mass of Soviet writings on this topic which, because of translation difficulties, would otherwise remain inaccessible to us.

M.L.T.

THE WORLD AND THE GREAT-POWER TRIANGLES

Ed. by WILLIAM E GRIFFITH

(Published by The MIT Press, Cambridge, 1975) pp 480.

THE book "The World and the Great Power Triangle" being reviewed is edited by Williams E. Griffith. He is Ford Professor of Political Science at Massachusetts Institute of Technology Cambridge, Massachusetts (MIT).

As the blurb tells us the coming of the Sino-US and Soviet-US detente in the early 1970s and the subsequent shift in international relationships produced a revolution in world diplomacy whose repercussions are still being felt. Considering the formation of the Great Power Triangles has inspired to describe the dramatic changes in global affairs in terms of its implications for regional politics in key areas of the World. The contributors to this book belong to different spheres of life like journalists, academics and research institutes.

The book is divided in six chapters written by different experts and begins with an introductory chapter by William E. Griffith in which he analyses events leading to the breaking of the alignment of the cold war era and rearrangement of the great powers into two triangles: a political military grouping made up of the United States, the Soviet Union and China and the economic triangle among the United States, Western Europe and Japan. In each of the subsequent chapters a well known writer on international affairs discusses the operation of this triangular

world politics in his particular area of expertise. Victor Meler compares the situations of Rumania and Yugoslavia in the Soviet block and the World; Arnold Hottinger considers the Middle East as the regional sub-system; Paul F. Langer describes Japan's search for a new national policy; Bhabani Sen Gupta studies the great power relationships on conflicts between India and Pakistan; Chong Sik lee examines the effects of Soviet-American detente on two Koreas.

In the Introductory chapter of this volume, William E. Griffith has attempted to assess the interregional developments in several areas of the world with the transition in international politics to dual multipolarity in terms of the political, military and economic triangle. In 1970s Japan emerged as one of the Super powers in the field of economic development, and the deterioration of Sino-Soviet relation made China an important means for the US-Soviet detente. These two major developments led the world transition from a bipolar to tripolar, forming Sino-Soviet-US political, military triangle and United States, Western Europe and Japan, an economic triangle. "The Sino-Soviet split was considered in the United States, that only China can bring effective pressure on Moscow in favour of Soviet-US detente and, for China, only the US can effectively help to deter a Soviet attack". (p. 1). The deterioration in Sino-Soviet relations was inevitable from their border dispute to refusal of Soviets to continue the atomic aid to China. Finally after the death of Mao the leadership of personality in the Communist World made it more bitter. After the 1968 Soviet invasion of Czechoslovakia, China actively tried to influence the Europe. She tried to persuade Rumania and Yugoslavia against Soviet Union but encountered by Moscow, Peking could not get much success.

In forming the politico-military triangle the first aim of Nixon administration for China policy was to contribute to Soviet detente and thus putting pressure on Soviet Union. Other factors leading to grouping were limiting strategic arms, and trade etc.

The next chapter on "South Asia and the Great Powers" by Bhabani Sengupta is of much interest. This is very informative chapter written by Bhabani Sengupta for a reader interested in South Asia. The geo-political location of South Asia, the Indo-Pak conflicts and prospects and the impact of formation of politico-military tripolarity, the Sino-American break-through and Indo-Soviet Treaty and their implications are described in great details. In 1971 the changed map of the subcontinent clearly revealed the changed relationship among the super powers. The efforts in the last decade by United States and USSR to contain Chinese influence in the Sub-continent shifted to Sino-US joint efforts to

contain Moscow which was helping India and Bangladesh. Again, there were the domestic problems of India and Pakistan from (1970-72) which shaped their foreign policy. This shows the manner in which unlike super powers, "The foreign policy of smaller nations almost is always affected by the domestic politics. Though the Super powers have avoided a direct confrontation in South Asia, yet they are always engaged in shadow conflicts. United States and China have operated it through Pakistan and the Soviet Union through India.

Despite India's persistent search for security, Bhabani Sengupta has given good reasons for Moscow thrusting its policies towards Asia. He refers to an article in *Pravda* written by Gorgii A. Arbatov, Director of the USSR Academy of Sciences, Institute on the U.S. which analyse Nixon's new China Policy. He had analysed that United States is improving relations with China "with a turn towards a more constructive positions" on issues that stood between it and Moscow. "But there are grounds to expect that events will develop in another direction, in which US policy will remain unchanged except for relations with China, and its course will, as before, be the main obstacle in eliminating sharp international conflicts". (p. 225). While Arbatov reserved 'definite conclusions' on the future of American-Chinese relations", it was evident that the Soviets were seeking a friend as its major ally.

