

**DEFENCE TECHNOLOGY TRANSFER : INDO-US  
DIPLOMATIC INTERACTION (in the 1980s)**

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This is to certify that this dissertation entitled "DEFENCE TECHNOLOGY TRANSFER : INDO US DIPLOMATIC INTERACTION (in the 1980s)" submitted by MS RINA KASHYAP in fulfilment of six credits out of the total requirement of twenty four credits for the award of the degree of MASTER OF PHILOSOPHY of this University. This dissertation has not been submitted for the award of any other degree of this University or any other University. This is her original work.

We recommend that this dissertation be placed before the examiners for evaluation.

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## PREFACE

The relatively untraversed nature (despite its critical importance) of the field of defence technology transfer from the U.S. to India was one of the primary reasons which stimulated my interest on this issue.

The issue of technology transfer has been a rather contentious one in international politics. Technology transfers from the industrialized countries have been demanded by the Third World countries as a 'right' which would right the wrongs of the existing inequalities of the international system. The industrialized nations on the other hand are keen to preserve their technological superiority. Technology transfer is just one element in the relationship between the industrial powers and the rest of the world. Thus, for the US it is an instrument to attain national goals, some times used together with other policies such as direct intervention or economic aid or some time instead of them.

Technology transfer in the field of defence becomes more complex as it raises important security questions. The problem of security in the event of external intervention is one of the primary concerns of the Third World countries. The increasing complexity of the weapons systems had made the cost of development and producing weapons, forbidding for these countries. They, therefore, have no alternative but to rely on the industrialized nations for defence technology.

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The availability of a particular kind of weapon with specific performance characteristics depends on a nation's access to the technologies needed to design, manufacture and maintain such a weapon, or to the markets in which the weapon would be available for purchase. Technology is a necessary, if not a sufficient, condition for the existence of any given weapon in the arsenal of the nation. Since technology determines the availability of weapons systems, and the availability of weapons systems decide the practicability of the choice of doctrines or tractics, technology is a central determinant of defence policy.

It is in this context that the Indo-US diplomatic interaction in the field of defence technology transfer becomes important. While the USA is the classic example of a rich industrialized nation using technology as a diplomatic instrument, India on the other hand represents the Third World's quest for technology (from the north). India, however, is not a typical third world country today. It has the third largest scientific establishment in the world. Its non-aligned status, and relative (vis-a-vis other Third World countries) political and economic power provide it with enough manoeuvrability to do away with the strings attached to technology transfer. In fact, today, India is negotiating from a position of relative advantage, i.e. of a 'regional power' (a sobriquet given to it by none other than the influential quarters in the US).

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This case study raises a host of important geostrategic, political and economic questions. The development in the case of Indo-US relations is worth watching, as Raju Thomas puts it, 'military relationship is either a precursor or a consequence of a strong political economic relationship'.

The decade of 1980s was chosen as a period of study since it marked the beginning of a new phase of Indo-US relations. The changed international situation and certain domestic developments in both the US and India were cited as ideal for cooperation in the security area. This phase also coincides with India's quest for modernization of its defence forces.

The 1980s heralded a period of change. This change, however, is not defined. India and the US today are at cross-roads, with various possibilities. The changed objective situation offers opportunity for steering the Indo-US relationship in the desired fashion. A lot will depend on the abilities and skills of the diplomats to take their respective countries out of the traditional narrow groove of thinking.

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This study is a tentative and an exploratory exercise in examining the validity or otherwise of the optimism (shown by the two countries) by looking into the economic, political and geostrategic stakes that both have in the defence technology deals.

The first chapter is 'Imperatives Behind India's Quest for US Defence Technology'. The main contention of this chapter is that India's emerging defence technology demands cannot be fulfilled by relying on traditional sources of supply. The decision to look toward the US for defence technology transfer is a pragmatic response by India to the change in relative capabilities of the major powers in the field of defence technology.

Chapter two entitled "Changing US Perceptions of India and Defence Technology Transfer" examines how US perceptions about India have changed significantly over the last few years. India is viewed today as an important regional power, with whom a certain compatibility of interests can develop. Cooperation in the defence technology field is one of the first steps in articulation of this compatibility.

Chapter three "Diplomacy of Defence Technology Transfer" basically deals with the role of diplomacy in achieving foreign policy goals. It studies the negotiating process, bargaining

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strategies and tactics employed by the two countries. The significance and use of two of the main items negotiated for, is discussed to indicate the importance attached to these negotiations.

Chapter four, the 'Conclusion' looks at the future prospects of defence technology transfer from the US to India.

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## CHAPTER - I

IMPERATIVES BEHIND INDIA'S  
QUEST FOR US DEFENCE TECHNOLOGY

Forty four years of independence have witnessed India's education in the politics of geostrategic realities. The four decades of these accumulated experiences have had a profound effect on the evolution of India's defence policy. It is this that led Peter Lyon to observe: "India, the pioneer of neutralist idealism, may yet become the pioneer of a new neutralist realism".<sup>1</sup>

The history of newly independent India's foreign policy began with an innovative policy of 'non-alignment'. It was a daring response to the cold war politics of the international environment, coming as it did from a post-colonial society, which was politically and economically vulnerable to the two superpowers. Non-alignment embodied not merely the interests of the third World countries but also a vision of constructive peace and co-operation for the entire world. However, the US and USSR denounced the non-aligned movement as "immoral and an Anglo-American imperialist ploy" respectively. In addition, aggressions on India by its immediate neighbours, China and Pakistan, revealed the political naivete of India's foreign and defence policies. A new perception of India's defence policy began to emerge.

The difference between the old and new perceptions was one between an optimistic policy and outlook, on the one hand, where

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India's non-alignment and military capability had little relevance to the strategic environment, and a realistic policy and outlook on the other hand, where both the strategic environment and India's military capabilities were constantly evaluated in the light of the changing international conditions.

Each external hostility taught India the lesson that exclusive reliance on diplomacy to defend India's national interests is inadequate with this began India's quest for foreign arms. Gradually, emphasis began to be laid on the purchase of defence technology.

India's quest for defence technology embodies its aspirations for self-reliance and indigenous production so important for the maintenance of its independence. This quest, at one time, led to an excessive reliance on the USSR. Today, national interests demand the 'counting' of the US in this sphere.

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India's Defence Policy

NON-ALIGNMENT AND THE CONSEQUENT MEAGRE DEFENCE EFFORT IN INDIA (1948-71).

"Defence policy is an integral part of foreign policy, as the purpose of foreign policy is first and foremost to safeguard the security of a country".<sup>2</sup> Therefore, the nature of security and or strategic linkage between states play a major determinant role in the trends of relations in other spheres -- diplomatic, political, economic and cultural. India's foreign policy attempted to deviate from the foregoing conformist role. Unlike the others, it did not consider the protection of strategic interests as its raison d'etre or primary concern.

According to B.R. Nayar, "It is not the purpose of foreign policy to have friendly relations with countries, unless these specifically subserve the essential task of protecting national security."<sup>3</sup> India aimed at recasting such inter state relationships. This led to the whittling down of the significance of the defence forces, while the role of diplomacy was sought to be enhanced.

A moderate defence policy, did not however, imply a deflation of India's international role or its withdrawal into isolation. That India was determined to play an active and autonomous role in international affairs is evident from Pandit Jawaharlal Nehru's statement:

The fact of the matter is that in spite of our weakness in the military sense---because obviously we are not a great military power, we are not an industrially advanced power---India even today counts in world affairs.<sup>4</sup>

Besides the idealistic aim of world peace, non-alignment found its rationale in India's domestic situation. The policy of non-alignment recognized inter-dependence between foreign and military policies, on the one hand, and domestic economy, on the other. Economic policy in India needed to be modified to accommodate a military programme to ensure the security of the nation. Indian military programmes had to be formulated according to the exigencies of the strategic environment. And the strategic environment needed to be modified to appropriate foreign policy measures, so as not to damage India's economic programmes.

India's defence effort, opines B.R. Nayar, despite the kind of security environment it has encountered in the last forty three years since independence, has been extremely modest. This was especially so during the 1950s, when India spent on an average less than 2 per cent of its GNP on defence. Defence industry was held to be non-productive, so it was accorded a low priority. All production was directed to civil industrial needs. Even after Indo-Pak conflict of 1948, the critical role of defence was only grudgingly accepted. The Government approach was aimed at : (i) manufacturing only those items that strategically could be regarded as critical and (ii) ensuring as far as possible, that the choice of equipment to be produced was determined by cost effectiveness. These conditions restricted effectively the arms production to ammunition, small arms

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and basic artillery. The more expensive and technologically complex weapons systems were, if and when required, to be procured from abroad. It was recognized that the Indian Industry and technology were, at that time, not mature enough to make armaments self-sufficiency a viable proposition, justifying a substantial diversion of scarce economic resources away from civil development priorities.

Between 1949 and 1954, the defence spending figure at 1.8 per cent of the GNP was primarily a carry-over of the post-World War-II era. The equipment of the Army, Air Force and Navy, acquired during the World War-II, was maintained as were the complement of officers and enlisted men.

At the time of independence, there were 16 ordnance factories in India, which had been manufacturing ammunition to meet the needs of the Indian Army during the World War-II. After the British withdrawal from India and the end of military supplies directly from the UK, the Government of independent India considered it undesirable to set up any new major weapons factory. The only major defence-related factory before independence had been Hindustan Aircraft Ltd., Bangalore set up by the noted industrialist, Walchand Hirachand, with the endorsement of the Maharaja of Mysore. Thereafter, Bharat Electronics was set up in the public sector in 1954 as a public limited company with technological assistance from the Compagnie

de Telegraphic Sans fite of France. The general Indian policy, however, was to avoid a commitment to establish a major domestic weapons production base in view of the paucity of indigenous know-how and the very rapid rate of technological developments taking place abroad in major weapons such as bombers, fighters, tanks and missiles.

The first serious effort to review and rearm Defence Services began after 1954-55 the years during which Pakistan entered SEATO and CENTO defence pacts with the US and its Asian allies. It is estimated that, between 1955 and 1965, the US gave Pakistan about \$1.5 billion worth of planes, tanks and a submarine, together with at least another half a billion dollars worth of communication equipment. The modernization and re-equipment of the Pakistani military by the US under the Mutual Defence Assistance Programme appeared to necessitate similar action on the part of India, firm assurances held out by Washington that the US weaponry was intended only to stem the communist advance from the north notwithstanding.

Most of the acquisitions of new weapons tended to be from Britain and France. This again may have been due to greater Indian familiarity with supplies from these countries than from the United States, rather than to the resentment over the US -- Pakistan defence pacts. For the army the main purchases made between 1956 and 1958 were the British Centurin heavy tanks and the French AMX light tanks, together with a newly sanctioned

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programme for the manufacture of Nissan jeeps and Shaktiman trucks in collaboration with manufacturers in Japan and The Federal Republic of Germany. For the Air Force, it was British Canberra bombers and Hunter fighter ground attackers, French Ouragons and Mysteres, together with a programme for manufacturing the Gnat fighter in India under licence from Folland Aircraft of Britain. Some modest purchases of British anti-submarine and aircraft frigates were also made for the Indian Navy.

These outright defence purchases were prompted by the general lack of experience in domestic weapons production, and the apparent absence of any immediate and serious military threat to India. Nevertheless, there were some moves to initiate domestic weapons production as well from 1955 onwards. Apart from starting the Gnat and HF-24 aircraft programmes in 1959, an effort was made to design an indigenous semi-automatic rifle to be produced at Ishapore in West Bengal. The Ishapore project, however, soon foundered, because funds were not sanctioned by the Finance Ministry. Meanwhile, an effort to build an indigenous fighter plane, HG-24 Marut, continued to be beset with technical problems. However, little effort was made after 1955 to establish a domestic weapons production base, which was, therefore, only modestly fruitful, and dependence on external weapons continued as ever before.

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### India-China War (1962)

Arms build up received a further impetus by the India China clash in the Himalayan borderlands in 1962. India's stature suffered immeasurably in what was otherwise only a tactical victory for China through a surprise attack on a militarily unprepared country. The result of that short war, was on the one hand, the 're-education' of a pacifist India in realpolitik and the consequent undertaking by it of a defence expansion and re-equipment programme and, on the other, the development of a defacto alliance between China and Pakistan. Surprisingly, the US failed to assist India in its <sup>post war</sup> defence effort aimed against China. The Kennedy administration, which, at the time of the Chinese attack in 1962 had responded immediately to India's crisis request for transport planes, light equipment and infantry weapons, was unprepared for the entanglements and massive expenditures involved in meeting the follow-up proposals for a joint air defence or for providing arms manufacturing capacity, raw materials, tanks and fighter planes required to create a modern air force. "The price tag on assistance of this magnitude, vaguely estimated at some "billion of dollars" by the American ambassador was sharply reduced in negotiations to about \$500 million worth of arms and equipment. A major portion of this amount was however, never delivered." <sup>5</sup> According to B.R. Nayar, the US refusal to assist India was rooted in the latter's reluctance to subordinate its foreign policy to that of US on a

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global basis, while the Soviet Union proved more forthcoming in meeting India's weaponry needs.<sup>6</sup>

#### India-Pakistan War - 1965

The war of 1965 between India and Pakistan stemmed from the Pakistani conviction that it had then superior military capabilities, which would suffer a relative decline in the future as India expanded and modernized its forces in relation to the Chinese threat. The Indian equipment was inferior, but India made a better and more skilful use of it, as a result of which the war ended in a stalemate. The US imposed an embargo on arms shipments to the subcontinent following the war, but military supplies to Pakistan continued to come through a series of relaxations of the embargo and clandestine third party arrangements.

Once again, the need was felt to harness the national resources to the country's defence and for the defence effort to derive full sustenance from the country's economic development plans.

Despite a second war in 1965 in less than three years, no change was made in the five year defence plan with a sanctioned outlay of Rs.5,000 crore in 1964 for the remaining four years i.e. from 1965 to 1969. The annual defence budget during this period continued to range from 25 per cent to 30 per cent of the Central Government expenditure and averaged 3.6 per cent of the GNP.

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Bangladesh Crisis (1971)

The next landmark in the process of defence review was provided by the 1971 Bangladesh crisis. Despite India's victory, the war highlighted the chinks in India's defence planning. Weapons projects started in the first defence plan were as yet unfinished. Also a number of indigenous weapons produced at the ordnance factories, including tanks and artillery, the newly created squadrons of India-made MIG-21s and HF-24 fighter bombers, had then yet to be tried and proved under combat conditions. Consequently, production plans and policies for induction of new weapons and equipment had to be speeded up and overall priorities re-arranged. By late 1971-72 the defence budget, sanctioned earlier in April at the budget time, had to be revised upwards. The revised estimate now stood at Rs.1,411 crore Rs.169 crores more than the earlier budgeted outlay. The upward revision, however, was not drastic, compared to 1962, despite the gravity of the political and military situation in 1971. The new increase raised the level of defence spending from 3.4 per cent of the GNP in 1970-71 to 3.8 per cent in 1971-72. This level was maintained in 1972-73. Once the early exhausted stocks were replenished and destroyed weapons made good, the defence burden declined<sup>d</sup> to about 3.5 per cent in the ensuing years.

The above analysis points to the conclusion that India's defence policy in the context of arms build-up has primarily been a reactive one reacting time and again to repeated aggressions by its ambitious neighbours.

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## Section - II

### Dilution of the Defence Development Dichotomy Theory

The grim lessons of four wars (i.e. 1948, 1962, 1965 and 1971) and the mildness of the Great power reactions to them initiated India into realpolitik. The importance of defence was underscored. The new belief which came to characterize Indian defence thinking challenged the defence development dichotomy. Underlying this new defence outlook were three inter-related politico-economic beliefs. First, defence and development were not conflicting purposes but co-extensive and complementary objectives. Sizeable increases in defence spending up to even double the Indian average of 3 to 3.5 per cent of the GNP may, in fact, help the economy. Second, defence spending must reflect the nations size and importance irrespective of the prevailing threat, or at least it must be sufficient to assert India's independence from the Great Powers. A growing economy and an ambitious development plan may justify proportionate increases in defence spending as much as immediate external threats. Third, prestigious defence-oriented programme may tend to uplift the national morale, sustain political integrity and, in turn, generate economic confidence all around.

The new viewpoint may be found in a statement made by the former Army Chief of Staff, General J.N. Chaudhri, in May 1973<sup>5</sup>. General Choudhary wrote that this 'myth' of defence usurping developmental programmes was incorrect. He pointed to the high

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rates of economic growth in countries like Israel, Taiwan and South Korea, which also had high rates of defence spending, and concluded that:

economic progress is influenced by many factors and to try to put the major portion of the blame for our slow progress on our defence expenditure is, to say the least, both unfair and uninformed.<sup>7</sup>

His arguments were reinforced by K.Subrahmanyam's views. According to Subrahmanyam, an empirical investigation into the defence spending of several states during the last two decades revealed that high military spending was invariably accompanied by high rates of economic growth.<sup>8</sup>

Subrahmanyam's views found support in a study by Prof.Emile Benoit of Columbia University. Emile Benoit and his associates determined that there was a positive relationship between defence spending and real economic growth; the most likely explanation being that the increased discipline and improved efficiency associated with the crisis triggering an increase in defence spending also leads to greater efficiencies in the production. In a more efficient or developed civil economy the relationship may not develop.<sup>9</sup>

According to Benoit, in 1963 and 1964, the years immediately following the Sino-Indian War, when Indian defence spending reached the highs of 4.5 per cent and 3.8 per cent of the GNP, the Indian Gross Domestic Product (GDP) increased at an annual rate of 6.3 per cent per annum. This compared well to 4.5 per cent average economic growth rate in the period 1950 to 1961, when defence received annual allotments of about 2 per cent of the GNP.<sup>10</sup>

It was further argued by Subrahmanyam that defence programmes had indirectly or inadvertently contributed to the civilian economy through investments in roads to border areas, electronic communications, and spin-offs from ship-building, aircraft and vehicle production.<sup>11</sup>

**Methods of Arms Procurement:**

As military inertia began to crumble, so did the importance attached to the ordnance sector correspondingly rise. In small but telling ways, the defence effort was strengthened. But movement towards militarization does not imply arms production capacity. Arms manufacture is a sophisticated process. Technologically, it is a leading edge activity, requiring techniques and skills equivalent to those employed in the advanced engineering areas of civil industrial endeavour.

