FRENCH ARMS SALES TO INDIA, 1975-85

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P_R_E_F_A_C_E

Security has been and continues to be the prime concern to most countries in the world. By and large national security problem or military threat of adversary has been often resolved by producing and acquiring lethal weapons. In the post-Second World War period Western nations have become the arms bazar for states needing arms for countering the military threat from their adversaries. The two super powers -- the USA and the Soviet Union -- Britain and France have emerged as major sources and supply of military equipment and technology in the world. In the last fifteen years, France has become the number three arms exporter in the world, next only to the two super powers.

Somewhat fortuitous circumstances also helped France when in the 1960s it began emerging as major arms seller. Competitors like the USA got involved in Indo-China, while the USSR was yet to enter this field in a major way. The weavering defence posture of the British Labour government of the time effectively barred Britain from launching an arms sales drive to meet the demands of a number of newly independent states in the developing parts of the world. Others

like West Germany and Japan, as defeated powers faced political and psychological barriers to respond to the rising demands for arms.

France had finally withdrawn from the military structure of NATO in 1966. It has an independent nuclear policy and force. Under Charles de Gaulle's leadership and under the successive Fifth Republic French governments, France used perplexing modes of diplomacy in relation with the East and the West, which came to be characterized as tightrope walking or intransigence. Thus, France in spite of being part of the overall Western security system had evolved for itself over the years a separate indentity through their foreign policy and security postures. In the field of arms transfers, this identity enables France to project itself as a reliable source of arms and technology to recipient countries; especially those of the developing world.

French arms sales policy does not demand political or other commitments in exchange for arms sales as the United States and the Soviet Union do. Hence the commercial nature of the French policy suited India to procure arms from France whenever India needed to meet its security threats. In this process France has significantly

contributed to modernization, and diversification of Indian defence. Indo-French cooperation extends to various aspects of defence and its role in broadening and diversifying our defence industrial base is not meager in comparison with other countries like UK and USSR. After the USSR, France has emerged as a major supplier of defence equipment with an interrelated emphasis on collaboration in the development of electronics, space technology and navigational systems. The Indian built MIG-21 aircraft, for instance, has been modified and equipped with French missiles, with Soviet permission. By extending wide cooperation it is helping to lessen our dependence on Soviet Union for arms and technology transfer.

Chapter I is essentially an introduction to French global arms sales policy. It broadly traces the nature, content and direction of French global arms sales policy. Chapter II focuses on the sales of French arms to India before 1975. Essentially it deals with the various limitations in the sales of French arms to India. Chapter III analysis nature, quantum and quality of French arms sales to India during the period 1975-85. It also attempts to examine the reason why this period witnessed a major French arms sales to India. Chapter IV examines Mirage 2000 sales to India in the context of Indian

subcontinental security environment; performance capabilities of Mirage in comparison with other available western and Soviet aircraft; and merits of the Indian decision in choosing Mirage-2000. Chapter V concerns with the nature and content of Indo-French defence collaboration specially French licenced production in India.

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CHAPTER I

FRENCH GLOBAL ARMS SALES POLICY UNDER THE FIFTH REPUBLIC

France ranks as the world's third largest arms exporter. It surpassed Britain in the 1970s to occupy that position. Indeed this development was significant as France had been dependent on the US for arms in the immediate post war period. Apart from ending this dependency, France has currently became competitor to the two super powers in the world arms market. It is noteworthy that while more than one third of French national arms production was exported, eighty per cent of its total exports are destined to the Third World. According to the 1985 Year Book of Stockholm International Peace Research Institute, French arms sales in 1984 was record highest. In the first half of 1984 alone orders totalled fr 40.4 billion.

Such high growth rate of French national arms industry was result of French security considerations coupled with an objective to reduce its dependence on US arms. To sustain a healthy indigenous defence industry, arms export was resorted to. Moreover these arms sales had commercial dimension too. It brought needed additional foreign exchange and financial gains. Though these economic

considerations were present in French arms sales ever since 1955 they have gained tremendous importance over the years, especially since the oil crisis of 1973. Foreign policy factors in arms sales had assumed importance since the inauguration of Fifth Republic in 1958. The then French President Charles de Gaulle had used arms transfer policy, besides economic aid and cooperation, as an instrument of foreign policy to enhance France's influence in the world as a great power. The successive Fifth Republic governments have recognized the importance of arms sales and their contribution to nation's security, political and economic capabilities.

A proper perspective of French arms sales policy could be attempted by taking into account three interconnected factors. These factors are identified as below:

(1) Security considerations in French arms sales
(2) Political motives in French arms sales policy
(3) Economic benefits through arms sales.

SECURITY CONSIDERATIONS

An important consequence of Second World War was that the French economy was shattered to its foundations. The disrupted economy and the crippled defence industry could no longer meet the French security needs in the immediate post

war period. Before the Second World War French defence industry was fully developed and was capable of meeting most of the French security needs. At this point a brief resume of the role played by French traditional defence industry would be informative. Moreover it would point out the difference between pre-war and immediate post-war period of defence industry status in France:

> Perhaps the most important and largest arms making country today (in 1930s) is France. Every kind of armament is made in France. From air planes and artillery to submarines and complete battleships. The export of armaments make up about 15 to 20 per cent of the total business of the French arms makers. Various measures have been adopted in order to facilitate this foreign business. Poland and other good customers maintain permanent missions for purchase of war material in France. But foreign trade is less than one fifth of the French arms business. The best customer of the French arms industry is its own government.
>
> Great Britain's arms industry is a close second to that of France. British exports are ... 10 per cent of total production. The exports of American arms industry amount to about $ 15,000,000 a year, that is one fourth those of the France. 1

The destruction and damage during the second world war disrupted this traditional defence industry. Consequently, France became dependent on the US for arms for its own security

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1 H.C. Engelbrecht and F.C. Hanighen, The Merchants of Death : A Study of International Armaments Industry (New York, 1934), pp. 236-9.

and to retain its colonial empire. On the one hand, it had the burden of rearming itself against possible threats from the Soviet Union. On the other "a large part of its military strength was drained off to retain its colonial possessions in Indo-China",[2] and whatever the crippled arms industry could produce was absorbed by the government itself. To support the Indochina war the Truman administration subsidized approximately one quarter of French defence budget and one half of its rearmament.[3] The Marshall Plan was the most ambitious of a series of measures which the United States had taken for the relief and recovery of Europe including France. The massive economic aid given under the Marshall Plan allowed France to divert a part of its resources to rebuild its arms industry.[4] The Atlantic Alliance was conduit by which American military aid could be sent to France to support its colonial wars and its rearmament, including modernization and expansion of its military industrial base.[5] "4.2 billion worth of military grant aid given by US between the years 1950 and 1964 relieved the pressure on the French arms industry to

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2 Donald C. McKay, The United States and France (Cambridge, 1951), p. 256.

3 Edward A. Kolodziej, "France and the Arms Trade", International Affairs (London), vol. 56, no. 1, January 1980, p. 56.

4 George Thayer, The War Business : The International Trade in Armaments (New York, 1969), p. 276.

5 Kolodziej, n. 3, pp. 55-56.

supply its own government, thus permitting it to concentrate much of its energies on developing the export market".[6] However, this dependency on American economic and military aid was resented by French people by and large. Indeed, period between 1947-49 and 1958 the phenomenon anti-Americanism assumed significant heights.[7]

Besides the general public, there was widespread resentment within the French security community about the country's dependence on American arms.[8] Despite this resentment, the French could not deny that the American aid (both military and economic) had significantly supplemented French efforts in reconstructing their armaments base. Nevertheless such dependency experience was viewed adversely by French policy makers and it promoted the cause of self sufficient armament base and production. Moreover, self-sufficiency in arms was seen as a prerequisite for an autonomous defence capability and independent foreign policy. With the advent of de Gaulle to power in 1958 the commitment

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6 Thayer, n. 4, p. 276.

7 W.W. Kulski, De Gaulle and the World : The Foreign Policy of the Fifth Republic (New York, 1966), p. 174.

8 Kolodziej, n. 3, p. 56.

to an independent foreign policy and autonomous defence policy received a new thrust. For French people and for de Gaulle in particular, expression of independence had been the decision to develop and deploy their own strategic nuclear weapons, and indeed to maintain its own armament industries in a high state of technological development.[9] The creation of strong defence industry and an independent nuclear force, force de frappe provided the needed military capabilities for de Gaulle regime to justify French withdrawal from NATO,[10] and to assert its independence in regional security and foreign policy matters. In order to maintain this independent defence capability it became essential for France to export weapons as the demand for weapons at home was insufficient to justify the arms industry in economic terms.[11] In 1966-67, President de Gaulle through his protege General Charles Ailleret formulated the strategy or theory of "defense tous azimuts" (or multi-directional targeting).[12]

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9 J.R. Frears, France in the Giscard Presidency (London, 1980), p. 84.

10 Edward A. Kolodziej, "Arms Transfers and International Politics : The Interdependence of Independence", in Stephanie G. Neuman and Robert E. Harkvy, ed., Arms Transfers in the Modern World (New York, 1979), p. 14.