In a likewise manner, Mr. Gupta has presented a balanced analysis of all important events and factors dealing with the foreign policy and security problems of India and Pakistan and repercussions of the emergence of Bangladesh. The description of Indo-Pak wars and its causes are similarly put in a proper perspective.

The book also presents an account of Balkan Estates, a better insight into Arab-Israeli problems and Korea, in terms of Great Power triangle, though less important to an ordinary reader. The articles in the book are of limited interest. The article on Korea and Balkan have been dealt in at length totally to their importance. On the whole the book is of limited interest to Indian readers and it may be added that the book is expensively priced.

SOVIET-CHINESE RELATIONS, 1945-1970

by O.B. BORISOV AND B.T. KOLOSKOV

(Published by Indiana University Press, Bloomington, 1975) pp 364.

THIS treatise is a translation of the original in Russian, attributed to two fictitious authors, Borisov and Koloskov, and first published in Moscow in 1971. In actuality, it can be considered as an official document, produced by the Soviet authorities to give their account of the Sino-Soviet relations from the end of the Second World War to 1970, preceding Nixon's visit to China and the thaw in the Sino-American hostility.

The English translation has been competently edited by Mr. Vladimir Petrov of the Institute for Sino-Soviet Studies, George Washington University, who has also added to the Borisov-Koloskov narrative an introductory chapter, entitled "The Soviets and World Communism: Sources of the Sino-Soviet Dispute", providing an overall perspective to the subject.

The main causes of the Sino-Soviet enmity, as pinpointed in this study, are Maoist personality cult, Maoist opposition to the Soviet policy of peaceful co-existence towards the non-Communist world, Maoist ingratitude regarding Soviet aid, the policy of developing China independently of the Soviet Union, violation by China of basic rules of behaviour, observed by the Socialist States in their international relations, and the growth of anti-Soviet feelings in China and the Chinese efforts to split the international Communist movement by painting the Soviet Union as a reactionary, revisionist, and Social-imperialistic state.

This book is aimed at giving a true picture of the modern world by showing how the great October Revolution has tremendously influenced the world revolutionary process. It has not only emphasized the help given to the Chinese by the Soviet Union "in the national liberation and revolutionary struggle of the Chinese workers," but also pointed out yet another irrevocable truth: the open transition of today's leaders of the PRC to a position of anti-Sovietism was neither unexpected nor random in nature. From its very inception, the CCP has been torn by a sharp struggle between two lines; the international [Marxist-Leninist, and the nationalist petty bourgeois. The champions of the latter line are today's Peking leaders." The authors have justified the Soviet action in providing help to the suspect CCP leadership in the past by the assertion that "without this help nationalist elements would much earlier have imposed their will on the CCP,"

It is not unnatural for the Soviet Union, as the first Socialist State, and a Super Power now, to think that all other Socialist states should follow her lead in international field in the interest of the victorious march of the Socialist ideology over capitalism and imperialism. But the history of the Communist states for the last thirty years or so have unmistakably shown that Communist internationalism has not been able to hold its own against cults of personalities, nationalist prejudices, and lack of faith in any individual country as the source and centre of Communist ideology or strength.

No doubt, this is a very important book on international relations, an invaluable source material for all future studies concerning the Sino-Soviet relations.

B.C.

NIMITZ

by E.B. POTTER,

(Published by Naval Institute Press, Maryland, 1976) pp 507.

Price not listed

CHESTER Nimitz was a 56 year old rear admiral heading the Bureau of Personnel in Washington, when President Roosevelt offered him in early 1941 the four-star command of the main US Fleet, which had just completed its base shift to Pearl Harbour. With war against Japan a matter of months and Pacific the certain prize ring, here was fate apparently thrusting him to the laurel path. But Nimitz, in his calm, deliberate manner, turned down the offer on the plea that he considered himself too junior for the post. There is little doubt that the real reason was his belief, which he had expressed in as many words earlier, that the US Navy was bound to suffer initial reverses in the Pacific and that whoever was in command would be made the scapegoat.

