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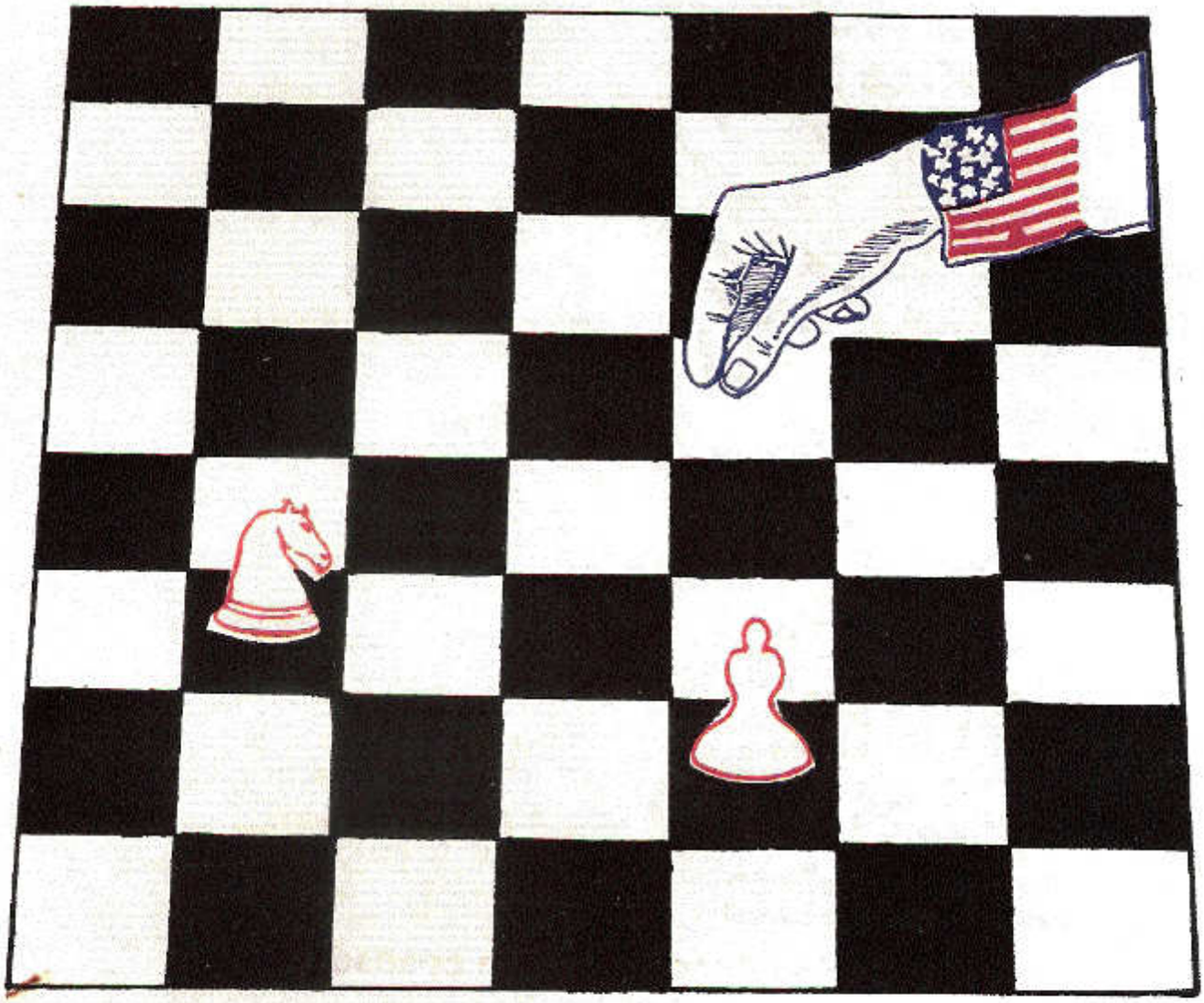

The Regional Chess-board

PAKISTAN: Knight or Pawn

PIONEER IN DEFENCE STUDIES & JOURNALISM

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Vol. VII, No. 9, 1981

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Prevailing superpower global strategy and hegemonisim is colonialism, of the not-too-distant past, reborn. Outright serfdom of weak nations has yielded place to an almost ubiquitous subservience to and unending dependence on superpowers perhaps for their very existence as sovereign independent entities.

Between the mutually hostile and diverse strategies of America and Russia, the so-called Third World or the major part of the globe, looks like the proverbial fly in the spider's parlour. It is the superpower interest that counts: the rest hardly matters, if at all. The axiom acquires a brutal stridency in such diktats as the Brezhnev, Carter and Haig doctrines sanctifying superpower interventionism in the internal affairs of smaller countries whether in Hungary, Czechoslovakia, Poland and Afghanistan or in the oil-rich Gulf and the Middle East, Angola or Libya.

These are just a few random examples relevant more in substance than chronology. Before Afghanistan, there had been Cuba, Vietnam and Chile — each indicating the great limits superpowers can go to in the relentless pursuit of their own global aims. Iran is yet another case in point. Once America's most trusted ally and one of the "twin pillars" (the other being Saudi Arabia) of its strength in Southwest Asia, Iran, more precisely the late Shah of Iran, was dropped like a hot potatoe when the crunch came. Similarly Taiwan, surrogating mainland China in America's strategic formulations, was abandoned like an empty egg shell one day and spurned for good.

Such is the natural flow of superpower realpolitik tampered with occasionally by a heroic circumstance like the Vietnam war or the Afghan resistance or the inevitable historical process of decline and fall of nations and their policies. This is, perhaps elevating a purely mundane argument almost to mystical heights and must be held down before one gets really dizzy. For the contemporary observer (or victim) there is cold comfort in the thought of history one day overtaking the oppressor and cutting it to size. He who lives shall see; but by then truth would have donned the alluring raiment of reportage and would be anything but the absolute truth.

Let us get down to earth therefore and take a look into the intricacies of the power-play that is going on around us. The Soviet invasion of Afghanistan is a convenient starting-

point as far as the current phase of Pakistan's unavoidable embroilment in superpower strategy in the region is concerned. Not that Pakistan had not been caught in the strategic trap before; for nature itself has placed it in a geo-strategic cock-pit. There are such powerful neighbours as China and Russia on the top of it with Afghanistan, a little way-down, and India and revolutionary Iran athwart. In the fifties America, forged the 'Northern Tier' with Iran, Iraq, Turkey and Pakistan bunched up under the umbrella of the Baghdad Pact (subsequently the Central Treaty Organisation, Cento). Together with eastern wing overlooking the Far East, America also got Pakistan into the South Asian Treaty Organisation (Seato) to encircle the Soviet behemoth and contain communism. Security-oriented pacts brought in their wake the much-needed military hardware together with greater Indian hostility and estrangement with Russia. It also compromised Pakistan's neutrality and restricted its freedom to think and act independently at international forums.

Psychologically, the two pacts — Seato and Cento — isolated Pakistan from its immediate and inescapable neighbourhood and lodged it temporarily in the heady and fanciful domain of high-powered diplomacy unsupported by a firm domestic base. For a country still in the prime of its youth, perhaps it had been flattering to be either confronting or consorting with great powers. But except for a false sense of security it had been little help in building up real strength and abiding power untrammelled by too many external commitments and constraints. In due course external obligations outgrew Pakistan's domestic base yet to be stabilized and firmed up. That was where internal erosion first set in and foreign policy, which should normally be anchored firmly to domestic stability, was cut asunder from it. That also exposed Pakistan to many an external pressure from some of its neighbours — India, Afghanistan and the Soviet Union.

In May 1960, Nikita Khruschev drew a red ring around Peshawar from where flew Captain Gary Powers in his U-2 on a high-altitude reconnaissance mission and was shot down by Russian missiles around Tashkent. Soviet-Pakistan relationship was thus put under severe strain and Pakistan singled out as a likely target for Soviet retaliation in the future.

The U-2 affair made it extremely debatable whether a country like Pakistan became more insecure than secure by virtue of its membership of multilateral defence pacts. It opened to question the amount of freedom smaller countries could enjoy in formulating their policies in partnership with global powers.

While Pakistan had been under the Russian threat, mainly for its role as an American ally, America itself cooled off towards Pakistan. The change occurred as a direct consequence of India's border war with China and the humiliating defeat, it suffered. America immediately came to the rescue of India quite unmindful of the Pakistani sensitivities. Regardless of the sheer logic of the US case, the fact remained that, Pakistan in the fifties and sixties, had faced its most imminent military threat from India. So any military aid to India, in the Pakistan eyes was tantamount to a blatant unfriendly act against Pakistan.

In typical oriental fashion, Pakistan had committed itself to America not only as a treaty partner but also emotionally in the context of a supposedly common ideology and

shared political perceptions. So any dilution of support and lack of sympathetic understanding on America's part conflicted painfully with Pakistan's absolute and total loyalty towards America. It was probably Chanakya—the Hindu—a realpolitik philosopher, who said the enemy of your enemy is your friend. Conversely, the friend of your enemy can be anything but your friend, if not positively your enemy.

Pakistan's sense of betrayal over America's sudden love and concern for India clashed with America's hard-headed pragamatism and cold reasoning and things between the two countries were never the same again.

It gave birth to such aphorisms as 'Friends Not Masters' — the title of President Field Marshal Mohammad Ayub Khan's autobiography. India's defeat by China and the massive rearmament that followed produced a strong, lurking fear in Pakistan that in order to redeem its military honour, India would turn upon Pakistan sooner or later. Pandit Jawahar Lal Nehru, the Indian Prime Minister, had virtually written off the burning Kashmir issue on the ground—at once untenable and bizarre—that since military aid to Pakistan had created a strategic imbalance in the subcontinent, the Kashmir issue had ceased to exist. To the Pakistani mind, Pandit Nehru's stand had been an epitome of unreason and obduracy; and America's newly awakened sympathy for India looked like underwriting it in principle.

Pakistan's worst fear regarding India's hostile designs came true when early in 1964 India launched its ambitious 5-year defence plan for force modernization and expansion. Almost simultaneously things hotted up in Jammu and Kashmir and the ceasefire line became the firing line. Frequent ceasefire violations developed into battalion and brigade-sized actions and war clouds started to overcast the subcontinental sky.

America's attitude throughout the crisis period — between the eruption of trouble in Kashmir and the outbreak of the general war in September 1965 — had remained ambivalent. That in the context of the special US-Pakistan treaty relationship could only be interpreted as unfriendly by Pakistan which expected US—and not too unreasonably either—to be more on its side in its hour of crisis. Prolonged relationships, such as between America and Pakistan of the fifties and the sixties could not have been without strong motional overtones on the part of the smaller partner, at any rate. In the subcontinent it was utterly inconceivable to have placed Pakistan at par with India and still claim its unstinted friendship. The emotional form and content of Pakistan's foreign relations, though vastly modified since 1971, are still a dominant factor underlying even its most matter-of-fact formulations. And this should be always borne in mind.

As if mere ambivalence were not enough, America adopted strict neutralism in the Indo-Pakistan affairs by simultaneously imposing an embargo on arms deliveries to India and Pakistan. In real terms, it amounted to a punitive measure against Pakistan inasmuch as India depended very little indeed on the United States for its hardware. Besides, an ever-expanding base of defence production, India had been shopping for arms around the industrialised world—USSR, France and Britain—long before America also joined the ranks of its armourers. In fact, at the time the US cut off its arms supplies, India hardly had

any US arms in its arsenals and remained therefore practically unaffected. On the contrary Pakistan depending wholly on America for its more advanced weapons, tanks, guns and aircraft and their spares felt itself virtually disarmed by the US ban.

It was easily the darkest hour of the US-Pakistan relationship. However, it did help Pakistan to acquire a keener awareness of the sternly pragmatic standards of a superpower in its dealings with its smaller allies. Pakistan's worst mistake during the heyday of its friendship with the US had been the amount of faith and reliance it had placed in the willingness of the senior partner always to stand by it regardless of its other equally vital and contrary commitments elsewhere. Pakistan also realized the need for the diversification and enlargement of its sources of moral and material support. Ten uninterrupted years of the US aid had, however, Americanised its arsenals to a degree that it could not just turn to the other superpower for spares and replacements. It might have been relatively easier in the case of the new equipment, originating in a different country. The real problem pertained to spares and replacements of the equipment already in use. That could come either from the country of origin or yet another client using similar equipment.

For new equipment Pakistan turned to China which responded promptly and magnanimously to Pakistan's request and set about delivering the much-needed hardware in the quickest possible time. As for replacements Pakistan touched West Germany and Brazil fellow-users of such American equipment as the F-86 fighter/bombers, and got them at the seller's price. The new procurements helped a Pakistan to put on display a number of the newly arrived Chinese T-59 tanks, anti-aircraft and field guns together with Mig-19s (F-6s) and replacements of F-86s mainly from West Germany on the occasion of the first post-war military parade on 23 March 1966. That had been a great show indeed and also an occasion to remind oneself of the consequences of excessive reliance on major superpowers. No matter how old and strong, bilateral or multilateral help and assistance could never be a substitute for unilateral initiative and self-reliance.

After the US had chosen to keep itself out of the subcontinental conflict, the USSR, always waiting in the wings, suddenly appeared on the centre of the stage as the supreme peace-maker after the Indo-Pakistan war. It should be profitable to look closely into and carefully analyse the factors that lay behind this self-chosen US detachment from the subcontinental high politics during and after the war. It might have been just a lofty Olympian posture; but inasmuch as it left the field free for the Soviet Union to exploit perhaps it had been only an error of judgement. For the first time, since Pakistan and India had achieved their independence, Russia quietly breezed into the subcontinent on the nimble wings of diplomacy setting aside Britain—still great and head of the close-knit commonwealth — and its natural heir in the corridors of power the United States of America. Until the outbreak of hostilities in Jammu and Kashmir, Great Britain through Prime Minister Harold Wilson had its finger in the subcontinental pie. But then quite suddenly and abruptly Great Britain let all initiative slip through its finger-tips without even getting America to firm up its grip over the situation.

The vacuum caused by Anglo-US hesitancy to take risks was filled by the Soviet Union as the Third Party, in the subcontinental affairs. Peace talks in the Soviet Tashkent were

presided over by Alexi Kosygin the Soviet strongman and prime minister -- and produced the historic Tashkent Declaration which more than an Indo-Pakistan peace treaty had been the triumph of the Soviet diplomacy in the subcontinent.

Except in its nominal sense as the primus inter pares within the Commonwealth, Great Britain was practically pushed out of the higher counsel and diplomacy of the subcontinent, while America having lost its firm base in Pakistan settled for a foothold in India. The era of fool-proof treaties and staunch allies had been definitely over. The Soviet cat in the subcontinent after a brief period of fence-sitting jumped finally on the Indian side. Pakistan's half hearted hobb-nobbing with the Soviet Union since 1968, when General A.M. Yahya Khan, the Army C-in-C led a military delegation to Moscow, mainly in quest of arms, ended abruptly in 1971 after the East Pakistan crisis and Yahya Khan's brusque reply to President Podgorny's letter advocating a political settlement of the crisis.

