

# India



Wing Commander Mahara] K. Chopra, *Indian Air Force, Retired*

**I**NDIAN defense planning was placed within a new framework in the wake of the Chinese attack in the winter of 1962. During the previous 15 years since independence, the reconstruction of the armed forces had been taking place in an orderly manner. However, planning in the sense of precise identification of a threat to national security, fixing of targets, provision of resources, and achievements of results within a specified time span were something new.

Behind this new approach was the compulsion of events. From the estimates of the threat and inquiries held into the causes of the reverse suffered by the Indian armed forces, two crucial conclusions were drawn. One was that the Chinese aggression was the portent of a long-term aggression for which *ad hoc* devices would not do. The second was that a massive, or-

ganized, and sustained effort was needed to build up an adequate defense. Both of these demanded a highly disciplined approach.

The actual reconstruction of the armed forces commenced immediately on the cessation of hostilities, but 1963 was spent mainly in reviewing the political and strategic situations and the condition of the armed forces. The Five-Year Defense Plan was officially inaugurated in the following fiscal year to cover the period 1 April 1964 to 31 March 1969. We are now on the eve of the second defense plan which, as officially announced, is on the anvil.

The long-standing military equation prior to 1963, built on the supposition that the threat emanated only from Pakistan, underwent kaleidoscopic transformation. It is true that there were still elements in the country

which, with their Communist orientation, sought to play down the Chinese aggression. But to a vast majority of Indians, led by the government, it was Red China who India would have to reckon with in the future.

### Armed Forces Strength

The defense budget amounted to one billion dollars in 1963.\* The Chinese had given it a sudden spurt, for this was 40 percent more than the average military expenditure incurred by India in the years 1947-62. The strength of the armed forces was a little over half a million. The army, which constituted the bulk of this strength, comprised a dozen divisions which included a few units for mountain warfare. The air force had a strength of 20,000 divided into about two dozen squadrons not fully equipped. With its strength of 16,000, the navy had 14 combat ships, including an aircraft carrier, cruisers, and destroyers.

In early 1963, there were nearly two million boys and girls in the National Cadet Corps receiving training for periods from two to three years. The Territorial Army numbered about 50,000. This group was recruited from the civil sector for a five-year term and received five to 10 weeks' training each year.

In the old infrastructure, India had about 20 ordnance factories. A committee of Parliament noted in the late 1950's that eight of these had been set up before the Second World War and another eight during that war. The main output of these factories

comprised small arms, some special metals, clothing, and leather goods. Altogether, they supplied nearly one-half the requirements of the army and one-fourth the requirements of the air force. The balance had to be imported. Some plans had been made for building tanks.

### Defense Projects

In addition, there were six defense undertakings, modeled on incorporated companies, concerned with the building of aircraft, ships, machine tools, and heavy machinery. Aircraft included the interceptor *Gnat*, the fighter bomber *HF-24*, the transport *Avro 748*, and *Alouette* helicopter. None of them yet had come off the production lines. The dockyards were mainly for maintenance and repair of ships and production of general maritime engineering supplies and equipment.

In the purchase and production of weapons and equipment, India had sought collaboration from a number of countries from the Free World, as well as from the Communists. Engineers from Britain, France, West Germany, and the USSR had given technical advice. This collaboration was strictly on a commercial basis and, in general, for minor equipment. India's nonalignment had precluded military aid of the type to which the members of a military alliance become eligible.