However, newly independent India had inherited an underdeveloped industrial sector, so Indian arms acquisition was a 'gradualist' process, following the traditional path trodden well by developed countries. India followed a variant mix of three different policies:

- i) Direct purchase of foreign equipment.
- ii) Local R & D.
- iii) Licensed production.

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Such a policy was seen to meet the immediate demand for weapons as well as build up the local infrastructure for the defence industry.

### Outright Purchase:

It should occasion no surprise that direct purchase abroad of modern defence equipment was the dominant pattern during the 1950s. Most of the weapons were purchased from the United Kingdom<sup>12</sup> and France. Purchases from the United States included 29 American Fairchild, C-119-G Transports, 8 American Sikorsky, S-62 helicopters, and another 12 Bell 47G-3 helicopters.

Of course, this pattern was unacceptable to the political leadership, but it had to work within the technical and industrial limitations of the inherited system; there was, in addition, the decided preference of the armed forces for foreign arms, deeply ingrained by colonial rule<sup>13</sup>.

The problem of dependence on the political whims of the supplier state was emphasized by the Defence Minister, Y.B. Chavan, in the context of India's air force. Yet, he underlined the fact that this was inevitable at the formative stages.

Beggars can't be choosers, when one has to get it from somebody else. It is not one's own capacity to purchase. Sometimes the political attitude also comes in our way. Sometimes you like a plane of B country, but even if one is prepared to pay for it, the political attitude of the country comes in our way, whether they (sic) want to give it or not.<sup>14</sup>



Another problem highlighted by Chavan was that most of the planes bought by India become obsolete in the supplying country, though their usefulness is much longer in India than in the supplying country. Therefore, it becomes difficult to obtain spare parts at a later date for these machines, as they were no longer needed in the overseas country<sup>15</sup>

The perennial shortage of foreign exchange is another problem to contend with, though it was practically non-existent in the mid-1950s, when there existed in India a substantial accumulation of pound sterling, making large scale imports possible. In the sixties, the Government of India was in a persistent foreign exchange crisis. Though defence production depends on foreign exchange only to the extent of about 10 per cent of the total defence expenditure, yet the actual dependence relative to the total allocation for the manufacture of weapons and equipments is much higher (70 per cent of the defence expenditure being Pay and Allowances, and payment for Provision and Stores.

The political leadership was getting disenchanted with outright purchase of arms abroad, so the other two policies were initiated even during the course of the 1950s. Over time, the sentiment grew that direct purchase of weapons abroad is inadvisable as it runs counter to the policy of self-reliance.

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Although direct purchase is not excluded altogether, the basic orientation has since come to rest against it.

### Local R&D and Its Contribution

From small beginnings in 1948 under Dr. D.S.Kothari, there finally came into being in 1959 the Defence Research and Development Organization (DRDO), which had as its chief function the designing and development of defence equipment. The DRDO is headed by the Director General of Research and Development, who is simultaneously the Scientific Adviser to the Defence Minister and Secretary to the Government of India for Defence Science and Research. The DRDO operates 45 defence establishments and laboratories. These are spread across the country under the following activity headings: aeronautics; electronics; weapons systems; naval technology; engineering equipment; materials; life sciences and systems analysis; training and information. The DRDO has employed 3,000 scientists and technologists<sup>16</sup> along with thousands of auxiliary and supporting staff. India's defence R&D budget has historically not matched the DRDO's vast organizational structure. In the 1960s, it hovered around 1 per cent of the defence budget, rising to two per cent only by 1975-76. In 1988-89, it rose to 5.15 per cent<sup>17</sup> a reflection of the important indigenous defence projects currently being undertaken.

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The major contributions to the equipment of the army from local R&D have been the Ishapore semi-automatic rifle and the mountain gun, which was developed for high-attitude warfare; the 105mm field gun, and a variety of electronic equipments. The infantry, it should be noted, is armed with indigenously developed weapons and ammunition, for which the army is self-reliant and self-sufficient. Overall, in relation to the army, most of the equipment required for modernization is planned to be developed and produced indigenously.

In relation to the air force, local R&D has resulted in the jet trainer HAL HJ1-16, MK-I Kiran which went into production in 1958; Kiran's MK-II version reportedly went into production in 1979 as did the basic trainer HPT-32 at the same time. Although it has had problems of acceptance by the air force. HF-24 Marut-I was also designed locally and 125 of it were produced. The HF 24 project gave India the distinction of being one of only four or five countries to proceed with the development of a supersonic fighter aircraft.

According to R.G.Mathews,

DRDO technological level of defence research is remarkable. This is evident in India's advanced aerospace and electronics springboard, frontier project work in missile technology; VSTOL (HF-73) Multirole combat aircraft, supersonic remotely powered vehicles with technology similar to that employed in cruise missiles; and conversion of the HS-748 (AVRO) aircraft to an AWAC type plane, incorporating a mounted saucer-shaped roto dome.<sup>18</sup>

The local R & D infrastructure is also a prerequisite for techno-transfer from abroad.

Technology Transfer:

It is armanent manufacture based on licensing of foreign technology that has played a major role in meeting the needs of India's armed forces for sophisticated equipment. Though initiated in the mid-1950s on a modest scale, technology licensing became increasingly important in the 1960s and emerged as the dominant pattern in the 1970s, particularly in relation to the air force. Indian national policy, as articulated during the period of the Janata Party rule in the late 1970s, made technology licensing<sup>17</sup> a condition for any direct purchase of foreign military equipment.

Under licensed production, India, as purchaser of military equipment became involved in armaments production, albeit at the rudimentary level of assembling parts imported from the foreign arms supplier. After the initial stages, the effort is to have production based on the utilization of more and more Indian raw materials and manufactured components with the ultimate objective of total indigenous production as soon as possible.

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There was, therefore, the double gain of subsequent independence from the government of the manufacturer country as well as gain in engineering know-how in the production of the defence item.<sup>20</sup>

There were delays during the early stages of the project as plant and machinery were being imported and as Indian engineers gained experience in the production process, but it was believed that there would be no subsequent delays because of changes in the political policies of the government abroad. Finally, once the weapons became indigenous, the problem of future price fluctuations and changes in financial terms offered by the licensor would also be obviated.

A disadvantage of this policy was that it initially had the same drawback as an outright purchase, i.e. dependence on the political approval of the government of the licensing company and subject to its potential intervention during the interim period of material and technological transfer. Moreover, under the policy of outright purchase India could buy the latest, most up-to-date and sophisticated aircraft available in the international arms market, whereas licensed production meant a degree of obsolescence by the delivery time. Among the major items produced in India under licence have been: for the air force Folland Gnat fighter, MIG-21 fighter, Alouette helicopter, HS-748 transport; for the navy --"Leander" class frigate; and for the army --Vijayanta tank (Vickers 37).<sup>21</sup> In

1978, the Government of India decided to purchase 40 high - performance Anglo - French Jaguar bombers and to produce another 110 under licence.

### Indigenization

In respect of licensed technology, a major aim of the defence enterprises in indigenization, as a Defence Ministry document states:

Rapid indigenization is the cornerstone of our policy of self-reliance. A conscious programme and policy for accelerating the pace of indigenization has been followed by striving to organize in all public sector undertakings the manufacture of various parts and components indigenously.<sup>122</sup>

According to R.G. Mathews,

Two conditions require to be met if the drive for indigenization is to be successful. First, licensed production of defence equipment with foreign suppliers must involve the transfer of production know-how and techniques along with the product itself. India's policymakers have been aware of this, and over the last three decades have negotiated transfer of production facilities and foreign expertise from numerous sources. In fact, by the last 1970s India's bargaining position in the acquisition of defence technology had moved from a supplicant to a courted customer. The technology transfer aspect of contractual arrangements became institutionalized within collaborative agreements. It was a two-pronged

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approach: foreign purchase would be made only if foreign suppliers agreed, firstly, to transfer manufacturing technology and, secondly, to incorporate 'buy back' clauses in sales contracts. The intended aim was to achieve self-sufficiency through indigenization while at the same time earning scarce foreign exchange<sup>23</sup>.

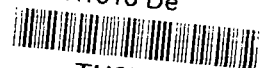
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The second condition for successful indigenization is establishment of a local licence and technology base to accommodate transfusion of learning from collaborative programmes. India has consistently made great claims regarding the progress made by it in indigenizing production. But these claims need to be examined cautiously. By the early 1960s, the country had already been manufacturing 80 per cent of all the small arms and light equipment for the army and steps had been taken at that time to establish production lines for heavy trucks and jeeps. A factory was established in 1970 for the production of these vehicles which, was producing by 1975-76, over 3,000 Shaktiman three-ton trucks in collaboration with MAN of the Federal Republic of Germany and about 4,000 one-ton trucks with Nissan of Japan. Indigenization of these projects was reported to have reached 94-96 per cent by 1973 end. The Ministry of Defence's Annual Report, 1987-88 stated that, during 1984-1986, HAL had indigenized 1,681 items and that the average indigenous content of BEL's products was as high as 80 per cent.



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The difficulty is that these tall claims do not square with reality. There is the problem regarding definition: the authorities' claims of the extent of indigenization in terms of percentages provides figures which mislead. Value percentages are calculated by taking the landed cost of materials and components manufactured locally with the imported cost of a complete unit. Volume percentages of indigenization are calculated by comparing the proportion of items made locally against the number of parts comprising the final product. Both methods are flawed, in that 90 per cent of value or volume indigenization might be registered, even though the 'critical' 10 per cent is still to be imported. In this context, note that after two decades of collaboration with MAN the engine block and steering gear for the Shaktiman continue to be imported; similar is the case of the engine block for the Nissan vehicles. In regard to the evolving Main Battle Tank-80 Arjun programme, India continues to import the engine, gearbox, communication and fire control systems.

A distinction also needs to be made between 'actual' and 'effective' indigenization. Technological self-sufficiency has been constrained by delays in forcing developments from the design stage through to final production. Some observers judge the fault to lie with a lack of production and quality assurance expertise, while others believe the cause to be insufficiency of trained manpower for specialized R&D work. The result, however, is the same: the time-lag between initiation of design work and actual

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production is painfully too much, and the resultant systems are obsolete even before they are deployed.<sup>24</sup>

Matthews also cites glaring examples of failure to enjoy the fruits of indigenization. Most remarkable of all are the cases of non-utilization of the extant domestic capacity.

The above discussion of the gaping weaknesses of India's defence industry makes it clear why foreign defence technology continues to play even today a critical role.

### SECTION - III

The above discussion illustrates how defence policy has acquired the status of a holy cow. Although scepticism regarding economic spinoffs of the defence expenditure continues, there is yet a widespread, though grudging, acceptance of the view that reduction in defence expenditure means less security.

It is important to note that, once the belief in inter-dependence of military defence and a country's security acquires an exalted status, then arms build-up becomes a norm and its logic creates dynamics of its own growth. It is in this context that India's emerging regional profile and its simultaneous pursuit of US defence technology acquire a rationale of their own. However, though India's quest for US defence technology has certain 'specifics' about it, it has been operating within the overall framework of India's quest for defence technology.

The next section of the paper will study how the post-1971 developments culminated in India's vigorous pursuit of foreign defence technology.

#### IMPULSE FOR MODERNIZATION:

It is fairly obvious that India's effort to acquire foreign defence technology is linked to its policy of defence modernization. P.R. Chari<sup>25</sup> refers to two impulses behind such a policy. The first one compels a state "to follow procurement policies that are reactive to weapons inductions by adversary

states". This has been discussed in the earlier part of this Chapter.

The second impulse emerges from the assumption that a re-equipment programme being inherent in armed forces, weapons induction should be reflective of the latest state of the art. This involves a leapfrogging of intermediate stages of weapons' technology to obtain the most advanced weapons systems available.

K. Subrahmanyam discounts the theory that our choice of weapons be determined only on the basis of our threat perception from our neighbours. He argues for broadening the threat perception realm so as to include the superpowers, which necessitates acquisition of the state of art weapons.

It will not be enough to monitor the capabilities of the potential adversary alone to produce certain kinds of weapons and equipment, but it is necessary to keep watch over such developments on a global scale, as weapons and equipment are transferred from the developed countries for various considerations. Further, if India is to insure herself reasonably against interventionism of big powers, she must have weapons and equipment that will raise the cost of such intervention above a minimum threshold.<sup>24</sup>

India's policy of defence modernization started under Mrs. Indira Gandhi got a further impetus on the assumption of the Prime Minister's office by Mr Rajiv Gandhi. The drive for

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defence modernization synchronized with Mr. Rajiv Gandhi's decision to accelerate the pace of Indian technological growth and capability in the civilian sector (in this context, India's purchase of dual technology items (like supercomputer) from the US is significant).

### INDIA'S EMERGING REGIONAL PROFILE

There tends to be a dynamic relationship between security interests and capabilities, and security interests manage to get defined in terms of the power available to pursue them. An abundance of capabilities is likely to lead to the definition of interests beyond mere physical security to the wielding of active influence and domination over others<sup>27</sup>.

According to Thomas P. Thornton Director of Asian Studies at John Hopkins University and a former member of the US National Security Council, "The build-up has taken a momentum of its own, and India is increasingly pushed to find a threat and rationale to justify its military strength."<sup>28</sup>

Thornton's views find agreement in the perception of most of South Asia experts in the US. Such a view holds that India's policy is no longer a mere defence posture vis-a-vis Pakistan and China; instead India has enlarged its sphere of interests and influence, to include even Maldives, Seychelles and Mauritius.

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With varying degrees of urgency, other countries along the rim of the Indian Ocean basin are asking, what does India want?.....Specific points, such as India's lease of a nuclear-powered submarine and its acquisition of Soviet-built long-range reconnaissance planes, have been raised in the Australian Parliament. Intelligence officials in Canberra believe that India's RAW....was responsible for the shipment of arms destined for Fijians of Indian descent but seized in Sydney harbour in May, 1988, following a coup in Fiji by native islanders against ethnic Indian dominance. In Jakarta, an army colonel describes his government as 'concerned' about India's long-term intentions -- the main reason, he explains, that Indonesia is planning to build a large naval base in Sumatra that would provide quick access to the Bay of Bengal.<sup>29</sup>

The other ASEAN countries, viz. Malaysia, Thailand and Singapore, too are vitally concerned about India's naval build-up. India has the largest navy amongst the Indian Ocean littoral states. India is gradually acquiring a capability to project its powers beyond its shores. Although it has as yet a very limited blue water capability, recent acquisitions suggest an increasing interest in operating well beyond the coastal seas, for which the bulk of the current fleet is designed. Attention is drawn in this context to India's recent purchase of an aircraft carrier that Britain had used in the Falklands war. This takes the Indian total to two as against none in the inventory of other littoral states.

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As an American military analyst noted: "A part of India's overall arms build up.... provides a military underpinning for India's claims of middle power status in the context of global interaction".<sup>30</sup> Such a view is endorsed by some Indians like Admiral Krishan Nayyar and K. Subrahmanyam. Says Nayyar, "the world has learnt to live with the US power, Soviet power, even Chinese power, and it will have to learn to live with Indian power."<sup>31</sup> Subrahmanyam believes that the build - up will help persuade the world to give India its rightful place in the international diplomacy.

According to Ross H. Munro, the decade of the eighties has witnessed a lot of muscle-flexing by India. In 1984, Indian troops occupied the non man's land of Kashmir's 20,000 ft high Siachen Glacier.... By the summer of 1985.... Indian jawans penetrated into unoccupied and disputed territory along the Indo-China border, provoking what Prime Minister Rajiv Gandhi later called an 'eyeball to eyeball' confrontation with China. In winter of 1986-87, Brass Tacks, an extensive Indian military exercise....., rattled the Islamabad Government, though it did not lead to fighting. Finally, in 1987 (July), Sri Lanka bowed to pressure from New Delhi and allowed the Indian forces (Indian Peace-Keeping Force) to intervene". "Sri Lanka was the watershed," says Ashley Tellies, a US expert on South Asian security issues, "India showed its willingness to use force even when there was no clear-cut security threat".<sup>32</sup> India's surgical

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action in Maldives, insignificant in the global context, evoked, however, unease among India's neighbours.

The Government of India denies, however, any designs of hostility and dominance. Defending India's naval build-up, Defence Minister K.C. Pant<sup>33</sup> said that India had difficulty in maintaining effective patrol and control capability over its exclusive economic zone. It was a logical and practical step for India to deploy some of its forward naval command capability in Port Blair in the Andaman Islnds, and to develop defence facilities in the Andaman and Nicobar Islands, India's eastern most possessions.