The first peak of growing Soviet influence and involvement in the high-tension subcontinental milieu was reached in August 1971 when at the height of the India-Pakistan crisis, the Indo-Soviet treaty of friendship and cooperation was signed. In the context of the prevailing war-like situation in the subcontinent, the Indo-Soviet treaty regardless of its wider implications, could have been directed only against Pakistan. Time for US and all the good men to come to the aid of the party; but none did, and Pakistan was left alone to make its own mess without even the timely guidance of sincere friends let alone active help and support of committed allies.

In the closing stages of the crisis one heard a lot about the 7th Fleet and friends from the north but none came to Pakistan's rescue. Yahya Khan's invocation of Article IV of the US Pakistan Cooperation Agreement of 1959, proved to be a voice in the wilderness. If the past be any guide, one could say, without prejudicing the future, that in the hour of dire peril there is absolutely no substitute for self-reliance. Active cooperation and collaboration between superpowers and their allies could be conceivable only in the context of a convergance or coincidence of superpower vital interests between the big and the small fry. Masters cannot be friends unfortunately.

Since Pakistan's dismemberment, US Pakistan relations have taken the rough with the smooth. America made heavy weather of Pakistan's nuclear research programme; and Western media made a perfect tamasha of Pakistan's imaginary Islamic bomb. On the other hand the Indo-Soviet treaty relationship grew from strength to strength regardless of India's proclaimed non-alignment and lofty detachment from superpower strategy.

US strategic interest and stake in Pakistan, waning through years, plumped after Vietnam. Under President Carter, it reached perhaps the lowest ebb of distrust and misunderstanding, what with the Administration's laudable but rather naive insistence on human rights and overconcern with nuclear proliferation for which Pakistan was hardly to blame. On purely doctrinaire and imaginary grounds US Pakistan relationship, for the better part of the Democratic dispensation in the United States, went from bad to worse until the Soviet invasion of Afghanistan in December 1979. That suddenly awakened the US to

Pakistan's geo-strategic importance in the region and its value as an old friend and ally. The Carter Administration offered a 400-million dollar package to Pakistan in economic and military aid rejected out of hand by Pakistan.

That was followed by the enunciation of the Carter Doctrine more for the defence of the Gulf and Mideastern oilfields than for the security of the region, its peoples and governments as a whole. The Carter Doctrine quite unnecessarily over-emphasised the need to protect the supreme national interest of the US in the region virtually to the exclusion of those of the region itself thus impairing its moral motivation. In spirit it had been more of a diktat than a doctrine.

During the remainder of the Carter era, US-Pakistan relationship was marked by much ambivalence, at times approaching hostility mainly on the question of the imaginary Islamic Bomb that did not and does not exist.

With the installation of President Reagan a fair wind of change filled the sails of the US-Pakistan relationship and set the ship of mutuality and sympathetic understanding on an even course. The US announced an enlarged package for Pakistan in economic assistance and military sales including such items as the advanced F-16 combat jets. Details of hardware earmarked for the land and naval forces are still not available. But Pakistan could do with some regiments of advanced US tanks, guns and a number of naval craft. There is little doubt that the bulk of Pakistan's weapons remains in need of immediate replacement and modernization.

Force modernization is largely a question of nuts and bolts within a fixed time-frame which in the present case is five years. Its full evaluation will have to wait therefore until actual deliveries are made. What cannot wait however is the consideration of the principles, the pro and contra of the entire arrangement.

If all the US concern for Pakistan's security is attributable only to the Soviet invasion of Pakistan, and the threat it posed to the oil-fields, US-Pakistan concord will have only a narrow base upon which it may not be easy or even safe to raise the structure of future friendship. It will suffer always from the vagaries of the situation in Afghanistan and administrative changes on either side. Also if the US only seeks to promote Indo-Pakistan-Gulf regional involvement against Russia, it would be once again, committing the mistake of seeming to prize its own global strategy over the security and sovereignty of its allies.

In a recent statement US Under-Secretary of State James Buckley said "A strong, stable and independent Pakistan is an essential anchor to the entire South West Asian region." This is welcome. However, Pakistan would only be too well-advised to determine the parameters of its own security in a national, regional and global environment. It must decide for itself whether it plays the knight or the pawn on the regional chess-board.

Brig. Abdul Rahman Siddiqi
(Retd.)

Superpowers, India, Pakistan and the Indian Ocean

Dr. Hasan-Askari Rizvi

With the British decision to reduce its presence east of Suez, a couple of littoral states showed a keen interest in assuming a pre-eminent role in the Indian Ocean. India, keeping in view its size and resources, gave strong indications of, and took necessary steps to playing an effective role in the new power structure of the Indian Ocean.

It adopted a two-pronged strategy to achieve this goal. First, it supported the peace zone proposal and pleaded for the demilitarization of the Indian Ocean. This merely meant the total exclusion of the two great powers, especially the US, from the Indian Ocean. Second, while talking about the demilitarization of the Indian Ocean, India speeded up the modernization of its Navy to make it the strongest naval force of the littoral states.

The rapid naval buildup of India since the late 1960s, particularly in the 1970s, reflects its strong desire to become a maritime power of significance in the Indian Ocean. Such a strategy can be effectively pursued if the great powers, especially the US, are totally excluded from the region and their naval presence is withdrawn.

It has been a decade since the UN General Assembly first passed a resolution declaring the Indian Ocean a zone of peace. The antecedents of this concept can be traced back to the 1964 conference of the non-aligned countries held in Cairo. The Prime Minister of Sri Lanka (Ceylon), Mrs. Bandaranaike, put forward the proposal for declaring the Indian Ocean a zone of peace. The conference accepted this proposal and favoured the establishment of a nuclear-weapons free zone in the Indian Ocean and South Atlantic.

This proposal was endorsed in the Lusaka Conference of the non-aligned countries in September 1970, and the Commonwealth heads of government conference held in Singapore in January 1971. The memorandum circulated by Sri Lanka at the Commonwealth conference called upon the great powers to "voluntarily limit their involvement in the collective security arrangements" and not to "seek or use any facilities for militarization of the Indian Ocean". It also stressed that the littoral states should also "refrain from action

prejudical to the concept of peace zone".1 All the heads of governments attending the conference, with the exception of Australian Prime Minister and British Foreign Secretary, supported the proposal.

General Assembly Resolution—1971. The next important stage in the development of the concept of peace zone came in December 1971, when the General Assembly passed a resolution initiated by Sri Lanka, by 61 votes to none. There were 55 abstentions which included, among others, the US, the Soviet Union, the UK, and France. The People's Republic of China voted for the resolution.

Designating the Indian Ocean a zone of peace "for all time", the General Assembly resolution called upon the Great Powers to enter into negotiations with the littoral states with an objective of (i) stopping any "further escalation and expansion of their military presence; (ii) removing all kinds of military installations, bases, and logistical supply facilities. It also urged the littoral and hinterland states, the permanent members of the Security Council and other major maritime users of the Indian Ocean to consult each other for the purpose of implementation of this Declaration and to ensure that (i) the Indian Ocean is not used by a state for "any threat or use of force" against any littoral and hinterland state in violation of the Charter of the UN (ii) subject to these conditions, the right to free and peaceful use of the Zone of Peace by the vessels of all states is not impeded. The Secretary General of the UN was asked to report to the next session of the General Assembly on the efforts made for the implementation of the resolution.2

Ad-hoc Committee. One year later (December 1972), the General Assembly reiterated its call making the Indian Ocean a zone of peace3 It was also decided to set up an ad-hoc committee to study the implications of the proposal declaring the Indian Ocean a Zone of Peace, and suggest "practical measures" that may facilitate the implementation of the December 1971 resolution of the General Assembly on the Indian Ocean. Originally there were the following 15 members of this Committee: Australia, China, India, Indonesia, Iran, Iraq, Japan, Madagascar, Malaysia, Mauritius, Pakistan, Sri Lanka, Tanzania, Yemen and Zambia.4 In December 1974, the strength of the ad-hoc Committee was raised to 18. The new members were: Bangladesh, Kenya and Somalia. This committee was further enlarged in December 1977 by the inclusion of Ethiopia, Greece, Mozambique and Oman.

Since the establishment of the ad-hoc committee on the Indian Ocean in December 1972, it became the focal point of the activities relating to the implementation of the peace zone proposal. The international community reiterated its support to the ad-hoc committee during the 28th session of the General Assembly in December 1973, when it asked the committee to continue consulting the littoral, hinterland states and the great powers for evolving a strategy to implement the declaration on the Indian Ocean. The resolution also asked the great powers to extend cooperation to the ad-hoc committee in performance of its assigned duty. The secretary general was also asked to prepare a factual statement of the great powers' presence in the Indian Ocean.5

The secretary general appointed a committee of three experts to prepare a factual report on the presence of the great powers in the Indian Ocean. The report was released by the UN in May 1974. The Western powers, especially the US objected to a number of entries in the report. It was withdrawn. A revised version was issued in July 1974.

Support For Peace Zone Concept. The Concept of peace zone for the Indian Ocean became very popular amongst the littoral

and hinterland states. Other Third World countries also supported this. They raised this issue in the General Assembly as well as other international and regional organizations (See the appendix for details). The resolution endorsing the peace zone proposal became a regular feature of every regular session of the General Assembly since 1971. At times the resolution was passed without a vote.

The widespread support to the concept of peace zone for the Indian Ocean amongst the littoral and hinterland states reflects their anxiety over the growing rivalry amongst the Great Powers in the Indian Ocean region. It also demonstrates their desire to stay away from the power politics of the great powers so that they are able to devote their resources to the much needed work of social and economic uplift of the common man.

The political environment in the Indian Ocean registered a gradual change in the post World War 11 period with the emergence of the newly independent states in the wake of the process of decolonization. The British, who had been the dominant power in the Indian Ocean for the last 150, also decided in 1968 to reduce their defence commitments east of Suez to relieve some burden on their economy.

British Withdrawal & After. The littoral and hinterland states generally welcomed the British decision. They thought that the British withdrawal from the area will be another step in the process of decolonization and provide them with more opportunities to realize their national objectives in domestic and external politics. But to their dismay, the British withdrawal gave a fillip to political ambitions of the two Great Powers, i.e. the US and the Soviet Union. The US which had brought its nuclear powered 7th Fleet into the Indian Ocean in December 1963, began to increase its presence. With the passage of time it secured naval facilities at a number of ports in the region and, with the consent of Britain, it set up a communication-cum naval facility at Diego Garcia — a 13 miles and 5 miles wide island in the Indian Ocean approximately 1000-1200 miles from India's shores.

The Soviet Union also decided to become an Indian Ocean power. Its first warship moved into the Indian Ocean in 1966. Since then the Soviets have maintained their naval presence in the region. The Soviet Union, like the US, enjoys the naval facilities at a couple of ports in the region.

The US presence in the region is motivated by the desire to expand its orbit of influence, protect its political and economic interests, contain the Soviet Influence, support the pro-West governments, and discourage any 'hostile' power to dominate the sea-lanes which are used to supply oil to the west. There is a difference of opinion amongst the experts of international politics about the Soviet objectives in the Indian Ocean. There are several scholars who talk about the Soviet grand design for the Indian Ocean. The Soviet Union is said to be operating with very clear goals: reach the warm waters, establish pro-Soviet regimes in the area and totally exclude the Western powers from this part of the globe, and control the Middle Eastern oil so that the Western economies are crippled. A second group of scholars see the Soviet policy as a reaction to the American presence in the region. The American desire to contain, if possible exclude, the Soviet influence in the region has left no choice for the Soviets but to react to the American moves. Their moves are said to be defensive.

'Muddle Theory'. Yet another group of writers advocates what is known as the 'muddle theory.' This implies that the Soviet

do not have any set policy or a grand design. Their policy is based on opportunism. They take advantage of the 'mistakes' committed by the West and thus, enhance their influence in the region.6

Whatever the real causes of the US and the Soviet moves in the Indian Ocean region, the fact remains that by early 1970s the Soviet-American rivalry became an important feature of the politics of this region. The littoral and hinterland states, disturbed by these developments and the prospects of greater conflict in the future, found it necessary to defuse the situation in the Indian Ocean. Sri Lanka's proposal for designating the Indian Ocean a Zone of Peace was a significant move in this direction. It aimed at prohibition of further escalation of the outside naval expansion; exclusion of foreign bases and other military facilities; prohibition of nuclear weapons; and the prevention of the outside threats to the littoral and hinterland states.

Despite the extensive support enjoyed by the concept of peace zone for the Indian Ocean and, despite the repeated approval of resolutions on this subject in the General Assembly, nothing significant has been done to translate these resolutions into reality. The ad-hoc committee on the Indian Ocean, set up in 1972, to thoroughly examine the concept with the aim of suggesting practical measures to implement it, could not make a real breakthrough.

There are three kinds of problems which have defied the formulation of an operational strategy for the implementation of the concept of peace zone. These are: the procedural problems, the great powers' level problems, and the regional level problems.

Procedural Problems. The procedural problems include the objections raised by a number of Western states that the designation of the Indian Ocean as a peace zone interfered with the existing law of sea which provided freedom of navigation in the high seas for ships of all kinds. It was argued time and again that how could a group of states formulate a specific kind of rules for a particular area of the high seas. These objections reflect a lack of appreciation of the concept of peace zone. It does not propose to restrict the right of peaceful navigation. This right has been clearly protected in various resolution on this subject.

Mr. Amerasinghe, chairman of the ad-hoc committee on the Indian Ocean, rightly remarked: "If by freedom, they (the Western powers) mean license, ther they be correct... but we have no intention whatsoever, of interfering in the peaceful use of the Indian Ocean".7 The proponents of the proposal merely wanted to exclude warships, naval bases and other military facilities of the Great Powers. and favoured the establishment of a new Indian Ocean regime which would protect independence of the littoral and hinterland states from threats made by the great powers as well as the strong states of the region. They wanted to turn this Ocean into an ocean of tranquillity.

There are a large number of other procedural problems which need to be settled if the concept is to be fully implemented. These include the precise determination of the boundaries of the peace-zone—whether it would include the sea-surface only or the land and air space of the littoral and hinterland states? Who is going to look after the implementation of this concept? If an international body is created, what will be its composition, powers, and the mode of operation? How far such a body will be able to enforce its decision? What would be the penality for those disregarding its recommendations and decisions. These and several other similar problems have impeded the efforts of the ad-hoc committee to complete its work.