Finally, in regard to war material, the Parliamentary Committee noted

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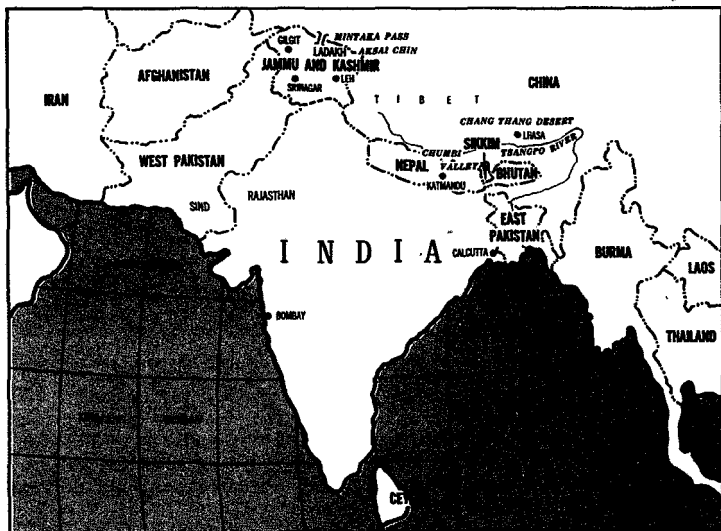
\* At the official exchange rate of one dollar equal to 4.76 rupees. On 5 June 1966, the rupee was devalued, and the dollar became equal to 7.5 rupees. In terms of foreign exchange, the financial dimension of the plan has acquired a new size. But as foreign exchange forms only a small fraction of the total allocation, the old exchange rate is used to maintain the plan perspective.

that, even though the government establishments were not able to cater adequately for defense, the civil sector, in particular, and the industrial potential of the country, in general, were not tapped.

Another aspect which had a vital bearing on the war was the question

more remote outposts were almost isolated.

The report of India's defense posture in 1963 also included the statements that there had been negligible training in jungle and high-altitude warfare, that military intelligence was poor, and that the weapon systems of



of logistics in the border areas. While roads had been built in many sectors of the Himalayas, they were mostly for economic objectives. The Border Road Development Organization, set up in the late 1950's, had just begun to lay strategic communication lines. These were, of course, confined to the lower reaches of the mountains and hardly had been extended to Ladakh or the North-East Frontier Agency. These two areas form the western and eastern ramparts of the Himalayas where the fighting took place. The

the armed forces were in need of overhaul.

The Ministry of Defense Report of 1964-65 spelled out the second defense plan. It envisaged the:

- Building up and maintenance of a well-equipped army with a strength of 825,000 men.
- Maintenance of a 45-squadron air force, including programs of replacement of the older by more modern aircraft.
- Program for a phased replacement of the overage ships of the navy.



This *Leander* class frigate, shown under construction in Bombay, has now been launched

- Improvement of road communications in the border areas.
- Strengthening of the defense production base.
- Improvement of organizational arrangements in the fields of training and supply.

The total expenditure on defense during the period of the plan was estimated at 10.5 billion dollars.

Two events led to certain modifications in the plan although its main contours remained unchanged. One was the war with Pakistan in 1965 which, apart from its impact upon weapon systems, underlined the urgency of improving mobility. Strategic roads were thus undertaken not only in the mountains, but also in the desert. The desert area stretches north of the Arabian Sea and embraces Sind

of Pakistan and Rajasthan of India. The second event was the staggering of the fourth Five-Year Economic Plan which was scheduled to commence in 1966, but postponed for three years.

Economic difficulties, while not impinging upon objectives, have rather inflated the costs. The present decision is that the fourth economic plan would commence in April 1969. This would be abreast of the second defense plan, and the two plans no doubt would have significant mutual impact.

An appraisal of the defense posture on the eve of the second plan shows an estimated total defense outlay of 9.7 billion dollars during 1964-69. This expenditure would be slightly below that envisaged in 1964. It is 28 percent of the federal budget and four

percent of the national income. Of the two key sectors of defense to which the budgetary allocations have been directed—personnel and weapons—the latter would be deemed crucial.

It has been found that, while the character, strength, organization, and deployment of forces are, undoubtedly, a matter of vital importance, they are not difficult to manage. This is due to the fact that India has a vast population and possesses firm military foundations and traditions on which an appropriate superstructure can be raised. This can be done, however, only with the help of tools which are not easy to obtain. Therefore, the development of modern equipment and weapons has been considered a matter of highest priority by Indian authorities.

A significant deviation of policy has taken place in this connection during

the plan period. Contrary to previous practice, India has gone in for military assistance from friendly countries consistent with nonalignment until such time as her own production base develops the desired capacity.

In September 1964, it was anticipated that the United States would provide a credit of 60 million dollars to renovate the ordnance factories for the production of small arms and ammunition. A grant of 60 million dollars, which might be renewed, was expected for support of mountain divisions, air defense communications, and border road construction. The Soviet Union would help build factories for *MiG* aircraft and supply a number of light tanks, helicopters, and missiles. The United Kingdom would provide a credit of 13.2 million dollars for the construction of three frigates.