India is heavily dependent on external sources for crude oil and petroleum products, besides strategic resources. It has, thus, a deep-vested interest in the stability of supplies and assured access to them. Security of our own offshore installations for oil and gas production meeting, 40 per cent and 80 per cent of India's needs respectively) is an essential ingredient of the security paradigm. Hence the importance of sealanes in the calculus of security interests.

#### Reasons Behind India's Courtship of the US for Defence Technology

##### NEED FOR DIVERSIFICATION

India's choice of suppliers has been determined by the prevailing political relationship with the respective country.

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Certain geo stragic and pdlitical compulsions had bnrought the USSR and India into close relationship, which led India to rely heavily on the USSR for weapons supply. The Indo-Soviet relations were thus marked by more and more warmth, while India and the US drifted apart.<sup>34</sup>

However, the decade of the eighties was to witness significant changes in the international arena, which made the hitherto underlying strategic rationale of the foreign policies of the US and India seem an anachronism. This made both India and the US reconsider their respective policies towards each other. This chapter will discuss, however, only India's reasons therefor.

The perestroika in the US--USSR realtions provided India with an opportunity to better its relations with the US without arousing suspicions in Moscow. Most of the contradictions in Indo-US relations, emanating from the US-USSR cold war, could now be gradually resolved. The Defence Ministry's Annual Report, 1985-86 referred to the possibility that a normalization of relations between the two communist giants could enable China to redeploy its forces from the Sino-Soviet border to Tibet. This emerging scenario gives India a stronger interest than at any time since the early 1960s in widening its foreign policy options and, particularly, in diversifying the sources of military hardware.



IS USSR NO LONGER A RELIABLE SUPPLIER?

One of the primary reasons for India's reliance on the USSR for weapons supplies was the cost factor. India could obtain weapons from the USSR on easy credit terms<sup>35</sup>, while foreign exchange shortage made the US weapons price-prohibitive for India. However, with the present changes under way in the USSR, a <sup>fa</sup>avourable rupee-rauble arrangement may no longer be possible. Despite the assurances given by M. Gorbachev to V.P. Singh that the rupee payment arrangement will continue till 1995, his ability to deliver the promised supplies is very much in doubt. In fact, increased problems in maintaining deliveries of spares and components for maintenance and co-production are already causing anxiety.

Anxiety is also warranted over future prices and credit terms. The emphasis on profitability of enterprises is likely to mean price being set by reference to competition, and this may well get translated into higher costs. Given the severe budgetary problems confronting Moscow, credit subsidies by the USSR are now unlikely.

Moreover, since India is looking for sophisticated technology, it has no alternative but to look to the US which is miles ahead of the USSR in technological superiority. Interestingly, even the USSR is negotiating with the USA for technology.

The Gulf War exposed a number of chinks in the Soviet defence weaponry. In retrospect, India's policy of diversification and quest for US defence technology seem prudent. The success of the US Hi-tech weapons over the Soviet ones used by Iraq in the Gulf War raises gnawing questions about the quality of India's military hardware (most of the supplies being from the USSR).

## SECTION - IV

### GROWING INDO-US ECONOMIC COOPERATION

Defence technology transfer is either a precursor or a consequence of a strong politico-economic relationship. There is thus interdependence of defence technology transfer and economic and political relations between two countries, and each has important implications for the other two.

The Indo-US economic and commercial relations have deep roots. The US presence has been in evidence in many areas of the Indian economy, beginning with the flow of US assistance to India in 1951. In recent years, the US has emerged as India's largest trading partner as well as a major collaborator in joint ventures and technology transfer agreements. Until the late 1970s, economic and commercial relations had grown quite slowly.

The Indo-US economic and technological relationship can be broken into three major segments namely; Trade, Investment and Aid.

#### TRADE

The US accounts for almost  $\frac{1}{4}$ th of India's total imports. India's share in the US imports is insignificant, especially when compared to the magnitude of the US trade with other countries of the Asian Pacific region.

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India's export profile is dominated, to a large extent, by gems and jewellery, especially polished diamonds, and garments and textiles with relatively minor contributions from a host of traditional exports such as tea, cashew nuts, seafood products, handicrafts and leather goods. Two major non-traditional exports are: engineering goods and, increasingly in recent years, computer software. Even in these fields optimistic projections have not been realized.

India's imports from the US consist primarily of fertilizers (which constitute the largest product-group), transport equipment, metal scrap, pulp and waste paper, organic and inorganic chemicals, and scientific and precision instruments. India also imports US agricultural products such as California almonds.

A recent dispute between the two countries, centring on Section 301 of the Omnibus Trade Act of 1988, has been contained. However, there are some other on going developments, which may have an important bearing on Indo-US trade. India's exports to the US would be affected greatly by whatever denouement eventually ends the current Uruguay Round of negotiations. India has a major stake in liberalization in the trade textiles. The inclusion of textiles under the GATT umbrella

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is a major priority of the developing countries in the Uruguay Round negotiations. Conversely, the failure of the Uruguay Round might strengthen protectionist pressures in the US.

### INVESTMENT

The US has been the main source of foreign investment in India. of a total of US \$2.5 billion of foreign investment in India, the US share is more than US\$ 600 million. the major areas of US investment in India have been pharmaceuticals, chemicals, fertilizers and electronics. Most of this investment has taken the form of joint ventures with Indian partners. In electronics, there have been some major US investments in the form of US-owned Indian subsidiaries with a 100 per cent export orientation, such as the Chip-Design Centre of Texas Instruments in Bangalore, and the software development operations of a number of major US corporations, including Hewlett, Packard and Citicorp.

India recognizes that the US investment has made a major contribution to modernization of the Indian economy through technology transfers, training of managers in sophisticated marketing techniques, import substitution, etc. The government of India would like the US investment in India to address itself to certain sectoral priorities like oil and gas equipment, power generation, transmission and distribution equipment,

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telecommunications, food processing and agro-industry equipment. It is with this imperative in mind that, its own restrictive policy notwithstanding, it allowed the Pepsi Cola venture in India.

### AID

Although India is among the few Third World states, which have generated part of their investment needs through domestic resources, external resources, including aid from bilateral donors and multilateral financial institutions, have sometimes been used to bridge crucial resource gaps.

The aid relationship with the US started in 1951. The US aid immediately after India's independence has totalled \$12.5 billion so far. While the nature of this assistance has undergone changes over the years, its basic goal has consistently been to support India's developmental priorities. The present level of development assistance to India is in the region of \$20-25 million only. Besides, India gets about \$70-85 million annually under PL-480.

The defence of the 1980s, especially the years since 1985, saw a major upswing in the Indo-US economic and technological relationship. Indo-US economic relationship has a vast potential.

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India, with its current shortage of resources, particularly the endemic shortage of foreign exchange, has a greater stake in the US investments in India than the US.

### CONCLUSION

India's emerging defence technology demands cannot be fulfilled by relying on traditional sources of supply.

Self reliance in the defence sector has been, and would continue to be a major goal for India. The policies follow in pursuit of this goal have been pragmatic ones, as evident from the significant capacities, expertise and experience exists in the production and manufacturing sector. India during the past 25 years has managed to maintain a sufficiently strong and credible military capability to deter aggression and safeguard national security interests. Technology acquisition has become an important security interests. Our defence future needs require external assistance, collaboration and other methods of joint efforts to strengthen technology transfer and R&D base in India. In view of relative technology capacities of the US and USSR, it is prudent for India to look toward the US for defence technology. India, however, has been wise enough to simultaneously nourish Indo-Soviet ties.

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FOOT NOTES

1. Lyon, P, Neutralism, (Leicester: Leicester University Press, 1963) p. 130.
2. Nayar, B.R, American Geopolitics and India (New Delhi: Manohar, 1976), p.1
3. Ibid, n.2, p.1
4. Jawaharlal Nehru, quoted in Thomas, R. Defence of India (New Delhi: Macmillan, 1978) p.110
5. Frankel, F, India's Political Economy, 1947-77, (Delhi : Oxford University Press, 1978) pp. 393-94.
6. The reasons for the Soviet helpfulness are discussed in Chapter - II.
7. Thomas R, Defence of India (New Delhi : Macmillan, 1978) p.112.
8. K. Subrahmanyam, Indian Express, (New Delhi), May 19, 1973.
9. Benoit, E, Defence and Economic Growth in Developing States (Lexington : D.C. Heath, 1973) p.162. See also Barbara, H.J, Rich Nations and Poor in War (Lexington, D.C. Health, 1973) Barbara concludes that the two total wars of this century have neither helped nor hindered development or noticeably affected the inequalities between rich nations and poor, although poorer nations may benefit from the integrative effects of war than richer ones.
10. Moreover, this happened despite the fact that agricultural output rose at only 2.7 per cent per annum in 1963 and 1964, thus eliminating the possibility that the spurt in economic growth may have been due to especially favourable monsoons. Benoit's studies also indicate that the sudden increase in defence expenditures after 1962 was not at the expense of investment.



11. For details see, K. Subrahmanyam, Defence and Development, (Calcutta : Minerva Associates, 1973).
12. The UK supplied weapons systems such as the Centurian heavy tanks, Canberra bombers and Hunter fighter jets, while France sold AMX light tanks and ouragon and Mystere aircraft.
13. Nayar, B.R. India's Quest for Technology: The Results of Policy (New Delhi: Lancer Publishers, 1983), Vol.2, p. 495.
14. Nayar, B.R, n.11, P.178
15. Nayar, B.R, n.11, p.178
16. Lakshmi,Y, Trends in India's Defence Expenditure (New Delhi: ABC Publishing House, 1988) p.64.
17. Government of India, Ministry of Defence, Annual Report, 1987-88, Chart-1.
18. Mathews, R.G, "The Development of India's Defence Industrial Base,"Journal of Stretagic Studies, June 1989, p.423.
19. An intergovernmental task force,headed by the Office of Management and Budget,(US), has categorized as below the various forms of technology transfer from the US:
  - i) Co-production: Overseas production based upon government-to-government agreement that permits a foreign government or producer to acquire the technical information to manufacture defence article of US origin. It excludes commerical arrangements by US manufacturers.
  - ii) Licensed production: Overseas production of US defence articles, based upon transfer of technical information under direct commercial arrangements between a US manufacturer and a foreign government or producer.

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- iii) Subcontractor production: Subcontracting does not necessarily involve licence of technical information and is usually a direct commercial arrangement between the US manufacturer and a foreign producer.
- iv) Overseas investment: Investment takes the form of capital invested to establish or expand a subsidiary or joint venture in the foreign country. Cited in Louscher, D.J, and Salomone, M.D, Technology Transfer and US Security Assistance (Boulder, Westview Press, 1987) p2-3.
20. Nayar, B.R, n.11, p1180
21. These collaborations are with Britain, USSR and France respectively.
22. Government of India, Ministry of Defence, Annual Report, 1978-79, (New Delhi).
23. Mathews, R.G, n.18, p.422
24. Mathews, R.G, n.18, p.422
25. Chari, P.R, "Modernization of Indian Defence", The Statesman (New Delhi), Defence Supplement Part-II, June, 1979.
26. Subrahmanyam, K, Our National Security (New Delhi): Economic and Scientific Research Foundation, 1972), p.54.
27. Nayar, B.R, n.2, p2.
28. Munro, R.H, 'Superpower Rising', Time (New York) 3 Apr., 1989) P.8.

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29. Ibid, n.26, p.9.
30. Elkin, J.F, "The Indian Air Force of the 1980s," Air University Review, Sept-Oct 1984,p.35-36.
31. Munro, R.H, n.26, p.7.
32. Munro, R.H, n.26, p.10
33. "Inevitable India, Inevitable Power," Defence and Foreign Affairs, (New York) Dec 1988, p.28.
34. This aspect is discussed in detail in Chapter-II.
35. Purchases from the USSR against credits repayable in 17 years at an interest rate of 2.5 per cent imply a grant element of 42 per cent.

## CHAPTER - II

## CHANGING US PERCEPTIONS OF INDIA

AND

## DEFENCE TECHNOLOGY TRANSFER

The US Government policy on defence technology and conventional arms transfer to Third World countries has experienced sharp swings in direction, shifting from a posture of relative restraint to one of relative permissiveness. This swing is a response to the changing US perceptions of a country's status in its political, economic and strategic priorities. In order to understand this linkage, it is important to refer to the role of defence technology transfer in the US foreign policy.

### Section - I

#### DEFENCE TECHNOLOGY TRANSFER AN INSTRUMENT OF US FOREIGN POLICY

Unlike in the West European countries, the commercial aspect of defence technology transfer is of relatively less importance in the USA. The benefits to the defence industry from exporting weapons play an insignificant part in this policy. Less than 5 per cent of the total US defence production is exported. Indeed, the US Deputy Assistant Secretary of Defence, Henry Kissinger, who was responsible for the Military Sales Programme from 1961 to 1969, strongly criticized the "tendency of American companies to refrain from entering into the

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international arms market, which affects our entire posture in military, economic and political ways"<sup>1</sup>.

Defence technology transfer is an integral part of US foreign policy arising from the dominant position of the US in world affairs. For the United States, control over the transfer of Hi-tech knowledge and other goods to other nations is a tangible weapon, employed overtly as well as covertly to influence the foreign and domestic policies of a nation to suit the American perceptions.<sup>2</sup> Indeed, the pattern of defence technology transfer largely follows the patterns of international alignment: the pattern of commercial trade and investment, the pattern of economic aid, of military alliances, of voting in the United Nations, and so on.

Therefore, defence technology transfer policy of the US towards another country has been reflective of the broad political and economic relationship between the two.

Technological revolutions often contribute to shifts in wealth and geo-political influence by changing the sources of industrial and military success. In this respect, information technology is proving no exception. Advanced information technology is profoundly changing global competition, both commercial and military, in such fields as semiconductors, computers, fibreoptic communications, industrial control system, robotics, office automation, globally integrated financial trading systems, military C<sup>3</sup>I (command, control, communication, and intelligence) smart weapons and electronic affairs.<sup>3</sup>

In order to fully appreciate the factors which have augured positive possibilities for defence co-operation between India and the US, a brief reference must be made to the reasons (from the US perspective), which had hitherto prevented such a cooperation. The preceding chapter discussed India's growing military power. This chapter will discuss the US reaction to it in the context of the implications of a powerful regional state in US global designs.

## SECTION - II

### EVOLUTION OF AMERICAN GEO-POLITICAL STRATEGY AND INDIA

India and the south Asian region as a whole posed a series of challenging questions for the architects of post-war American foreign policy. How, precisely, could India (and Pakistan) contribute to American global objectives in peacetime and wartime? How could Washington most effectively use its influence and resources to foster strong bilateral ties with India (and Pakistan) and promote, at the same time, regional stability? Would India's commitment to a foreign policy of non-alignment prove hopelessly incompatible with Washington's global objective? What role could an external power play in the resolution of regional disputes, such as Kashmir, rooted deeply in religious and ethnic differences? Would the Sino-Soviet split, increasingly evident in the 1950s, help or harm the US interests in South Asia?

The primary US goal in South Asia was to orient India (and Pakistan) towards the US and away from the USSR<sup>4</sup>. Washington sought, in addition, to foster economic development in the region and to help India and Pakistan maintain internal security enough to resist firmly all communist threats. In short, the US sought to promote stable, peaceful and economically productive states that would be oriented towards the West and be capable of resisting communist blandishments. These general goals were to be attained through a series of diplomatic, economic and military means.

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### Even-Handed Approach Vs the Tilt Approach

To begin with Washington adopted an even-handed approach to the problems of South Asia. Such an approach explicitly ruled out the option of leaning towards India or Pakistan.

The US did not underrate the importance of newly independent India. Prime Minister Jawaharlal Nehru commanded the attention and allegiance of many nation-states throughout the Third World. American analyst calculated that Nehru's open embrace of American foreign policy might prove helpful to American interests in Asia and throughout the developing world. "India", stated the SANACC policy assessment of May 1949, "is the political and economic country of South Asia and aid given to the peripheral countries (like Pakistan) would have to be adapted to conditions in India."<sup>5</sup>

A State Department analysis of late 1949 concurred. In the aftermath of the Chinese communist triumph, preservation of Western influence in India, according to it, had assumed singular importance to the US:

In all of Asia, it is now the only nation that is large enough and has power potential to resist a determined communist military effort with any possibility of success. If India should fall to communist power, a consolidation of that power throughout Asia would be inevitable. If we are to have an effective policy in Asia, India must be the keystone of that policy.<sup>6</sup>

### Tilt against India

With Pakistan's alignment with the USA, the US policy soon acquired a tilt against India. It is in this context that the importance of the Korean War as a watershed for the US policy towards South Asia can be understood, for it was the Korean War, which had set in motion the forces that further aggravated Indo-American tensions and diminished India's relative importance to the US while simultaneously sparking off increases in US-Pakistan cooperation and enhancing Pakistan's relative strategic value.

American officials resented Nehru's strident criticism of the US policies on China and Taiwan.<sup>7</sup> Before that, Nehru's intention to recognize the communist government in China at the earliest possible opportunity had annoyed the US.

Another event, which, according to Chester Bowles, US envoy to New Delhi in 1951, lingered as a major source of tension was <sup>the</sup> "over-insensitive handling of the wheat loan". In 1950, India requested for emergency provision of American foodgrains to offset a potentially serious food shortage exacerbated by floods and droughts throughout the country. After protracted and acrimonious debate, Congress agreed eventually to provide India with the requested wheat from the US stockpiles, but the long delay, intemperate statement of certain

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legislators, and crude efforts to use the spectre of starvation to extract political and economic concessions left deep scars on the Indian psyche. Thus, a measure conceived by the Truman administration planners as a lever for bringing India closer to the West backfired grievously.