Great Powers' Level Problems. The most serious problems in the implementation of the

resolutions of the General Assembly regarding the peace zone emanate from the policies of the two Great Powers, i.e. the U.S. and the Soviet Union.

They view each other as rivals in the international system and their policies towards the Indian Ocean are conditioned by their global strategies which call for the maintenance of a strong military posture in all parts of the world, enhancement of one's political clout by bringing more and more nations in one's orbit of influence, and containment or diminution of influence of one's adversary.

The US and the West cannot be oblivious to the fact that they are dependent on the Middle East oil and have significant economic interests—investments and the supply of technology—in the region. The oil boom since 1973-74 has multiplied Western interest in the Middle East because they can, now, sell more technology and earn petro-dollars. If a power hostile to the West dominates the Indian Ocean, Western economic development and political influence in the international system will be seriously undermined. The Western countries, especially the US have generally expressed strong reservations on the concept of peace zone. The US government holds the view that this proposal affects "the fundamental security interests not only of states compelled to maintain significant military preparedness...but also of states that rely on the stability created by a political and military balance."**8**

The Soviet Union was also not favourably disposed towards this proposal when it was first floated. It raised several objections which emphasized the need of reconciling the proposal with the established principles of international law regarding the use of the high seas.**9** Later its posture towards the proposal softened. This change was not a consequence of a clear shift in the Soviet policy. It was primarily designed to embarrass the US on its stance on the proposal, naval presence in the Indian Ocean, and the question of Diego Garcia.

It will be no exaggeration to state that the policies of the Great Powers have thwarted all efforts to declare the Indian Ocean a zone of peace. Not to speak of reducing or stabilizing their military presence in the region, the great powers have increased their military strength over the years. They are also not fully cooperating with the ad-hoc committee on the Indian Ocean despite the General Assembly's repeated calls to them to extend support to the ad-hoc committee in its work for suggesting methods to implement the peace zone proposal.

The General Assembly asked the ad-hoc committee to make necessary preparations for holding an international conference of the littoral and hinterland states, the great powers, and other interested states with the objective of harmonizing "the views and positions" and obtaining "a common understanding on the course of action to be followed in implementing the declaration of the Indian Ocean as a zone of peace".**10** It was decided to hold the conference in 1979 but very soon it became clear that it would not be possible to do so because of several disagreements on its agenda and dates, and the reluctance of the great powers to attend it. The date of the conference was shifted to August 1981. The strength of the ad-hoc committee was raised to 40 by the inclusion of the permanent members of the Security Council and a few other states. This was done to associate more states in chalking out the detailed programme of the conference.

Despite several meetings of the ad-hoc committee during 1979-81 no consensus was reached on the conference agenda. The most serious obstacle was the attitude of the Western powers which were not favourably disposed towards the holding of the conference.**11** The Western countries, especially

the US, are not keen about the conference because they feel that their military presence in the Indian Ocean will be strongly criticised by the Third World states attending the conference. Their non-cooperation has frustrated the desire of the littoral and hinterland states to hold the conference.

The General Assembly also called upon the great powers in its several resolutions to take necessary steps to reduce their military presence in the Indian Ocean. In pursuance of these resolutions the US and the Soviet Union agreed to open negotiations for mutual reduction of force in the Indian Ocean. The first round of talks, held in June 1977, was used by the US and the Soviet Union to state their positions and accuse each other of militarization of the Indian Ocean.**12** Later several sessions were held in 1977-78. At times impression was given that the talks were making a satisfactory progress but the reality was quite different.**13** There was a wide discrepancy in their perspectives. It was not, therefore, surprising that by the beginning of 1979 these talks had bogged down. The failure of the great powers to reduce their military presence through bilateral talks was a source of disappointment for the littoral and hinterland states.

The prospects of an early revival of talks between the great powers on the Indian Ocean and the implementation of the peace zone proposal have been seriously jeopardised by a flurry of developments in the international system during 1978-80. These included the Soviet-backed Cuban military presence in Africa, the Iranian Revolution (1978-79), the hostage-taking in the American embassy in Teheran (November 1979—January, 1981), the Mecca incident (November, 1979). the Soviet intervention in Afghanistan (December 1979), the spillover effects of the Iranian revolution on the neighbouring Arab states, and the prospects of political instability in the region and its consequences for oil supply to the West.

A large number of American saw these developments as a clear threat to the American influence in the region and America's position as a great power. Proposals were put forward for setting up of an Indian Ocean Command as a separate entity to respond to the regional disturbances.**14** There were many who felt that given the political trends of the recent past the next conflict involving the US would be in the Third World (i.e. the Middle East and the Indian Ocean) and that the US must take effective steps to strengthen its position.**15**

The US took a number of steps to counter the Soviet moves. First, shortly after the Soviet intervention in Afghanistan the American President put forward what was described as the Carter Doctrine. It outlined the American intentions to use military power, if needed, to protect its interests in the Persian Gulf area. Second, the US Government decided to set up the Rapid Deployment Force to give teeth to the Carter Doctrine. The R.D.F. is being prepared for deployment in the Gulf area to protect American interests. Third, the US obtained military facilities in Egypt, Oman, Somalia and Kenya. Fourth, it bolstered its relations with the pro-West local states and decided to supply sophisticated military weapons to these states. Fifth, it also increased its naval presence in the Indian Ocean region.

If the present trends continue, both the great powers will further increase their military presence in the region. No matter who is to be blamed more for the aggravation of tension in the region, the fact remains that these developments had an adverse impact on the efforts of the littoral and hinterland states to implement the UN resolutions declaring the Indian Ocean a zone of peace.

Regional Level Problems. In addition to the procedural and the great powers' level problems, a couple of problems at the regional level have also been responsible for the non-implementation of the peace zone proposal.

With the British decision to reduce its presence east of Suez, a couple of littoral states showed a keen interest in assuming a pre-eminent role in the Indian Ocean. India, keeping in view its size and resources, gave strong indications of, and took necessary steps to, playing an effective role in the new power structure of the Indian Ocean.

It adopted a two-pronged strategy to achieve this goal. First, it supported the peace zone proposal and pleaded for the demilitarization of the Indian Ocean. This merely meant the total exclusion of the two great powers, especially the US, from the Indian Ocean. Second, while talking about the demilitarization of the Indian Ocean, India speeded up the modernization of its navy to make it the strongest naval force of the littoral states.

The rapid naval buildup of India since the late 1960s, particularly in the 1970s, reflects its strong desire to become a maritime power of significance in the Indian Ocean. Such a strategy can be effectively pursued if the great powers, especially the US, are totally excluded from the region and their naval presence is withdrawn.

Several littoral and hinterland states while supporting the peace zone proposal, have expressed concern over the efforts of the power-oriented littoral states to assume a dominant role in the Indian Ocean vis-a-vis other states of the region. They do not want a regional power stepping into the shoes of Britain. An attempt by a regional power to establish its hegemony in the Indian Ocean or in some part of it, will be as dangerous as the great power rivalry.

*Pakistan did not limit its criticism to the great powers' presence in the Indian Ocean, it also warned against the dangers posed to the littoral and hinterland states by the efforts of some littoral states, especially India, to make the Indian Ocean an area of their exclusive influence. Pakistan emphasized that, in addition to the exclusion of the great powers from the Indian ocean there should be an equilibrium of naval forces of the littoral and hinterland states.*16 *While supporting the peace zone proposal, the Pakistan delegate to the 33rd session of the General Assembly, reiterated Pakistan's demand that the elimination of the rivalry amongst the great powers should be accompanied by "the strengthening of regional cooperation and security".*17 *This cannot be ensured unless the littoral and hinterland states respect each other's sovereignty and territorial integrity, settle their disputes through peaceful means, and a reasonable military balance is maintained amongst them.*

India's nuclear explosion in 1974 accentuated the security problems of the smaller states of the region, and further complicated the work of the ad-hoc committee on the Indian Ocean. Most littoral and hinterland states were, hitherto, perturbed over the presence of the nuclear weapons of the Great Powers. Now, necessary safeguards were also to be devised to protect the smaller states from India's 'nuclear sword'. Pakistan not only put forward the proposal for declaring South Asia a nuclear-weapons free zone but also called upon the ad-hoc committee to take into account the acquisition of nuclear capability by India while dealing the peace zone question.

Conclusions. The concept of peace zone for the Indian Ocean enjoys a widespread support

amongst the littoral and hinterland states. It was on their initiated that the General Assembly of the UN, passed a resolution in December 1971 designating the Indian Ocean as a Zone of Peace. Since then the General Assembly endorsed this resolution every year. A number of other international and regional organizations have also supported this proposal.

Despite the broad-based consensus on this concept, the United Nations has been unable to adopt concrete measures to implement the repeatedly approved of the General Assembly. There are several procedural problems which have delayed the work on the peace zone concept. The greatest obstacles in the implementation of the resolutions designating the Indian Ocean as a Zone of Peace flow from the divergent perspectives and interests, as well as the states of the region. The great powers accuse each other of increasing tension in the region but none of them is willing to withdraw completely from the Indian and divese interpretations of the great powers Ocean. Without their withdrawal the Indian Ocean cannot be turned into a peace zone because it is they who are primarily maintaining naval bases and facilities, naval forces and nuclear arsenal in the Indian Ocean.

There is a difference of opinion amongst several littoral and hinterland states as to the implementation of the peace zone concept. A number of states, including India, talk only about the exclusion of the great powers but these states are themselves frantically trying to become a mini-regional naval power. Most other states not only talk of exclusion of the great powers but also warn against the dangers of a regional power assuming a hegemonistic role in the Indian ocean. These states demand necessary guarantees for their sovereignty and territorial integrity vis-a-vis the emerging powerful states of the region.

The Iranian Revolution, the Soviet intervention in Afghanistan, the Mecca incident, and the prospects of political instability in the Gulf region have created complex security problems at the Great Powers level as well as the regional level. The growing sense of insecurity of the states directly under political and military pressure by these developments, and the western response have made it even more difficult to implement the Peace Zone Concept. It would not be wrong to say that its future prospects are uncertain, if not bleak.

APPENDIX

Major International Conferences Extending Support or Endorsing the Peace Zone Proposal for the Indian Ocean:

1964: (October): Conference of the Non-Aligned countries held in Cairo.

1970: (September): The Non-Aligned Summit held in Lusaka.

1971: (January): Conference of the Commonwealth Heads of Government held in Singapore.

(December): The U.N. General Assembly, Resolution No. 2832 (XXVI).

1972: (August): Meeting of the Foreign Ministers of the Non-Aligned countries held in Georgetown.

(December): The U.N. General Assembly, Resolution No. 2992 (XXVII).

1973: (September): Meeting of the Foreign Ministers of the Non-aligned countries held in Algiers.

(December): The U.N. General Assembly, Resolution No. 3080 (XXVIII).

1974: (December): The U.N. General Assembly Resolution No. 3259 A & B (XXIX).

1975: (March): Meeting of the Foreign Ministers of the Non-Aligned countries held in Havana.

(May): Conference of the Commonwealth Heads of Government held in Jamaica.

(August): Meeting of the Foreign Ministers of the Non-Aligned Countries held at Lima.

(December): The U.N. General Assembly, Resolution No. 3468 (XXX).

1976: (May): Conference of the Foreign Ministers of Islamic Countries held in Istanbul.

(August): Conference of the Heads of Government of the Non-Aligned Countries held in Colombo.

(December): The U.N. General Assembly, Resolution No. 31/88.

1977: (January): Conference of the Commonwealth Heads of Government.

(December): The U.N. General Assembly, Resolution No. 32/86.

1978: (May-June): 10th Special Session of the U.N. General Assembly.

(July): Meeting of the Foreign Ministers of the Non-Aligned Countries held at Belgrade.

(December): The U.N. General Assembly, Resolution No. 33/68.

1979: (September): Conference of the Heads of Government of the Non-Aligned Countries held in Havana. (December): The U.N. General Assembly, Resolution No. 34/80 A & B.

1980: (December): The U.N. General Assembly, Resolution No. 35/150.

1981: (July): Summit Conference of the O.A.U. held in Nairobi.

FOOT NOTES

1. Asian Recorder, March 12-18, 1971, p. 10047.
2. Resolution No. 2832 (XXVI)/1971: General Assembly. See also: 'Declaration of the Indian Ocean As a Zone of Peace'. World Armaments and Disarmament, SIPRI Yearbook, 1972, Stockholm, 1972, pp. 551-552.
3. Resolution No. 2992 (XXVII)/1972: General Assembly. 95 states voted in favour. There was no negative vote but 32 states abstained.
4. World Armaments and Disarmament, SIPRI Yearbook, 1973, Stockholm, 1973, pp. 393-394. U.N. Monthly Chronicle, Vol. X No. 1, January 1973, f. 39.
5. Resolution No. 3080 (XXVIII)/1973: General Assembly. 95 states voted in favour, 35 abstained, none voted against. Asian Recorder, January 22-28, 1974. p. 11820. U.N. Monthly Chronicle, Vol. XI No. 1, January 1974, pp. 33-34.
6. For different interpretations of the Soviet policy, see: Chawla, S., 'The Indian Ocean: Zone of Peace or War?' in Chawla, S., and Sardesai D.R. (Eds.), Changing Patterns of Security and Stability in Asia, New York: Praeger, 1980, pp. 180-181. Price, D.L., 'Moscow and the Persian Gulf' Problems of Communism, Vol. XXVIII No. 2, March-April 1979, pp.1-13. Donaldson, R.H., 'The USSR, the Sub-continent and the Indian Ocean: Naval Power and Political influence. ' in Ziring, L. (ed.), The Sub-continent in World Politics, New York: Praeger, 1978, pp. 168-195.
7. Ahmed, Samina, 'Indian Ocean Peace Zone Proposal', Pakistan Horizon, Vol. XXXII Nos. 1 & 2, First and Second Quarter, 1979, pp. 98-141.
8. *Ibid.*
9. For Soviet views/objections, *see*: Chawla, S., pp. cit. p. 189.
10. The United Nations Disarmament Yearbook, Vol. 3, 1978, p. 387.
11. The Muslim (Islamabad), May 31, and June 6, 1981.
12. U.N. Monthly Chronicle, Vol. XIV No. 11, November 1977.
13. The United Nations Disarmament Yearbook, Vol. 3, 1978, pp. 385-386. *See* also: The New York Times, December 18, 1977.
14. Bayne, M.G., 'The Indian Balance', Asian Affairs, Vol. 7 No. 2, November-December 1979, pp. 84-94.
15. See, for example, Haseman, J.B., 'The United States, Interdependence and National Security', Military Review, April 1981, pp. 9-15.
16. See, Agha Shahi's statement: The Pakistan Times (Lahore), December 13, 1974.
17. The United Nations Disarmament Yearbook, Vol. 3, 1978, p. 395.