11 Andrew J. Pierre, The Global Politics of Arms Transfers (Princeton, 1982), p. 86.

12 Jolyon Howorth and Patricia Chilton, eds, Defence and Dissent in Contemporary France (Kent, U.K.: 1984), p. 9.

This strategy provided the rationale for broadening and modernizing the French armament industry. Simultaneously, military exports became vital to the continued viability of French national defence production lines since they helped to decrease the unit cost of defence equipment by larger runs. Moreover, the spiralling research and development costs, the logarithmic increase in production outlays have forced French defence industry to search for export outlets.[13] Thus, France increasingly became dependent on weapon exports in order to maintain domestic industry in the face of what would otherwise be prohibitive factors.[14] Moreover, the government too, apart from the managers of defence industry increasingly became aware of the importance of exports to its domestic industry and placed emphasis on design of military equipment to foreign requirements. In this context the statement of the French Defence Minister, Michel Debre (1969-73) would be noteworthy. Following a fall in arms exports in 1969, Debre issued a directive to the French armed forces that they should

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13 Paul Kisinger, "Arms Purchases in the Persian Gulf : The Military Dimension", in US House, Congress 94, session 1, Special Subcommittee on Investigations of the Committee on International Relations, Hearings, The Persian Gulf : The Continuing Debate on Arms Sales (Washington, D.C., 1975), p. 231.

14 Ibid.

take into account export potential when choosing military equipment.[15] This suggested that "no longer are weapon systems designed exclusively for...indigenous military specifications".[16] For instance, 'the Mirage-5 has been specially designed for the Third World market.[17] Furthermore, increased sales of conventional arms compensated for giving priority in the French defence budget for nuclear arms,[18] which plays the main deterrent role against any adversary in Europe. For the French,, the "arms exports," therefore make economically possible a basic political necessity (autonomous defence capability) of the country.

POLITICAL MOTIVES IN FRENCH ARMS SALES

De Gaulle's ambition was to pursue a global policy. This essentially required an independent foreign policy. He perceived that independent French foreign policy free from both the super powers could exert an influence on the uncommitted Third World. He denounced hegemonic policies of

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15 Le Monde (Paris), 28 February 1970. Quoted in SIPRI, The Arms Trade with the Third World (Stockholm, 1971), p. 254.

16 Kinsinger, n. 13, p. 231.

17 SIPRI, The Arms Trade with the Third World (Stockholm 1971), p. 254.

18 Kolodziej, n. 3, p. 58.

the US and the Soviet Union, and embarked on a policy of extensive cooperation with the Third World. He utilized arms sales and military assistance as an effective means that could improve French political influence in the world. Arms sales provided a means through which France could establish friendly relationships on bilateral basis with many countries and could gain access to their ruling military and political elite. As noted earlier the Fifth Republic provided a rationale for a policy a tous azimuts for arms transfers and military technology -- a distinctive mark that was absent in the Fourth Republic arms transfers policy. Successive Fifth Republic governments from de Gaulle to Mitterrand, rejected the concept of bipolar world, and strongly supported multipolar concept. The French perception has been that by selling arms to other nations to develop their own defence system it might result in the lessening of dependency of such nations on super powers for security. Thus, the French perceive that in a world of multiple arms suppliers Paris would have the significant role of guardian of the nation-state against the hegemonic drives of the super powers and as the protector of the independence and interests of the developing states.[19] Michel Debre the French Defense Minister summarized such broad political and security considerations that rationalized

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19 Ibid., p. 57.

French arms sales:

> It is difficult for us to shrik the duty to respond to the requests of certain countries, solicitous of their defence and desiring to assure it freely without having recourse to the dominant powers of the two blocs. Not to respond to these requests would accentuate the hegemony of the two great (Powers). 20

A decade later the French Socialist government expressed a similar view on arms sales policy, which showed a remarkable consistency with Gaullist tenets. In 1981, the Foreign Ministry announced that it was French government's policy to help Third World countries to reduce their dependence on super powers for weapons.[21] "To prove the point Defence Minister Charles Henru while discussing the French arms deal with Nicaragua said: "By supplying defence equipment of this kind France is playing its proper political role."[22] The deal was struck between Nicaragua and France despite much annoyance expressed by the US which is supplying arms to Nicaraguan Contras to destabilize the legitimate government of Daniel Ortega.

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20 Michel Debre, Livre Blanc](Paris, 1972), p. 54. Quoted in Edward A. Kolodziej's France and the Arms Trade, n. 3.

21 Frank Barnby,"France Speeds up the Arms Race in Africa", South (London), May 1982, p. 19.

22 Ibid.

ARMS SALES TO AFRICA

Economic considerations strongly influence French external policy and its target has been the former French African empire which are currently 21 independent Francophone nations stretching from North Africa to the Malagasy Republic.[23] France is one of the major western arms supplier to Africa. For France more than any other Western European nations, Africa has been and continues to be important concern in the Third World. They "see their national destiny - in terms of security, economic prosperity, and France's political role in the world as being intimately tied to that of Africa".[24] Economically speaking Africa provides access to rich natural resources and ready markets for French exports. The successive Fifth Republic governments, from de Gaulle to Mitterrand have viewed the maintenance of French influence on African continent as a cornerstone of France's ability to continue its role as a major power in a world currently dominated by the US and the Soviet Union. To maintain their political influence in Africa, the French concluded two kinds of agreements with many of their former African colonies. First were bilateral

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23 James O. Goldsborough, "Dateline Paris : Africa's Policeman", Foreign Policy (Washington, D.C.,), no. 33, winter 1978-79, p. 174.

24 George E. Moose, "French Military Policy in Africa", in William J. Foltz and Henri S. Bienen, ed., Arms and the Africa : Military Influence on Africa's International Relations (London, 1985), p. 60.

defence treaties concluded with six African nations -- Djibouti, the Ivory Coast, Gabon, Senegal, Central African Empire, and Togo -- which provided for direct military aid in time of need. The second kind of agreements included military assistance to many of its former African colonies. By virtue of these military technical cooperation agreements the French have retained the role of principal arms supplier to most of their former African colonies. Despite France's role as principal arms supplier to these African nations, the value of arms transferred to these countries appears to be relatively modest. The cost of weapons for these developing African countries has been a major factor in restraining French arms deliveries of both high quality and sophistication.[25] Until recently, most of the equipment France had provided to its former African colonies had been on grant basis, and mostly consisted of small arms, communications and transport equipment for basic infantry and paramilitary forces.[26]

There have been changes in the trends of arms sales both in quality and quantity since 1978 compared with earlier period. In the period between 1973 and 1977, the total cumulative value of French arms exports amounted to $ 4,490 million. In the same period the cumulative value

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25 Ibid., p. 62.

26 Ibid., p. 63.

of French arms exports to Africa amounted to $ 1,155 million.[27] Between 1978-1982 period, the total cumulative value of French arms exports amounted to $ 13,500 million. In the same period arms exports to Africa amounted to $ 3,100 million.[28] Reason for this increase may be the "push factor" on the part of French defence industry, which has been always in search of export outlets. The second reason (as the evidence suggests) is the favourable French response to African demands for more and more advanced weaponary. Arms delivery agreements between France and African nations during the period 1981-1984 included technologically advanced weapon systems. For example in 1981 Cameroon had purchased 6 Alpha jets, Milan ATM, MM-40 Exocet Missiles. In the following year Gabon purchased 7 Alpha jets and 14 Mirage aircraft. The Ivory Coast bought 1 Alpha jet, 2 fast patrol boats and other small arms. Togo acquired 5 Alpha jets, and 5 Mirage aircraft. On the whole advanced weapon systems like jet trainers, fighter aircraft, transport aircraft, helicopters, armoured vehicles and missiles are increasingly being purchased by many African nations from France. Hnece in future African market will remain important for French arms exports.

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27 US Arms Control and Disarmament Agency 1973-1982, quoted in P.K.S. Namboodiri's "French Arms Sales - An Over View", Strategic Analysis (New Delhi), vol. 8, no. 12, March 1958, p. 1214.