The war with Pakistan has upset



An Indian-built *Vijayanta* medium tank

this arrangement. Only a part of the US credit has been forthcoming, and the grant has not been renewed. Britain is building the frigates, but an earlier expectation that she might supply a number of destroyers has not materialized. The Soviet Union is fulfilling her part of the commitment and, in addition, is supplying submarines and fighter bombers.

Another policy deviation relates to the civil sector which, contrary to past practice, has begun to be associated with the production and supply of military hardware of a subsidiary character. A new body, the Department of Defense Supplies, has been set up. It is responsible, among other items, for utilizing the national industrial capacity for defense.

### Reconstruction

The main effort has, of course, been directed at the ordnance factories and defense undertakings. All old factories are under a process of renovation or reconstruction, and four new ones have been added to those already in existence. These are all turning out thousands of items.

India is now self-sufficient in small arms, including the newly built 7.62 semiautomatic rifle. She has begun to produce large-caliber guns, including mountain guns. Some quantities of the *Vijayanta* tank, modeled on the British *Chieftain*, have been built. A great variety of subsidiary items is coming out of the factories, including vehicles, rocket propellants, clothing for mountain warfare, special aluminum and steels, and chemicals.

There are now seven defense undertakings for major weapons of war. Of these, the largest is the Hindustan Aeronautics which is concerned with the production of aircraft, mainly the

*Gnat*, the *HF-24*, and the *MiG-21*. The complete manufacture of *MiG's*, rather than merely assembly, is likely to begin next year. India is also building a small transport plane—the *HS 748*.

Three of the seven undertakings are concerned with shipbuilding and ancillary industry. A coastal minesweeper, a cargo ship, a tanker, and a dredge have been constructed or are nearing completion. The first of the three *Leander* class frigates has been launched. India's electronics program envisages a heavy expenditure during the next few years.

### Research Institutions

In addition to factories and defense undertakings, there is the Defense Research and Development Organization. Its current year budget of 30 million dollars is modest, but is three times that of 1963. Manned by a large team of scientists, it comprises nearly three dozen research institutions. These are handling about 1,000 projects of various types concerned with food, work capacity, leadership training, field weapons, electronics, aeronautics, naval research, and engineering equipment.

The problem of manpower has not been as smooth as expected in the beginning. Due to the war with Pakistan, recruitment had to be stepped up above the prescribed tempo. As a result, a large number of officers had to be drafted on a short-term basis. Some of them have now been absorbed and others released. In other fields, such as training which had to be reduced, the aftermath of the war has been cleared.

Symptomatic of the developments in training is the decision to establish a giant new air force academy to become the center of all air training. Under

construction for one year, it is expected to be completed by 1971. The army now has a number of jungle warfare schools, and its High-Altitude Warfare School, located in a snow-bound part of Kashmir, is probably unique in free Asia. In general, the trend has been to intensify, as well as

fense plan. For some time to come, the very old and the very new must jostle along together in the armed forces.

Nearly one-third of the strength of the army is made up of mountain divisions, a distinctive innovation which goes to the heart of the Hima-



**This MIG-21 was built in India for the Indian Air Force**

extensify, training and even utilize civil institutions where necessary.

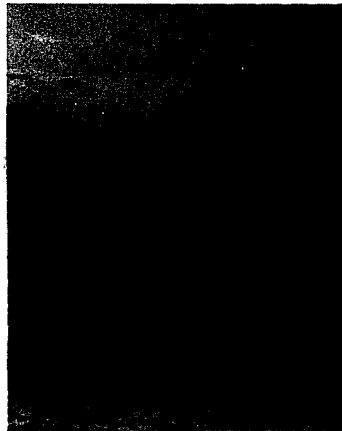
It is officially stated that, except in certain special categories, the armed forces have now been built to the prescribed strength. As before, the army constitutes the bulk of this strength, but, among the services, the air force has gained more in proportion.

The three services are now being renovated, reequipped, and modernized. This task is far from complete and will spill over into the second de-

layan defense. The semiautomatic rifle has totally replaced the old .303 rifle and become the standard infantry weapon. The latest field guns are replacing the 25-pounder, while the *Vijayanta* has begun to be introduced into the armored divisions where the *Centurion* is still the main tank.