Indian Outcry Against Pakistan's Defensive Build-up

Perhaps the most unique thing about the US arms sales arrangement with Pakistan is the excitement it has caused in India even before a single aircraft, tank or gun has actually arrived in Pakistan. It looks like India, through a massive propaganda drive, seeks to exercise a veto on the agreement between two sovereign countries, both of which profess to be its friends and do not begrudge any number of assurances about their unmistakably peaceful intentions.

Of all the US hardware intended for Pakistan the General Dynamics F-16 fighter/bomber seems to have caused the fiercest controversy: much ado about nothing. We do not even know what variant of F-16—whether one with F-111 engine or a J-79 engine we are eventually going to get, when and how many.

The following discussion which is a transcript of a nationally networked radio programme throws useful light on various aspects of the Pak-American deal and should be of interest to our readers.

Participants :

Air Vice Marshal (Retd.) Mian Sadruddin

Dr. Afzal Iqbal

Mukhtar Zaman (Moderator)

MODERATOR: Ever since Pakistan has decided to enter into an economic and military purchase deal with the United States, a lot of hue and cry has been raised in India particularly about the purchase of F-16 aircraft. No less a person than the Prime Minister of India Mrs Indira Gandhi has said that the acquisition of F-16 aircraft by Pakistan represents the induction into this region of an aircraft which is a generation ahead of anything operating in this area. India was deeply concerned about Pakistan obtaining such sophisticated planes of advanced technology and operational capability.

She further said that the subcontinent is thus being pushed into an arms race increasing the financial burden on our people. Besides, the Indian press and other leaders of public opinion have also been expressing concern on the deal that Pakistan has entered

into obviously to supplement or to supplant its ageing defence equipment and to have viable security arrangements. I would like Air Vice Marshal Mian Sadruddin to tell us whether the charges made by Indians are correct. Is F-16 a generation ahead, constituting a danger to them, and are we really entering into an arms race? I think it would be a good idea if you start with the background.

AVM. SADRUDDIN: **Well, the design of the F-16 rose as a direct result of lessons learnt by the American Air Force in the Vietnam war when it was discovered that manoeuvrability or the art of dogfight, which people had thought, had died down was not so, and it was very much current but they found that the Russian aircraft like the MIG-21 caused a lot of problems to their aircraft which were optimised more for missile firing than for dogfight. So the F-16 basically is an aeroplane that has been built around this concept and in this particular role, dogfight, it is known for air to air combat against another aircraft. I would say quite clearly that today there is no other aircraft that can match this aircraft in this role. But this requires the aircraft to be in visual contact with the enemy and in the case of F-16, the aircraft is provided only with short range missiles that will not go beyond about three miles and for even shorter ranges. Then there is of course reliable 20 mm machine gun. Therefore, the F-16, when it gets into combat, it must be able to see the enemy. If it cannot see the enemy, if the pilot cannot see the enemy, there is nothing he can do about it.**

MODERATOR: **Is it that what you are trying to say is that the F-16 is a good defence aircraft. If somebody is attacking and coming in your territory, F-16 can meet the situation.**

AVM. **Yes, if your ground radar can direct you within the visual range of the enemy then the F-16 would be a very good aircraft for this role. But if you want to contact the enemy beyond visual range i.e., when you cannot see the enemy and your radar has directed you, and afterwards on your own radar in the aircraft you are seeing the enemy aircraft at say ten miles and you have a missile that will hit him at that range, I am afraid the F-16 does not have this capability. The aircraft with this capability is F-15.**

MODERATOR: Which we don't have.

AVM: Yes and F-15 really complements the F-16. The F-16 without the F-15 is incomplete.

MODERATOR: I see. Now Air Vice Marshal what you would say is the comparative strength of the Indian Air Force and the Pakistan Air Force and as the Indians say, does the Pakistan Air Force or the Pakistan defence, as such really create a dangerous situation or pose a threat to India. Is there any substance in this claim, because apparently it seems that India is far stronger and the ratio that she has given three times more strike capability. It is a question which must be probed into.

AVM: **This statement by India is totally incorrect in so far as the three to one strike capability superiority of Pakistan Air Force is concerned. If one just compares the numbers of aircraft with more or less equivalent performance, India still has a three to one superiority. I would say that within a couple of years, once the Indians have acquired the latest equipment from the deal concluded with the Soviet Russia, they will have over three hundred and fifty aeroplanes, facing Pakistan's 120 Mirages and F-16s combined.**

MODERATOR: I see besides that they are also having Jaguars from Britain and Mirages from France.

AVM: **In this figure of 350 plus I have included 75 Jaguars, about 120 to 130 Mig-23s, about 8 MiG-25s and 150 Mirages-2000 which they are apparently negotiating for.**

(This does not obviously include some 300 Gnats, Hunters, and Canberras still in use in the IAF — **Editor.**)

MODERATOR: So you would say that Pakistan even after this enhanced strength will not pose any danger so far as India is concerned and it will be purely for our defensive purposes.

AVM: **With the acquisition of Mirage-2000 in fact the Indians will have a superior aeroplane. I am now talking of allround capability. I am not talking primarily of the dogfight role. In the dogfight role the F-16 will be superior to the Mirage-2000 but when we talk of beyond visual range missile firing then I would say Mirage-2000 will be better.**

MODERATOR: The other point which the Indians have raised is the questions of arms race. I think Dr. Afzal would like to comment on that how does it constitute an arms race and what is it that they are trying to convey to the world.

DR. AFZAL: Well, it is a very familiar old technique. There is nothing new about India's posture vis-a-vis Pakistan. It is at least 30 years background and even after the dismemberment of half of the country' which was directed, as you know, towards creating conditions in which Pakistan could not live and pursue an independent foreign policy. The whole idea was to establish and is to establish a regional hegemony where India by dint of its size, by dint of its resources, its manpower is able to intimidate its smaller neighbours into a posture of total acceptance of the main outline of their foreign policy. I would wish to take up what is more relevant to this discussion of ours this evening and that is that India cannot possibly hope to decieve Pakistan or its friends in taking up the propaganda posture that it has.

But I believe that there is a modicum of a desire on both sides after having had three confrontations over a period of thirty years to settle down to a relationship of normal dealings with each other and as equally sovereign friendly neighbours. Last time the foreign minister of India was here he was certainly taken into confidence and the whole package deal was fairly and frankly discussed with him. And I am glad that he solved the point that it is the elementary right of a sovereign country to determine its defence and nobody tells it what to do and how many guns to choose and where the place them and after the Simla Agreement, which I think, is a milestone in our relations between the two countries. We are determined to implement in spirit and in letter of the Simla Agreement between our two countries. We have no territorial designs against anyone and we shall certainly not allow anyone to go with impunity if anyone has any territorial designs against us. As a bigger country, as a more powerful country it is for India as a leader of the non-aligned movement to do something in the context of the Simla Agreement to inspire confidence in this country which is more than willing to establish peaceful friendly relations between ourselves and our

great neighbour and it is totally irrelevant, totally untrue to suggest, I dont' think if the game is at this time to impressing the members of the Congress into believing what the prime minister of India has said that the ratio, the striking capacity of Pakistan is three as against one of India. Now this is going too far.

MODERATOR: Do you really think having been in the field of diplomacy for such a long time, do you really believe that this kind of propaganda can cut much ice with people who know.

DR. AFZAL..... it is counter productive.

MODERATOR: Inspite of that an experienced politician like Mrs. Indira Gandhi after the commitment made by Narasimha Rao and herself also that every country has the right to determine its own defence strength what should they keep on harping on the same tune and keep on telling the world. Do they really believe that or are they really afraid of Pakistan.

DR. AFZAL.. No they are not, certainly not. There is not an iota of truth in this. Now there are two things and they also know that. I think there are two factors. Basically major factor is the international factor. If you say things primarily for internal consumption Mrs. Gandhi is under severe internal pressure in *her country* today. So this is one of these diversionary tactics,.....which is not a very sound one as a propaganda, weapon. I assure you and the other is intimidation building up some kind of atmosphere of strength and intimidation viz a viz the neighbours and we are not the only neighbour and all neighbours of India small neighbours like Sri Lanka, like Burma like Nepal—they are all reacting in a similar way.....because afterall we are not Bhutan. We cannot be absorbed we cannot be intimidated and it is a counter-productive posture which India has unfortunately adopted and we hope that they will see that there has never been and there cannot be any measure of danger from a small country like Pakistan to India.

MODERATOR: Air Vice Marshal as we know India has got a very developed defence industry. It makes many things. It exports some of its weapons and so forth. In that situation would you say that Pakistan's recent deal which will change considerably the balance of power as it exists.

AVM: **Not really because from the point of view of air force we are taking in terms of what the international press is saying 40 F-16s in terms of numbers. I think it changes very little and on the other hand with India acquiring possibly 150 Mirage-2000s which is an aircraft that is most equipped with the F-15 and not with F-16 because it has the same capability as the F-15 and (which we will not be having). It is short of certain capabilities that the F-15 and Mirage-2000 have. Also India is probably going to manufacture the Mirage-2000. I think that is one of the conditions and if they start to manufacture this aircraft not only are they ten years ahead in technology which is what they are claiming to have, but they are also going to be ten years ahead in defence industrial capability which we do not have or we have a very little of.**

DR. AFZAL I think this technique is a game. To use my previous expression very familiar, and I would like you to recall India's reaction in 1954 when we were negotiating aid agree-

ment with the United States. At that time, if you recall, Pakistan had negotiated and had almost succeeded, with Pandit Jawahar Lal Nehru. An agreement had been reached It had not yet been signed. The only agreement between the two countries in which General Nimitz, it was agreed, would be inducted into office as a plebiscite administrator for, and India used the news of this impending agreement of Pakistan with the United States of America to wriggle out of that agreement, and said the context is changed. This agreement is no good. You are bringing a cold war or hot war or God knows what on to our borders. Now India is using similar devices today when Pakistan is a member of non-aligned movement. Pakistan is no longer a member of any defence pact be it Seato or be it Cento, and Pakistan is not negotiating any defence alliance, or any alliance for that matter.

How come then India if it has no aggressive designs, of its own should adopt a similar frightening attitude and tell Pakistan in fact that you shall not take any steps in regard to your defence without our consultation or without our permission. This is a very haughty, aggressive attitude on the part of a sovereign state which deals with another sovereign state.

MODERATOR: Dr. Afzal Iqbal won't you say that the attitude that India was adopted is somewhat similar to the one that Israel has adopted in asking Syria to remove its missiles which are meant for defensive purposes? But everybody knows that missiles won't be used to throw anything.

DR. AFZAL : It comes to the same thing and the A.V.M's statement is very significant, and I think we better take note of it that we have been given F-16s without being given the complement which is F-15. What is F-16 all about, a dogfight? And how do you have a dogfight? It takes two to have a dogfight. And if India does not want to have a dogfight there will be no dogfight. So what is the offence, what is the provocation? what is happening with the addition of 40 aircraft to a country's air force? the balance is changed in the entire region. That is what the Prime Minister of India says. Does she really want us to believe her seriously.

AVM. I had mentioned that India will have a combination of Jaguars, Mig-23s, Mig-25s and Mirage-2000s numbering about 350 various Pakistan Mirages and F-16s but you must remember that the Mirages Pakistan has are the old Mirages. Their Mirage-3 and Mirage-5 is twenty years old technology. You can really compare them in terms of technology with only Jaguar. A Mig-23 of which they will have 130 and Mig-25 of which they are going to have a squadron and 150 Mirage-2000s, gives them a three to one strike capability against us rather than what has been stated.

MODERATOR: In fact the boot is on the other leg.

DR. AFZAL: And this is well established. It is not a new case, it is not a new situation. It is not a new assessment. It is well established. You go to the Institute of Strategic Studies in London, you go and talk to any informed man in the world. He will tell you this. How can the arithmatic suddenly become inverse in Delhi. And there I think you did point out to a very significant psychological approach to the whole thing.

Now Israel is complaining that the Arab world is becoming very aggressive and Syria brought in missiles to defend itself in her own territory and therefore, Israel must invade Lebanon. Israel must invade Syria in order to bring peace, in order to create conditions where peaceful life is possible. What it amounts to is that Israel must have the freedom of the air and do whatever it wants to strike any Palestinian bases in Lebanon or in Syria. Is that what India wants to have the freedom of Pakistan's air space and do with impunity whatever it wants to do. Surely that is not the way to bring peace in this region. And we in Pakistan, I assure you, are determined to end these bickerings, these old animosities, these old hatreds which have consumed both countries and which have stopped and hindered and affected the development programme of both these countries with all teeming millions who are poor, who are devoid of food, cloth, medicines. It is a gigantic task both us of have to do and the way out is really to revert to strengthening the Simla Agreement which is a very significant development in the foreign policy of our country viz a viz India and I do hope that the opportunity which has been opened up by the Simla Agreement, will be strengthened will be developed, and will be fortified.

MODERATOR: She has also mentioned this question about the economics of the whole thing and she has said that the arms race will be increasing the financial burden of the people but where is the race. Are we in a position to have the race with India? If it is a race they have already reached the goal.

AVM.: Yes infact no race is needed. No question of race. Race is from their side, not from our side. Look at their defence industry; fantastic, they are an industrialist power already.

MODERATOR: I think that you will bear me out that recently the Indian Foreign Minister had gone to Moscow to negotiate for some more weapons and more some more equipment.

AVM. Though he will get the best Russia has, I am sure, for example Mig-23 is also technologically a very advanced aircraft, we can also say it is ten years ahead. After all it has a swing wing which is something that the American aircraft don't have except for F-111 and the F-14. if you have swing wing aeroplane it tends to be very very heavy. But the Mig-23 is a light weight aircraft with the swing wing which is a great technological achievement and with the swing wing the Mig-23, in fact, is faster than F-16. I am talking now of level speed.

DR. AFZAL Not only that India has a deal of 1.8 billion with the USSR with which they buy nearly 10 billions worth of dollars of equipment because of the concessions that have. Now we have a deal of 2 billion to match that and in 2 billion we pay 14% interest as against 3% that India pays. So 75% of the purchasing capacity of the money that we have in the kitty is reduced automatically and then India is talking of these 30 or 40 additional toys that come into the arsenal as a challenge that upsets the balance of the entire region. I think this is not reasonable.

MODERATOR: And, as for the Mig-25 which I am told India already has one squadron of. This is a high altitude reconnaisance aircraft that flies at Mach 3, very much like the

American SR-71. Would you please explain to our listeners what is Mach 3 and Mach 4?