28 Ibid.

Franco-South African arms relationships provides an appropriate example of commercial calculations determining the French arms sales policy. France ever since early 1960s had made great inroads into South African market, which was traditionally a British dominated market. A major breakthrough on arms sales was achieved by France taking advantage of the UN arms embargo imposed on South Africa in August 1963 which called upon all nations to cease forthwith the sale of arms and ammunition of all types and military vehicles to South Africa. The rationale behind the UN arms embargo resolution was to prevent military enforcement of apartheid. The Labour government in Britain that came to power in October 1964, strictly adhered to UN arms embargo on South Africa. Available evidence indicated that France circumvented the UN embargo resolution and it stepped into this South African market and remained as major arms supplier until late 1970s. France had put forward two justifications for such arms supplies to South Africa. First was based on the ground that UN resolution was not mandatory. The second was that the arms supplied by France were unsuitable for internal repression. One other calculation of French policy remained unofficial, but may have been influential too: the continuance of the large outflow of French aid to African countries being dependent on a high level of French commercial exports and

arms sales being maintained.[29] Such commercial reason motivating arms sales was also beneficial to the newly independent African states as they were building their armed forces. Perhaps this explains why it was not until 1968 that the Organization of African Unity (OAU) passed a resolution against France's South African policy for the first time.[30] For several years French sale of military aircraft, missiles, helicopters armoured ground vehicles were justified as contributions to South African external security, and not strengthening police or repressive action. Until Giscard d' Estaing became President in 1974 no substantial restraints were imposed on French arms sales to South Africa. Under the mounting pressure from black African states, and adverse public criticism elsewhere in the world "Presideent Giscard announced on 9 August 1975 that the French goverment which 'absolutely' condemned apartheid had decided to supply no further arms to South Africa".[31] However, the seriousness of such a commitment was lost when the President added that "this political decision effected neither naval armaments

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29 John Stanley and Pearton Maurice, The International Trade in Arms (London, 1972), p. 172.

30 Ibid.

31 Keesing's Contemporary Archives (London), vol. 21, 8-14 September 1975, p. 24324.

(South African order of 2 Agosta Submarines and 2 Avisos frigates were announced in June 1975) nor any existing contracts which would be dealt with case to case".[32] Finally under the intense pressure from black African States, which threatened to take economic reprisals against France, President Giscard d' Estaing declared in Mali on 14 February 1977 that every effort had been taken by France "not only to prohibit any new provision of ground or air material destined for South Africa but equally to assure that no delivery might take place".[33] Consistent with this declaration, orders for warships (two submarines and two corvette escort and patrol ships) were cancelled.[34]

Economically South African market was important to France. Its commercial exports to South Africa rose from $ 33 million in 1961 to $ 100 million in 1968.[35] Of the weapon systems currently used by South African forces those of the French origin are: Mirage-III, Mirage F-I land Transall C-160

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32 Ibid., p. 24324.

33 Le Monde, 5 March 1977, quoted in Edward A. Kolodziej and Bokango Lokulutu's "Security Interests and French Arms Transfer Policy in sub-Saharan Africa", in Bruce E. Arlinghaus, ed., Arms for Africa (Massachusetts, 1983), p. 140.

34 Ibid.

35 Thayer, n. 4, p. 283.

aircraft; Aloutte, Puma and Super Frelon helicopters; 60mm and 18mm mortars; Milan Anti Tank missiles; panhard armoured vehicles; and air communication systems.[36] By the time France had imposed arms embargo, South Africa was producing following weapons under French licence: Mirage F-1 Fighter, French designed armoured cars (called Eland -2-3, and -4) and a derivative of French Crotale surface-to-air missile (called Cactus).[37] However the policy of upholding embargo on South Africa was done with calculated reasons. The arms sales to other African states had better and longer prospect than to South Africa. Hence, France could sacrifice, the South African arms sales for the larger commercial benefits that accrued in the sales to other black African States.

ARMS SALES TO LATIN AMERICAN COUNTRIES

Despite US attempts to keep away European arms suppliers from Latin American market, France has been able to penetrate into this traditionally US dominated market with modest success. Since 1945 US has maintained a near monopoly in this region over arms supplies and simultaneously persued a restrictive arms sales policy too. In fact, the overall US policy had been to enforce a rigid policy of regional arms control in Latin American region.

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36 Barnby, n. 21, p. 19.

37 Ibid.

This policy was tacitly pursued till 1966. Subsequently it was implemented explicitly.[38] The reasons that influenced Washington's action was its growing sensitivity to Latin America's socio-economic problems and Latin American governments interest to buy advanced weapons from Western European countries.[39] An Inter-American summit conference was held at Punta del Este in April 1967. At this conference the presidents of Western hemisphere were persuaded by the US to express their intention to limit their military expenditure and not to buy or manufacture supersonic aircraft, naval vessals heavier than the destroyers, missiles or tanks over 30 tons.[40] Not all Latin American governments were prepared to subscribe to this suggestion. However, US maintained a consistent arms control policy and turned down a Peru's request which sought to modernize its air force by inducting F-5 freedom fighter supersonic aircraft. Furthermore, US simultaneously put pressure on Britain not to supply Lighting supersonic aircraft to Peru. Consequently Peru turned to France to buy Mirage-5 supersonic aircraft. Until Peru purchased the Mirage-5s in 1968 no other Latin American country

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38 Stanley, n. 29, p. 214.

39 Ibid.

40 SIPRI, n. 17 , p. 717.

except Cuba possessed supersonic aircraft.[41] Thus in December 1967 Peru led Latin America into supersonic age with an order for 12 Mirage-5 fighter/bombers and 2 Mirage III trainers costing some $ 20-25 million. Since then many Latin American countries have purchased arms from European sources. And they still do. For Latin American countries, purchasing arms from other than the US sources represented their independence from the US. "Of all the Latin American countries, it was Argentina which had gone farthest in carrying the procurement of arms from Europe rather than from US to a point of political principle".[42] As far as the French arms sales policy was concerned it did not follow any self imposed restrictions like the US. On the one hand, it was able to penetrate into the US dominated region. On the other hand, it was helping these Third World nations to develop their own defence systems and thereby reducing their dependency on super-powers for their security. In the first half of the 1970s France ranked as the largest arms supplier to Latin American countries, while US was lagging behind as the second largest supplier. However, between 1978-82 period France was pushed down to the second place by USSR, which occupied the first position. According to American arms control and Disarmament Agency's annual report

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41 Ibid., p. 685.

42 SIPRI, World Armaments and Disarmament Year Book 1981, (Stockholm, 1981), p. 114.

the cumulative value of French arms transfers to this region between 1978-1982 was $ 1,900 million whereas USSR supplied $ 3,200 million worth of arms in the same period. Between 1978-1982 Argentina had been the largest recipient of French arms in Latin American region.

ARMS SALES TO MIDDLE EAST

Since 1955 France had emerged as the main supplier of arms to Israel. Between 1950 and 1954 Israel had imported 19 per cent of total French arms exports. This figure rose to 53.7 per cent and 56.4 per cent in the periods between 1955-59 and 1960-64 respectively.[43] Large quantities of French arms were transferred to Israel largely due to the pressures created by Algerian war of independence. Egypt was the main source of aid for Algerian revolutionaries. At the same time tensions were emerging between Israel and Egypt. It thus appeared obvious that French and Israeli interests converged on the question of containing and destabilizing Egypt.[44] France hoped to use a well armed Israel to depose President Gamal Nasser and thereby end Egyptian assistance to the Algerian nationalists. The Arab-Israeli conflict in 1956 provided an opportunity for France to realize its

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43 SIPRI, n. 17, p. 251.

44 Yair Evron, "French Arms Sales Policy in the Middle East", The World Today (London), February 1970, p. 82.

objective against Egypt. France and Britain too joined the war specially to take revenge against Egypt for nationalizing the Suez Canal. Meanwhile, the American intervention against the war saved Nasser but disappointed France and Britain. Soon after the war Egypt and Israel embarked on modernization of their armed forces.

In the modernizing process France played an important role by providing sophisticated weapons to Israel to counter the Soviet arming of Egypt. In the mid 1950s the Israeli Mysteres supplied by France matched the MIG 15s and MIG 17s; in the late 1950s the Super Mysteres B-2s matched the MIG 19s. In the early 1960s when both Israeli and Egyptian forces moved fully into supersonic era, the Mirage IIIcs matched the MIG 21s.[45] When Egypt acquired TU-16 medium bomber -- the heaviest bomber that had yet to come into service in the Middle East -- they were balanced by Israeli acquiring French Mirage interceptors.[46] The arms trade between Israel and France reflected their growing friendship, and proved to be mutually beneficial. For Israel, France had been the main source of supply of sophisticated military equipment to defend itself in a region surrounded by hostile Arab countries. For France, Israel provided a lucrative export market for its arms, which was essential for French defence industry.

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45 John Stanley, n. 29, p. 202.

46 Ibid.

Politically France made its presence felt in the Middle East. Technically its weapons were tested in Arab-Israeli conflicts. Thus, France could modify or incorporate further changes in its weapon systems in order to enhance their effectiveness.

Franco-Israeli relationship, however came to an abrupt end in 1967. France imposed a partial embargo on Israel at the outbreak of hostilities between Israel and Arab countries in 1967. It imposed a total embargo on Israel when the latter attacked Beirut airport in 1968. However, this arms embargo against Israel was an "exceptional event" and was related "more to France's Middle East policy than its sale of arms per se".[47] Moreover the shift in foreign policy was result of both France and Israel acting out of independent reasons.[48]

The shift in the France's Middle East policy was largely because "France sought to reestablish its influence in the Arab world as a prerequisite for achieving global influence in the Third World to counter-balance the predominance of the USA and the USSR".[49] This stance implied curtailing overtly the close relationship with Israel based on a common anti-Arab

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47 Kolodziej, n. 3, p. 68.