The tension remained palpable throughout 1951 and led American analysts to consider afresh India's importance--manifest and latent--to the United States. The resulting reports, policy papers, and intelligence estimates reveal contradictory strains in American thinking. Some US officials frankly acknowledged that their ability to influence India was much more limited than they had previously believed. Others, with the anger of rejected suitors, began to disparage India's significance in world affairs. Still others argued that India was too important to be written off and insisted that the United States had better swallowed its injured pride and continued to court Nehru<sup>8</sup>.

These differences among planners and analysts stemmed in part from the conceptual challenge that India presented to America. Simply put, India did not fit into the comfortable categories of national interests identified so carefully by the Truman administration. A recent study has persuasively demonstrated that the administration viewed American global interests in straitjacket power terms. The areas it valued most

Western Europe and Japan -- possessed a combination of raw materials, industrial infrastructure, and skilled manpower that could be converted into warmaking potential. Areas of secondary importance, such as the Middle East and South East Asia, derived their value from possession of critical resources or base sites or from trading relationships with the core states. If the prime objective of the American policy were to deny the Soviet Union access to raw materials, industrial infrastructure, skilled manpower and bases of Eurasia, then it was not clear where India fitted into that strategic equation. India's tangible economic, strategic and military value to the United States remained limited in peace or war--a fact that the Joint Chiefs of Staff stressed in their very first assessment of the subcontinent and one that they continued to highlight in subsequent analyses. A nation forced to choose where to invest its limited resources could be forgiven, then, for discounting the relative importance of India's claim on those funds.<sup>9</sup>

As India's relative significance to the US diminished, Pakistan's strategic value was enhanced. A growing number of administration planners under Truman, who considered the defence of the Middle East as one of the nation's overriding strategic objective, believed that Pakistan could make a significant contribution to the achievement of that objective. Consequently, they were careful not to offend Pakistan by making a sizeable commitment to India. The consummation of the

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military assistance agreement with Pakistan in 1954 and the subsequent integration of Pakistan into the American regional network had highly negative consequences for Indo-American relations. Despite the strenuous efforts made by Eisenhower and Kennedy<sup>10</sup> to balance the scales through economic and military assistance, neither of the administrations was willing to risk alienating Pakistan or to risk jeopardizing the intelligence services at Peshawar and neither was able to undo the original damage done by the Pakistan alliance.<sup>11</sup>

From the above examination it is important to recognize the underlying current responsible for the cooling off of Indo-US relations. The main difference was, in fact, the manifestation of a clash between the policies of a global power (US) and a regional power (India). This aspect has been deeply gone into by B.R. Nayar<sup>12</sup> in his book, American Geo-politics.

At the end of the World War-II, the US emerged as the superpower in an essentially unifocal international system organised around itself. A few years later, India emerged as an independent state, with its truly subcontinental size, a population greater than the two superpowers combined, its relatively important strategic location, and its having been the seat of a historical civilization. India could not be satisfied by remaining just another local power; it rather aspired to a major role in international politics. It could fairly accurately be characterized as a regional or middle power. Given the capabilities of the superpower, its power has a global reach and creates as

it were the strategic environment in which the middle powers have to function; the strategic role of the superpower is thus a prior and initiating one, while the foreign policy of a middle power, on the other hand, is basically reactive.<sup>13</sup>

Prof. Liska lists three different policies open to a superpower in relation to a middle power<sup>14</sup>. Firstly, he suggests that:

Great Powers treat and have reason to treat individual middle powers as regional rivals, and to help still lesser states to contain them under the pretence of restraining, unilaterally or cooperatively, all Third World conflicts. This policy may quite accurately be referred to as containment. The second policy listed by Liska which we may term as satellitization, is one where great powers regard middle powers as "regional allies in context with other great powers and proceed to reinforce them competitively, possibly as a means to reapportionment by way of reclientization. The final policy, which we may label accommodation, is one where great powers proceed either unilaterally or jointly progressively to devolve regional responsibilities on apparently constructively disposed middle powers. It would be appropriate to conceive of these policies not as exclusive categories but rather as central tendencies in the foreign policy posture of a great power, which may incorporate one or more such tendencies at any given time in relation to middle powers.<sup>15</sup>

The American notion of containment, therefore, is not directed only against communism. The US policy has had as its targets all independent centres of power, which did not fall in line with it. As long as the US could be basically inspired by

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the norms proper to a globally pre-eminent world power, single-handedly upholding order in several regions, the American attitude to potential regional imperialists had to be dogmatically negative. It is for this reason that the balance of power, especially one favourable to the US, is a fundamental unalterable principle of US foreign policy.

The logic of this principle of balance of power is that the policy of containment should continue to apply to India regardless of what other policies in terms of satellitization or symbolic accommodation are simultaneously pursued. That conclusion flows naturally from two strategic and political characteristics of India. One, whatever its weaknesses, India is the prominent or dominant power in the region...Two, and more importantly, India is not a 'loyalist middle power' in relation to the US and has the aspiration and potential to be an independent centre of power. This fact reinforces the policy of containment and precludes accommodation beyond the symbolic level. These two characteristics, when juxtaposed against the global reach of American power, inevitably cast India and the US in adversary roles, even if third party issues may sometimes moderate the adversarial relationship.<sup>16</sup>

#### Post-Bangladesh Crisis (1971) A 'New' American Perception of India

Prior to the emergence of Bangladesh as an independent state in 1971, the US saw no role for India as a regional power. Indo-US relations had reached their nadir during the

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crisis of 1971. After the end of the crisis, India began to insist that a normalization of relations with the US depended on American recognition of the 'new realities' in the subcontinent. Of course, India had been the dominant power in the subcontinent after the end of colonialism, but it was American intervention in the region through the military build-up of Pakistan, an enterprise in which China later joined, that had neutralized that position. Again, it was the American intervention that had made for the subsequent Soviet entry into the subcontinent. The ensuing cold war ended the comparative immunity of the region from global conflicts. Since this had posed grave dangers to its security, India was anxious to prevent its recurrence and continuation in the future. It was an imperative endeavour. India wanted to assume the role of a system-builder for the region. Towards the same end, after hostilities had ceased in 1971, it declared that there would be no more Tashkent type conferences under the auspices of an outside power. The 'Simla Process' was an attempt to legitimize the principle of bilateralism.

The Nixon administration undoubtedly recognized that its earlier policy had met with failure, and that there had been a new re-ordering of power in the subcontinent. The US Government, gave, therefore, a hesitant acknowledgement to India's new status. This was done for a variety of substantive and seemingly tactical reasons. Interestingly, India's desire (to



be recognized as a regional power) seems to dovetail with the Nixon doctrine, i.e. "the best way to enhance stability in key regions would be to work for better relations with the stronger regional powers, for they are at best able to provide security for an area.<sup>17</sup> However, as Barnds points out, this devolution of responsibility on the stronger regional powers required American acquiescence in their policies.<sup>18</sup>

B.R. Nayer is of the view that the fundamental incentive for the US policy of accommodation towards India was something else.

The US would not like to see that a country ... was so completely alienated from it as to become a complete and permanent ally of ... the Soviet Union. American interests are not served by the permanent exclusion of any area from the possible projection of its influence and power.<sup>19</sup>

Another factor was the increasing radicalization of the non-aligned countries, necessarily directed at the United States as the leader of the developed, industrialized world. India is not an unimportant member of the non-aligned group. A posture of open hostility would be a significant factor in rigidifying the split between the North and the South.

The new official attitude of the US towards India was evident in the US foreign policy report of 1972. It referred generously to India by clubbing India and the US as "great nations like our two nations". The US President expressed a willingness for a serious dialogue with India on the future of

Indo-US relations, based "not on an identity of policies, but on respect for each other's views and concerns".<sup>20</sup> He recognized that India had emerged from 1971 crisis with new confidence, power and responsibilities. This fact in itself was a new political reality for the subcontinent and for all nations concerned with South Asia's future. The US President also declared: "The US respects India as a major country. We are prepared to treat India in accordance with its new stature and responsibilities. On the basis of reciprocity".<sup>21</sup> In the same report, the President further assured India that the US did not aim at pursuing policies detrimental to it.

In the succeeding months, the US moved further in giving verbal acknowledgement to India's pre-eminent position in the sub-continent. Henry Kissinger stated:

We recognize India as one of the major forces in the developing world and as a country whose growth and stability are absolutely essential to the peace and stability of South Asia.<sup>22</sup>

A landmark in the normalization of relations and in the symbolic accommodation with India was Kissinger's visit to India in Oct 1974. Several pronouncements made by Kissinger in New Delhi were received with great satisfaction and gratification. In a major address, Secretary Kissinger, while paying tribute to the foreign policy vision of Nehru, added: "the US accepts non-alignment". He also reiterated the US support for the "Simla process".<sup>23</sup>

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### SECTION - III

#### ACKNOWLEDGEMENT OF INDIA'S REGIONAL PROFILE

#### AND

#### DEFENCE TECHNOLOGY TRANSFER (1980s)

Resonance of statements (from influential quarters in the US), proclaiming India's regional power status, continued throughout the 1970s, into the 1980s. The acknowledgement of the changed environment in South Asia was an admission of the need for modifications in US policy towards India. But, in essence, the so called accommodation and normalization between the US and India were merely cosmetic; they hardly yielded anything substantial.

Notwithstanding the high-sounding statements of American spokesmen on India's pre-eminent position in South Asia, no proposal for regional devolution of responsibility was forthcoming from the US to India.

The US realizes, no doubt, the reality of the regional status of India, but it cannot automatically and readily delegate regional responsibility to India without assuring itself of India's goodwill for it. To put it bluntly, American recognition of India's regional power would have concrete benefits, only if India did not deviate from the US line of thinking. As B.R. Nayar points out for the US the situation of India as a regional power is ambiguous as between 'loyalist'

and 'rebellious'. If India were a 'loyalist' middle-power, a policy of development and accommodation might have been easily followed by the US, as it had done in relation to Iran. If India were a 'rebellious' middle power, an openly proclaimed policy of containment could have been followed. But taking into account India's peculiar situation, with its aspiration of becoming an independent centre of power, its articulation of the doctrine of non-alignment, yet with close cooperative relationships with the Soviet Union, the US evolved a policy that combined accommodation but only at the symbolic level with containment at the material level. It is a unique combination of being a putative but questionable friend and simultaneously an adversary. India's own posture towards the US is only a mirror image of this.<sup>24</sup> It is for this reason that the cycle of conflict and cooperation continued to characterize Indo-US relations even in the 1980s amidst Defence Technology Transfers negotiations.

The main reason behind the dichotomy between the American Professions and practice is evident in the American Security of Systems to Pakistan. The US realizes that the 'Subcontinental pre-eminence of Indias, will not allow Pakistan to obtain a strategic superiority in the subcontinent, even with a major arms supply . Therefore, the US policy is not aimed at making any serious effort to raise the Pakistani armed forces to a level of near equality with India, its main objective is to retain the lever of Pakistan to pressurize India".The US however

cannot be oblivious to the need for change in its policy, which necessitates warming of Indo-US relations.

Events in the decade of 1980s have had the effect of furthering the rationale for improving Indo US relations. Interestingly, both the Soviet occupation of Afghanistan in 1981 and the subsequent Soviet withdrawal from it, became reference points in taking the Indo-US relations one step further. When the Reagan administration came into office in 1981, it made the renewal of a security relationship with Pakistan in the wake of Soviet intervention in Afghanistan, one of its top priorities. There was little sympathy with India's concerns about regional implications of arming Pakistan because of what Washington saw as New Delhi's equivocation in the face of a superpower intervention in a fellow non-aligned country ... it is, therefore, quite remarkable that the US administration launched a major initiative to forge new ties with India only three years later with an eye on building, over time, a significant military supply relationship<sup>25</sup> (i.e. the signing of the Memorandum of Understanding in 1984.)

In fact, both the US and India were keen to salvage Indo-US relations from the depths to which they had sunk following the Soviet invasion of Afghanistan. The first such signal came from Mrs. Gandhi during her visit to Washington in July 1982. She and President Reagan had already met at the North South summit hosted by Mexico in 1981, and they had hit

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it off at a personal level. Her visit, during which she had emphasized the need to build on areas of agreement by isolating them from issues in conflict, was transparently an effort to seek mutual accommodation. The Science and Technology Initiative was signed. The immediate results were cosmetic rather than substantive, but the ball had at least been set rolling.

Pakistan had played an important role in funnelling military supplies from the US to the Afghan resistance. But with the withdrawal of the Soviet forces, from Afghanistan this conduit role came to an end. This provided an opportunity to the US to have a more balanced perspective of South Asia.

Pakistan's geo-strategic relevance to the US is also diminishing. Certain developments suggest that Pakistan is unlikely to be of much help in any confrontation between the US and Iran. As tensions mounted in the Gulf in the second half of 1987, Pakistan refused to accept any further visits by the US Navy to Karachi. This was to avoid giving apprehensions to Shias constituting about 15 per cent of its population. Moreover, the opportunity was taken of the visit of the Iranian Foreign Minister in December 1987 to reaffirm "an identity of views that responsibility of the security of the Gulf and freedom of navigation lies with the littoral states".<sup>26</sup> This was contrary to the stand taken by the Gulf Cooperation Council that these are

the responsibilities of the international community. These developments may well require Washington to recognize that Pakistan's domestic compulsions do not permit open-ended support of US policies in the Gulf. (this was evident in the recent gulf crises, during which Pakistan's domestic opinion favoured Iraq against the US and, therefore, prevented the Pakistani Government from openly endorsing the US action). The linkage between Indo-US and US-Pakistan relations is important. Changes in one set of relations have significant implications for the other.<sup>27</sup>

Robert Scalapino<sup>28</sup> argues that since the tenor of international relations today compels the major powers to give prior attention to serious social and economic problems at home<sup>29</sup>, it is necessary for the great powers to follow a lower-risk, lower-cost foreign policy. If a change of this kind takes place, the relatively high-cost relationship with Pakistan, fourthlargest recipient of US foreign aid, may be more affected than that with India, the more so because Pakistan's domestic constraints increasingly limit its ability to lend support to US policies in South West Asia.

Moreover since both Washington and New Delhi have lowered their expectations of each other, this makes mutual accommodation less difficult. A lower-key relationship will preclude any great gestures of support such as that made by

President Kennedy in despatching an aircraft carrier to the Bay of Bengal to signal support for India in the Sino-Indian conflict of 1962. By the same token, there will be no severe downturns either, such as that in 1971 when President Nixon ordered a naval task force to the same waters following a policy decision to tilt against India in the war between India and Pakistan. Minus sharp upturns and downturns, there will be less cause for recriminations that have in the past prevented a gradual accumulation of confidence in each others basic goodwill.

The Soviet Union has been another influential factor in Indo-US relations. From the very outset of the cold war, the US policy has sought to prevent Soviet influence from acquiring a strong hold in India. Today, with 'perestroika' in the US-Soviet relations, most of the contradictions in Indo-US relations, emanating from the US-USSR conflict, will gradually be resolved.

However, the rationale of providing a check to the Soviet power remains relevant even today for the US (though it may now be pursued at a lower cost). This is because the demise of the cold war has created a lot of fluidity in the international situation. In this context, Dore Gold's<sup>30</sup> assessment of the most likely scenario to develop in the future becomes important:

Even under conditions of a general relaxation of tensions the superpowers will still take into account each other's capabilities and vulnerabilities. The decline of communism in 1989 may simply have the effect of placing the



traditional problem of balancing quantitatively superior Russian military power in its original 19th century context.

Therefore, the rationale of weaning India from the USSR continues to be valid.<sup>31</sup> Since the competitive aspect in US-Soviet relations will continue, a friendlier India to the US is important.

#### Indian Ocean and Relevance of India to the US

India and the United States have certain common interests in the Indian Ocean region, including those of preventing conflict and promoting economic development. But from geo-political perspective, the positions of the two countries have often differed significantly. According to Norman D. Palmer, the two countries have held widely conflicting views on "three issues relating to the geo-politics of the Indian Ocean region" to such an extent that their divergencies have had adverse effects on their overall relationship. These issues are: (i) the US naval build-up and continuing military presence in the Indian Ocean; (ii) the development of Diego Garcia as a substantial naval base; and (iii) the question of the Indian Ocean as a 'Zone of Peace'.<sup>32</sup>

Serious American strategic interest in the Indian Ocean began only in the 1960s. In the previous decade, the US

presence was just a token one. The main impetus was technological development in nuclear weapons delivery and emergence of the nuclear-powered submarine capable of launching nuclear ballistic missiles. The development of SLBMs, not easily detectable by the adversary, gave a secure second-strike capability to the US. The nuclear submarine also had a deterrent role against the Soviet Union by being deployed in the Indian Ocean region.<sup>33</sup>

The United States set up the VLF (very low frequency) station at North West Cape in Australia for communicating with the submerged submarines in the 1960s. The large Indian Ocean area between the then operational US communication base at Kagnew in Ethiopia and the Australian coast was to be linked to the US 'Omega' worldwide communication network by a base in the middle of the Indian Ocean. That was the rationale for the Diego Garcia communication base.<sup>34</sup> These imperatives of nuclear weapon developments coincided with the proposed withdrawal of the British from east of the Suez in the mid-1960s. The theory of a power-vacuum in the Indian Ocean, that the US needed to fill up, became a serious one, and the creation of the North-West Cape and Diego Garcia communication bases and the deployment of SLBMs signalled that the Indian Ocean had been integrated into the US nuclear strategy.