Here was clairvoyance, that indispensable quality of a successful strategist, at its best. For Admiral Kimmel, who went to Pearl Harbour in place of Nimitz, had to return home ignominiously within a year when Nagumo's carriers annihilated the entire US battle fleet right in its home base.

Now the time was right and Nimitz accepted the command which was offered to him a second time. How he went to Pearl Harbour, picked up the remnants of that shattered fleet, and forged it into the mighty naval force which swept forward from Midway through Marshalls, Marianas, Leyte Gulf, Iwo Jima and finally into Japan, is the theme of this immensely readable biography by Professor Potter.

In a war which produced flamboyant prima donnas like Macarthur, Mountbatten, Halsey, Montgomery and the rest, the controlled, reticent, yet professionally dynamic, personality of Nimitz was most untypical. I cannot think of any other US or British five star commander of the last war, or for that matter even a four star one, who has not rushed to print with his memoirs, often on the lines of how he won the war, inspite of everybody else.

Not only did Nimitz refuse to write his autobiography, he even refused to authorise others to write it while he was alive. That is why Professor Potter's book published ten years after Nimitz's death and thirty one years after the end of the war commands ones interest and attention in a manner few other war biographies do.

Professor Potter, despite being a close friend of the Nimitz family and having been given access to all Nimitz papers, has refrained from being overtly adulatory. He has portrayed Nimitz for what he was—a cerebral leader and strategist, with no heroic pretensions.

Yet, in his subtle fashion, Potter draws our attention to the enormous war time achievements of Nimitz. Three entirely new concepts of naval warfare were operationalised by Nimitz's forces to win the war—sustained carrier warfare, the fleet train and large scale amphibious landings.

The professional reader may feel a trifle disappointed at the failure of the book to chart the development of these and other concepts which made the Pacific war so innovative and exciting. The crucial role which Nimitz undoubtedly played in this field has been left unchronicled. But this is perhaps an understandable omission, since the book is essentially aimed at the lay reader for whom the human side of Nimitz is undoubtedly more interesting.

And in that area Potter has been marvellous indeed. With revelatory insight and through sparkling vignettes, Potter has sketched Nimitz's masterly handling of his colleagues. How he humoured the imperious and tactiturn King and got almost all he wanted, how he gently but firmly fended off Douglas Macarthur's persistent efforts to become the supreme commander of all Pacific, and most interesting of all how he juggled and got the maximum out of such disparate geniuses like 'Bull' Halsey, Raymond Spruance, the 'magnificent' Mitscher, Kelly Turner, 'Howling Mad' Smith and scores of others.

In fact by the time one reaches the end of this 471 page book, the portrait of Nimitz comes so vibrantly alive, that one gets the feeling of having personally known the man. And therein lies the strength of this book—the story of a self effacing superstar, told in subdued yet fascinating style. A highly recommended book for any library.

V.K.

THE GUINNESS HISTORY OF AIR WARFARE

by DAVID BROWN, CHRISTOPHER SHORES AND KENNETH MACKSLEY

(Published by GUINNESS Superlatives, Middlesex) pp 247. Price £ 6.50

GUINNESS Books are invariably books of facts, feats and firsts,—and the present one is no exception. The present book ("Air Warfare") leads the reader through a chronological sequence of facts and circumstances to the gradual evolution of air-warfare to the stage as we know it today.

The book clearly points out to the interested reader all the vital facts (some of which are generally little known)—which contributed to man's visualisation of future possibilities of war in the air; and later, to the assessment of implications and complications of employing the "air"-element in conflicts and major wars.

It depicts how the tentative and experimental utilisation of aircraft in World War-I contributed to the crystallisation of ideas in the mind of national leaders and military commanders,—leading to the formation of the "Air Arm" in diverse forms in different countries.

There has been much theorisation about the employment of Air Power all the world over. There have been astounding claims as to its potentialities;—and there have also been critics who have advised caution against over-estimation.

The most massive use of Air Power so far has been during the later years of World War-II,—when the size of forces deployed surpassed all previous popular estimates. And in spite, subsequent verification did not always support the contention of air-power enthusiasts as to the effects which were said to have been achieved.

However, the "Air-arm" came out through the years of Second World War with flying colours as the quickest and most flexible means of offensive and defensive operations. The subsequent developments like the jet engines, guided missiles and nuclear war-heads have really added to the foreseeable advantages of the air-arm, some of which have by now been fully exploited.