48 Evron, n. 44, p. 82.

49 Dominque Moisi, "Europe and the Middle East", in Steven L. Spiegel, ed., The Middle East and the Western Alliance (London, 1982), p. 19.

position.[50] The efforts to rebuild a viable working French relations with Arab countries started even before 1967 war. Once again offer of arms sales was used to influence the Arab ruling elite. In 1965 negotiations were started with both Lebanon and Jordan for the sale of Mirage aircraft, and a sale was actually made to Lebanon the following year -- the first major French sale to an Arab state since 1954.[51] After 1967 France became the first European country to establish a special relationship with the Arab world by providing it with military assistance as a part of a global ambitious arms sale policy and also by giving Arab world political and diplomatic support at the United Nations.

ECONOMIC BENEFITS THROUGH ARMS SALES

Another important element that influences French Middle East policy has been the source of steady oil supply. France's dependency on oil for its energy needs has been growing since 1960s and consequently one of the main objectives of French foreign policy has been to establish privileged bilateral relations with oil producing countries to ensure steady oil supply. In 1961 oil accounted for 32.5 per cent of its total energy consumption, and by 1972 the figure rose to 64.9.[52] By the time Arab-Israel war broke out in

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50 Ibid., p. 19.

51 Stanley, n. 29, p. 206.

52 Richard Wigg, "France and the Raw Material Question", The World Today, vol. 31, no. 12, December 1975, p. 498.

October 1973, France was taking 66 per cent of its total oil imports from Middle Eastern region. Its first three suppliers being Saudi Arabia (24.9 per cent), Kuwait (7 per cent), and Iraq (14 per cent).[53] The dependence on Middle Eastern oil increased even more in subsequent years. In 1977 approximately 83 per cent of its oil imports came from Middle Eastern Arab states and Iran. Over one half of France's supply derived from Saudi Arabia (36.4 per cent), and Iraq (15.3 per cent).[54] The high oil imports from these Arab states facilitated greater French arms sales to them especially since 1974. It not only balanced the foreign exchange cost of oil but also brought extra foreign exchange to feed the independent French arms industry. France signed multi-billion dollar arms deals with Saudi Arabia in 1975, 1980 and 1984. One of its biggest arms deals known as "Sawari" deal for over $ 3.5 billion was made in October 1980 to expand and modernize Saudi Arabian navy. Under the deal France sold 4 F-2000 guided missile class frigates and 24 Dauphin helicopters armed with AS-15 TT anti-ship missiles and 2 fuel supply ships.[55] One more multi-billion dollar arms deal was struck between France and Saudi Arabia on 11 January 1984. Thd deal which is worth

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53 Ibid.

54 Kolodziej, n. 3, p. 62.

55 Barnby, n. 21, p. 20.

$ 4.2 billion is known as "Al thakeb" and it was seen as a follow-on to the 'Sawari' deal. The 'Al thakeb' deal covered the development and delivery of ground radars and shahine missile batteries for a low level air defence; and is the largest weapon contract from a foreign buyer ever received by France.[56]

In case of Iraq, French arms sales have increased since the beginning of Iran-Iraq war in September 1980. France sold to Iraq approximately $ 5 billion worth of arms since the start of war, mostly on credit basis but also in exchange for oil.[57] During 1982-83 Iraq accounted for 40 per cent of total French arms exports.[58] Kuwait and United Arab Emirates are also clients of French arms.

There is a definite correlation between France's arms sales and oil imports. The 1973 oil crisis and the subsequent rise in oil price greatly affected its economy especially foreign exchange. The very next year after the oil crisis French oil imports amounted to $ 9.9 billion. In the same year arms sales abroad amounted $ 1.4 billion. That meant 14.4 per cent of its oil bill was met by arms sales abroad. In 1980 these figures rose to a higher level. In that year France imported $ 26.2 billion (see Table 1.1)

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56 SIPRI, World Armaments and Disarmament Year Book, 1984 p. 188.

57 Ibid.

58 Ibid.

TABLE 1.1

FRENCH ARMS TRANSFERS RELATED TO EXPORTS, OIL IMPORTS AND COMMERCIAL BALANCE, 1970-80

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Exports	17.9	20.6	26.1	35.9	45.9	52.2	55.8	63.5	76.4	97.5	116.1
of which arms exports	0.4	0.5	0.8	1.2	1.4	1.9	2.4	3.0	3.8	4.8	5.8
Arms Deliveries/ Exports (%)	2.2	2.4	3.0	3.3	3.0	3.6	4.3	4.7	5.0	4.9	5.0
Imports	19.1	21.3	26.9	37.3	52.8	54.2	64.5	70.4	81.5	107.6	130.4
of which oil imports	1.7	2.2	2.7	3.5	9.9	9.7	11.5	11.9	12.0	17.2	26.2
Arms deliveries/ oil imports (%)	23.5	22.7	29.6	34.3	14.1	19.6	20.9	25.2	31.7	27.9	22.1
Balance: Exports and Imports	-1.2	-0.7	-0.8	-1.4	-6.9	-2.0	-8.7	-6.9	-5.1	-10.1	-14.3
Deficit without arms sales	-1.6	-1.2	-1.6	-2.6	-8.3	-3.9	-11.1	-9.9	-8.9	-14.9	-20.1

Source: SIPRI, World Armamaments and Disarmament Year Book, 1983, Table 13.2, p. 380.

worth of oil. During the same year it exported $ 5.8 billion worth of arms. Therefore, the conclusive evidence is that arms sales abroad compensated for 22.13 per cent of its oil bill and that export of arms increased with the increase of oil bill.

The importance of arms sales to French economy can be measured in another dimension also. The contribution of French arms sales to overall commercial export position though not predominant, was nonetheless an important factor or item of French export structure. Between 1970 and 1973 France annually averaged a commercial deficit of $ 1.025 billion. In this period arms sales annually averaged approximately $ 0.725 billion. Without these arms sales France might have had a commercial deficit of $ 1.75 billion. During 1974-80 period both its commercial deficits and arms sales abroad grew to higher levels. French commercial deficit which averaged $ 7.7 billion between 1974-1980 would have been theoretically greater by an average of $ 3.3 billion over this period but for the foreign currency been earned through arms sales. In 1970 arms exports as a percentage of total exports amounted to 0.4 per cent. In 1980 this figure rose to 5.8 per cent.

The dependency of defence industry on arms exports is more striking. For a proper understandingg of arms exports,

it may be necessary to divide that sale under four categories, viz. Aeronautic, Ground equipment, Naval equipment and Electronic equipment. Between 1970-79 arms exports (all categories included) annually averaged $ 2.0 billion (see table 1.2). In the same period exports of aeronautic equipment (military only) annually averaged to $ 1.2 billion. That would mean that on a yearly average basis 60 per cent of French arms exports constituted aeronautic equipment. This was followed by ground equipment with 22.2 per cent ($ 0.444 billion). Electronic equipment constituted 8.25 per cent ($ 0.165 billion), and naval equipment 5.5 per cent ($ 0.110 billion). The dependency of French arms industry on exports has been summarized by SIPRI in the following words:

> In the aerospace industry all of the major firms depend on military contracts for most of their work. France's four leading aerospace firms are especially tied to foreign sales. Aerospatiale (SNIAS), France's largest aerospace group depends on sales abroad for approximately 40 per cent of its activity, principally tactical missiles and its highly successful helicopter industry. In 1978 Dassault, France's second largest firm, relied on foreign sales for almost 70 per cent of its business turnover. Throughout the 1970s more than 60 per cent of its annual production has on the average been for foreign governments. SNECMA and Matra, the next largest aeronautic firms owed 47 and 32 per cents respectively of their business receipts to foreign military buyers. Other important sectors of the French arms industry are

TABLE 1.2

EXPORTS OF ARMS GROUPED BY CATEGORY, 1970-79

(Figures are in US $ billion)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Aeronautic	0.324	0.379	0.609	0.867	0.873	1.66	1.697	1.832	2.393	2.849
Ground	0.072	0.108	0.099	0.180	0.270	0.315	0.513	0.688	0.866	1.333
Naval	0.050	0.016	0.22	0.092	0.116	0.196	0.038	0.175	0.272	0.127
Electronic	-	-	-	-	0.129	0.257	0.188	0.299	0.288	0.498
Total	0.446	0.503	0.728	1.139	1.388	1.934	2.436	2.994	3.819	4.807

Source: SIPRI World Armaments and Disarmament Year Book, 1983, Table 13.3, p. 384.

> similarly dependent on foreign contracts. The arms industry employs approximately 300,000 military and civilian personnel. This comprises about 1.3 per cent of active population and 5.5 per cent of industrial labour force. Those directly engaged in exports would be around 130,000-140,000. 59

DECISION-MAKING PROCESS ON ARMS SALES

The French decision-making process on arms sales is highly organized and closely controlled. The Delegation Generale Pour l' Armement (DGA) is the organization that controls and supervises French defence industries. Within the DGA another body called Direction des Affairs Internationale: (DAI), supports sales efforts of French defence industries. The task of organizing the displays of French weapons at the French naval and air shows also falls on DAI. All requests for exports must be approved by an Inter Ministerial Committee for study and export of war materials, chaired by the Secretary General of the Secretariat of National Defence which is attached to the Prime Minister. Interministerial Committee for study and export of war materials meets every two weeks and takes decision on a case-by-case.[60]

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59 SIPRI, World Armaments and Disarmament Year Book 1983 (Stockholm, 1983), p. 379.