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The US targeting of SLBMs from the Indian Ocean into the Soviet Union, thus threatening its soft-underbelly,<sup>35</sup> resulted in the Soviet strengthening of its anti-submarine warfare (ASW) capabilities in the region to trail and monitor the US deployment of nuclear submarines, and later, in the stationing of a number of Soviet warships in the Indian Ocean. This situation triggered off US-Soviet naval rivalry in the region. India as a major littoral state has been concerned about the superpower rivalry in the Indian Ocean, because, in the eighties, it could hardly remain immune to the effects of a massive military build-up, especially by the USA, which had established its Central Command in 1983 with jurisdiction over the territories of several littoral states.<sup>36</sup>

The Reagan administration considered a US naval presence in the Indian Ocean region as essential and unavoidable as long as a Soviet threat to the region, so vital to Western security, persisted. It was believed that the Soviets would have an opportunity to establish a firm foothold in the Gulf region, once their naval build-up in the Indian Ocean became formidable. Hence it was crucial for the security of American interests in the Indian Ocean region to frustrate any Soviet effort to gain control over the region or over any strategic part of it, such as the Gulf. It was considered necessary to ensure free access to the region's petroleum supplies which were of paramount importance of both the United States and its Western allies as

well as the Gulf. It was considered necessary to ensure free access to the region's petroleum supplies which were of paramount importance to both the United States and its Western allies as well as Japan. As a matter of fact, the USA's increased military presence in the Indian Ocean was, according to the Reagan administration, intended to serve as a deterrent to potential further Soviet aggression towards the Persian Gulf following that in Afghanistan.

The increasing naval presence of the superpowers and militarization of the Indian Ocean area was opposed by India, which had continually and firmly expressed the view that the Indian Ocean should be a zone of peace.<sup>37</sup> It might be noted that since the Indo-Pak war of 1971, defence of the offshore zone under national jurisdiction; underwater economic assets of the sea and, in particular, the concept of Exclusive Economic Zone (EEZ); and increasing use of oceans in nuclear strategy of the superpowers --- such as the development of the Diego Garcia base by the US in the Indian Ocean --- have made India aware of its strategic location in the Indian Ocean and of the need to treat it as a zone of peace.

India resented the naval competition between the two superpowers in a proximate region. It had, in particular, expressed deep concern about the growing presence of the United States and the expansion of the base facilities at the disposal of

the United States in Diego Garcia in the Indian Ocean. The sharp difference of opinion between India and the United States on the question of the expansion of base facilities in Diego Garcia resulted in a severe strain on the Indo-US relations. India believed that these facilities would enable the United States to operate more effectively in the Indian Ocean, an area of vital significance to India's national security. It, therefore, sought to exclude superpower competition from the Indian Ocean and supported attempts to create a 'Zone of Peace' in it.<sup>38</sup>

The 'Zone of Peace' concept, however, does not carry much weight with the American policymakers.<sup>39</sup>

It should be noted that the situation in the Indian Ocean underwent a change towards the end of the eighties with the withdrawal of the Soviet troops from Afghanistan and a significant scaling down of Soviet naval presence in the Indian Ocean region. However, the situation in the Indian Ocean and, particularly, in the Persian Gulf region again became tense from August 1990, following the occupation of Kuwait by Iraq and the enforcement of economic sanctions against Iraq by the United Nations as well as a naval blockade by the USA and some other members of the UN. This has adversely affected a number of countries, including India, because of the increase in the price of oil.

The US recognizes that India is gradually acquiring the capability to project its power beyond its shores. The focus is on India's naval expansion. Dilip Mukherjee has drawn attention to the recent arms acquisitions by India, that suggest a growing interest in operating well outside its coastal seas. Even the complementary additions to the Indian air force must be taken into account, as the recent aircrafts have a deep penetration and interdiction and are, therefore, capable of disrupting sea-lanes of communication in the Indian Ocean.

Geoffney Kemps claims that "no area is (more) critical to the economic and political survival of the US and its Western allies than the Arabian peninsula".<sup>40</sup> The strategic importance of the Arabian Sea in this context makes it appropriate to take Indian naval capabilities into account, not least because the waters are over 20 ship-days or 11,000 miles from the either coast of the US.

According to the US estimates, in the next 10-15 years, India is going to possess a sea denial capability in the waters that could be used either to the advantage or disadvantage of the US, depending on where New Delhi then stands vis-a-vis Washington and Moscow.

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Adoption of the Regional Approach by the US towards India

The US rethinking on its India policy, in the recent decades, has been accompanied by a growing advocacy by the American scholars of giving regional approach its due place in strategic thinking. US Policies and programmes are rarely formulated and implemented in regional frameworks, yet policy needs and problems, like crises, are often region-specific. Variations among regions are greater for the most part than variations within regions; data that measure and organize regional characteristics and problems are often a better guide for policy formulation than aggregative world data designed to capture and define policy needs in areas such as population, food, resources, trade, and science and technology. More importantly, regional needs and problems, unlike world needs and problems expressed in disembodied and abstract terms, can be connected to political forces and actions, to people on the ground with ideologies, policies and interests.<sup>41</sup> Rudolph and Rudolph, through their case-studies, reached the conclusion that by unnecessarily subordinating regional and bilateral interests to global considerations, gratuitous losses were suffered in regional and bilateral relations by the US under the Johnson and Nixon administrations.<sup>42</sup> In a similar vein, Onkar Marwah argues that regional powers like India cannot be readily assimilated within various centrally conceived and managed security systems.<sup>43</sup>

Robert G. Wirsing views the American security policy in South Asia as facing a crisis. The policy was neither designed for, nor is it succeeding in, stabilizing the arms race in the subcontinent,<sup>44</sup> which has grave implications for the US.

One of the possibilities of meeting this crisis is to adopt the regional approach to the problem in South Asia. Moving in this direction would involve, above all, reaching an accommodation with India, the region's leading power.<sup>45</sup> The regional perspective would thus have to take into account India's interests. This is so, because, according to such a perspective, "it is more often the case that what is good for the region is good for the US than what serves US global interests serves regional interests."<sup>47</sup>

The US endorsement of the India - Sri Lanka accord and India's assistance to the Maldives has been viewed by India's neighbours as a validation of Indian hegemony. The US does view India as the keystone of stability within the subcontinent. As Carnegie's Harrison believes, the US should accept the realities of power in South Asia and abandon its special relationship with Pakistan: "We should get out of India's way, so that it can assert its natural dominance in the region. India is asserting its version of the Monroe Doctrine -- and we should respect it." The US, on the other hand, is trying to keep a soft leash on India's policy.



Therefore, it 'quietly' expressed concern over India's heavy-handedness in dealing with Nepal. Stephen Cohen's middle view best sums up the American approach: "A strong India could act as a regional stabilizer, and this would be in the US interest. But an India that was a regional bully, threatening China and Pakistan, would not be in American Interest."<sup>48</sup>

## SECTION - IV

### ECONOMIC PERCEPTION OF INDIA

The US recognised India's economic potential way back in 1948<sup>49</sup>. Today, however, the latent power of India is being actualized. India's economy has shown a substantial growth. India is one of the most highly industrialized and developed countries in the Third World. Though at present the US does not have much stake in economic relations with India, what is attractive to the US is the potential of India's market. India's market size, its stable and democratic policy, the variety and sophistication of its human resources base, and the growing capabilities of its vast and diverse industrial sector have been seen by the US as major advantages, which make India a potentially attractive economic partner. The Heritage Foundation Report 1990 draws attention to the new 'middle class' of India, which constitutes a consumer class of 80 million people.

The new middle class is the result of the policy of economic liberalization begun by Mrs. Indira Gandhi and carried forward vigorously and extended in nature and scope by Rajiv Gandhi, who did not inherit his mother's ideological hang-ups. Rajiv Gandhi's India in its bid to rush into the 21st century was anxious to woo foreign investment. The Reagan administration saw a great opportunity to extend its "free market philosophy further into the 'Third World'.

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In 1982, the number of new manufacturing licences granted to the private sector in India grew five times over the previous year. Compared to the negligible US participation in the past, when British, French, German and the Japanese provided most of the collaboration, US companies took the lead in such joint ventures established between 1980 and 1982, with the British providing the second highest participation (189 joint ventures).

#### US Investments in India

It should, however, be pointed out that the Indo-US economic relations are still very tentative, and, as Dilip Mukherjee points out, American business still has no real stakes in India compared to, say, China. But, for India, Indo-US economic relations are very important. The US is India's largest trading partner. The US firms are keen to enter the Indian market, and complain of lack of access to foreign firms in the services sectors of the Indian economy, particularly banking and insurance. The US has also expressed concern at the environment for intellectual property rights protection in India. The differences arising from the divergent economic philosophies of the two nations have crystallized in the naming of India under Section 301 of the Omnibus Trade Act of 1988.

It is important to make a brief reference to the commercial reasons behind US decision to transfer defence technology. President Regan's permissive stance on arms exports was motivated by the desire to reduce USA's trade imbalance. Moreover, with many Third World nations staggering under high levels of debt and burden of oil imports, the overseas market of arms was severely constricted. As a result, the US sales under the FMS programme dropped from \$203 billion in FY 1982 to \$16.6 billion in FY 1983, \$14.46 billion in FY 1984, \$12.5 billion in FY1985 and \$7.13 billion in FY 1986. Large government contracts were required to give stimulus to the sick sectors, of the economy, i.e. the arms industries. The Northrop Corporation, which is to sell us the engine for LCA, is said to have been in great financial difficulty. Interestingly, Pepsico has played a catalytic role in speeding up the negotiations for the sale of Northrop (GE) engines to India.

It was in recognition of this future power potential that the US National Security Council issued Decision Directive (NSDD) 147 on 11 Oct., 1984. It was first formulated by an inter-agency group chaired by the Assistant Secretary of State for Near East and South Asia and reviewed by higher level group headed by the Under Secretary of State for Political Affairs before its formal adoption by the NSC.

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NSDD 147 underlined to all concerned agencies the importance of building a better relationship with India, particularly by accommodating its requests for sophisticated technology subject to export controls.

### CONCLUSION

The US intends to use defence technology transfer as a diplomatic tool which could help it attain certain politico-economic objectives. US perceptions about India have changed significantly over the last few years. India is viewed as an important regional power, with whom a certain compatibility of interests can develop. Cooperation in the defence technology field is one of the first steps in the articulation of this perceived compatibility.

India's existing technological infrastructure is another important aspect. As James L. Malone points out, "The programme of bilateral scientific cooperation (including defence technology transfer) between the US and India was undertaken, because the former was convinced that the scientific capabilities of India are sufficiently advanced to permit fruitful cooperation and because such cooperation promotes more general American foreign policy objectives."<sup>50</sup>

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The US is keen to orient the 'new' India, in a direction which takes into account American interests. It is not sure whether India will acquiesce into such a surrogate role. In this context of uncertainty, India's demands for defence technology and not weapons is advantageous to the US weapons have a high visibility and may get mired in political controversy. Technology transfer by its very nature is slow and incremental in character, well suited to the gradual approach to a closer relationship.

FOOT NOTES

- 1) Speech to American Ordnance Association, 20, Oct 1966, quoted in Repon Forum (Cambridge, Mass July 1969).
  
- 2) There are three ways in which the supply of weapons can reinforce hegemony. First, arms can be provided to enable local forces to perform military tasks, which are in the interest of the supplying country: to prevent real or imagined military threats to the system or to expand the system by force. Secondly, the supply of arms may serve to strengthen the relationship between the supplying country and the recipient government. In this case, the supplying country may have little or nothing to gain from the use of the weapons. Having received arms, the recipient country becomes, to some extent, militarily dependent upon the supplying country, which can then demand favours or threaten to withhold spares or further supplies, if the recipient does not care for its interests. Alternatively, the supplying country may simply be interested in preventing another supplier from achieving this kind of relationship: this is known as pre-emptive supply. Thirdly, the supply of arms may provide an opportunity for influencing individuals in the recipient countries, in particular, those in the military establishment. This occurs when contacts are made between the military personnel of the two countries and when military training accompanies the provision of weapons. This function is most relevant for countries, where the military plays an important role in politics, as it does in a large number of countries.
  
- 3) Ferguson, C.H, "America's High Tech. Decline," Foreign Policy, (Washington): Spring 1989, p.123.

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- 4) India, Pakistan and Japan were ranked as "the only major Asian power centres remaining outside the Soviet orbit". "Should India and Pakistan fall to communism, the US and its friends might find themselves denied any foothold on the Asian mainland". National Security Council, 48/1, 23, Dec 1949.
- 5) SANACC 160/14, 19 Apr 1949; State Dept paper, Appropriation of US National Interests in South Asia.
- 6) McGhee, G, Assistant Secretary of State, NEA, to James E. Bruce, Director of the Mutual Def. Assistance programme, 14 Nov 1949, "Map Index" folder, Records of the Military Adviser, NEA, DSR.
- 7) Bowles, C, Promises to Keep : My Years in Public Life, 1941-1969 (New York): Harper & Row, 1971), p.572.
- 8) Certain degree of ambiguity has always characterised American opinion toward India.
- 9) For strategic dimensions of American foreign policy, see especially Melvyn P. Leffler, "The American Conception of National Security and the Beginnings of the Cold War, 1945-48, American Historical Review, (Washington, DC) (89) (Apr 1984), p. 346-81.
- 10) In 1958, the US Government announced that it had agreed to loan India \$225 million and to provide other foodgrains under Pl 480 programme.
- 11) The Kennedy administration provided India with military and economic assistance following the 1962 Indo-China War.

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- 12) Nayar, B.R, American Geopolitics and India (New Delhi: Manohar, 1976).
- 13) Nayar, B.R, n.12,p.4
- 14) Liska, G, "The Third World: Regional Systems and Global Order", in Osgood, R.E, Retreat from Empire? (Baltimore: John Hopkins University Press, 1973), p.326.
- 15) Nayar, B.R, n.12, P.5
- 16) Nayar, B.R, n.12, P.147
- 17) US house of Representatives, Committee on Foreign Affairs, United States Interest in and Policies towards South Asia (Hearings before the Sub-committee on the near East and South Asia: 93rd Congress, 1st session; 12, 15, 20 and 27 March 1973, p. 129
- 18) Ibid, n.17, p. 6
- 19) Nayar, B.R, n.12, p.30
- 20) Nixon, R.M, US Foreign Policy for the 1970s:
- 21) US Senate, Committee on Foreign Relations, Nomination of Henry A. Kissinger (Hearings, 93rd Congress, 1st session; 7, 10, 11 & 14 Sept 1973), pp. 140-41.
- 22) Richard M., Nixon, US Foreign Policy for the 1970s: Shaping a Durable Peace 3 May, 1973), in ibid, IX, n. 19, 14 May 1973), p. 577-85.

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- 23) Kissinger, H.A, "Toward a Global Community: The Common Cause of India and America" Dept of State Bulletin, N. 1848 (23 Nov, 1974), p 740-6.
- 24) Nayar, B.R, n.12, p.128
- 25) Mukherjee D, "US Weaponary for India", Asian Survey, (London) June 1987, p. 1.
- 26) The Muslim (Islamabad), 13 Dec, 1987.
- 27) A strategic school of thought in the US is also of the opinion that a secular democratic India could be a counter-weight to the growing fundamentalism of the 'Islamic crescent'. The dangers to America's own security interest from this are obvious. Raju Thomas terms the relationship between the US and Pakistan as one based at cross-purposes.
- 28) Scalapino, R. "Asia's Future", Foreign Affairs (New York) (66) Fall 1987: pp. 77-108.
- 29) Even those like Joseph Nye and others, who have challenged the imperial overstretch and the American decline arguments of Paul Kennedy, have nothing but exhortations for America to reform its economy and the budget deficit, invest in education and infrastructure, and regain export competitiveness. See Paul Kennedy, The Rise and Fall of Great Powers (Random House, 1987).

Joseph Nye, Bound to Lead: The Changing Nature of American Power (Basic Books, 1990).

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- 30) Dore Gold, "Changing Superpower Strategic Relations in the Eastern and Mediterranean and Middle East: Recent Trends and Future Prospects, Israel Defence Forces, No. 19, Winter 1990, p.25.
31. Now, even Defence Department hardliners such as Secretary Fred C. Ikle agree that low-key gradual steps to cement US-Indian relations offer the best prospects for eventually weaning New Delhi from Moscow, "Why the US is Trying Harder to Make Friends with India, Business Week (New York), 12 Jan 1987, p. 61.
32. Norman D. Palmer, The United States and India: The Dimensions of Influence (New York: Praeger, 1984), p. 193.
33. K.R. Singh, Indian Ocean (New Delhi: Manohar, 1977), p. 23.
- 34) London and Washington concluded a fifty-year agreement in 1966, which involved joint construction of a military communication facility on Diego Garcia, a coral atoll, approximately 1800 kilometres from the Indian coast. In September 1975, the US Congress approved a \$3.8 billion construction authorization bill, including \$13.8 million for expanding the Diego Garcia base, and empowered the navy to construct a base and facility there. Thus the United States established the only Indian Ocean military base controlled by a superpower, which can simultaneously handle as many as a dozen warships, including an aircraft carrier and nuclear-powered submarines. A major US naval squadron can now be deployed more or less permanently in the Indian Ocean with Diego Garcia providing logistical support. J. Fuller, "Dateline Diego Garcia," Foreign Policy (Fall 1977), no. 28, pp. 20-22. Dieter Braun, The Indian Ocean: Region of Conflict or Zone of Peace (Bombay, 1983) pp. 40-46.