AVM. : **Well, Mach 1 is the speed of sound which is at sea level about 750 miles per hour, and mach 2 is double** that **speed which comes to 1500, and Mach 3 is 2100 miles per hour. So Mig-25 like the SR-71 at 80,000 feet can travel at this speed. And at this speed there is no defence against it except an aircraft like F-15 or the Mirage-2000, and we don't have either. Because you need a radar that looks after you need an aircraft that can quickly accelerate to Mach 2 to be able to fire a long range missile upwards up to 80,000 feet from 50,000 feet and that capability like F-16 only exists...**

DR. AFZAL: I have come across reports in the press in which it is stated that India will be given Mig-27s also, a plane which is not yet used by the Soviet forces themselves.

AVM. **The Mig-27 is basically a Mig-23 but it has been much improved and it has a different role.**

DR. AFZAL With that kind of equipment if India says that we are afraid, mortally afraid of Pakistan which is going to invade us tomorrow and please, therefore, don't talk to Pakistan and don't equip them with these 40 little planes, because they upset the regional balance to the detriment of India, I don't think this is seriously intended to be believed. And this is not a very good propaganda. Because we do want to respond to India as a friend and we have made gestures and we are willing further to make gestures because we want to remain friendly with India and we want to carve out a of relationship of equality, of sovereignty and a friendship.

MODERATOR: Thank you very much Air Vice Marshal and Dr. Afzal Iqbal. We had a very nice discussion about the situation. So the upshot of the whole thing is that our acquisition of these few aircraft does not change the balance of power. It constitutes no danger to India which continues to be stronger than us three times and which is continuing to increase its power flow and at the same time it has been made clear by our government, our Foreign Minister and our President that we have absolutely no aggressive designs nor do we have the capacity to be aggressive nor we are trying to acquire that capacity and that we want to have friendly relations in Simla spirit between our relations with India. Moreover, the deal that we have entered into with the United States does not in any way constitute a change in our general policy. We continue to be members of the non-alignment movement. We continue to support Palestinians, we continue to keep big powers away from the Gulf and so forth. Therefore, all this propaganda is indirected and misconceived and we should believe that India will find it counter productive eventually. Therefore, I think, it will be a good idea in the interest of both countries and the region if this sort of thing is stopped.

Courtesy : **Pakistan Broadcasting Corporation**

Indian Military Preparedness The Weapons Cost Factor

Bharat Karnad

War and, its obverse, military preparedness are prohibilitively expensive undertakings, expecially for faint-hearted Third World economies. There is an enormous amount of waste of financial resources involved and the following prices hints at these costs.

It may also be noted that most of the costs quoted in the article pertain mainly to the equipment being indigeneously produced in India and do not include the profit/commission/transportation components which would have easily doubled, trebled and even quadrupled these. For instance something like the medium Vijyanta tank, made in India, quoted at Rs. 22 lakh, would cost not less than a million US dollar (about 8 to 9 million Indian rupees) in the world market inclusive of profit and transportation.

Similarly, a general purpose machine gun quoted at Rs. 14,000 ($1300 approximately) would be available at Rs. 35,000 to Rs. 40,000. in the world arms market. India's big advantage over Pakistan is that it can obtain its relatively less sophisticated hardware at cost price because it makes most of it. The value of one dollar is roughly 8.99 Indian rupees as against 9.88 Pakistan rupees.

The cutting edge of the Indian army is the tank which had its uses in the First World War, was used to full effect in the second great war, and has all but become a sitting duck in a shooting gallery ever since anti-tank technology, with electronic and other sensors and effective terminal guidance, was introduced in the 60s. Still, we persist with the tank as the main prop for land warfare.

Our main battle tank, Vijayanta, of British—Vickers design costs Rs. 22 lakh. A representative sample of other conventional military items, which form the front line strength of our army, and their cost are as follows. A 1.5 mm self-propelled gun is worth Rs. 15 to 20 lakh with a single round of high explosive ammunition pegged at Rs. 2,000. A wheeled armoured command vehicle costs between Rs. 4 and 10 lakh; a

light 88mm infantry mortar Rs. 20,000 and each of its shells Rs. 400; and so elementary an infantry weapon as a general purpose machine gun, Rs. 14,000.

In common place war operations an armoured division, comprising say, 150 tanks, 50 pieces of artillery, three or four motorised battalions plus ancillary units, is estimated by Brig Shelford Bidwell, a British military historian, as requiring 900 tons (in staff planning terms of 30 year ago) per day of supplies to sustain intense action. This is increased several times if modern battlefield appurtenances and the use of air reconnaissance and air strikes called from forward air bases are taken into account. Saturation artillery fire, meant to cover the advance of infantry and tanks, as well as to impede the enemy's vision and progress, costs big money.

How big? A field artillery unit uses up to 150 rounds of first line ammunition per gun for an hour and fifteen minutes of continuous firing, or for a day's sporadic burst. A brief salvo of, say, five rounds per gun from a six gun battery for the purposes of merely repelling an enemy patrol might cost Rs. 60,000. Provision of general fire support for a minor attack using a regime of 36 guns firing 40 rounds per gun at normal rates (three round per gun per minute) or about fifteen minutes of letting go might cost the exchequer double in the neighbourhood of Rs. 28 lakh and this does not even include any tank, mortar and small arms ammo expended:

Armoured Warfare. All military observers are agreed upon the view that armoured warfare is the most severely expensive of land operations and it is the one in which the Indian Army has the biggest stake. The record of tank operations show that to achieve an important tactical objective may entail 160 per cent loss of the tanks committed. Losses may be cut by using tanks in conjunction with other systems and by the use of a tactical air wing, but they cannot be reduced appreciably. *Our own experience of major armoured battles, from the Rann of Kutch, Khem Karan, Chhamb Jaurian to Asal Utter, confirm the fact of a tank committed in war being a war machine irretrievably lost.* More so now that relatively cheap anti-tank guided munitions (ATGMs), easily available to any country wanting to build up its defence in strength can effectively bring a tank led assault to a crunching halt. These ATGMs cost a miniscule Rs. 30,000 each. Military planners generally assume on the low side, by the way that a well executed tank attack will secure a loss of one third of the tanks. Given such figures and the advanced state of the art of anti-tank technology, our huge 1900 strong tank force, along with machines worth Rs. 4,000 million, is a liability and of little real value in a running war.

Air War. Air war is, if anything, far costlier. Up-to-date surface-to-air guided weapons (SAGWs) have made offensive air strikes all but impermissible because of attrition and SAGW hit rate. An informed judgement is that 40 SAG missiles can engage 30 hostile sorties at a 75 per cent kill level. Thus, a squadron of say, 20 Jaguars, flying to targets at tree top levels, with electronic warfare systems activated to misguide in coming missiles which, however, are corrected with electronic counter warfare measures will suffer a loss of some 15 planes. With the Jaguars priced at a whopping Rs. 130 million each the loss of 15 in an operational sortie means the country loses 1,950 million rupees in one Jaguar strike mission.

Other planes in the IAF are comparatively cheaper than the Jaguar but the cumulative costs are still stratospheric. A Mig-21

costs about Rs. 30 million, a vintage fighter bomber, the UK-built Hunter, Rs. 70 lakh; and, even the throw away priced Gnat and the HAL up-rated Ajeet intercepter lists at Rs. 20-25 lakh each (about the cost of a Vijayanta tank). Such are the phenomenal costs needed to support our war complex. These cost estimates are bare numbers bereft of any consideration of the cost add-ons to do with the expenditure on the human factor training of personnel, pay, pensions, etc., and secondary monies for the servicing and maintenance of man and machine.

In a region of reasonably secure boundaries like South Asia where territorial disputes have by and large, lost their sting, dependence on defensive military technology can effectively stabilise the security environment. It will have the way for hefty cut in the maintenance and upkeep costs of an all contingency force posture that India has tried to affect. This is the reason why many internationally reputed defence analysts deem the Pakistani military stance more productive of results. The Pakistani air defence to counter the air threat from India, for instance, pivoted on the base at Sargodha with its array of an all-azimuth radar net backed by semi-automated warning units, information fed by manned border observation posts and ground based fire systems can easily neutralise any IAF strike formation.

The Pakistan Army's build-up of its ATGM and SAGW component which are to be further augmented by the proposed Fukuyama Rand Report based on US military aid in the offing point to a generally cost efficient and defence-oriented thinking on the part of Islamabad.

Offensive Actions. While our defensive forces can match their counterparts across the Western border, acquisition of systems like the Jaguar and other weapons sporting the latest gizmos, send out signals despite our by now *ritualistic profession of peaceful intent* that we might be contemplating offensive action: to have a certain of offensive weapon will invariably create situations for its use. And the greater the varietv of offensive weapons systems in the arsenal the more the danger of precipitation of war that neither a poor country's economic resource base nor its war making capabilities can sustain for very long. *This is the primary reason why Indo-Pak wars in which the two countries soon reach the end of their military tether by exhausting very fast what little power they have until then been able to muster are of such short duration.* In the thirty odd years after independence, certain factors ought to have registered in the Indian military mind, unless Lord Curzon's observation about the officer-corps of the British Indian Army as being congentally stupid still holds vis-a-vis our armed forces. One weapons systems for predominantly offensive use like tanks and strike aircraft, have had it due to the off-setting qualities of technologically sophisticated counter systems. The point is that a MIG 23/25 or a Jaguar on our side is as vulnerable as the F-16, President Reagan expects to transfer to Pakistan. Two, both Pakistan and China, our putative adversaries, are defensively more secure than India is given force mix to deal with all eventualities which will be unable to contend very will with any particular contingency. Three this *faulty capital intensive force planning* has made for a reckless dissipation of economic and technological riches which could have been better utilised in developmental activities.

Four, our military planners have generated no original doctrines. Indian commanders operational notions are derived from Second World War, Nato and Warsaw Pact war expertises, which have very

little relevance to our conditions. The consequences of *muddled and derivative military thinking* is that, instead of a clear-headed estimation of our needs for a basic, stripped down defence for that's all we can afford we react to Pakistani arms acquisitions and military actions with knee jerk reflexes. The simple truth is that the Pakistani Mirage-2000s and F-16s however, procured and for whatever reasons, can still be prey to an efficient radar aided SAGW strong air defence bolstered by our interceptor force of Mig-21s 23/25s. Similarly, the US gifted Pakistani M-60s Pakistan does not have any as yet-Ed. can be despatched to the tank graveyard with a concentrated ATGM based land defence. So what does it matter what the Pakistanis acquire next?

And finally, we seem to be oblivious to the drain on our state treasury owing to ill-advised arms purchases which are made mostly as a matter of keeping up with the Jonese across the fence, rather than because these help in our security. The clincher is that Pakistan's allies and patrons the US and Saudi Arabia shoulder most of the financial burden of its arms shopping sprees. In contrast, we have to dig deep into our pockets and spend scarce foreign exchange reserves, Even soft rouble deals for Soviet armament, we are beginning to realise, are to our disadvantage. Soviets buy consumer items and other commodities from us at discount rates only to divert these goods into the international market, where they fetch hard currency for Moscow. In the light of the generally depressed economic circumstances everywhere how much longer can we afford to put up a *show* of military strength?

War remarked the Chevalier Folard is a trade for the ignorant. We seem to be proving ourselves ignoramuses nonpareil.

India–Asian Power Broker of the 1980s?

R.D.M. Furlong & G. S. Sundram

New Delhi has ordered Jaguar and Sea Harrier aircraft from British Aerospace, is seriously evaluating Western battle tanks, anti-tank and surface-to-air missiles, is working closely with Western firms in the electronics field, is licence-producing Japanese trucks etc. The Indian armed forces are equipped with a mixture of Soviet and Western ships, vehicles and equipment and tending to select such equipment without any particular bias, often after some very gruelling tests and evaluations for suitability.

One of the biggest problems in this respect has been non-availability for export to India of some of the Western systems considered most suitable by the Indian armed forces, which has left them with little alternative but to buy Soviet material, even if it is considered inferior. For instance, the Indian Navy would dearly like to have the Harpoon anti/ ship missile rather that than the Soviet Styx and that the ideal fighter for the air force would have been the F-16.

The Soviet T-72 tank was ordered in relatively small numbers since it proved unsatisfactory in desert conditions and will be used only along the northern part of the border with Pakistan.

For the desert of the southern section, India is attempting to develop its own MBT, while Western types in case the development programme is delayed or cancelled. This non-alignment of the armed forces is also reflected in the vehement denials by service chiefs in New Delhi that they are open to exploitation by the Soviet Union.

It is instructive to examine some of the key Indian military procurement and R&D programmes. The former, in particular is good indication of the level of balance in India's non-alignment, whatever the rhetoric to the contrary.

The youthful Indian defence industry has yet to design, develop and series-produce any major military system entirely on its own, with the possible exceptions of the Hindustan Aeronautics Ltd. (HAL) HF-24 Marut fighter and Kiran jet trainer/

light attack aircraft. On the other hand, ordnance factories are flourishing with production of indigenous small arms, mines, a 105mm light gun etc. and a number of R&D projects for major systems are under way. Pending the development of indigenous systems, all major equipment is either being procured directly from abroad, or assembled or series-produced under licence in India. This has provided valuable production experience and with indigenous modifications to the foreign equipment, has raised high expectations of the Indian design and development teams.

In those areas where sophisticated equipment is being built in India under foreign licence, indigenous materials and components are being incorporated wherever possible. The country now has some 32 MoD ordnance factories and nine public section undertakings which produce defence equipment. In addition, there are a advanced R&D word. Details of some of the major defence programmes and activities are given in the accompanying boxes.

The foreign procurement programme that has caused the greatest consternation in the West recently is the $1.6 billion deal signed, In Moscow in early 1980, just after the Soviet invasion of Afghanistan. Among other things, the deal dormalized previous Indian arrangements to buy two regiments of T-72 tanks, as well as more than 40 MIG-23N Flogger fighters (mostly to be assembled by HAL) and eight high performance MIG-25 Foxbat/reconnaissance a aircraft.

ARMY PROGRAMMES

Main battle tank. India is said to have made considerable progress on an indigenously designed next-generation main battle tank. The Combat Vehicle R&D Establishment (CVRDE) has frozen the design and first prototypes are expected by the middle of 1983. Service entry is planned for the late 1980s. The 50t tank will be powered by an Indian gas-cooled. 1,120kW(1,500hp) diesel engine developed by the Gas Turbine Research Establishment (GTRE). The engine is now in prototype production and trials have been going on for over a year. The GTRE is also designing a turbocharger for the MBT.

The new MBT will be armed with an Indian-designed 120mm-class gun—it is stated that a 125mm gun (from the T-72) could also be used with some modification. The *Vijayanta* uses a locally built British 105mm gun. Considerable work is going on with regard to various types of ammunition, including FSAPDS. (at present with Tungsten carbide penetrators). An advanced type of armour will be used in the new MBT and development work is under way on a variety composite armours.