60 Pierre, n. 11, p. 89.

It also decides which weapons can be sold and which cannot. This committee consists of about twenty representatives, mainly from the ministries of Foreign Affairs, Defence and Finance and Economy.[61] The representatives of these three key ministries have the final say on arms sales and all of them are answerable to the Prime Minister.[62]

An overview

Since the mid 1950s arms exports have played a crucial role in the expansion and modernization of French defence industry and kept it in a technologically developed state. A technologically well developed self sufficient arms industry enabled France to maintain independent defence posture. Its arms trade policy strengthened its resolve to pursue an independent role in international affairs. It appears that the French arms sales policy bore no strong political restraints, except on retransfers to third parties. Lack of "political strings" has been an important factor that contributed largely to the success of French arms sales. Many Third World nations who wanted to diversify their sources of arms in order to reduce Super Powers influence on their security and foreign policies have turned to France. Peru

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61 Ibid.

62 Kolodziej, n. 3, p. 71.

Pakistan, India, Iraq, Argentina and Saudi Arabia are some of the examples. Pakistan turned to France when US imposed an arms embargo on India and Pakistan in 1965, and purchased Mirage aircraft and submarines etc. Iraq sought to diversify its sources of arms when the Soviet Union placed embargo on arms shipments to that country in 1975. Since then France has become one of the largest arms supplier to Iraq. (USSR lifted embargo in 1978 and is still the largest arms supplier to Iraq.) Increased Iraqi purchases of French weapons have provided Baghdad a greater freedom of manoeuvre vis-a-vis Moscow. Though French arms supplies to Iraq have not yet surpassed Russian arms supplies, France has also reduced Iraqi dependency on the Soviets, especially in the continuing Iraq-Iran war.

Saudi Arabia too sought to diversify its arms sources instead of becoming totally dependent on US supplies. It concluded multi-billion dollar deals with France in 1975, 1980 and 1984.

Another important element of French arms trade policy has been its willingness to provide arms production technology to any country. Now many Third World countries produce arms under French licence. India, Egypt, Argentina, Brazil are some of the examples. India is producing helicopters (1962 and 1970), Milan ATMs (1985) under French licence. Egypt has acquired licence to produce Mirage 2000 aircraft.

Unlike Britain, France does not yield to US pressures. Britain could not supply lightening supersonic aircraft to Peru largely because of US pressure. So far French arms trade policy has been totally independent and carries little or no political strings. These factors together make France (among Western arms producing countries) a reliable supplier that can sell any weapon to any country provided the recipient has the capacity to pay for arms sales.

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CHAPTER II

CONSTRAINTS ON FRENCH ARMS SALES TO INDIA, 1950-74

In 1950s and 1960s the Indian arms procurement policy and French arms sales policy greatly constrained French arms exports to India. The commercial nature of French arms sales policy and the French preference for ex-French colonial African states for concessional military assistance were hardly encouraging factors for Indian arms procurement policy makers. Commercially India preferred to acquire arms from Britain (1950s) and Soviet Union (1960s onward) rather than from France. The Soviets provided weapons at a relatively cheap price. In the case of Britain specially in 1950s Indian arms procurement policy makers were greatly influenced by the favourable balance of payments position with Britain.[1] The following table provides at a glance the favourable Indian balance of payments position with Britain:

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1 When India became independent it had piled up a large war time sterling balances with the Bank of India. Arun Kumar Banerji, India and Britain : The Evolution of post Colonial Links, 1947-78 (Calcutta, 1977), p. 224.

India's Balance of Payment Position with Britain

Year	Balance of payments (current account) Sterling area (Rs. crore)
1953-54	+ 64.2
1954-55	+ 52.9
1955-56	+ 44.9

Source: Economic Survey, 1959-60, Table 5.4.

BRITISH ARMS SALES

During the entire 1950s and until 1962 India's arms procurement policy had been influenced by its close links with Britain. The British military ties with India remained strong with the aid of training courses in Britain, attendance of senior officers at the Imperial Defence College and British Staff Colleges, the annual conferences convened by the Chief of Imperial General Staff, service literature and regimental unit links developed over a period of association spanning two centuries for the Army and several decades for the Navy and Air Force.[2] Thus the Indian

2 Lorne J. Kavic, India's Quest for Security Defence Policies, 1947-1965 (Berkley, 1971), p. 152.

armed forces were influenced to a large extent by the British legacy: their organization under colonial rule, familiarity with British weapons and training. Therefore, it was natural that the Indian government and Indian armed forces would prefer British weapons.

Thus during the 1950s India's arms procurement policy was influenced by its past colonial links with Britain. In contrast France has not had any strong colonial links with India and the political cooperation between the two countries was minimal. Slow progress in the sphere of political cooperation could be partly because of the French commitments to the North Atlantic Treaty Organization (NATO), the South-East Asia Treaty Organization (SEATO) and partly because of the French belief that in Asia it was Communist China that was destined to be a great power.[3]

As a result of these above factors Indian arms procurement attitude during 1950s was to a large extent British oriented. Consequently bulk of the Indian military requirements came from Britain. Britain remained primary arms supplier to India until 1962.[4] Table 2.1 substantiates this point.

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3 H.S. Chopra, "India and Politics of Major EEC Powers", International Studies (New Delhi), vol. 17, no.s 3-4, July-December 1978, p. 728.

4 SIPRI, The Arms Trade with the Third World (Stockholm, 1971), p. 271.

TABLE 2.1

ARMS SUPPLIES TO INDIA BY MAJOR ARMS SUPPLIERS
1950-60

1. FRENCH SUPPLIES

Year	Quantity	Item	Comment
1	2	3	4
(i) Aircraft			
1953-54	71	Dessault M.D. 450 Ouragan	
(1957)	33	Dassault M.D. 450 Ouragan	
1958	110	Dassault Mystere IV A	
(b) Armed fighting Vehicles			
1957-58	150	AMX - 13	

2. UK SUPPLIES

(a) Aircraft			
1949-53	62	HAL/perieval prentice	Produced under licence in India
1950	10	Short sealand	
1953	5	Fairy Firefly TTI	
1953	(10)	DH Vampire N.F. 64	Ex-RAF
1953-59	230	HAL/DH Vampire PB.9	Produced under licence in India
1955	2	Vickers Visurent 730 & 723	

-/-

Table I (contd.)

1	2	3	4
1955	10	Auster AOP.9	
1956	20	Auster AOP.9	
1956-60	50	HAL/DH Vampire T.55	Produced under licence in India
1957-61	160	Hawker Hunter F.56	
1957-61	22	Hawker Hunter T. 66	
1958	5	Fairy Firefly TT4	
1958	66	English Electric Canberra B(1)58	
1958	8	English Electric Canberra PR.57	
1958	6	English Electric Canberra T.4	
1958	25	Folland Gnat	
(1959)	15	Folland Gnat	In component form for local assembly
(b) Naval Vessels			
1950	3	Destroyer "R" class	Displ: 1725t; completed 1942, refitted 1949
1953	3	Destroyer "Hunt" class	Displ: 1050t; 1 completed in 1941, 2 in 1944: on loan
1954-55	1	Inshore minisweeper "Hum" class	Displ: 120t; launched 1954
1956	4	Coastal minisweeper "Ton" class	Displ: 360t; completed 1956

-/-

Table I (contd.)

1	2	3	4
1957	1	Cruiser "colony" class	Displ:8700t completed 1940 refitted 1954
1958	1	Anti-aircraft frigate "Leopard" class	Displ: 2251t completed 1958
1958	3	Anti-submarine frigate "Backward" class	Displ: 1180t 1 completed in 1958; 2 in 1959
1960	2	Anti-aircraft frigate "Leopard" class	Displ: 2251: completed 1960
1960	2	Anti-submarine frigate "Whitby" class	Displ: 2144t completed 1960

(c) Armoured Fighting Vehicles

1950	(120)	Daimler & Hunber AC
1956-57	210	Centurion
1956-57	(50)	Ferret

3. USA SUPPLIES

(a) Aircraft

1954	6	Sikorsky S-55	
1954	26	Fairchild C-119 G packet	
1956	30	NA T-6G Texan	
1957-58	6	Bell 47G - 3B	
1960	2	Sikorsky S-62	Cost: $ 540,000 supplied for evaluation

-/-

Table I (contd)

1	2	3	4
(b) Armoured Fighting Vehicles			
1953	180	M-4 Sherman	Large numbers supplied before 1950
4. USSR SUPPLIES			
(a) Aircraft			
1955	2	II-14	Gift
1960	24	II-14	

Source: SIPRI, Arms Trade Registers : The Arms Trade with the Third World (Cambridge: Mass, MIT Press, 1975). PP. 33-37

The table would indicate that although during this period Britain was the largest arms supplier to India, France too had supplied arms to India. Between 1950-60 period France had supplied 214 fighter/interceptor aircraft, 150 AMX.13 light tanks to India. Apart from UK no other arms supplying country had supplied such a large number of fighter/interceptor aircraft during 1950s. Paradoxically France ranked as the second largest arms supplier to India during the 1950s.