Even though a product of the twentieth century, Air Warfare has had a long and colourful history. The Guinness Book has tried to capture that long history in its brief span through intelligent narration and very good illustrations,—right up to the recent period of the seventies.

This Book (Air Warfare) can serve all who are interested in Military History—beginning from the students right up to the specialists,—because of the wealth of information it provides. Alongwith its companion volumes (“Land Warfare” and “Sea Warfare”), it will be a valuable addition to any Library,—Civil or Military.

S.D.S.

BATTLESHIPS : UNITED STATES BATTLESHIPS IN WORLD WAR II

by ROBERT O. DULIN, AND WILLIAM H. GARZKE

(Published by Naval Institute Press, Maryland, 1976) pp 267. Price not listed.

THIS is a trip down nostalgia street, reliving the 36 year reign of the Battleship as the Queen of the sea, from 1906 when Dreadnought was commissioned to 1942 when the aircraft carrier emerged as the new Lord of the Ring.

The authors, two of whom are naval architects have given a brilliant exposition of the design features of the four principal classes of US Battleships—The North Carolina class, the South Dakota class, the Montana class and finally the Iowa class consisting of Iowa, New Jersey, Missouri and Wisconsin, arguably the best battleships ever built. The design problems confronting the various navies in making the best combination of armour, armament and speed, particularly during the twenties and early thirties when treaty restrictions limited displacements to 35,000 tonnes, makes fascinating reading.

Unfortunately the book is confined to American designs. It would have been interesting to gain similar insights and details regarding the King George V class, the Bismarck class, the Yamato class and the Vittorio Veneto class, and then make a world wide comparison.

The book nevertheless makes fascinating reading, and viewing. The photographs are fresh and superb; and the line drawings of building plans, detailed yet uncluttered.

The awesome power and design perfection of the later battle ships—the Iowa had nine 16” guns with 35000 yds fighting range, good AA capability, 12.1” armour and could do 33 Kts !- are conveyed so graphi-

cally, that one needs a little jolt to realize that these seemingly invincible leviathans which were considered the mainstays of all navies till 1939 were eclipsed totally and decisively by the fledgling flat top once the war broke out. It seems inconceivable in retrospect that the pre-war tacticians could not foresee the effects of the enormously extended hitting ranges brought about by shipborne aircraft. It also makes one wonder whether we are going to see history repeat itself. For can we be certain that the carrier admirals who have succeeded the battle ship admirals have fully grasped the power that new, precision guided, long range cruise missiles have conferred on the smaller combatants and the consequent impact on the seemingly impregnable Enterprizes, Nimitzes and Kievs. Has the bell, which toiled for the Battleship in 1942 now begun to toll softly for the Attack Carrier too? Only a war, or objective war-gaming forced upon by prohibitive costs, can tell.

V.K.

THE SHIPS AND AIRCRAFT OF THE US FLEET—TENTH EDITION
Compiled by SAMUEL L MORISON AND JOHN S ROWE
(Published by Naval Institute Press, Maryland, 1977) pp 294.

THIS is the tenth edition of the book first published in 1939. A substantial number of photographs and descriptive data has been packed into this slim volume of 289 pages (25 cm x 17 cm). It is good guide for anyone wishing to learn about US Navy.

V.K.

SUEZ : SPLITTING OF A NATION
by RUSSELL BRADDON
(Published by Collins, London, 1973) pp 253. Price £ 3.00

ANYONE who was old enough to read newspapers with some understanding in 1956 would readily recall all that has been quoted in this book. It is a record of the impassioned outcries of hundreds of men and women, many of them personalities of international stature, the rest—ordinary men and women in the street who could not influence the decision-making. How impassioned were the uttering? Here are some samples.

“Treachery” said Eisenhower

“Barbaric” said Bulganin

“It was Munich in reverse” said Harold Macmillan.

A long line of British prime ministers from Disraeli to Eden had woven a web of treaties and alliances in the Middle East and America and the United Nations had participated in the process. The great virtue of this web was that, should any Middle Eastern country attempt to break one strand it would promptly and itself ensnared by another. The last of the strands of this web was the Anglo-Egyptian Treaty of 1954. King Hussein of Jordan damaged this web by summarily dismissing General Glubb Pasha, Commander of the Arab Legion, on 2 March 1956. Nasser ripped it to shreds when he nationalized the Suez Canal on 26th July 1956.