Among the new acquisitions of the air force is the surface-to-air missile which is being deployed for defense of some of the major towns and vital points. Many sensitive sectors of the

border have been provided with radar coverage. All three combat planes under manufacture in India are being supplied to the air force in varying quantities. These, along with *Su-7* fighter bombers, would be among the more modern weapons, alongside which the *Canberras*, *Hunters*, and



Photos courtesy Directorate of Public Relations (Defense) India

Prime Minister Indira Gandhi visits a Himalayan Pass area where Indian mountain divisions face a heavy concentration of Chinese forces

*Mystères* would operate. For transport, India depends upon the *An-12*, *C-119*, and *HS 748*. The helicopter wing has been considerably expanded.

The submarine has come to the Indian Navy while some of the Indian-built vessels are at various stages of supply. The frigate under construction is expected to be commissioned in 1971. Most of India's combat fleet, however, consists of the old ships of the early 1950's.

There has been little significant

change in the strength of the Territorial Army. However, the now compulsory National Cadet Corps will revert to its voluntary character and its strength cut down considerably. Much is expected from the National Service Corps, a new, work-oriented organization providing an alternative choice to the National Cadet Corps.

The Border Security Forces, established in 1965, constitute a new element in the scheme of paramilitary defense. They are under civilian control, and their training, imparted on the military model, is less intense than that of a soldier. Their duties are of a combined military and police nature. While checking infiltration, they also prevent smuggling, sniping, and sabotage in the border regions.

#### Road Construction

During the last six years, nearly 2,000 miles of roads have been constructed in the sensitive sectors of the Himalayan border. The Srinagar-Leh Road—which is the line of communication to Ladakh and is extremely vulnerable, being close to the cease-fire line in Kashmir—has been supplemented by another road to the east. In the same western part of the Himalayas, the Hindustan-Tibet Road has been completed. To the east, roads have been built to Sikkim and Bhutan and up and across the North-Eastern Frontier Agency. Many airfields also have been constructed.

India's road construction program has been hastened in view of the fact that the enemy, too, has been active in this field. China has extended her network of roads to the borders of Bhutan and Sikkim and into the Chumbi Valley. The link of Lhasa with Katmandu, the capital of Nepal, is now complete. The Lhasa-Kashgar



Road is improved. China has also constructed a road from Kashgar to the Mintaka Pass in the Pamirs to join the road under construction by Pakistan from the pass to Gilgit.

After the war with Pakistan, many hundreds of miles of roads were planned for the desert tract of Rajasthan along the Indo-Pakistani border. Nearly one-third of these are completed.

### Defense Environment

How have the armed forces shaped up? How adequate are they to discharge their responsibilities? What line of development confronts them?

The answers to these questions depend greatly upon the context in which the defense is being built. Presently, it is marked by at least four prominent features. First, is the problem of India's territorial integrity, the maintenance of which is the primary function of the armed forces. Internal as well as external pressures continue to keep some sectors of India's borders under travail.

Internal pressures are rather persistent in the northeast between Burma and East Pakistan where certain tribes, the Nagas and Mizos in particular, continue to create conditions of unrest and violence. It is a strange type of turmoil for, amid the strife, there is uninterrupted rapport between the government and the rebels. However, the fact that up to two divisions have had to be deployed in the past is indicative of the extent of trouble. Quite often, the trouble becomes aggravated by the assistance in arms and training given the rebels by Pakistan and Red China. India's search for a solution by peaceful, democratic methods does not enable her to dispense with military force.

Matters are worse in still another territorial field. The cease-fire line in Kashmir symbolizes India's conflict with Pakistan, extending to many other areas of mutual relations and leading to an escalation of military power on both sides. At the same time, China continues to occupy Aksai Chin which is a standing emblem of New Delhi's confrontation with Peking.

### Possible Collaboration

A second feature of India's defense is that she not only has to reckon with Pakistan and Red China individually, but with their possible collaboration. Despite the "cultural revolution," there is no letup in Peking's military might; if anything, the People's Liberation Army is closer to the levers of political control than ever before.