The question now needs to be examined is what was the reason or security needs that made India to acquire such a large number of aircraft from France. Available evidence indicates that Indo-Pak conflict environment brought some modifications in the general Indian arms acquisition policy.

ACTION-REACTION SYNDROME

Since the partition both India and Pakistan have been looking at each other with distrust, suspicion and fear. The problems arising from the partition coupled with the interest of super powers generated a kind of mini-arms race in the Indian sub-continent. Pakistan joined Western military alliances, viz. South East Asia Treaty Organization (SEATO) and Central Treaty Organization (CENTO) in September

1954 and July 1955 respectively, in order to enhance its military strength vis-a-vis India. However, the most important event that directly provoked an arms race in the sub-continent region was Mutual Defence Assistance Agreement which was signed between the US and Pakistan on 19 May 1954. According to this agreement the US had agreed to provide military equipment and training assistance to Pakistan. This has had an adverse impact on Indian security environment. Though US had repeatedly assured India, that the intended supply of arms to Pakistan was not to be used against India but to strengthen Pakistan against a possible communist threat. However India which could not satisfy itself with US assurances and suspicious of Pakistan's ulterior motives began to strengthen and modernize its armed forces by procuring more arms from foreign sources.

India, however, was reluctant to purchase any major weapons from the super powers in view of its non-alignment policy. Hence, when Pakistan received F-86 Sabre fighters from USA in 1956, India acquired Ouragons, Hunters and Canberras from France and Britain. The acquisition of these aircrafts were not envisaged at the time of independence. These aircrafts were purchased when Indian government came to know that Pakistan was to receive F-86 Sabre fighters and B-52 bombers. Similarly

India had to react by acquiring new armour, when a major tank acquisition programme was launched by Pakistan in 1954 and Chaffie, Shermon, Bulldog and Patton tanks were acquired by Pakistan army. India already had Centurian tanks on order from Britain and acquired additional AMX-13 light tanks from France to match M-41 Bulldogs in Pakistan Army.[5]

SOVIET ARMS SALES LIMIT FRENCH ARMS TRADE WITH INDIA

Though India continued to procure British weapons even after 1962, the earlier preference for the British arms had declined. India from early 1960s onward started purchasing Soviet military equipment. The first major military cooperation with the Soviet Union was established in 1962. In that year India signed an agreement with the Soviet Union for the purchase of 12 MiG-21 fighter aircraft. However, the most important part of the deal was Soviet Union's willingness to provide assistance for the licenced manufacture of MiG-21s in India. The terms of the deal were also favourable to India as the payment was to be made in

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5 Mohammed Ayoob, "The Indian Ocean Littoral : Intra-Regional Conflicts and Weapons Proliferation", in Robert O' Neill, ed., Insecurity : The Spread of Weapons in the Indian and Pacific Oceans (Canberra, 1978), p. 194.

Indian rupees. This major arms deal was signed with the Soviet Union in the face of strong British opposition. Britain had offered Lightning supersonic aircraft as a counter to MiG-21s. However India rejected the offer in order to demonstrate its freedom in choosing the source of military equipment. Though India's option for MiG-21 was a move to demonstrate its freedom in arms procurement, it could be seen in diplomatic aspect also. It may be suggested that the MiG-21 option of India was a deliberate policy decision of the Indian government to associate the Soviet Union in an important defence collaboration project, at a time when tension in Sino-Indian relations were increasing. It was considered as a good diplomatic move aimed at establishing Soviet neutrality in the Sino-Indian conflict.[6]

The Anglo-American embargo on the eve of 1965 Indo-Pak war strengthened Indo-Soviet arms trade relationship. During the years 1965-1969 the Soviet Union accounted for eighty per cent of all major weapons deliveries to India.[7] In 1967 Soviet Union offered 200

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6 SIPRI, n. 4, p. 482.

7 Ibid., p. 204.

SU-7 fighter bombers for $ 143 million at an amazingly low subsidized unit price of $ 715,000 - lower than comparable British, American and French aircraft.[8]

Apart from this, cooperation in the defence field Soviet Union Union's diplomatic support for India over the Kashmir question and political support for India's non-alignment policy further cemented the overall India-Soviet relations. When Peking-Islamabad-Washington triangle emerged in the summer of 1971, India needed a strong political support and Soviet Union too decided to move closer to India.[9] In August 1971 both India and Soviet Union signed a 20-year Treaty of Peace, Friendship and Cooperation which had established 'special' relationship between the two countries. During the 1971 Indo-Pak war India's security needs were met by the Soviet Union, together with the diplomatic support in the UN Security Council. If the first phase of India's arms procurement policy was predominantly British oriented, the second phase is predominantly Soviet oriented. In this context SIPRI has remarked: "In the

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8 Lewis A. Frank, The Arms Trade in International Relations (New York, 1972), p. 98.

9 Vijay Sen Budhraj, "India and the Soviet Union", International Studies (New Delhi), vol. 17, nos. 3-4, July-December 1978, p. 740.

short run India has become fairly heavily reliant (for arms supplies) on one of the two great powers...(Soviet Union)."[10]

As a result of the Soviet preponderance on India's arms procurement policy, the scope for French arms trade with India has been considerably reduced. Moreover arms industry in France is heavily dependent on exports. As such France could not sell arms at subsidized prices, like the Soviet Union. In addition to these, France does not have any strong strategic interests in the Indian sub-continent which could have compelled it to actively seek Indian arms market. Furthermore British lifting of arms embargo soon after the end of 1965 Indo-Pak war denied France to take the position of Britain in supplying arms to India. So some of the military sales which could have gone to France was retained by Britain. Hence, within the restricted scope France had supplied only a modest quantity of arms to India between 1961 and 1973 period. Even those sales were perhaps possible mainly because France like the Soviet Union had offered licenced production in India. This aspect is dealt in Chapter V. Table 2.2 presents arms supplies to India by major arms suppliers. It also indicates that the Soviet Union is the major supplier of arms to India followed by Britain.

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TABLE 2.2

ARMS SUPPLIES TO INDIA BY MAJOR ARMS SUPPLIERS, 1961-73

Year	No.	Item	Remarks
1	2	3	4
		1. FRENCH SUPPLIES	
(a) Aircraft			
1961	15	Brequet 1050 Alige	
1963	20	Sud Aloutte III	
1966-73	120	HAL/Sud Aloutte III	Produced under lience in India indigenous content 96%. Indian export price: $ 235,000
1968	3	Breguet 1050	
1972	8	Aerospatiale Aloutte III	For use on "lender" class frigates[a]
1972	200	HAL/Aerospatiale Aloutte III	Produced under licence in India
(b) Missiles			
(1968)	(50)	Nord AS.30	
1969	(50)	Nord Entac	
1969	(50)	Nord SS.11	
1971-73	(750)	Nord SS.11	Produced under licence in India indigenous content 70% by 1973-74

contd...

Table II (contd.)

1	2	3	4
		2. USSR SUPPLIES	
(a) Aircrafts			
1961	10	Mi-4	U.C.: $150,000 sold for cash
1961	8	An - 12	
1962	16	Mi - 4	For cash
1962	8	An - 12	
1963	6	MIG - 21	
1963	6	Mi - 4	For cash
1963	8	An - 12	
1965	36	Mi - 4	On deferred payment
(1965-67)	(90)	MIG-21	Direct purchase
1966	40	Mi - 4	U.c: $ 120,000: on deferred payment terms
(1966)	14	MIG-21 UTI	
(1966)	10	An-12	
1967	3	Tu - 124	
1967-74	196	HAL/MIG FL	Produced under licence in India indigenous content 60 per cent 1972
1968-70	100	Su-7B	U.C.: $ 1 mn
1971	50	Su-7B	
(1971)	20	Mi - 8	

-/-

Table II (contd.)