Vijayanta modernization: Following a decision that the *Vijayanta* will continue to be the mainstay of Indian armour for the near future, the tank has undergone many modifications and improvements. While the 105mm gun with its Indian-made ammunition is considered to be extremely good, its mechanical reliability, night-fighting capability and fire-control system are being improved by the Combat Vehicle R&D Establishment. The Leyland L-60 engine (built in India) and the transmission have been considerably updated and improved to suit Indian climatic an geographic

conditions. Extensive endurance trials have been conducted at the Heavy Vehicles Factory at Avadi.

Anti-aircraft weapons: The country has had Soviet SA-2 surface-to-air missiles, with system updates, in service for many years. It is currently evaluating a low-level missile air-defence system. primarily for the defense of air bases. A sheltered version of *Roland* has already been demonstrated in India and evaluated The Soviet SA-6 *Pechora* has also been evaluated . No indigenous development is thought to be underway. The country has been building the Boforst L-70 40mm anti-aircraft artillery under licence for some time now. The L-70 is being further developed to increase its rate of fire. An evaluation is at present being carried out of the Contraves *Skyguard* and Hollandse Signaalapparaten *Flycatcher* weapon control systems as potential replacements for the Contraves *Superfledermaus*, of which 400-500 have been built under licence by Bharat Electronics for use with the Indian Army 's L-70s. The new system would also probably be integrated initially with the 40mm guns. although these too could be due for replacement later in the 1980s.

Artillery, mortars, small arms and mines. The country is virtually self-sufficient in these fields. In small arms, it licence-producers 9mm Sterling SMG, the 7.62mm FN FAL automatic rifle in its British L1A1 version, known locally as the *Ishapur*, and has designed a very successful 7.62mm LMG. Studies are currently under way to see if a smaller calibre most likely 5.56mm, should be adopted. A new 7.62mm HMG is to be procured and models from Ramo and FN have been evaluated.

The old 3in mortars are now being replaced by locally produced 81mm units: similarly a new 120mm mortar is to replace the old 4.2in ones. The old 25-pounders are now being replaced by the Indian-designed 105mm Indian Field Gun (some elements of which are said to owe their parentage to Czech and British equipment). For several years now, the army has had the Soviet 130mm medium gun which, with its 32km range, has proved to be extremely effective in combat. An SP version of this gun. mounted on a *Vijayanta* tank chassis, has also been put into service.

For mountain warfare, the 75/24 pack howitzer is being locally produced, while the old 5.5in medium gun is being replaced by an Indian weapon which can be broken down into small units for transportation by mules.

In anti-tank warfare, apart from the French SS-11-B1 which is produced under licence, India has reached an agreement with Sweden to produce locally the 84mm *Carl Gustav*. This should replace the old 3.5in anti-tank rocket launcher.

India is developing mortar-locating radars as well as ballistic computers for field artillery. It has special factories which produce ammunition for all the weapons used by all three services. Recently, the Explosives R&D Laboratory (ERDL) developed a method of manufacturing HMX, one of the strongest conventional explosives known. It is being produced at a pilot plant in the premises of the ERDL, while plans for a largescale production plant are being worked out.

In the field of mine warfare, equipment capable of detecting non-metallic mines is being introduced into service. A high effective non-detectable anti-tank mine which is laid mechanically has also been developed and put into production.

Indian Field Gun. This 105mm gun is officially described as being "entirely of indigenous design" and has been in production for the past few years. It will replace the aged 25-pounders which have a range of 10km. The IFG has a ranged of 15km and is far more accurate. The gun was developed in 1972 by the Armament R&D Establishment at Kirkee in collaboration with the Ordnance Factory. Kanpur. The latter undertook the engineering development and built the first prototype. Following successful trials, the IFG has been in productien since January 1978. The gun carriage was developed at the Gun Carriage Factory. Ambarnath, while the gearbox was developed by the Machine Tools Prototype Factory, also at Ambarnath.

Shopping For Arms. The timing of the deal was certainly unfortunate, but it should be recognised that it does not represent a significant shift in India's foreign procurement policy. New Delhi has also recently ordered Jaguar and Sea Harrier aircraft from British Aerospace, is seriously evaluating Western battle tanks, anti-tank and surface-to-air missiles, is working closely with Western firms in the electronics field, is licence - producing Japanese trucks etc. The Indian armed forces are equipped with a mixture of Soviet and Western ships, vehicles and equipment and tending to select such equipment without any particular bias, often after some very gruelling tests and evaluations for suitability.

One of the biggest problems in this respect has been non-availability for export to India of some of the Western systems considered most suitable by the Indian armed forces, which has left them with little alternative but to buy Soviet material, even if it is considered inferior. For instance, that the Indian Navy would dearly like to have the Harpoon anti/ship missile rather that than the Soviet Styx and that the ideal fighter for the air force would have been the F-16.

The Soviet T-72 tank was ordered in relatively small numbers since it proved unsatisfactory in desert conditions and will be used only along the northern part of the border with Pakistan.

For the desert of the southern section, India is attempting to develop its own MBT, while development programme is dela yed or cancelled. This non-alignment of the armed forces is also reflects in the vehement denials by service chiefs in New Delhi that they arc open to exploitation by the Soviet Union. When asked about reported Soviet use of the submarine base at Vishakapatnam, for instance, the response was immediate; "That is nonsense Come and see foryourselves."

Armed Forces. For a country with a population of some 680 million, India's volunteer armed forces number more than 1.1 million. All three services are considered to be completely apolitical, highly competent and professional. Although the forces are generally well armed, with a mixture of Soviet, Western and indigenous equipment the emphasis now is on re-equiptment and modernization. Mobility and firepower are to be increased, but, with the country's income economic factors in mind, every effort is being made to draw the maximum out of existing and locally produced equipment.

AIR FORCE PROGRAMMES

The Jaguar programme. The controversial, four-phase *Jaguar International* deal with British Aerospace is proceeding according to schedule. Hindustan Aeronautics Ltd. (HAL) is going ahead with the setting-up of the assembly line, £75 million worth of jigs and precision tooling equipment already having been installed to date.

Phase 1 of the programme involved the loan of squadron of 16 RAF *Jaguars* to provide the IAF with an interim capability and these will be returned once new aircraft start entering service. Phase 2 involves the outright purchase of 40 aircraft, to be followed by phase 3 which is the assembly in India of 45 *Jaguars* is knock-down form. This third phase, which is scheduled to begin in 1982, will also involve the incorporation of locally built components. As regards Phase 4—total indigenous manufacture—it has been stated that a decision to proceed will be taken at an appropriate time. Under the terms of the contract, this phase is an option which, if not taken up, involves no financial penalty for India. There have been suggestions that Phase 4 may be scrapped in favour of BAe technology for a Light Combat Aircraft (LCA, see also below) but these have been ruled out since the two programmes are said to be completely unrelated.

Light Combat Aircraft. India is at present involved in the design of a cheap interceptor, referred to as the Light Combat Aircraft (LCA), for the 1990s. The idea is to procure the LCA in large numbers rather than go in for a limited quantity of expensive, high-performance aircraft. The unit fly-away cost of the LCA is planned to be about £56 million. If possible, a twin-engined aircraft is preferred, although single-engined type is still not being ruled out. HAL design teams have had discussions with several European aircraft manufacturers with a view to possible collaboration and technology transfer arrangements.

The LCA would use the GT-X after burning turbofan engine being developed indigenously by the Gas Turbine Research Establishment (GTRE) in Bangalore. The GT-X, which is said to have a "higher than normal" thrust-to-weight ratio, will be produced by HAL's engine factory, also at Bangalore. First prototypes of the GT-X are expected to be ready at the GTRE within a year's time.

By the time the LCA reaches the production stage, India is expected to have acquired the necessary sophisticated tooling as well as titanium technology. Two years ago, the Indian MoD inaugurated a superialloy plant in Hyderabad, called Mishra Dhatu Nigam Ltd., to supply strategic materials such as special quality steels, titanium and its alloys, and magnetic materials. The Soviet Union has recently offered to transfer advanced titanium technology to this plant. Some of the sophisticated avionics for the LCA will most probably still have to be imported.

There have also been suggestions that the MiG-23 rather than the *Jaguar* be produced in India as an alternative solution to the LCA. It is, however, probably too early at present to give much weight to these views.

Advanced Light Helicopter. Started in 1972 the Advanced Light Helicopter (ALH) project was intended to provide a multi-role helicopter of Indian design for use by all the services. It was planned to be equipped either for the ASW, troop carrier or anti-tank role, and HAL signed a consultancy contract with Aerospatiale. When the IAF changed the ALM specifications from a single to a twin-engined helicopter, however, the Turbomeca engine planned was no longer suitable and Aerospatiale slowly lost interest. The ALH project was thus shelved. Now the MoD has again reviewed the project and approached MBB and Agusta. Aerospatiale has meanwhile proposed a *Dauphin* with a new engine but this has not been retained. The MoD is studying various proposals and another consultancy contract is expected to be awarded soon.

The ALH is designed to carry a two-man crew and six troops. Its armament will include a 23mm gun in a chin mount and six HOT-type anti-tank missiles. Current design specifications call for some all-weather capability, operations at up to ISA + 30°C and a hover ceiling of 6,000m. The initially planned skid-type gear has now been replaced by a reverse tricycle type as on the *Dauphin*. The MoD wants rapid development of the ALH in order to get it into service within the next 4-5 years.

At present, HAL's helicopter division is building the *Chetak* (Alouette III) helicopter fitted with four SS-11-B1 anti-tank missiles (two on each side). The *Chetak* is regarded as an interim solution while awaiting the ALH.

An-32 transports. The IAF has finally ordered the Soviet An-32 military transport aircraft to replace the fleet of aged Fairchild *Packets* and C-47s. Before selecting the A-32 the IAF also evaluated the DHC, *Buffalo*, the Aeritalia G-222 and an advanced version of the HAL-built HS.748. The Indian An-32 purchase is likely to be a sizeable one since the IAF currently operates some 40 *Packets* and 40 C-47s.

The An-32 is a developed version of the An-26 short/medium-range transport, with the airframes being virtually identical. The major difference is in the powerplant, two Ivchenko AI-20M turboprops replacing the AI-24Ts. The new engines are nearly twice as powerful as the older ones and consider ably improve the aircraft's "hot and high" performance as well as increasing service ceiling and payload. The An-32 can carry 39 passengers, 30 fully equipped paratroopers or 6,000kg of freight.

IAF's early-warning network. The first stage of India's modern early-warning network linking high-power radars. IAF bases and higher command levels was completed in mid-1979 and the programme is proceeding on schedule. Work on the Air Defense Ground Environment System (ADGES) is being carried out by the Radar and Communications Project Organization (RCPO) which has considerable expertise in planning, site survey, installation, testing and commissioning of troposcatter line-of-sight communications links, high-power early-warning radars and automatic data-handling equipment.

The 3-D radars, both fixed and mobile, are built in India by Bharat Electronics under a licence from Thomson-CSF. According to the Indian MoD. Bharat Elec-

tronics has also recently signed an agreement with Thomson-CSF apparently for the joint further development of the TRS 2210 *Matador* 3-D, electronically scanned S-band radar, the predecessor to the TRS 2215/30 family. The mobile *Matador*, which was never produced in France, also incorporates secondary IFF radar. A totally Indian-designed secondary surveillance radar, developed by the Defence Electronics Research Laboratory, is now in production at Bharat at Electronics at Ghaziabad.

The computerized automatic data-handling system was developed at the Tata Institute at Fundamental Research in Bombay and successfully evaluated under a simulated environment. The system is now being integrated with the radars prior to undergoing user trials.

AIRFORCE. With more than 110,000 men and some 625 combat aircraft, the IAF sees its mission as being "to sustain the country policies and postures, if necessary against a sophisticated enemy. The IAF is basically structured along the lines of the British RAF with changes to meet them needs of as much larger country. Thus the organization is based more on geographical than functional factors. It has to cope with peculiar terrain in the north, with airfields at 3,000-3,500m altitudes, wide valleys in the west and narrow ones in the east. The force is thus trained to be extremely versatile and to operate in any terrain under any weather conditions. There is no shortage of manpower and simulators are used for all aircraft types.

The Jaguars are part of a modernization plan, under which they will replace Canberras and Hunters and will be used for the deep penetration bombing role. The Gnats are to be phased out, followed soon afterwards by the HF-24 Maruts, and Ajeets (Gnat Mk2s) will then be used for the ground-attack role.

Some MiG-23s may also be used for this role. The interceptor role is planned exclusively for the MiG 21 bis (also built in India) for at least another decade. The IAF told IDR the MiG 21 was probably one of the best design formulas available. It did not think, however, that it would be cost effective to update the aircraft with Western equipment, For transports, the An-32 has finally been procured to replace the aged Packets and Dakotas. Eight MiG 25s have been procured recently for reconnaissance and other missions. The Mirage—2000 is still being evaluated as long term project and IAF pilots have already been to France to fly it. India is also working on a so-called Light Combat Aircraft for use in the late 1980s.

The most important trends in IAF thinking appear to be towards a low-level penetration capability, with look-down and night-attack facilities. An indigenously designed airborne fire-control radar is in an advanced stage of development. The IAF would like to procure Matra R500 Magic AAMs for the dogfight role; it uses AA-2 Atolls at present. It has requested data on the Atlis laser designator pod from France but has doubts regarding its availability since the system has some US components.

The IAF is responsible for air defence and is setting up an automated air-defence ground environment systems (ADGES). It has some 120 SA-2/-3 SAM systems and is evaluating the SAA-6 Pechora and Roland systems for low-level defence, particularly of air bases etc. The IAF

also provides air defence for the Indian Navy and a special operations command at Bombay co-ordinates IAF/IN actions.

ARMY: The force consists of about 945,000 men who have to operate over a very varied terrain-jungles in the East, mountains in the North-Eastern and deserts plains and river beds in the West. For the moment, the IAF supplies air support although the army has been asking for its own air arm for some time.

With increased mobility and fire-power as the goal, the army is re-organising its two armoured divisions into a number of armoured brigades. Until 1970, troops were being transported only in trucks, but since then, Topaz, Skot and BTR armoured personnel carriers have been introduced in significant numbers. The BMP is now also being brought in. Meanwhile, indigenous development of an ICV is progressing slowly.

Some 1,100 Indian-built Vijayanta and 950 T-54/55 tanks are in service, some of the latter fitted with Indian 105mm guns. The Vijayanta is to be the force's main tank for several more years and a major improvement programme is underway. A new Indian 50t MBT is being developed and the first prototypes are expected by mid 1983. For the inter, 78 T-72s have been procured and other MBTs are also being evaluated, although the indigenous solution is still the favoured one.

For the anti-tank role, the SS-11-B1 is to be replaced HOT. Milan and, it is believed, Soviet missiles, are being considered while the US is offering TOW. The Indians, would most likely like to build the selected missile system locally under licence. The Chetak (Alouette III) anti-tank helicopter, using SS-11/B1 missiles, is also in licence-production while an Advanced Light Helicopter program is under study.