To understand what the Suez crisis meant to Britain one must understand what the canal and the complex of imperialism, Zionism and nationalism had come to mean to Egypt by 1956. The author traces the process with remarkable clarity in the earlier chapters of the book.

Then follows the uproarious debate of conflicting views and prejudices. The politicians are naturally heard more clearly. Familiar personalities like Nehru, Krushchev, Krishna Menon, Robert Menzies, Eisenhower, Dulles, Hugh Gaitskell and Harold Macmillan are heard between the outbursts of Eden and Nasser. Out of these loose strands the author weaves a fine tapestry to portray the rights and wrongs, the pros and cons and the immediate and long term consequences of the Suez crisis. He leaves it to reader to judge for himself.

VJM

MUSCAT AND OMAN : THE END OF AN ERA

by IAN SKEET

(Published by Faber and Faber, London, 1974) pp 224. Price £ 3.95

IAN SKEET was in Muscat and Oman from 1966 to 1968 and he had finished the draft of this book in a few months after leaving. So much has changed since then that the book is now more in the nature of recent history than a portrait of the present. Said Bin Taimur was deposed in July 1970 to be replaced by his son Qabus as the Sultan. Even the name of the country has been altered—it is now the Sultanate of Oman. In his "Explanation" the author pointedly states that the removal of Taimur was bound to change everything. In fact that is why he wrote the book. He makes no attempt to bring anything up to date. The book is thus a sketch of an era that has passed.

Taimur worked hard to preserve his country from contact with the outside world thus preventing outsiders from seeing what was happening inside its borders. He succeeded in this and acquired reputation as a reactionary. Taimur had succeeded his father in 1932. For thirty-eight

years he controlled every affair in his country. The author paints a vivid picture of Taimur's rule in the concluding chapter which make interesting reading. The earlier chapters are devoted to a graphic description of Muscat and the neighbouring Muttrah, the Batina coast, Ras al Hadd and Oman consisting of Sharquiya, Dhahira and the desert.

Indian readers have a particular interest in the history of Oman. Our association with Oman goes back to the days of the East India Company when, in 1946, Philip Wild as the Company's representative signed trade treaty. The old sixtyfour paise rupee has been as popular currency as any other. Gold is sold by the standard weight of the Tola. The influence of Indian architecture is distinctly visible in the construction of houses. Taimur himself was educated in India and numerous Indians have held jobs in the Sultanate.

VJM

THE KURDISH REVOLT : 1961—1970

by EDGAR O'BALLANCE

(Published by Faber and Faber, London, 1973) pp 196. Price £ 2.95

THE traditional home of the Kurds covers almost equal areas of Iraq, Iran and Turkey and also makes a small dent in Armenia. This land is known to military history since the time of Alexander. Arbela, the scene of Alexander's conclusive battle with Darius is situated in this land and it was to the sanctuary of the Kurdish mountains that Darius fled after Arbela. The Kurds, a sturdy warlike people of independent character have never been assimilated by successive conquerors. A rough parallel may be drawn between them and the tribals of the NWFP and Kurdish warfare may well remind one of the numerous punitive expeditions the British power carried out against the Wazirs and other tribals throughout its rule in India.

The Kurdish Revolt of 1961-70 passed without the world taking any serious notice of it. Other momentous events on the Middle East overshadowed it. The World was also more pre-occupied with the events on Vietnam during this period. The Kurds had no public relations organization and could invoke no interest of the Western powers. Mustafa Mullah, the Kurdish leader fought a lone battle. Another reason was that the Revolt was confined to Iraqi Kurdistan. There was no international implication. Neither Turkey nor Iran made any attempt to influence it one way or other. The Revolt thus faded out in 1970.

Major O' Ballance traces the history of the Revolt through the four offensives it comprises. He does not claim to discover any new techniques of strategy or tactics. Students of warfare on the North West Frontier of

British India will readily agree that the operations on the Revolt help to re-emphasise the old established lessons. The author has paid much attention to detail and taken the same great care to maintain a professional detachment which his other works, "The Greek Civil War 1944-1949", "The Indo-china War 1945-1954" and "The War in Yemen" evince.