1	2	3	4
1972	7	MIG-21m	Delivered prior to start of licence production
1972	150	HAL/MIG-21 MF	Improved version produced under licence in India
(b) Missiles			
1963	(36)	K - 13 "Atoll"	To arm MIG-21
1965-66	102	SA - 2	17 sites cost $ 112 million
1966-67	(540)	K - 13 "Atoll"	To arm MIG-21
1967-73	(1120)	K - 13 "Atoll"	Produced under licence in India to arm MIG-21
1968-72	(75)	SA - 2	8 batteries on 50 sites
1971-72	(96)	SS-N-2 "Styx"	4 missiles launches in 2 pairs on motor torpedo boats
(c) Naval Vessels			
1966	2	Landing craft "Polnocny" class	Displ: 900t
1967	5	Fast patrol boat "Poluchat" class	Displ: 100t
1968	1	Submarine tender modified "Ugra" class	Displ: 6000t light
1968	2	Landing craft "Polnocny" class	Displ: 900t
(1968)	1	Fast patrol evat "Poluchat"	Displ: 100t

-/-

Table II (contd)

1	2	3	4
1968-69	2	Submarine "F" class	Displ: 2000 t surface, 2300t submerged
1969	5	Frigate "Petya" class	Displ: 1050t
1070	2	Submarine "F" class	Displ: 2000 t surface, 2300t submerged
1971	1	Submarine tender	Displ: 790t; ex-sirret fleet minesweeper
(1971)	1	Frigate "Petya" class	Displ: 1050t
1971-72	8	Motor torpedo boat	Similar to "bsa" class armed with "Styx" SSms
1972	2	Frigate "Petya" class	Displ: 1050t

(d) Armoured Fighting Vehicles

1964	70	PT-76
(1965)	80	PT-76
1968-71	225	T-55

3. UK SUPPLIES

(a) Aircraft

1960-63	24	Armstrong whitursth Seahawk	Partly new partly ex-RAF
1960-65	100	HAL/Folland Gnat	Produced under licence India

-/-

Table II (contd)

1	2	3	4
1961-65	12	Armstrong Whitursth Seahawk	Refurbished
1963	5	Auster AOP.9	
1965	6	BAC Canberra B(1) 58	
1965-67	10	HAL/HS-748	Produced under licence in India
1966-69	100	HAL/HS Gnat	Production expanded due to Gnat succession Indo-Pakistani War 1965
1967	36	Hunter F.56	Refurbished
1967	12	Hunter T.66 D	Refurbished
1968-69	4	HAL/HS-748	Continued licenced production
1970-71	12	BAC Canberra Bo15 & 16	Ex-RAF Refurbished
1971	5	HAL/HS-748	Continued licenced production
1971	6	Westland Sea king	Cost: $ 408 million including spares and support equipment for ASW
1972	5	HS Hunter	Refurbished
1972	26	HAL/HS-748	Continued licenced production to meet IAF orders for 45
1973-74	6	Westland Sea king	Optium for 3 for ASW
--	-	HAL/HS Gnat MK2	Production to be resumed of improved version
--	20	HAL/HS-748	Freighter version to be produced under licence

-/-

Table II (contd.)

1	2	3	4
(b) Missiles			
(1972)	20	Short Seacat	2 quadruple launches on frigate "Leander" class
1972-73	40	Short Tiger cat	Cost: $ 10.4 million
--	(100)	Short Seacat	2 quadrable launches on each of remaining 5 frigates "Lands" class
(c) Naval Vessels			
1961	1	Aircraft carrier "Majestic" class	Displ: 16,000t; launched 1945; sold to India 1957 completed 1961
1972	6	Frigate "Leander" class	Displ: 245t; being built in India, armed with "Seacat" SAMs
(d) Armed Fighting Vehicles			
1967-73	500	Vijayanta	Version of Vickers 3 produced under licence; indigenous content 68 per cent 1972

4. US SUPPLIES

(a) Aircraft			
1961	29	Fairchild C-119G packet	
1961	6	Bell 47-G-3B	
1962	2	DHC-4 Caribou	MAP

-/-

Table II (contd.)

1	2	3	4
(1962)	(23)	Fairchild C-119G packet	
1962-62	12	Lockheed C-130 Her Coules	Free loans basis air and ground
1963	24	Fairchild C-119G packet	MAP
(1971)	10	Hughes 300	For Navy

Source: SIPRI, The Arms Trade Registers : The Arms Trade with the Third World (Cambridge: Mass, MIT Press, 1975). pp. 33-37

CHAPTER III

MAJOR FRENCH ARMS SALES TO INDIA : 1975-1985

The modification in the Indian arms acquisition policy from 1970s onwards was largely responsible for the major French arms sales to India. India had fought four regional wars -- three Indo-Pak wars, and a Sino-Indian war in 1962. The reverses in Sino-Indian war had initiated the modernization of the Indian army. From 1970s onwards the modernization of Indian army had assumed another dimension : the introduction of sophisticated and high technology arms. Once acquiring sophisticated and high technology arms assumed priority, the Indian arms procurement policy had to be modified in two respects. First, the high cost of sophisticated weapons or low cost of Soviet weapons were not to determine in acquiring sophisticated arms. This modification in the Indian arms acquisition policy greatly facilitated the French arms sales to India as it is essentially based on commercial transactions. Moreover the cheap price of Soviet arms was no longer a factor that went against the French arms sales. Since financial aspect assumed secondary consideration in the Indian arms procurment policy in relation to acquiring Soviet arms aid the next logical step followed. Indian arms procurement policy makers recognized that national interest better would be served by

diversification rather than depending exclusively on Soviet arms even if the sophisticated nature of the Soviet arms were almost comparable with that of Western arms. This modification in the Indian arms procurement policy too has also greatly facilitated France to enter into competition with the other arms suppliers without disadvantage.

Broadly India's arms purchases during the period of 1974-85 can be viewed in the following contexts:

(1) Diversification of sources of arms supply
(2) Normal modernization of armed forces
(3) Action-reaction syndrome of Indo-Pak arms procurement policy.

DIVERSIFICATION OF SOURCES OF ARMS SUPPLY

It is true that the value of French arms transfers to India compared with the Soviet Union or UK's transfers, is very low. Despite this fact, France as an alternative source of arms supply from diversification point of view carries much importance to India. Diversification means widening or expansion of arms sources over a number of arms supplying countries.[1] Diversification of arms sources gives a recipient country more freedom of action,

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1 SIPRI, The Arms Trade with the Third World (Cambridge, Mass: 1971), p. 63.

particularly in times of crises. When a country's arms sources are widely diversified adverse action by one supplier would not hurt such country. For instance, arms embargoes are used by supplying countries to influence or to bring change in recipient country's domestic, security or foreign policies, when the recipient country is reluctant to comply with supplying country's wishes. This painful situation could be avoided to a large extent if a country's arms sources are widely diversified.

Furthermore diversification of arms sources increases the bargaining capacity of recipient country by generating competition between the supplying countries. The competition may successfully be utilized by the recipient country to secure better credit terms or subsidy to choose the best available weapons to suit its requirements. The Indian Mirage 2000 deal is one such example. When India was looking for a suitable aircraft for its defence requirements, France, Britain and Soviet Union fiercely competed with each other in order to sell their respective aircrafts.

NORMAL MODERNIZATION OF ARMED FORCES

India's purchases of French arms can also be viewed in the context of normal modernization programme of its armed forces. Modernization can mean several things like replacing old and practically unserviceable equipment

with new ones and, in that process to improve the general quality of the weapons.[2] It can also mean replacing existing weapons with new ones because they are better.[3]

The importance of the modernization of the armed forces is better summarized and highlighted by an Indian strategic expert K. Subrahmanyam, Director, Institute for Defence Studies and Analyses, New Delhi. He points out that armed forces equipped with obsolete equipment is not merely useless but positively counter-productive as it generates a false sense of security. A country that does not feel the need to equip its forces with current equipment should logically dissolve its armed forces; and a country that feels the need to have an armed force for its security has no option but to equip it appropriately. A tank with a gun with a range of 2000 meters as against a tank with a gun with a range of 1500 meters is not just one third better; for it can stay out of range and destroy the other tank. In the margin of that 500 meters one is totally effective the other is ineffective. The outcome of the combat is decided in that margin. No country with traditions of nature diplomacy

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2 K.R. Singh, "Weapons Systems and India's Defence Policy for 1980", in D.D. Khanna, ed., Strategic Environment in South Asia during the 1980s (Calcutta, 1979), p. 145.

3 Ibid., p. 145.

and foreign policy will wait to bring its equipment up-to-date standards till it seems a specific threat arising.[4]

SUB-CONTINENTAL ACTION-REACTION ARMS RACE

During the period under view two factors contributed to the sub-continental arms race essentially between India and Pakistan. Foremost factor being that French by pursuing a policy of introducing new weapon systems continuously in the Indian neighbourhood specially in Pakistan generated a demand for French weapons in India. Secondly, Pakistan by acquiring sophisticated military systems from sources other than France created new demands for sophisticated weapons in India from sources including France.

In substantiating, it may be pointed out that French arms sales to Pakistan started in the second half of 1960s. According to available evidence there were no French weapon transfers to Pakistan before 1965 period.[5]

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4 K. Subrahmanyam, "International Security and National Security", Strategic Analysis (New Delhi), vol. 7, no. 1, April 1984, p. 7.

5 According to arms transfers table prepared by SIPRI, the French arms supplier to Pakistan began during the second half of 1960s. This table indicates that there were no French arms transfers to Pakistan before 1965. SIPRI, The Arms Trade Registers (Cambridge, Mass.: 1975), pp. 37-40.