There is probably some truth in the estimate that Red China is not yet in a position to undertake any large-scale territorial aggrandizement. However, her bellicosity, aggressiveness, and perpetual attempts to create conditions of insurgency in border areas have deep political and military ramifications which India cannot ignore. Some Indians even suggest that India's true buffer in the north is not the Himalayas, but the Chang Tang Desert across the Tsangpo. They state also that India's security demands guaranteed neutralization of Tibet. The military undertones of a thesis of this kind are obvious.

Until recently, India has been almost wholly pinned down to border defense. Now, the perspectives are widening, thanks to the defense buildup during the last five years, and are embracing regions beyond the frontiers. This is a third feature of India's defense preparation. Looking east, one notices that India is actually much

closer to Southeast Asia than is sometimes thought. The southernmost island of the Andamans is only 100 miles from Indonesia.

In Southeast Asia, Britain is planning to retire, and some countries are developing a new defense posture. The future of the Indochina states is in the balance, and the superpowers are building new strategies. All that is happening here is, of course, not of a military nature, but much of it has military repercussions which are of significance for many lands, including India. Sooner or later, the security of the entire Indian Ocean is likely to come to the fore, from which again, because of her geographical position and trade interests, India cannot isolate herself.

### **Nuclear Weapons**

A final feature facing India's defense planners is the problem of nuclear weapons. India has not signed the Treaty on the Nonproliferation of Nuclear Weapons endorsed by the United Nations General Assembly last June. Many reasons of a political, economic, and emotional nature are behind this, but one which has agitated the Indian mind the most is of a military nature.

Indians take their line from the nuclear threat which Red China rapidly is developing, and they are not prepared to be deprived permanently of the vital means to counter it. Indians do not take seriously the UN Security Council assurances of security against the threat of nuclear aggression. Whether or not India should join the nuclear arms race is thus an open question which the Indian policymakers constantly will have to consider in developing a military posture.

In Parliament and elsewhere, Indian statesmen say that the India of 1969

is much better than the India of 1962. In general, the nation's morale, which ebbed after the Chinese aggression, is high after having done well against Pakistan. There is a great awareness of the security problems. Amid the numerous economic difficulties the nation has faced, there has been no stinting over the resources made available for defense.

### **On Schedule**

The Five-Year Defense Plan is being implemented more or less on schedule. While still employing many types of old weapons, India is equipping the three services with a large number of new ones, some under manufacture in her own factories. She realizes that the process of modernization will be prolonged, tedious, and expensive, but she also is aware that the process is not beyond the country's means. Meanwhile, the prevailing deficiencies can be substantially offset by intensive training and optimum use of arms. With improved logistics and infrastructure, the armed forces are well positioned to give a good account of themselves.

The immediate test to judge their effectiveness would lie in their capability to meet the threats from Red China and Pakistan. No Indian leader, however optimistic, can brook with equanimity the prospects of having to confront a combined thrust by these two neighbors. While such a contingency is there, it is not one that is likely to arise in the near future. Even if it does, the enemies would have to consider the high vulnerability of Pakistan, divided as she is in two wings 1,000 miles apart, and the fact that the war may become general, in which case the balance of forces may not remain one-sided.

The critics of the government point

to shortcomings in the balance sheet of defense achievements—particularly the slow pace of modernization, inadequacies of air striking power and of naval strength, and the absence of nuclear weapons. In a democratic country such as India, all this criticism cannot be brushed aside. It, therefore, is bound to figure in the formulation of the second defense plan. This plan also is likely to consider streamlining the high command and further introduction of structural changes in the defense services to meet the needs of new weapons with their superior firepower and mobility.

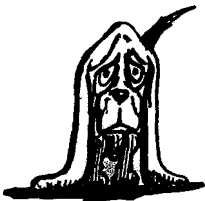
Numerically and qualitatively well manned; armed with weapons which

are a mix of the new and the old, the former being modern, but not sophisticated; powerful enough for defense but not offense; and possessing a high degree of political and military reliability, the Indian armed forces await further buildup. The condition of their equipment, the character and dimensions of the threat to national security, and wider strategic compulsions justify the need.

In a world in which peace is the slogan and war is the practice, no country can hold its own without an adequate defense mechanism. On the eve of the second defense plan, the dominant feeling in India is that this mechanism is not quite perfected.

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