VJM

THE CHANGING FACE OF TIBET—THE IMPACT OF CHINESE COMMUNIST
IDEOLOGY ON THE LANDSCAPE

by PRADYUMNA P. KARAN

(Published by The University Press of Kentucky Lexington) pp 114. Price
\$ 18.50

MR KARAN is a noted authority on Asian geography. He has the singular honour of being the first civilian geographer named Surveyor General of India. In this book he has attempted to evaluate the impact of Chinese occupation of the vast tradition bound land of Tibet. The author is concerned with the basic questions in cultural geography. How has the doctrine of communism expressed itself in the geography of Tibet? How has it molded the visible and invisible features of the landscape? The book approaches these questions by interpreting and assessing the patterns of changes in Tibet since the Chinese occupation in 1951.

The work opens with a fairly detailed description of the geographic pattern followed by a historical account of the spatial growth of the Tibet State since the fifth century AD when a successful Yarlung chief brought the rival chiefs of central and southern Tibet under his hegemony. Between the fifth and the ninth centuries AD Tibet was distinctly characterised by the role of feudal monastic authorities. Its economy was dominated by agriculture and the raising of sheep and cattle. Buddhism was securely rooted by royal patronage and in the following centuries monastic centres and native rulers helped propagate Buddhism. Between the tenth and the fifteenth centuries there was a distinct cultural impact from India. Religion prospered and overwhelmed the masses. Tibet had become a theocracy and remained so until the Chinese occupation in 1951 when the Fourteenth Dalai Lama was forced to capitulate.

Since then the Chinese rule has brought about roads, airfields and modern communication. The development of mining and industry, collectivization and modernization of agriculture, public education and public health facilities have all created a vastly changed material and cultural landscape. The author examines in detail the means by which the Chinese have secured political power, the extensive changes brought about in Tibetan economy and the effects of their colonization. He also studies

the imposition of military dominance and the ruthless suppression of Tibet's age old Buddhist culture. This is followed by a study of the strategic implications of the Chinese occupation in which the author analyses the legal status of Tibet, its position in Asian geopolitics and its military potential.

The fact about Tibet is that the land of a simple people with a distinctive religion and unusual government has been Sinicized and a harsh ideological modernization imposed on it. One must agree with the author's conclusion that, should the exiled Dalai Lama and his people ever return to Tibet, they would find it a different place. For, the old fascinating Tibet has ceased to exist.

VJM

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Secretary's Notes

SEASON'S GREETINGS

At the close of 1978, I thank all members for the keen interest that they have continued to take in the activities of the Institution, which no doubt depends on the support it receives from you all. I will request you not only that you continue to renew your membership by paying the annual subscription well in time, but enrol at least one more member, if not more. Please remember this is your Institution and more support you give to it more strength will it derive and render valuable service.

I wish you a happier New Year.

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Kindly send your cheque for Rs 20/- as annual subscription at the earliest but not later than 31 march 1979. Those who had given instructions to their bankers long ago to send annual subscription to the Institute are requested to give revised instructions to their Bankers to send to me Rs. 20/- because annual subscription has now been increased from Rs. 15/- to Rs 20/- wef 1 January 1978. They are also requested to write to me direct giving their latest address, as in most of the cases the correspondence is being received back as undelivered.

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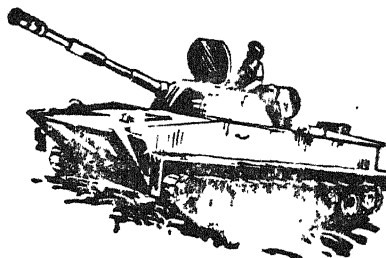
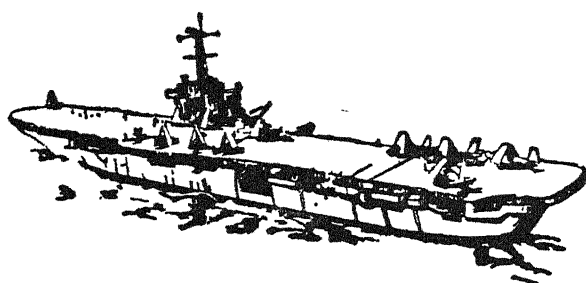
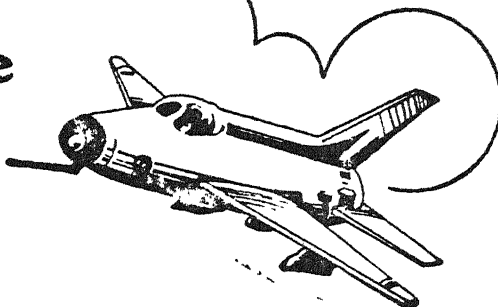


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