NAVY PROGRAMMES

Naval Shipbuilding: A major effort has been made during the past few years to increase the indigenous shipbuilding capability. To-date frigates. seaward defense vessels, torpedo recovery boats. landing craft, harbour patrol boats and survey craft have been built at various naval shipyards in India. Of the six modified *Leander*-class frigates, built by Mazagon Docks, the last two were considerably improved, larger versions. A programme for the construction of a 3,5000t Indian-designed frigate is now under way and it is expected that technical collaboration with a European shipbuilder will be involved. Early last year, it was revealed that India was working on the design of a new-generation Sea Control Ship capable of carrying V/STOL aircraft. It would be smaller than the *Vikrant* aircraft carrier and should be in service by the early 1990s. when the *Vikrant* would be ready to be scrapped. If it goes ahead, the Sea Control Ship will be the biggest naval ship ever designed and and built by an Indian shipyard.

Orders have now been placed with Mazagon Docks for the construction initially of three offshore patrol vessels (OPVs) of Indian design. These will have a hangar and flight deck for an *Alouette* III helicopter. The OPVs will form the backbone of the Coast Guard and will be used for policing the 20n.m. EEZ. Mazagon Docks hopes to be able to export such boats to neighbouring countries. Six 27t, 20m interceptor boats were recently bought from South Korea for the Indian Customs. If found suitable, they will be built under licence in India by Garden Reach Workshops in Calcutta. Called *Swallow* 65, the boats are made of fibre-reinforced plastic.

India is also planning to design and build other specialized ships such as corvettes and minesweepers. Although based on a totally indigenous design, the corvettes will be similar to the Soviet *Nanuchka* class already in service with the Indian Navy (with Styx missiles rather than the SS-N-9s of Soviet *Nanuchka*) There have reportedly been some seakeeping problems with these boats.

The Indian Navy has been trying to set up submarine construction for some time. After extensive evaluation of eight foreign designs, it was understood that the German HDW Type 209 submarine design had been retained. While Indian sources continue to say that final details of a contract are being worked out with the Germans, there is speculation whether the Soviet Union may not have come back into the reckoning with an attractive offer following Mr Brezhnev's visit to India early this year. Last year, there were rumours that the Soviet Union had offered India the technology to build nuclear submarines but that this had been rejected.

India has also been doing considerable work on shipborne armament and equipment, particularly in the sonar and radar fields. A sonobuoy has been designed and built locally while shipborne surveillance radars are now in production. Various combinations of Soviet and Western systems have also been successfully used—one of these being the installation of Styx missile launchers on two old frigates now being used for general-purpose and Coast Guard duties.

Vikrant modernization. The Indian Navy's flag ship and only aircraft carrier, *INS Vikrant*, is currently being completely modernized in order to keep it in service at least until the end of the decade. The work, which is being conducted in stages so as to keep the ship operational at all times, is scheduled for completion by the end of this year. Although the carrier's keel was laid in the late 1940s, the *Vikrant* was commissioned only 1961. The hull is now being further strengthened to maintain high structural integrity. The engines are being replaced while the operations room is being completely refitted to include a real-time computer and new command/control equipment to co-ordinate more efficiently all the onboard weapon systems and give the ship a useful long-range defensive and strike capability.

Indian-built sonar and radar equipment is being installed and is stated to be at least five times more effective than the present equipment. The ship's anti-ship and anti-submarine aircraft will include one *Sea King* and two *Chetak* helicopters, modernized *Alizes* and new *Sea Harriers*. The steam catapult used by the old aircraft is to be replaced by a ski-jumpramp for the VTOL aircraft. This indicates that, once this is done, the *Alizes* may no longer be carried on the *Vikrant*. Since their airframes have only recently been completely overhauled, however, the *Alizes* are likely to continue in ASW service but from shore establishments.

In 1979, India ordered eight *Sea Harriers*. including two trainers, from British Aerospace and kept an option on eight more. This option has now been dropped, indicating that only the *Vikrant* will carry these aircraft for now. Undoubtedly. When the recently announced, Indian-built Sea Control Ships become operational in about a decade, they will also carry *Sea Harriers* their developed Version. In the present batch of aircraft fitted with the Blue Fox Rad ar and will have an all weather capability.

NAVY: The 47,000-strong Indian Navy's mission is to ensure the security of the homeland and island territories. It does not envisage having to fight a sophisticated navy, although it finds the increasing super-power presence in the region disturbing of India's merchant fleet of about 250 ships, some 7-80 are at sea at any given time and the Navy's aim is to protect these ships upt the limits of the Indian Ocean.

Maritime patrol is now the responsibility of the Navy and three 11-38s are being procured, but more are required. The Alize ASW aircraft are being gradually refurnished while Sea King ASW helicopters are being introduced. The aircraft carrier INS Vikrant is being modernized in phases and its Sea Hawks are to be replaced by Sea Harriers. With the Indian Leander frigate programme coming to an end, attention is turning to the indigenous frigate programme, which may involve foreign shipyards as technical consultants.

Two years ago, the Indian Coast Guard was established to police the 200 n.m. EEZ, equivalent to 60 percent of the country's land mass. The force at present has two old frigates, Seaward Defence Vessels and OPVs are being built in India to increase the force's effectiveness. The Navy is still responsible for the airborne maritime reconnaissance role, until the Coast Guard acquires small patrol aircraft of its own.

MISSILE DEVELOPMENTS

Three years ago, on the recommendations of the Missile Policy Committee, the Indian MoD decided to set up an integrated programme for the procurement of indigenous development and production of a variety of missiles for all three infrastructures in certain branches as quickly as possible with a view to developing second and third-generation missiles indigenously.

Some recent developments include air-to-surface rockets as well as a number of unguided rockets and missiles. Considerable work has been done in the field of solid and liquid-propellant motors, navigation systems, and power systems. Aerodynamics technology, structures and advanced fabrication techniques are also being studied. Various high-energy propellants are being developed, including storable liquid propellants. Production plants have been set up for the propellants and some are being produced. Test facilities have been set up for motors and a liquid-propellant rocket sustainer unit for a potential surface-to-air missile has been developed and test-fired.

The Defence R&D Organization (DRDO) has developed and test-flown a prototype three-gimballed inertial platform for aircraft. Research work is also being conducted in fields such as pneumatic and electromagnetic control systems, radio command and other guidance systems, as well as gyros, accelerometers and autopilots for missiles. Some years ago, India successfully tested as supersonic RPV which is now in production and being used as a target drone by the IAF and Indian Navy.

Electro-optic components are now being produced indigenously. These include laser components, infrared components, image intensifiers and converters. Initial work on laser-guided missiles is also now under way.

Apart from producing the SS-11-B1 anti-tank missile for a number of years at Bharat Dynamic, in Hyderabad, India has been working on a number of tactical missiles of its own design. While HOT and TOW are being evaluated as SS-11B1 replacements, in the long-term the MoD would like to see an indigenous product. A missile test range is being set up in Orissa. The plan, for which funds have been sanctioned, will include three stages and the range is scheduled for completion in 1991.

Adapted from : **The International Defence Review, Geneva, No. 4, 1981.**

Pakistan Government Spokesman's Statement On US-Pak. Deal September 15, 1981

The following is the text of a statement issued here today by the spokesman of the Government of Pakistan.

It contains details of the dialogue held between Pakistan and USA in Islamabad and Washington recently on US economic assistance and military sales package to Pakistan.

"Our dialogue with the United States has taken a positive turn with the recent visit to Pakistan of Mr Peter McPherson, Administrator of the US Agency in International Development, and Mr James Buckley, US Under Secretary of State who brought with him a personal letter addressed to President Zia-ul-Haq by President Reagan.

The programme of US economic assistance to Pakistan over the next five years was discussed in detail with Mr McPherson and his delegation and mutually satisfactory agreement, subject to congressional approval, was reached.

Similarly, talks with Mr. James Buckley were also concluded on a positive note. As is known, an agreement in principle had been reached during Mr Buckley's earlier visit in June in regard to the acceptability of the US economic and military sales package which was offered at the time.

Soon after Mr Buckley's visit a Pakistan military delegation visited Washington to discuss details of the military sales programme to Pakistan.

During these talks, certain issues relating to the delivery schedule of some essential defence items had remained unresolved. During his recent visit, Mr Buckley clarified these issues to our satisfaction. As a result of our detailed exchange of views with him on this occasion, we were able to convey our formal acceptance of the US package as modified and revised in the consultative process which has now been completed.

Accordingly, these proposals will be put before the Congress as required by the US legal procedure. We have been greatly reassured by the fact that the US Administration fully understands our essential concerns and that there is a genuine desire to build a new relationship between our two countries on the basis of trust, mutual respect and sovereign equality.

We wish to reiterate that our acceptance of the US package does not affect in anyway

our commitments as a member of Islamic Conference and the Non-Aligned Movement and our well known position on major international issues in regard to which our foreign policy has consistently maintained a principled stand.

Similarly, the development of bilateral relations with the United States will not affect our relationship with any third country.

We would like to reaffirm particularly in regard to our relations with India, that there would be no weakening of our efforts to develop a relationship of mutual trust and confidence with this important neighbouring country. We are not in competition with India in an arms race and the modest quantity of arms that we may acquire during the next five years is solely meant to achieve partial replacement of our obsolete defence equipment. All we propose to do is to acquire a minimum defence capability to ensure the security of Pakistan in the context of the regional situation which is far from re-assuring.

Although, it is Pakistan as a small country which needs assurances from its larger neighbours in regard to its security. Particularly from India which despite its overwhelming military superiority, has embarked on a programme of acquiring the most modern offensive weapons, ncluding Jaguars, MiG-23s and MiG-25 and Mirage-2000 aircraft, in large number of the Westearn sources, and on concession terms from Soviet Union. We are prepared on our part to do whatever can to promote mutual confidence. We would like to convey the assurance that in expressing our desire for a friendly and tension-free relationship, we are not indulging in a propaganda exercise.

If India is inclined to banish its unfounded fears and ready to grasp the hand of friendship which we extend, it shall not find us wanting in fully reciprocating any gesture on its part for establishing good neighbourly relations.

On our part we are prepared to enter into immediate consultations with India for the purpose of exchanging mutual guarantees of non-aggression and non-use of force in the spirit of the Simla agreement."

AMBASSADOR KIRKPATRICK'S TV INTERVIEW

August 26, 1981

Following is a transcript of Delhi Doordarshan interview with Ambassador Jeane Kirkpatrick, August 24, 1981. She was interviewed by Rasheed Talib, Executive Editor, *India Today* magazine:

Q. Welcome to India, Ambassador, I remember you were here earlier, about five years ago, and this is your first visit since, and you have been going places. And now you are the first woman to head the UN mission of any Western country, and I think you are a Cabinet rank minister in the Reagan Administration. Could you tell us what brings you here? What is the primary objective of your mission through South Asia?

A. The primary objective of my visit is to listen, talk a bit, to discuss questions of mutual interest—both concerning the upcoming General Assembly at the United Nations, for which I have special responsibility, of course, but also bilateral relations, just generally. As you perhaps know, it is customary for the US to make pre-UNGA calls on nations of particular concern in areas of particular concern. We felt that it was very important to make the Asians of

South Asia feel that we were in fact concerned about them and to get started on a dialogue which might lead to closer consultation and collaboration.

Q. You met the Prime Minister this morning and I believe you've had some talks with the Foreign Minister. How did those go, what did you discuss?

A. I think they went very well. I had a long conversation with the Foreign Minister and substantial conversation with your Prime Minister. In both cases we talked about regional problems, Indo-U.S. relations, and with the Foreign Minister we also did quite a bit of discussing of some of the issues which are likely to come before the General Assembly, for example Afghanistan, Kampuchea, Namibia and the Indian Ocean zone of peace. We talked about U.S.-Pakistan relations and their relevance to India or their irrelevance to India. In both cases I assured the Foreign Minister and the Prime Minister of the firm intentions of our Government to have as good relations with India as they would permit.

Q. We in India are particularly worked up by your upgrading and updating of arms aid to Pakistan. Now, I am sure you know why we feel so strongly about that, because our experience is that though the new weaponry supplied to the Pakistanis, in the past to fight communism, to take care of the Afghan situation on this occasion, we find that it's usually turned against us.

A. Actually, I was somewhat surprised to find the strength and universality of these views among the Indians with whom I have spoken. Somewhat surprised because we have felt, we know that our arms sales to Pakistanis in no sense are aimed at India, are aimed at endangering India. We have thought that India has herself undertaken such a very large military buildup, expansion since the last Indo-Pakistan war, that she is today invincible from threats from Pakistan. We therefore feel quite surprised, I think, to discover that Indians frequently do conceive that Pakistan armed in certain ways still has the possibility of threatening Indian security.

Q. I don't think they are worried about losing a war with Pakistan but they do feel very strongly about not having to join an arms race when the tasks are developmental in this area and, too, I suppose, nobody wants a war.

A. Well, India today has already engaged in a military buildup. You know one nation's military buildup is another nation's arms race. India today has the fourth largest military establishment in the world and some very sophisticated weapons...

Q. As good as your F-16s?

A. Well, I don't know, I don't know that much about your weapons. I understand you are about 80 percent dependent for your weapons on the Soviet Union...

Q. Who are behind you...

A. Well, not necessarily, I'm not sure that there's anything that we are providing, or considering providing to Pakistan, which in fact outstrips the sophisticated weapons already in the Indian arsenal.

Q. All right. One time the American policy used to be to supply them defensive equipment. Many people consider here that many of the items included in the latest shopping list that the Pakistanis are asking for are offensive weaponry.

A. Let me say that I am not a weapons expert, by any means. I do note, however,

that there is a great deal of dispute among people about which weapons are defensive and which weapons are offensive. And that frequently what seems to one nation to be defensive, seems to the potential adversary to be offensive. Now we see that all the time ourselves. We certainly do not desire to provide any weapons to anyone which could be used offensively against India. That's certain.

Q. There is also concern that although it is not for India to say that American policy has gone wrong in the past, notably in Iran during the Shah's days, in backing regimes that are less than popular or are not willing to submit themselves to popular elections, we find that the Americans, under President Reagan in particular, though this may be a continuing policy, are about to make the same mistake. Would you like to dispel our misgivings on that?

A. No, I would say what I've just said in that lecture, that like India we have relations with a good many governments that are not democratic. The reason we do is that most nations in the world are not democratic; we wish they were democratic. We think democratic government is much the best but we do also think it is often important to have normal relations with a wide range of governments. Now, you know India today recognizes the Vietnamese client state in Kampuchea. We don't. We may have closer relations with some other governments that are not democratic than India does. I think that in both cases those are testimonies to the force of circumstances, if you will.