- 35) From a global strategic point of view, the Indian Ocean offered exclusive advantages to the United States over the Soviet Union, because a Trident-I missile launched from a submarine in the Indian Ocean can hit the Soviet industrial areas of southern Russia. The Soviet Union did not have any comparable advantage of operating from the Indian Ocean against any US or West European targets.
- 36) S. Nihal Singh, "Can the US and India Be Real Friends"?, Asian Survey, Vol. XXIII (9), Sept. 1983, p. 1023.
- 37) Some observers believe that, like the United States, there is a need for India to ensure that the sea-lanes, especially those leading to the Gulf area, remain open in view of its overwhelming dependence on Middle East oil and the geo-strategic reality that Pakistan, traditionally hostile to India and Indian interests, overlooks these sea-lanes carrying critical trade, especially the badly-needed energy sources so crucial to India's economic development and security. Jasjit Singh, "Indian Ocean and Indian Security", Yearbook on India's Foreign Policy, 1987-88 (New Delhi: Sage Publications, 1988), p. 133.
- 38) The Third Conference of Non-Aligned States at Lusaka in 1970 called upon all states to consider from which great power rivalries and competition, as well as bases conceived in the context of such rivalries and competition, either army, navy or air force, are excluded. The 26th session of the UN General Assembly adopted a resolution declaring the Indian Ocean a zone of peace. Successive sessions of the UN General Assembly thereafter took up the question of declaring the Indian Ocean in 1981, but the United States -- after initially

agreeing in 1979 -- subsequently sabotaged every effort to hold it. T.C. Bose, "Reagan Administration's Foreign Policy: The Indian Dimension", Yearbook on India's Foreign Policy, 1983-84 (New Delhi: Sage Publications, 1986), p. 181.

- 39) Rama Rao, "Strategy for the Indian Ocean", Indian and foreign Review (New Delhi), 15 March 1974, pp. 17-18.
- 40) Geoffrey Kemp, "Role of India in US Foreign and Defence Policy" (Transcript of a speech at a Washington conference, 18-19 April 1985).
- 41) Rudolph L.I, and Rudolph, S.H, The Regional Imperative: US Foreign Policy Toward South Asian States (Concept: N.Delhi, 1980), p.33.
- 42) Rudolph, L.I, and Rudolph, n.41, p:36
- 43) Marwah O, and Pollack, J.D. (ed.) Military Power and Policy in Asian States: China, Japan and India Boulder, Colorado: Westview Press, 1980), p.4.
- 44) Wirsing, RG, "The Arms Race in South Asia: Implications for the US" Asian Survey, vol. XXV, no.3, March 1985, p. 286.
- 45) Wirsing, R.C, n.44, p.289.
- 46) Lewis J.P. and Kallabs, V, eds., US Foreign Policy and the 3rd World, Agenda 1983 (New York: Praeger, 1983),p. 112.
- 47) Ross H. Munro, 'Superpower Rising' Time (New York) 3 April 1989) p. 13.
- 48) Lewis, J.P, and Kallabs, V., n.46, p.13.

- 49) "It ranks first or second in world production of such critical materials of war as cotton, mica, managanese, monazite (a source of thourium), and beryl, and is a major source of raw materials, investment income and for carrying out changes for the UK, and thus strengthening -- Western Europes efforts toward the economic recovery essential to US security". C.I.A. 'India-Pakistan', 16 Sept 1948, report No. SR-21.
- 50) Malone, J.L. "The Role of Science and Technology in Foreign Affairs, Department of State Bulletin Aug 1984, p. 7.

## CHAPTER - III

## DIPLOMACY OF DEFENCE TECHNOLOGY TRANSFER

The role of diplomacy in achieving foreign policy goals has since long been recognized. The task of the diplomat in Indo-US defence negotiations has been a complicated one, because he is operating in a paradoxical context. The defence negotiations are a result of the desire to improve the overall aspects of the Indo-US relations. However, the sensitive and significant nature of defence relations presuppose mutual understanding and cooperation between the respective countries on a host of political, economic and geostrategic issues. However, Indo-US relations in these latter spheres have been tinged by an adversarial attitude. Therefore, these defence negotiations are not unifocal but multidimensional in scope. While negotiating on particular defence items, both the US and Indian diplomats make a simultaneous effort to improve the tenor of Indo-US relations in general.

Another significant aspect of these negotiations is the long term objectives of the US and India. It is evident that India's intention to seek US defence technology aims at diversifying the sources of supplies and thereby lessen its military dependence on the USSR. India, however, is proceeding with caution, as it does not want to reduce its dependence on the USSR at the cost of an overwhelming reliance on the US.

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On the other hand, the main US objective is two-fold. First, it aims to wean India away from USSR. Secondly, by fostering a close defence relationship with India, the US purports to have an effective say in India's defence policy.

Despite these generic long-term visions, neither has been able to formulate a clear cut policy toward each other. It is probably this state of fluidity characterising Indo-US relations that is responsible for the lengthy and protracted negotiations. These indecisive moments give the two the much needed time to speculate and rationalise each other's intentions. This may be termed as the 'credibility assessment' period.

## SECTION - I

### THE NEGOTIATING PROCESS

#### Rounds of Negotiations under the Prime Minister Mrs. Indira Gandhi

The policy of diversification of weapons supplies had been stressed by the Janata Government. Mrs. Gandhi on resuming office in 1980 as Prime Minister, found additional political advantages in looking towards the US for defence technology and equipment.<sup>1</sup>

In February 1980, Mr. Clark Clifford, met Prime Minister Mrs. Indira Gandhi and Foreign Ministry officials and conveyed a US offer to enter into negotiations for military cash sales. The Los Angeles Times reported that the US offer to sell India sophisticated military hardware was an apparent effort to balance its South Asian response to the Soviet invasion of Afghanistan, having already made an offer of military aid to Pakistan.<sup>2</sup>

An Indian Embassy (Washington) official, however, argued that soon after the US diplomatic personnel were taken hostage in Tehran, but before the Christmas Eve Soviet invasion of Afghanistan - the Pentagon suddenly gave India an informal word that clearance was being given for its earlier request to buy both the Litton Navigation equipment for the Jaguar and some 3,700 TOW anti-tank missiles worth \$ 25 million.<sup>3</sup> Therefore,

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the US decision to sell these arms to India was not out of the intention to balance their military aid to Pakistan. The US was merely trying to give the impression (by exploiting a premediated decision) that India's sensitivities were being taken into account.

One American journalist Warren Unna made a pertinent observation. "... the US is making a virtue out of necessity".<sup>4</sup>

On February 8, a six member Congress delegation led by Mr. David Obey met Prime Minister Mrs. Gandhi along with US Ambassador to India, Robert Goheen and a State Department official. The delegation included members from four important Committees of the US Congress i.e. of Foreign Affairs, Armed Forces, Government Operations and Appropriations. The delegation was here after visiting UK, Saudi Arabia and Pakistan to obtain views of political leaders "about what constructive action can be taken in view of the Soviet invasion of Afghanistan"<sup>5</sup>. Obey sought to reassure Mrs. Gandhi that the US Congress would keep India's views in mind while formulating a decision on the resumption of arms supplies to Pakistan.

Alarmed at US courting India with arms, the Soviet Union tried to dissuade India from making any positive response to the US offer. While no official statement to this effect was made public, Soviet journals and newspaper articles are a pointer. Moscow daily, "Sovetskaya Rossia" warned India that US

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'CORSAIR' planes to Pakistan would be of main threat to India. These planes which the US used in the 1970s in 'scorched earth' tactics in Vietnam, Cambodia and Laos will now reappear on Indian skies.<sup>6</sup>

Mrs. Gandhi's visit to the US in 1982 was preceded by tentative American preparations to sell weapons technology to India. Negotiations at the 'lower' level were on for the co-production of the advanced fighter aircraft F-5s. The White House was willing to allow Northrop to enter into a trilateral relationship with India so that the American company could sell Indian goods to third countries and thus enable India to meet the foreign exchange costs of collaboration with the Northrop.<sup>7</sup>

An advance team of high officials from the Ministry of External Affairs, Mr. M.K. Rasgotra, Foreign Secretary, Mr. Natwar Singh, together with the Indian Ambassador K.R. Narayanan had a final round discussion with the US officials, led by Mr. Lawrence, Under Secretary of State.

Mrs. Gandhi was accompanied by Mr. G. Parthasarthy, Mr. P.C. Alexander, Principal Secretary to the Prime Minister and H.Y. Sharda Prasad, President's Secretary.

The Prime Minister, on the other hand did not show much interest in the defence field. This was probably because she

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viewed the US offer as unclear and tentative. Her evasive attitude on this issue was evident in her reply to a question before leaving for the US. "it is for the defence ministry to consider any offers by the US to sell F-16s".<sup>8</sup> Instead she concentrated her efforts at making the US appreciate India's perception of the world problems and the motives behind its foreign policy which has not always been appreciated in the US.

Discussions continued to follow Mrs. Gandhi's visit to the US. In July, 1983 Secretary of State George Shultz visited India and met with the Indian Prime Minister and External Affairs Minister, Mr. P.V. Narsimha Rao. Simultaneously in Washington the Indian Ambassador Mr. K.R. Narayanan met Vice-President George Bush, and Senior White House and State Department officials. These talks had followed India's decision to back out of the \$35 million contract to buy 50 calibre machine guns from a US. Munitions company. India did not agree to the terms and conditions which were:

- No transfer of arms to a communist country;
- No transfer to any third country without US approval.

What was intriguing about this decision was the fact that in the past, India had agreed to these terms (for minor arms purchase). The Indian government made its point clear. Since

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India was now looking toward the US for more sophisticated defence technology (than it had in the past) it wanted the Americans to realize that India had no intention of agreeing to these conditions. It was not desperate. US appreciation of India's terms must be commensurate with the latter's political and economic status.

It was a similar disagreement on the terms and conditions that led India to the breaking of talks on the sale of 200 pieces of 155 mm. Howitzers and 2000 units of TOW anti-tank missiles.<sup>9</sup> The US refused to release night sights for the tubes launched optically tracked weapons (TOW). India also objected to a technicality in the standard foreign ministry sales (FMS) contract that bans refunding down payments in the event a contract is terminated by Washington.

It can, therefore, be concluded that though the immediate results in the defence field under Mrs. Gandhi were not substantive, the ball was set rolling. And both the sides were a little more enlightened about each other's perspective on this issue.

These cancellations served to give a temporary setback to these defence talks. However, the broad issue of defence technology transfer was never abandoned. Negotiations for newer projects would be begun easily. The visit of General A S Vaidya

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Chief of the Army staff and Lt. General Pran Kathpaha, Director of Military Intelligence to the US was seen by the Pentagon, as re-opening of the US arms pipeline to India.<sup>10</sup> In fact the US has always attached great importance to the exchange of uniformed brass which provides a channel for the governments of the two States to try and influence each other's policies.

General Vaidya conferred with the Chairman of the Joint Chiefs of Staff, General John Vessey; General Wickham, Command-in-Chief, Pacific Admiral William J. Crowe of the US Western command, Lt. General James M Lee, and among civilians in the Department of Defence, Army Secretary John D. Marsh and the Assistant Secretary of Defence for International Security Affairs, Mr. Richard Armitage.

General Vaidya was apparently sought to be impressed with the technological sophistication and finesse of the US Weapon system.

#### Negotiations under the Premiership of Mr. Rajiv Gandhi:

Rajiv Gandhi's accent on modernization and liberalization kindled new hopes, particularly in the US regarding defence technology sales to India. Congressional pressure built on the Reagan Administration to push the sales of the F-20 tigershark combat aircraft.<sup>11</sup>

US defence officials, Mr. Michael Pillsbury, Secretary of the US Air Force, Mr. V. Orr and Fred Ikle visited India in May 1985 for preparatory talks regarding Mr. Rajiv Gandhi's visit to the US.<sup>12</sup>

Fred Ikle met P.V. Narsimha Rao, Defence Minister, Romesh Bhandari, Foreign Secretary and G. Parthasarthy, chairman of the Policy Planning Committee in the Ministry of External Affairs, and S.K. Bhatnagar, Defence Secretary.

Rao and Parthasarthy told Ikle of India's serious concern at the continued US supply of hi-tech arms to Pakistan. The talks also covered bilateral, regional and international security issues. Indian officials discussed the American doctrine of 'strategic aid to India' and pointed out how sophisticated airborne surveillance equipment in Pakistan would render infructuous the comparative superiority of India in conventional arms and man-power. The visitors recognized that India's major objection to the US arms supplies to Pakistan is the main area of disagreement. They tried to explore the ways in which it could be resolved. They urged for closer Indo-Pak contacts which could reduce tensions.<sup>13</sup>

Dr. Ikle's talks with Indian Officers related to the issues preliminary to a defence relationship rather than its contents,

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Dr. Ikle, it transpired, utilised his visit for acquiring on the scene familiarization with India and its leadership so as to have a clear understanding of this country's needs and concerns. He is the number three man in the Pentagon hierarchy and his views count especially in the field of hi-tech and defence policy. The latter is the most important component in determining the extent and intensity of the bilateral relationship in the areas of defence supplies because the moment one gets to the specific question of items and processes, it will have to be determined whether or not they come within the purview of the US defence policy framework.<sup>14</sup>

Dr. Ikle visited Bangalore to see several electronic units like BEL, including radar manufacturing units. This was an attempt to impress upon the Americans that India had an advanced technological infrastructure which could absorb sophisticated technology from the US.

A US Defence Department spokesman in Washington Michael Bunch informed the press that though no arms deal was concluded, Ikle had discussed the issue of defence technology transfer which India had wanted.<sup>15</sup> He also pointed out that it would be in the interest of the non-communist world to accept US arms and lessen dependence on the USSR.<sup>16</sup>

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In fact these exercises in image building were undertaken by both the countries whenever the occasion demanded.

As part of the preparatory talks, Ikle's visit was soon followed by that of Malcolm Alridge, Commerce Secretary. He discussed the issue of the Memorandum of Understanding (MOU). The MOU was signed in May, 1985. The basic aim of the MOU seems to have been to devise a system to provide India an all purpose umbrella to escape the inordinate delays in the case by case handling of its requests for technology transfer and the US sufficient protection against missiles and diversion of its technologies.<sup>17</sup>

There was a last minute inclusion of the Defence Minister, P.V. Narsimha Rao in the Indian team to Washington (which left a day before the departure of Mr. Rajiv Gandhi for the US) to confer at the Pentagon with the US Secretary of Defence, Caspar Weinberger and the Chairman of the Joint Chief of Staff, General John Vassey.

Caution and hesitancy characterized India's attitude on defence issues. while the inclusion of Mr. Rao in the entourage sparked off speculation in the press about the finalization of arms deal, the Indian Government stressed that Rao's presence in the team was because he was a member of the Political

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Affairs Committee of the Cabinet.<sup>18</sup> In an interview to the National Broadcast Corporation's "Meet the Press" T.V. programme (in the US) on 17 June, Mr. Gandhi ruled out the possibility of an early resumption of US arms to India. It was something that could happen over a period of time of confidence building measures. Rajiv Gandhi also asserted that India would not accept terms and conditions like the signing of the Non-Proliferation Treaty (NPT) as a prerequisite for acquiring defence technology from the US. He termed the NPT as being discriminatory against non-nuclear weapons states.

The most significant aspect of this negotiation (in which no defence technology deal was struck) was India's emphasis on the non-compromise of its fundamental policy belief (e.g. on the N.P.T. issue). Another hitch was the Pentagon's anxiety about technology leakage from India to the USSR. This disappointment did not prevent the US in continuing its efforts to develop closer military ties with India. The US, therefore, once again expressed its desire to foster great interaction between the defence personnel of the two countries.<sup>19</sup> Pentagon officials despite all their apprehensions had begun to view India more than just an ad hoc customer, but as a State with whom US defence officials establishment would like to create a long lasting relationship.<sup>20</sup>

The next significant round of talks was more specific i.e. on the light combat aircraft project. V.S. Arunachalam,

Secretary Advisor to the Defence Minister visited Washington in October 1985. The US encouraged the Northrop Corporation to play an important role in the LCA project (it may be reiterated here that Northrop was in financial difficulties, it had earlier tried unsuccessfully to sell 'Tigershark' to India). Arunachalam visited the Company's F-18 Hornet production facilities in Los Angeles, inspected the Tigershark simulator, and reportedly had detailed discussions with the company's concerned officials about potential Northrop inputs into the LCA project.

The US Government speedily released data on the F-404 engine powering the Northrop F-18, the US Navy's state of the art multi role aircraft as well as Tigershark.<sup>21</sup>

Around this time the British came up with their offer to be involved in the LCA project. The British was stepping up their sales campaign by organizing an aerospace seminar and exhibition in Delhi and Bangalore in November 1985 where everything from engine to cockpit equipment for LCA was displayed (including the RB-199 Rolls Royce engine which Indian experts have already evaluated for the LCA.)<sup>23</sup>

In February 1986, a 20-member defence delegation led by the Deputy Under-Secretary for Research and Engineering, Mr. Talbot Lindstrom<sup>24</sup> came to India. Their talks were confined to

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the discussion of some defence subsystems like tracking radars, on an engine for L.C.A.