Q. Let me take you on to a broader plane. Why is it that these two countries of yours and ours which have so much in common, which are both electoral democracies, they frequently have such a mismatch of perceptions? Why do we always have this difficulty?

A. That's question I've been asking myself a lot lately as I thought about this trip and as I thought about today's conversations, and I've also asked myself during the day, during the conversations I've been having today. I guess the answer is, first of all, that our situations are very different. We have many things in common, beginning with the fact that we were both British colonies, and we are both multi-ethnic nations and we are both democracies. We are both relatively new nations furthermore. But our situations in the world were different, geographically first of all. Obviously your situation in South Asia, a close neighbour of the Soviet Union and of China, gives you one perspective on geopolitical strategic questions in the world. Our economic situations are quite different, and so I think we have to work harder to understand each other's perceptions. I don't think we've been working hard enough, by the way. We frequently understand very well that you don't either agree or approve of our policies, and quite frankly we frequently don't agree with or approve of your policies either. I think to work as closely together as we should, given our common ideals and so many aspects of our common heritage, we are just going to have to try harder to talk more often, to listen more carefully to each other and be more empathetic.

Q. Well, I hope your visit a prelude to that. But for the eight months the Administration to which you now belong has been in office, I think it must be pointed out to you that it has a terrible image in the Third World. It is supposed to be trigger-happy, it has a couldn't-care-less attitude towards the Third World, there is a feeling that it will sell arms to anyone provided it is good for American business.

Don't you care to comment on any of those things? You have in your lecture, I notice.

A. Yes, well, you know I think that the people who think that are simply wrong. You may ask where did those impressions come from. I think they come from prejudices and stereotypes, quite frankly, plus the disinformation of our adversaries. I think that the Reagan Administration has a number of approaches which are unfashionable, but I don't think intellectual fashion is a very good guide either to economic development or to problem-solving in the world generally, and I think that as the nations of Asia and Africa, Latin America look at our policies and see what we are doing they will in fact realize that they've been mistaken.

DJ Newsletter

WEAPONS • DEALS • RESEARCH • DEVELOPMENT

Contract For Improved Awacs

The current US fleet of E-3A Sentry aircraft, known as Airborne Warning and Control Systems (AWACS), will be upgraded and improved under a new Air Force programme.

Boeing Aerospace Company has received a $97.8 million contract to start full scale design, development, test and evaluation (DDT&E) on a programme to increase the E-3A's communications, command and control capabilities. DDT&E work will be conducted by the aerospace company's AWACS Branch in Seattle.

Under the retrofit programme, each of 24 early production E-3A's will be improved with the addition of:

* Joint Tactical Information Distribution System, a secure, jam-proof communications system
* Electronic Countermeasure Resistant Voice Communications System
* An added high-frequency radio
* Five additional ultra-high-frequency radios
* Wiring for possible future addition of Integrated Radio Teletype
* Three additional situation display consoles
* A new command console
* Austere maritime surveillance capability
* Improved computer which has greater speed and increased memory
* New software
* Aircraft self-defense system hardpoints

Military Vehicles and Ground Support Equipment Exhibition, 1981 Postponed

Despite an encouraging response from European companies wishing to participate in the Military Vehicles and Ground Support Equipment Exhibition planned for Luxembourg in March 1982, joint organisers Mack-Brooks Exhibitions Ltd., and Philbeach Events Ltd., have decided to postpone the event indefinitely due to the present political climate directed against military oriented exhibitions in Europe.

Nine E-3A's built in the new US Air Force/NATO standard configuration will be equipped with five additional ultra-high-frequency radios, three additional situation display consoles, a new command console and improved software.

Two E-3A aircraft will be equipped with the new electronics under this DDT&E contract and will be used in the test programme. Manufacture of modification kits and installation of the equipment in the E-3A aircraft will be accomplished during follow-on phases of the programme. DDT&E will be completed in 1984.

At the peak of DDT&E activity in 1983, Boeing's AWACS Branch will employ 310 people in the Seattle area on this programme. The skills necessary are available within Boeing. The added assignment will help stabilize the aerospace company's work force.

17th RN Nuclear-Powered Submarine

Trafalgar becomes the 17th of the Royal Navy's fleet of nuclear-powered subma ines, which includes four Polaris. Its weapons will include a Sub-Harpoon under water launched guided missile, conventional salvo torpedoes and Tigerfish wire-guided homing torpedoes.

The Barrow-in-Furness shipbuilding yard of the Vickers Shipbuilding Group, part of British Shipbuilders, where Trafalgar was built, is now the only British yard producing nuclear-powered submarines. It is also the leading yard for Type 42 destroyers and the Invincible Class anti-submarine cruisers.

Shipbuilding on a commercial scale has been carried out at Barrow-in-Furness since the 1880s and the company built the first submarines for the Royal Navy in 1901 and has continued to specialise in this type of vessel.

The expertise in submarine technology that the company has gained in building over 320 has now led to the development of an diesel-electric boat of an entirely new design.

Called the Type 2400 it is the successor to the Royal Navy's Oberon Class, conceived in 1950 and in up-dated form still serving Britain's navy and the navies of Australia, Canada, Chile and Brazil. Type 2400 is being developed with both the Royal Navy and potential overseas customers in mind.

Vickers is confident that the design will meet the needs of many navies. Despite the operational advantages of nuclear submarines, conventional diesel-electric submarines will, the company believes, continue to fill important roles in maritime operations.

The detailed requirements of each navy vary considerably, but market assessments indicate that countries with long coastlines to defend and countries which require a full ocean-going capability, need a new class of submarine.

Within the geometric confines of the hull, the design of the Type 2400 is adaptable. It can incorporate a variety of weapons, fire control systems and communication equipments and accommodate crews of different strengths. Extensive changes can be made by lengthening the pressure hull in the control room section.

With a length of 70 metres, diameter of 7.6 metres and a submerged displacement of 2,400 tonnes, the boat will have a standard crew of 46 and be able to travel sub-

merged at over 20 knots. It will be able to stay at sea on patrol for around 28 days and travel 2,500 nautical miles at normal cruising speeds.

The Type 2400 will carry a large capacity battery which, with a comprehensive air purification system, will allow it to remain submerged for several days at a time. Although the weapons carried will vary according to need, it will be equipped with six torpedoe tubes and sufficient torpedoes for 12 reloads, and a number of mines.

Detection of Enemy Aircraft

A system, called passive infra-red surveillance, which is expected to be a partial replacement for radar is to be developed by British Aerospace Dynamics under a Ministry of Defence contract.

The new system will, it is claimed, significantly improve the detection of low-flying enemy aircraft. British Aerospace, which has already spent over £3 million on research, claims to have established a substantial world lead with the system.

An infra-red system will be superior to radar, which can be jammed by sophisticated electronic techniques, in that it can give warning of approaching enemy aircraft by detecting the heat emission from its engine, or even through the fuselage. But it is only a partial replacement because it can give only the bearing of an approaching aircraft, not its range. This means that some form of radar or laser beam will have to be used in conjunction with the infra-red system.

British Aerospace says that an added advantage of the system is that by the time the aircraft's pilot has realised that he has been located it will be too late for him to escape.

Naval Air Strike

Sea Skua and Sea Eagle are both air-launched missiles with a common purpose —to sink hostile ships. Sea Skua is launched from helicopters; Sea Eagle from fixed-wing aircraft.

Sea Skua is entering service with the Royal Navy, arming Westland Navy Lynx helicopters that are to operate from frigates and destroyers. Sea Skua is an all-weather, sea-skimming, anti-ship missile that provides a feet with an over-the-horizon defence against other ships, particularly against fast attack craft. Sea Skua is launched from its helicopter at a range beyond the fixed anti-aircraft defences of the target ship and has semi-active radar guidance, the target being illuminated by the Ferranti Seaspray radar of the launch helicopter. Sea Skua is a low-cost, lightweight missile and larger helicopters could carry more than the four installed on a Navy Lynx. The development firing trials of Sea Skua from Navy Lynx helicopters were recently completed successfully and the missile is now in production.

Sea Eagle is more sophisticated head and an on-longe-range 'fire-and-forget', anti-ship missile under development; air trials with firings from a Buccaneer aircraft have began.

Sea Eagle has an active radar homing head and an on-board flight control computer. It is designed to operate effectively in a severe electronic counter-measures environment and can be launched at long range, beyond reach of the anti-aircraft defences of a ship or a fleet: it can discriminate between multiple targets and select one to attack.

Sea Eagle will be operated by both the Royal Navy and the Royal Air Force and

will arm Sea Harrier, Buccaneer and Tornado aircraft. Sea Eagle could also be carried on anti-ship strikes by other aircraft, such as Jaguar International, General Dynamics F-16 and McDonnell Douglas F-18.

BOEING Ships Pathfinder Vehicle

The Pathfinder vehicle for the US Air Force's Inertial Upper Stage (IUS) will serve as an unmanned upper stage for both the Air Force's Titan-34D launch vehicle and for the National Aeronautics and Space Administrations Space Shuttle. It is being developed by Boeing Aerospace Company for the Air Force Space Division.

The Pathfinder IUS is, in effect, the full-dress stand-in for the first IUS flight vehicle. It is identical to a flight-ready upper stage except that its solid rocket motors and ordnance devices are loaded with inert material.

Pathfinder's role is to proceed through the complete launch checkout to the point of liftoff, thus validating processing procedures, facilities and the mechanical and electrical interfaces between the IUS, launch vehicle and support equipment. It is of the same size and weight as the IUS and contains all the flight electronics necessary to prove that the IUS is ready for flight.

The Pathfinder's role involves a number of first for the IUS system.

These include:

* First electromagnetic interference testing of the IUS system. The Pathfinder is exposed to electromagnetic fields of the type it is expected to face on the launch pad atop the Titan, proving the performance of its components under these conditions.

* First shipment of the IUS. The Pathfinder is packaged and handled the same way as flight vehicles, providing a checkout of the system in an operational environment.

* First activation and checkout of the Boeing and Air Force IUS facilities at the Air Force's Eastern Launch Site at Cape Canaveral.

* First mating and fit checks between the IUS and the Titan.

Thus, the Pathfinder is the stand-in throughout a complete full-dress rehearsal.

It was transported to the Cape Canaveral Air Force station by truck in four segments: large solid-rocket motor, interstage, smaller solid-rocket motor and equipment support section.

It now will be taken to the Solid Motor Assembly Building and assembled. It will then proceed to the Air Force's Launch Complex 40 and be placed atop the Titan. Here, mechanical and electronic tests will be conducted to uncover and solve potential problems.

At completion of testing around end of year, the Pathfinder will be disassembled and returned to Seattle where it will be used for further testing.

The Pathfinder is one of many reasons the IUS is expected to provide an extremely reliable ride for its scientific and other payloads. The IUS is designed to attain at

least a 96 percent reliability. Currently, this reliability is predicted at better than 98 percent.

The importance of this reliability is underscored by the IUS's role. It is to carry payloads to orbits that the Space Shuttle and Titan cannot reach. This includes geosynchronous orbit some 23,000 miles above the Equator, where a satellite appears stationary when viewed from Earth. It is here that most of our communications satellites are stationed.

Boeing is developing and will deliver a similar Pathfinder IUS vehicle for the Space Shuttle next year. This vehicle, too, will be used for full-dress rehearsals, for the checkout of Kennedy Space Center, Florida, facilities and for mating with the Shuttle orbiter.

Boeing's team members in the development of the IUS are Chemical Systems Division of United Technologies Corporation, solid motors; TRW, software design and IUS telemetry, tracking and command systems hardware; Hamilton Standard Division of United Technologies, guidance system hardware, and Ball Brothers, IUS star scanner. Delco Electronics Division of General Motors Corporation, under subcontract to Hamilton Standard, provides the IUS avionics computer.

In addition to the Pathfinders and actual flight vehicles, Boeing is responsible for the development of ground support equipment for the checkout and handling of the IUS vehicles from factory to launch pad. The firm also is developing equipment to support and monitor the IUS while it is in the Shuttle cargo bay.

Boeing also will check out the resultant configurations and support launch and mission control operations for both NASA and the Air Force.

BOEING Studies STOL Fighter Technology For US Air Force

A £90,000 study contract to research STOL (Short Takeoff and Landing) technology for tactical applications in the 1990s has been awarded to the Advanced Airplane Branch of the Boeing Military Airplane Company. The research will be sponsored by the US Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio, and is termed "Research of STOL Tactical Configuration Technology."

During the 15-month performance period of the contract, Boeing will be investigating innovative configurations aimed at improving the effectiveness of the next generation of tactical aircraft with emphasis on STOL mechanisms. Both air-to-air and air-to-surface fighters are expected to benefit from forthcoming improvements in survivability, lethality and operational flexibility provided by these technologies, according to Richard Sutton, study manager, at Seattle.

The main thrust of the comprehensive study will address means to balance forces and moments developed during STOL operations. Innovative configuration technologies to accomplish this will be compared to more conventional methods such as auxiliary power and aerodynamic surfaces. The problem is compounded by advanced fighter requirements for supersonic cruise, maneuver, weapon flexibility and all weather capability, Sutton said.

The study will be performed at the Company's Developmental Center, Key participants assisting Sutton will be Glenn Eckard as principal investigator and Robert Wadleigh as design integrator.

Anti-Submarine Helicopter Gets Go-Ahead

The Anglo-Italian EH-101 helicopter, designed for defence against helicopters and surface vessels, has been given the go-ahead by the British and Italian Governments.

EH Industries—a company jointly formed by Westland Helicopters, of the UK, and Agusta, of Italy—has been given a contract for a nine-month project definition phase, during which the design of the aircraft will be established in preparation for full development. Westland and Agusta have been working together on the project for two years.

The helicopter will fulfil civil, military and naval roles. It will replace the Royal Navy's Sea Kings in the UK and the Marina Militare Italiana SH-3D helicopters in Italy.

Preliminary studies by Westland and Agusta indicate that the EH-101 will be an advanced three-engined helicopter in the 12 to 13 tonne class. A survey conducted by the two companies shows that the prospective market for the EH-101 in its various roles is 750 helicopters in the first 15 years of production.

Engines for prototype EH-101s will probably be US-made, but the Anglo-French Rolls-Royce/Turbomeca RTM-321 is a possible power unit for the production model.

Several prototypes should make their first flights in the mid-1980s with deliveries of production aircraft starting in the late 1980s. The civil version will have particular application in offshore industries.

Links between Agusta and Westland were formalised in 1975 when the two companies, with Aerospatiale of France and MBB of Federal Germany, agreed to work together on new helicopter programmes. In 1978 the Governments of France, Federal Germany, Italy and the UK agreed to rationalise their future helicopter requirements and promote a European industry.