According to another report in the newspaper<sup>25</sup> there was a flood of offerings from Mr. Lindstrom. These offers were so inextricably intertwined with special safeguard arrangements, a deliberate strategy to entangle India in long-term licence production arrangements, and barely concealed plans to replace USSR as the major supplier of military hardware. This team came here at India's invitation to see for itself the country's capability to absorb military technology. This team paved the way for the US secretary of Defence Weinberger to arrive in New Delhi in 1986.

The year of 1986 saw the emergence of various contentious issues between the two countries. The Pentagon continued to harbour fears about technology leakage from India to the USSR, and therefore, insisted on India signing the GSOMIA.<sup>26</sup> (General Security Organisation and Military Information Agreement) India did not view the GSOMIA as being relevant to the present context. As an Indian diplomat pointed out, "GSOMIA is for military information, not technology. Therefore MOU is enough for us. The Americans have shared military technology with the Chinese but have not asked the Chinese to sign GSOMIA".<sup>27</sup>

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The US wanted India to amend export laws to ban any export of prints out or any other material flowing from the super computer.<sup>28</sup> The farthest extent to which the Government of India had gone during the protracted negotiations on the MOU was to offer to associate the US with any enquiry that might be made into complaints of unauthorized diversion of equipment or leakage of technology information.<sup>29</sup> US continued to insist on comprehensive safeguards.

However, both the countries tried diluting the negative consequences from these disagreements by certain goodwill gestures. For example, for the first time in many years, an Indian vessel INS Godavari, was invited to make a goodwill visit to the US.<sup>30</sup>

Caspar Weinberger's visit to India, the first ever by any US Secretary of Defence, was attached a lot of significance and raised a lot of expectations in the Indian press. He was not viewed as a "super salesman" but as a senior most policy maker interested in talking matters of strategic importance.<sup>31</sup>

The high power delegation accompanying Mr. Weinberger included the Assistant Secretary of Defence for International Security Affairs, Mr. Richard Armitage, the Director of Defence Security Assistance Agency, General Philip Gast, the Deputy

Assistant Secretary of Defence for Near East, South Asia and International Security Affairs, Mr. Robert Pelletreau, the Deputy Assistant Secretary of State for Near East and South Asia, Mr. Arnold Raphel, the Director for Near East and South Asia on the National Security Council, Dr. Sharin Taher Khali, the Joint Chiefs of staff representative, Rear Admiral Anthony Less, the Assistant Secretary for Public Affairs, Mr. Robert Sems, and the Senior Military Assistant to the Defence Secretary Vice-Admiral Donald Jones, besides many other staff officers and assistants dealing with a wide range of subjects.<sup>32</sup>

Weinberger and his team visited the Hindustan Aeronautics Development Establishment and Bharat Electronics at Bangalore. The reason for the selection of these centres was obvious i.e. to enable the American team to assess capabilities of India in acquiring and absorbing sophisticated technology.

Weinberger and Rajiv Gandhi met without aides. A good part of the 90 minute talks was taken by a review of the international situation with special references to the security environment in the sub-continent. An official statement from the Indian side stated that the talks had contributed to a better understanding of each other's policy perspectives.<sup>33</sup>

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The team had a series of meetings with the Minister of State, Mr. Arun Singh, the Defence Secretary, Mr. S.K. Bhatnagar, the Scientific Advisor, Mr. Arunachalam and the three services chiefs representing the Army, Navy and Air Force.

The US Secretary of Defence, Mr. Caspar Weinberger, however, was indisposed and could not participate in the final round of talks, when detailed presentations were made by the Chief of the Army Staff, General K. Sundarji on India's threat perceptions and by Dr. V.S. Arunachalam, on the country's capacity and ability to absorb high technology in the development of advanced weapon systems. The US delegation was led by Mr. Richard Armitage.

According to Mr. Arun Singh the talks had enabled both the countries, "to identify and settle some of the irritants and problems that had cropped up in the development and transfer of technologies under the memorandum of understanding signed in 1985. There was no talk about any acquisition of American weapons, he stressed, since the entire discussions were confined to the development and transfer of technologies over a wide spectrum, including the supply of sensors and stimulators and provision of training courses."<sup>34</sup>

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Substantial agreements were reached on a wide ranging issues of military technology transfer and supply of critical components for the development and production of a wide range of defence equipment such as radar and telematics systems for testing missiles, anti-tank weaponry, night vision equipment armour piercing projectiles and super alloys, fire control and transmission mechanisms for the main battle tank prototypes now undergoing field tests. The most important items, however, were the super computer and engines and electronics for the L.C.A.

A lot of preparatory work had been done by both the sides to ensure the success of Mr. Weinberger's visit. As many as 18 US defence delegations have been to India in the last 16 months for detailed discussions on the country's requirements after the Deputy Defence Secretary, Mr. Fred Ikle came to Delhi last year to break the ice and open the way for Indo-US cooperation in this sensitive sphere.

Certain important political implications emerged from this round of negotiations. Statements made just prior and during the visit referred to the American appreciation of India's regional status.<sup>36</sup> At the same time there was a subtle attempt to characterize this status as a surrogate one. The US wanted to play an important role in the shaping of power relations in the subcontinent. This was evident from Weinberger's offer of US 'good offices' in establishing good relations between India and Pakistan and China.

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Mr. Weinberger's visit was followed by that of Mr. Edward, US Secretary of the Air Force. Mr. Weinberger had left the details to be worked out by Mr. Alridge through further discussions. The talks were at low key, because they had accompanied the US decision to sell AWACS to Pakistan. When Mr. Alridge's visit was fixed, the Indian Government was not aware of US decision on sale of AWACS to Pakistan. Though the formal meetings between the Indian and US delegations were confined to matters relating to the proposed Indo-American defence cooperation. But during the private talks that Mr. Arun Singh had with Mr. Alridge, the AWACS issue was raised to voice India's grave apprehensions about the US policy of arming Pakistan with more and more sophisticated weapon systems. It was this apprehension that led to Mr. Arun Singh's quick visit (just before that of Alridge to India) to Moscow. He returned with "assurances of Soviet readiness to help India in closing the technological gap that would be created by the US induction of AWACS into Pakistan. 37

The foregoing talks according to Weinberger had resulted in the immediate release of a large number of technologically advanced export to India. This was revealed by Weinberger while presenting the Pentagon report to the Congress in January, 1987. The report dealt with the measures taken by the US to control transfer of militarily significant technology to the

Soviet bloc. According to the report, the US Department of Defence processed more than 3000 Indian cases in 1985 and 92 per cent of these cases were approved. It also paved the way for the first US co-production agreement with India for the manufacture and distribution of computers. Over the last three years, the US sold India military related equipment worth \$250 million. The items included G-4 engines for LCA, dual purpose technology for the navy and night vision equipment for the airforce.<sup>38</sup>

The next significant development was Rajiv Gandhi's visit to the US. In August 1987 just before the scheduled visit of Prime Minister Rajiv Gandhi to the US. V.S. Arunachalam led a team of experts to Washington with the explicit purpose of expediting the sanctioning of Licences for the L.C.A. project. The team included Dr. Santhanam, Deputy Defence and Scientific Advisor, K.G. Narayanan, Air Commodore Roy and a Commodore Jaya Ram. Also included at the last moment were two diplomats from the Indian Embassy in Washington. Arunachalam revealed to the press that the US had agreed to give India the CA/CAM system for the design of the LCA.<sup>39</sup>

Rajiv Gandhi on his record visit to the US (in Oct. 1987) was accompanied by the Minister of State for External Affairs, Mr. Natwar Singh, the Indian Ambassador, P.K. Kaul and other senior officials. Rajiv Gandhi met President Reagan for 45

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minutes, where the two exchanged views on multilateral issues. Defence related issues were discussed with the Defence Secretary, Caspar Weinberger.

Mr. Gandhi also met influential senators and Congressmen (at breakfast) these included, Mr. Glenn, Mr. Byrd and Mr. Stephen Solarz. In his meeting with the acting Secretary of state, Mr. Whitehead, Rajiv Gandhi re-iterated India's stand on the Non-Proliferation Treaty and stressed that India will not yield to any pressure on its policy. He pointed out the contradictory attitude of the American to the Pakistanis, even though in the US assessment, Pakistan had nuclear weapons. He wanted the US to ask for a demonstrable and proven commitment from Pakistan to abjure nuclear weapons. Addressing a luncheon meeting of the prestigious Foreign Policy Association, Asia Society and Indian Chamber of Commerce, New York, Rajiv Gandhi said that the induction of non regional presences drag the Indian subcontinent into revalries to which it is not party. This makes the US a potential ground for quarrels by others.

The American attitude to the Prime Minister's visit was one of endorsement. Reagan expressed his support for the Indo-Sri Lankan accord. He did not insist on India being a signatory to the N.P.T. Frank Carlucci sought to assure Rajiv Gandhi that the US was concerned about Pakistan's nuclear designs and it would take measures against any aggressive

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Pakistani move. The Americans showed a keen interest in the LCA project and tried convincing Rajiv Gandhi that the technology transfer for the LCA project would be comprehensive and cost affective Mr. Gandhi showed a personal interest in the use of 'composite materials' for the LCA. He also expressed concern at the legal impediments preventing defence technology transfer.<sup>40</sup> It is interesting to note the re-assertion by Rajiv Gandhi during his visit that new arrangements with Washington will not be incompatible with Indo-Soviet relations.

US Defence Secretary Carlucci paid a visit to India in Oct 1987. It is learnt that Mr. Rajiv Gandhi and Mr. Reagan's personal rapport, with the helpful support of Vice-president George Bush and National Security Adviser (now to be Secretary of Defence) Frank Carlucci has led to the latter's visit.<sup>41</sup>

Another view held that the timing of Carlucci visit to the South Asian region was intended to cushion the standpoint of Pakistan in the subcontinental affairs. Coming at a time when the Afghan situation was passing through a delicate stage, Carlucci is unlikely to promise India anything that might upset the old ally.

Mr. Carlucci met the Indian Defence Minister K.C. Pant and had frank discussions on Indo-US relations in the context of

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Moscow. Mr. Carlucci's talks, as he himself noted at a Press Conference, did not mean a breakthrough but carried forward the process already initiated. No new arrangements were tied up though, they did consider those cases where the processing of licences sought by India was tardy. The LCA remained the most important subject of discussion.

The last significant negotiating round, in the decade of 1980s was conducted by India's Defence Minister, K.C. Pant at Washington in June, 1989. He met the Secretary of Defence, Mr. Cheney and the National Security Advisor, Mr. Brent Snowcroft. The Bush administration had tried giving the talks a new impetus. It felt that a policy direction for India was lacking. There were no requisite levels of technology clearance, as a result of which there was ambiguity on specific issues the step by step approach was too protracted. K.C. Pant's visit was basically aimed at the pursuit of technology for the LCA project. While speedy implementation of old agreement was made, Pant showed interests in new items like ACMI, for the LCA. General V.N. Sharma's visit to the US in Oct 1989 was described as the last leg of recent negotiations to cement certain agreements. Maj. Gen. Ajay Singh, Chief of the Military Assistance, <sup>and</sup> Brig. R.M. Kapoor accompanied him. They met the US Vice-Chairman of Jt. Chiefs of Staff Robert Harris, Assistant Secretary of Defence

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for International Security assistance Mr. Rowen, and the Assistant Secretary of State for near East and South Asia, Mr. John Kelley. The team visited US military institute at Fort Hood and Fort Levenworth.

Terms of US Transfer

Certain fundamental objections and reservations exhibited by the two sides permeated nearly all rounds of negotiations. The following is a brief recapitulation of these differences. These areas of disagreement were temporarily overcome to expedite the sale of US defence technology to India. This accommodation of differences, however, is of a transient nature, reached on ad hoc basis. This was necessary to prevent Indo-US negotiations from being stranded in a dead lock. A final resolution of these differences has not been reached so far. This area of disagreement may become pronounced in future talks.

A reference is also made to two events which had certain important implications for Indo-US defence technology transfer. These were the launching of the intermediate range missile 'Agni' by India in 1989 and the identification of India as a priority country under Super-301.

Indian strategy implied an initial purchase of the desired weapon, followed by part assembly and production of weapon in India, finally leading to the acquisition of the complete technology of the weapon.

The US terms for transfer of technology have not conformed to this set of Indian policy requirements. The most eloquent

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example of this divergent policy is the Indian negotiation for the purchase of the TOW anti tank missile. Washington insisted on immediate cash payments with deliveries to be made over a period of four years. The US also claimed the right to cancel the contract in future due to unforeseen political experiences. From the US standpoint, however the terms of transfer, to India are the same as those to all friendly nations including NATO. Instead India is believed to be demanding special terms that conform to its policies adopted at home regarding the supply of spares and technology transfers. (the Tarapur experience makes India suspicious of US promises).

The second problem faced by Indian negotiators has been the US unwillingness to enter into co-production arrangements in overseas countries, except with NATO countries. This applies especially to the modern high technology weapons that India seeks. USA fears 'leakage' of technology to USSR. These apprehensions are obviously based on American perceptions about the presence of large number of Soviets and critical military industry in India. <sup>41</sup>

Finally India insists on easier financial terms for direct purchase and for licenced manufacture of weapons in India. it is here that the Soviets have been most generous in offering liberal rouble credit rates.

India's Missile Development Programme and the MTCR.

India's launch of the Agni missile aroused an angry reaction in among American policy makers for defying the US sponsored Missile Technology Control Regime (MTCR). Agni was seen as a threat to stability in South Asia. The Bush administration sought to impose high technology trade sanctions on India, just as it blocked the sale of India of a sophisticated American device following the launch of Agni.<sup>42</sup> This event strengthened the arguments of that section in the US which opposed the transfer of technology for booster rocket programme) to India, as it would be contribute to missile delivery capabilities. Thus the US excluded technology for the peaceful programme that involved rocket motors, inertial guidance systems, liquid fuel tanks and components from being transfer to India. This arose from the fear that the next arms race in South Asia might be in the area of missiles.

India on the other hand views the formation of the MTCR as a means to deny technology to the third world, even though the industrialized nations have been the largest suppliers of missiles in the Third World. It is amazing that prospects of destabilization become apparent only when missiles are produced in the Third World and not when they are purchased from the developed world. India, therefore, intends to go ahead with its missile development programme.

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### Trade Ties and Super 301

US Indian trade ties received a setback in May, 1989 when the US listed India, as a super-301" priority country" for maintaining 'Systematic' barriers to US goods and services. This refers to section - 301 of the 1988 US Omnibus Trade Act; which threatens trade retaliation if foreign nations bar American goods and services. India was accused of curtailing foreign investment by imposing foreign equity limits and domestic content and export requirements on US businesses in India with closing its insurance market to US firms and not adequately protecting US intellectual property, principally patents and copyrights.

After listing India as a Super - 301 priority country in May, 1989, the US Trade Representative (USTR) began investigating Indian Trade and investment practices. This report submitted in June, 1990 to the Congress removed India from the trade sanction list. However, this was not the end of the story. In 1991 Indo-US relations were once again afflicted with the Super-301 controversy. This US policy of the intermittent use of the weapons of Super-301 is the embodiment of the US carrot and stick policy toward India. Pressures on India's policy decision were exerted, but soon diluted or temporarily withdrawn, so as not to stretch the bilateral relations to a breaking point.

SECTION-II

US TECHNOLOGY EXPORT REGULATIONS

The vast complex of American controls of technology exports has evolved over the years in response to rapid technology developments and the national security connotations of their leakage.

The foundation of USA's export controls policy is the Export Control Act of 1945. In 1969 and 1972 it was succeeded by the Export Administration Act (EAA), which was again amended by the Reagan administration in 1985. The act exercises control over exports of commodities/technologies as demanded by considerations of (a) national security, (b) foreign policy, and (c) short domestic supply. Implemented by means of the Export Administration Regulations (EAR) covering the export of all "dual-use" products, it is exercised by the Office of the Export Administration (OEA) of the Department of Commerce (DOC) which evaluates applications of the US firms for export licences.

The EAR, through its Control Commodity List (CCL), provides specific instructions on types of licences to use and types of commodity, technologies (including computer software), and technical data under control. The CCL describes commodities and areas of possible use of each commodity and identifies the

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country groups to which these controls apply.

In the field of computers specifically, the EAR imposes control on computers by specifying limits on the performance of computer which can be exported under the distribution licences granted by the OEA. These controls also apply to any device, apparatus, accessory that upgrades computers beyond the limits. The importing country in no case should be directly or indirectly engaged in nuclear weapon development programmes.

The second arm of control is the Arms Export Control Act (AEA) of 1976, out of which flow the International Traffic in Arms Regulations (ITAR) of 1959 (the version in force was published in the Federal Register in December, 1980). The responsibility for its administration lies with the State Department which controls the export of defence articles and defence services by oral, visual or documentary means to foreign nationals of 22 items listed in the "United States Munition List".

From the mid-1970s, rapid militarisation and arms expenditure growth perpetuated a new regulation of technology exports. A report of the DOD Defence Science Board (DSB) under the chairmanship of F. Bucy, Chairman of Texas Instruments, led to the formation of Military Critical Technologies List (MCTL) which also became a component of CCL.

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All export applications to Department of Commerce are forwarded to the DOD as well as the State Department. Their evaluation is based on the MCTL and possibly also on the expertise provided by think-tanks such as the Rand Corporation.

Two other controls also get activated: the Nuclear Non-Proliferation Controls as dictated by Nuclear Non-Proliferation Act (1978), and the multilateral control through COCOM which is aimed at achieving uniform export controls.

COCOM--the Coordinating Committee for East-West Trade--is the watchdog of the West on technological leakage. Its charter enjoins the member states to identify military applicable technologies, draw up embargo lists and lay down policy guidelines for strategic trade, and develop and coordinate enforcement strategies. All NATO states, except Iceland and Spain are its members.

However, in spite of its existence for the last 38 years, the hard-liners in the American bureaucracy consider COCOM a useless and indifferent instrument of export control because of lack of commitment on part of other western nations and their increasing dependence on eastern trade. Even American companies consider much of the trade embargo as ill-conceived and untimely. The US is unable to coerce its partners into cooperation because COCOM is not a treaty organisation and its charter is not anchored in international laws.

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To concretise the effect of its control measures on technology exports, the US evolved a standardized method of ensuring against non-authorized use and spread from the countries to which it supplies sensitive technologies in the form of General Security Organisation and Military Information Agreement (GSOMIA). The agreement demands in-situ inspection of military facilities using such technologies/systems, the use and maintenance of the system only by trusted personnel with high security clearance inaccessibility foreign nationals, and amendment of export laws inhibiting removal of any material from the supplied systems. GSOMIA has become a standard agreement that the US has with 70 or so countries (and companies) on classified items requiring special protection that is required from any customer. It readily facilitates military to military pacts of the technology transfer.

Expanding regulation of technology exports based on criticality have begun to enlarge the scope and ambit of regulations to cover not only high technology hardware, but also to related information and collaboration and participation of foreign scientists. The definition of scientific and technical information is so comprehensive that even the presentation of unclassified material at scientific conferences can be interpreted as export.

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SECTION - III

IMPORTANCE OF THE ITEMS

This section will restrict itself to the discussion of the importance of the LCA engine and the super computer transferred to India. The choice of these items was made because the sophistication of these items reflects the seriousness and significance attached to defence negotiations by both the countries.

The L C A Engine

Indigenous production of the aircraft, is a crucial indicator of the level of a country's dependence on external sources for arms support.

The Light Combat Aircraft is India's biggest ever military development project. Its Director Kota Harinarayan described it as "something small and beautiful that incorporates the advanced technologies of the 1990s and is adapted to India's tropical environment."<sup>43</sup> So far, the development of modern warplanes has been the exclusive/domains of the developed countries. The indigenous production of an aircraft is said to be a crucial factor in reducing a country's dependence (military and political) on external sources of arms supplies.

Way back in 1969, the Subramaniam Aeronautics Committee report, pointed out, that whatever the draw backs of an

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indigenous development policy, it was important to continue to train and build a pool of aeronautics scientific talent in India inspite of the poor international comparability of indian military aircraft.

Acquisition of the latest military aircraft had become imperative for India, in view of its security needs. Sophisticated aircraft on the shopping list of the Middle East States included the American F-14 Tomcats, F-15 Eagles, F-16 and F-18 fighters, the French F-1 Mirages, the British Jaguars and the Soviet MIG-23 fighter bombers.

Given the economic difficulty of matching the Middle East aircraft build up through direct purchases, and the questionable military value of the Indian designed aircraft relative to those in the West, the Indian emphasis in the future is likely to follow the compromise policy of licensed manufacture. The initial technological dependence on and cooperation with the overseas manufacturer's may provide some apprehensions among Indian defence planners, but there is not too distant hope that once the interim period of material and technology dependence is over, subsequent defence will have been overcome.

Though the Indian shopping list for the LCA has expanded over the years. India first approached the US for a very

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significant part of the LCA i.e. the engine. The government decision was criticized by the domestic press. It was argued that procurement of a foreign engine would lead to the neglect of GTX gas turbine engine that is being developed at the Gas Turbine Establishment in India. However, the Indian Government decided to go for a US engine, because the GTX engine was taking a long time in development. The LCA project slated for the early 1990s had already slipped to mid 1990s. Eleven general electric FE 404 engines were brought by India.

The G.E. FF 404 engine produces a thrust of 17,000 lbs. after reheating such a power plant coupled to an aircraft of the F-20 type enables the aircraft to fly at 1320 mph at 36,000 feet and with a combat load of 50 per cent fuel and wing top missiles it can climb at a rate of nearly 53,000 feet per minute. The GTX engine is believed to be in the 11,000 lbs. class. The US technology is necessary to improve its thrust capabilities. However, the US agreed to release the technology for advanced ring laser gyroscopes for the LCA - a highly sophisticated item which through the use of laser technique keeps the aircraft in guarded orbits ensuring precision. India has also requested for the composite material for the air frame which would reduce the weight of the aircraft. The US Air Force will provide training, consultation and testing facilities for the L.C.A.

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### Super Computer

While the LCA project is clearly and obviously a military one, the super computer eludes such a rigid categorization. It is a dual use technology item. In fact, the US transferred the super computer CRAY XMP-14 to India on the latter's assurance that it will be used only for civilian purposes. The Pentagon hawks, however, are not convinced about India's promises, and continue to harbour doubts.

Super computers are used for energy research, space exploration and military applications,<sup>45</sup> by industry for simultaneous , design, research, analysis and forecasting and by researchers in areas ranging from mathematics, computer sciences, and chemistry to astronomy.

NASA programmes a super computer to stimulate space travel and the US Department of Defence employs super computers for a broad array of military programmes ranging from aircraft design to the stimulation of large scale warfare. This is possible by using the super computers to draw two or three dimensional pictures of proposed product designs. Aircraft designers have long relied on wind tunnels to evaluate the aerodynamics of airplanes and sections. Wind tunnels, however, are not as cost effective, as super computer simulations, and cannot detect certain airflow phenomena.

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The pursuit of the super computer deal by India is based on the programme of completely transforming its computing capabilities in advanced areas like agricultural and meteorological applications. The study of Indian weather in the context of global weather system is a major thrust area. CRAY XMP-24 emerged as the top priority of the Indian Meteorological Department (IMD) because it is the known workhorse of the European Centre for Meteorological Weather Forecasting. Costing about 20 million dollars the CRAY XMP's capacity is 800 MIPS (Million Instructions Per Second). It has been envisaged that the country eventually needs four such systems to be located at the Indian Institute of Science (IISC), Bangalore, Indian Meteorological Department and the Indian Institutes of Technology.

The Indians were keen on the CRAY XMP-24 model. This can be used to model a nuclear explosion using fewer actual detonators to verify the power of the weapon. The US feared that since only 20% of the computer facility is sufficient for executing monsoon models, India may be tempted to use it primarily for its military programme. Such supply would mean promoting the 'nuclear designs' of a nation which is adamant in non-compliance with the NPT. Finally, the US agreed to offer CRAY-14 with a single processor. It is perceived that such a facility could not be of much utility in advanced areas of defence oriented research.

### Conclusion

The optimism preceding the negotiations is not necessarily followed by corresponding positive results. Both the countries avoided taking far reaching policy decisions. This was especially true in the context of India's and USA's relations with the USSR and Pakistan respectively. None was willing to sacrifice the 'time tested' "old allies". Each significant US defence technology offer to India was accompanied by appropriate measures to reassure Pakistan of US friendship (e.g. Alridge's visit to India for the conclusion of the LCA's talks was preceded by US decision to sell AWACs to Pakistan).

Though such policy decisions did tie down the hands of the diplomats, the latter's role is not above board. This was particularly the case with 'low level' Indian diplomats involved in the negotiations. The American's have often complained of the tendency of Indian officials to talk at, rather than to, important US visitors. It is not sufficiently realized by the Indian diplomats that in closed door negotiations mouthing pieties ~~are~~<sup>is</sup> of little use.<sup>46</sup>

Another problem with the Indian negotiators was their inadequate acquaintance with the American Foreign Military Sales (FMS) system. It is pertinent to note here that the Chinese in order to overcome similar problem have made their officers attend courses conducted by the Pentagon at its Security

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Assistance Management School in Ohio (which trains foreigners about the intricacies of the US weapons system). An American official revealed that Indian negotiators often ask for preliminary information like, "where are the sales programme officer, where can we buy these things, could they pay for it at two per cent interest, with rice, etc?"<sup>47</sup>

Indian requirements were often stated in generic terms. Even when India asked for a seemingly specific technology - like the fly by wire technology for guiding the aircraft, it did not specify the characteristics of the airframe necessary for such a technology. This also contributed to the prolongation of a particular round of talks.

American diplomat's initiative on the other hand was limited by the contradictory policy beliefs of the Department of Commerce on the one hand, and the Department of Defence and Pentagon on the other. While the latter sought to convert the age-old free trade practice to restricted trade due to 'national security' reasons, the Department of Commerce was of the view that the very compulsions of international trade - the need of market expansion of multinationals and the competition with other western nations demand hi-tech to be regarded as any other commodity. This American ambivalence was often responsible for inconclusive negotiations, or delayed implementation of agreements.

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## CHAPTER - IV

## CONCLUSION

Indo-US defence negotiations have been punctuated by 'embarrassing pauses', clumsy moves, and diplomatic and political faux pas. These characteristics are indicative of the nascent stage of a new phase in Indo-US relations.

The long protracted nature of these talks has often led critics to prognosticate a pessimistic future for Indo-US relations. This is definitely an extreme view, highly exaggerated. Yet, this should not lead us to discount the problems and difficulties that the two countries have to face in their quest for cooperation in various fields including defence technology transfer. Though the dynamics of change for Indo-US relations do exist, the task for the two countries is not easy. This is so because both have to make an extraordinary effort at coming out of their respective grooves of thinking. For example, Indian policy makers need to redefine India's policy of non-alignment (in the context of the post "Cold War" epoch) and consequently reconsider their relations with other countries particularly the US. This has to be done without abandoning its position as a leader and spokesman of the Third World. Indian diplomats, among other things, have to ensure that the US does not get distracted by the momentous events in East Europe and the spectacular show in the Gulf. On the other hand, accustomed to the idea of a bipolar global power structure, American

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diplomats and policy planners face the problem of anticipating and adjusting to a world of new and uncertain regional security systems.

Indo-US diplomacy has often been accused of floundering in this 'historic' task. This criticism is basically based on the perception of diplomacy being an important instrument in achieving a foreign policy goal. What is often overlooked is the fact that a clear and definite policy on this issue is absent in both the countries. Therefore, the task of diplomacy in this context is two pronged. In its attempt to articulate and implement a policy decision, it must anticipate and visualize the overall future policy course. Policy, in this case, is relying on diplomacy to a great extent. Frequent meetings and talks between the two countries have helped in making the Indo-US environment relatively congenial. A personal rapport has been built between the negotiators, who have had a fairly continuous involvement in the talks. Mutual suspicions and preconceived notions are being gradually eliminated. This has led both the sides to appreciate other's sensitivities and problems. Exaggerated expectations have been reduced.

The decade of the 1980s has thus been a testing ground for India and the US to assess each other's 'credibility' and sincerity in pursuing close relations. The 'gains' so far may appear small and merely symbolic. But one should not forget that symbolism too has a purpose and intention behind it. Symbols have sought to convey the keenness on either side to foster closer relations.

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There has been a significant shift in the concept of security, in the perception of the two countries. Security is now perceived to mean the establishment of domestic as well as regional, economic, political and military stability. This change is inherent in the composition and mandate of the newer security policy making bodies, which are now concerned with a variety of problems stretching from industrial unrest and regional separatist movements to problems of defence and military strategy. This change in the concept of security provides the most relevant basis for pursuing security ties between India and the US, for it implied that security relationships may be established not only on the basis of mutual perceptions of a common enemy but, on economic interests and political values. In this context Raju Thomas's views are pertinent. Although the point has been made before, and although the benefits may continue to appear intangible and obscure, there is some truth to the observation that these two countries are the world's largest democracies. Until recently, this commonality of political values meant little in the conduct of their respective foreign policies. For both states, national security objectives overrode the active promotion of democratic values abroad. "As a consequence, the United States often found itself ... supporting ... dictatorships in the Third World whose allegiances were largely based on their anti-communist foreign policies. Likewise, India found itself on the defensive for having acquiesced in Soviet hegemonic policies in Hungary (1956), Czechoslovakia (1968), and Afghanistan (1979).<sup>1</sup>

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India and the US in the past have had major differences over the issue of military alliances. While the US viewed it as a necessity in its fight against the 'evil' communist empire, India blamed military alliances as breeding insecurity. India's opinion is borne out of the fact of growing obsolescence of such military arrangements. For example, both SEATO and CENTO are defunct, and the Warsaw Pact was recently dissolved. India and the US can, therefore, have a security relationship of an 'informal' nature. Raju Thomas points to such precedents in the military relationship of US with certain countries like Israel, Saudi Arabia and Egypt.<sup>2</sup>

What is noteworthy about such an arrangement is the tacit acknowledgement of common strategic interests among nations usually along bilateral lines, without the existence of formal military alliances. The arrangement is important to Third World nations, who are the recipients of the arms or other forms of military support needed to maintain their political credibility at home, so as to avoid allegations of political subservience.

India's shopping list of sophisticated defence technology, has raised some pertinent questions about its defence policy. On the one hand, it is asked whether these 'items' are of relevance to India? Is 'sophistication' to be the determining criterion of acquisition of defence technology?

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Is this technology being acquired in the pursuit of security, or status of a 'great power'<sup>3</sup> In our view, despite defence being a "holy cow" in India, there is in democratic India sufficient and credible criticism of aggressive military ambitions. This will ensure that any acquisition of defence technology by India has a relevance for its security needs.

New defence technology has also brought the attention of Indian analysts to the need for adapting military doctrines and capabilities to the rapid changes in the technological environment stemming from the introduction of sophisticated new weapons.

Another important aspect which must be taken note of by India's policy planners is that while diversification of sources of supply is a politically prudent policy, it raises certain serious management problems from the military angle. This could adversely affect the efficiency of our defence forces. Therefore, measures must be taken to avoid this problem.

This study has consistently reiterated the fact that a defence relationship is conditioned by the overall political and economic relationship between the concerned countries. Incidents like the Super 301 (and more recently India's current balance of payments crisis) have demonstrated the need for economic liberalization. While India needs to remove bottlenecks, cut red

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tapeism and encourage the entrepreneur, it cannot afford to neglect the services and development sector, at the cost of the welfare of the common man. It would be politically suicidal policy for any government, which does so in its quest to get loans and economic aid from abroad. India must convince the West, and the US in particular (because of the latter's clout in the World Bank, and the International Monetary Fund) that the post colonial heritage and the specific socio political characteristics of India and its people do not allow for a Western oriented prescription as a remedy for this country's ills. This, however, does not imply that India's economy does not require certain changes in its official foreign investment. Failure to catch the train of global economic integration at this critical juncture could leave India further behind than it is now.

The post Gulf war scenario has certain implications for Indo-US relations. US is now viewed by some as the only super power on the scene. It correctly feels a responsibility for playing a leading role as the world moves into a new era. On the other hand, however, Washington must understand that this uniquely pre-eminent position is rooted in the old order, and cannot be maintained indefinitely. The fact cannot be denied that major economic problems at home do not permit the 'imperial overstretch'<sup>4</sup> in US foreign policy. The American public has lost much of its enthusiasm for playing a role that is both expansive and expensive, as well much of its trust in a national leadership that calls for sacrifice in a larger cause. American strategic policy must synchronize with its fiscal means.

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The task before the US is to help manage a process of change and simultaneously yield to that change. That is a worthy interpretation of the term 'new world order'. Unfortunately, it will be easy to interpret the 'new world order' in ways that are not all that orderly. It will be tempting to take easy shots at goals that the Soviets have left empty, and to see the new situation as a means of maximizing American power - attempting to make permanent that which is only transitory.

If the US badly misjudges its historical role, it could become an extremely disruptive actor on the international stage.

Alternatively, there will be a considerable temptation for Americans to declare victory in the cold war and reiterate some mixture of an illusory isolationism and a "fortress America" mentality in which neighbours to the North and South may be adjoined. This would be an abandonment of responsibilities to others (whether rightly or wrongly undertaken) and harmful to our own interests. This is not a viable long term strategy, but for Americans who are weary of carrying a global burden it could be very attractive in the short term.

The Bush Administration's concept of a 'new world order' is not yet clear. However, it would be in the US interests to take into account the regional powers while visualising the new order. the reality of post cold war world is likely to revolve around multiple centres of power, each one stronger in some of

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the elements of national power, but not necessarily all (this underlies the growing interdependence among countries in various political, geostrategic and economic fields). This fact should not take the Americans by surprise, since the inevitable reality of multipolarity has long been recognized by influential American thinkers including Henry Kissinger.

Such a policy would entail recognition of India's regional power and influence in South Asia. (Most Indians are skeptical of the possible reasons behind this American decision. they view it as an attempt to cut India's potential global role while confining it to the region). Although the American role in Asia will be more moderate than in the past, it would still remain critical to the establishment of a more secure order in the regions. Therefore, India cannot be oblivious to US interests and will have to take an adequate account of them.

There exists today a congenial and compelling environment for the two countries to cooperate and accommodate each other's interests. Only then would defence technology transfer from the US to India assume a more substantive form. 'Defence technology' on its own may be a 'catalyst' or even a precursor for strong political economic relations, but it cannot be 'the' determinant in orienting Indo-US relations.

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