Pakistan started to diversify its arms sources when Anglo-American embargo was imposed on India and Pakistan in 1965 war. It made attempts to acquire arms from Soviet Union, China, France and other Western suppliers. In that process France had become a major source of arms supply. Largely because of Pakistan's acquisition of French arms, France could become the second largest arms supplier to the Indian subcontinent. In this context SIPRI has observed that the Indian subcontinent receives an increasing share of French weapons, placing France as the second largest supplier to the area after 1975, this being traditionally UK-USSR dominated area.[6]

Tables 3.1 and 3.2 present weapons and weapon systems transferred to India and Pakistan during the period 1974-85. It is interesting to note that France had supplied same kind of weapons to both India and Pakistan. For instance, both India and Pakistan acquired French Aloutte III helicopters, Breguit-Alize aircraft (marine patrol aircraft) Matra R-550 Magic and Exocet Missiles. A glance at the table would indicate that such weapon systems were acquired by Pakistan before India had acquired them. This would substantiate the point that France had introduced such

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6 SIPRI, World Armaments and Disarmament : SIPRI Year Book 1981 (Stockholm), p. 76.

TABLE 3.1

FRENCH ARMS TRANSFERS TO INDIA, 1975-85

Weapon Designation	Weapon Description	Nos. ordered	Year of order	Year of delivery	No. delivered	Other information
Avisos Frigate	ASW: RL: TT (Rocket launcher; torpedo tube)		Date of licence Feb. 1974			First to be laid down in mid-1975: 25-30 planned under licenced production
Alize	ASW Fighter	12	1977	NA	NA	
R-550-Magic	AAM	NA	1977	NA	NA	
Mirage 2000	Fighter/Strike Aircraft	40	1982	1984-86	-	Licensed production in India cancelled.
MM-38 Exocet	Sh Sh M	NA	(1982)			Unconfirmed; to replace Styx Sh Sh M
AM-39 Exocet	Ash M	NA	(1984)			Negotiating to arm 6 Jaguars competing with British sea Eagle Ash M and Soviet Missile
Milan	ATM	3,700	(1981)	1982 1983 1984	50 50 100	Licensed production to start in 1985
R-550 Magic	AAM	240	(1984)			Arming 40 Miraga2000s and possibly also Jaguars for delivery from 1986
Super-530	AAM	240	(1984)			Arming 40 Miraj-2000

Source: SIPRI, World Armaments and Disarmament Year Book : SIPRI Year Books 1976-1985 (Stockholm).

TABLE 3.2

FRANCO-PAK ARMS TRADE, 1974-85

Designation of Armament	Description	No. ordered	Date of order	Date of Delivery	Nos. delivered
AM 39 Exocet	ASM	NA	1974	1975	NA
Mirage III R	Tactical vecce/ Fighter	10	1975	1977	NA
Matra-SCF-Thompson	SAM(Surface or ship to Air-missile)	6-12 batt	1975		
AS-11/12	ASM	NA	(1975)		
Super Frelon	Helicopter	4	1975	1977	
Matra R-550 Magic	AAM	120	1975	1977	120
Breguit-1150	Marine Patrol Aircraft	2	1976	1977	2
Agosta Class	Submarine	2	1978	1979	1 Built for South Africa but embargoed Jan 1978.
SA-330 L.Puma	Helicopter	35	1977	1979	35 for army
R-550 Magic	AAM	192	1978	1983	192
Mirage-3E	Fighter/Bomber	32	1979	1980	16 contract signed on 27 March 1979, including a number of Mirage 58; cost $ 350 mn. delivery 1981-83; Armed with AM-39 exocet Ash M: Payment terms: 1/7 deposit plus long term French credit will cover 80% of costs.
Mirage 5	Fighter Aircraft	32	1979	1980-83	32
R-530	AAM	120	1980	1981-83	120
AM-39 Exocet	AshM	36	(1980)	1983	36

Source: SIPRI Year Books, 1974-1985 (Stockholm)

weapon systems in the Indian neighbourhood, so as to generate similar demand from India. Moreover, India could secure these arms because France had no conditional sale offer for its weapons to India. Both Pakistan and India were treated as same as far as arms sales were concerned. Indeed this is exactly what the commercial nature of French arms sales has been. Thus action-reaction arms race ensued in the Indian subcontinent between India and Pakistan.

A glace at the tables 3.1 and 3.2 would also indicate that some weapon systems Pakistan has exclusively acquired from France like submarines helicopters, Mirage aircraft etc. India did not opt for acquiring similar French weapons to maintain a military balance between Pakistan and India. It appears that India opted for Soviet arms, specially naval vessels, and SAM missiles, aircraft and helicopters as the Soviets offered them at a very cheap cost price and with credit facilities. This was a major deal concluded in 1980 amounting to $ 1.6 billion.[7]

It should also be mentioned here that France had never imposed arms embargoes on India and Pakistan during 1965 and 1971 armed conflicts. By not imposing arms embargoes

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7 AAS Milav News (London), vol. 20, no. 238, August 1981, p. 16.

France demonstrated itself to be a credible arms supplier and substantiated its claim that it does not attach political strings to its arms sales policy. French arms sales policy stands in contrast to US arms sales policy which seeks strategic incentives through its arms sales. For instance, available evidence indicates that the US while supplying arms to Pakistan sought to:(a) make Pakistan a frontline state in its global policy; (b) acquire base rights for its military purposes, and (c) monitor and gather intelligence about Soviet Union's missile bases in Asia from Pakistani soil. France on the other hand if judged by its arms sales behaviour during Indo-Pak armed conflicts of 1965 and 1971, it becomes clear that it kept itself away from subcontinent regional politics by adopting neutral stance and by not imposing arms embargoes. Its arms behaviour suggests no strategic incentives are being sought as far as Indian subcontinent is concerned. This point can be substantiated by taking into account French uninterrupted supply of arms to Pakistan from mid-sixties to present day. In the case of India though the quantity of its arms supply is very low their arms transfer relationship could be traced back to early 1950s. During this long period of three decades of arms trade relationship, France, as the evidence suggests, has never refused any Indian request for defence equipment.

Whenever India expressed its apprehensions over the likely repercussions of the French arms transfers to Pakistan

France tried to assure India that its arms transfers were purely of commercial nature and no strategic or political considerations were attached. Speaking in this context the French deputy foreign minister Jean de Lipkowski assured, when he was on official visit to India, that the French supply of arms to Pakistan was not politically motivated and was purely on commercial basis. Speaking in a news conference in New Delhi, he said that "France had no philosophy underlying the supply of arms to Pakistan and it was only a question of the balance of trade between the two countries."[8] India appears to have understood this commercial nature of French arms sales to Pakistan and itself. This understanding perhaps could be the reason for smooth running of Indo French relations, despite the fact that France is one of the largest arms supplier to Pakistan.

When highly sophisticated aircraft and weapon systems were introduced in the neighbourhood specially in Pakistan, from sources other than France India was forced to react. With US agreeing to supply the highly sophisticated F-16 aircraft Indian defence policy makers had to counter this threat by acquiring an aircraft almost similar to F-16 capability. After evaluating Western and Soviet aircraft the

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8 Japan Times, 10 March 1969, cited in SIPRI, The Arms Trade with the Third World, n. 1, p. 500.

choice fell on the French Mirage 2000. The details of the deal are discussed in the following chapter. Suffice here to note that the action-reaction syndrome of the Indo-Pak military procurement facilitated the sale of French Mirage 2000. As along with the F-16 Pakistan was acquiring Sidewinder Air-to-Air missiles Indian arms procurement policy makers had to counter this threat to Indian Air Force (IAF). The choice made to meet this role was two French missiles Super-530 AAMs and R-550 Magic AAMS.

Super 530 Air-to-Air Missile

According to SIPRI India has ordered 240 Super-530 AAMs from France in 1984 to arms its 40 Mirage 2000 aircraft.[9] Super-530 is a developed version of Matra R-530 weapon to meet the higher speed and altitude performance requirements of the latest generation of interceptor aircraft. The Super-530 is a high performance interception missile which succeeds the R-530 with twice the possibilities in range and acquisition distance. The Super-530 is equipped with an electromagnetic homing head.

R-550 Magic Air-to-Air Missile

According to SIPRI India has ordered 240, R-550 Magic AAMs from France in 1984.[10] These missiles according to

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9 SIPRI, World Armaments and Disarmament : SIPRI Year Book 1984 (Stockholm), p. 239.

10 Ibid.

SIPRI would be used to arm 40 Mirage 2000 and possibly also Jaguars. The delivery of these missiles is to start from 1986 onwards.

The Matra R-530 Magic is a new air-to-air missile designated for 'close combat' operations (from less than 500 m to more than 6 km) with consequent emphasis upon the ability to withstand high load factors imposed by the severe manoeuver demands. Its operational range is reported to cover from 2000 or less to as much as 10 km. An infra-red homing head provides guidance to the missile.

The purchase of Milan anti-tank missiles from France could be also viewed as India's reaction to Pakistan's acquisition of TOW missiles.[11] Many army and security analysts viewed the introduction of TOW missiles in Pakistan army to be affecting the capability of the Indian armour. Consequently Indian army began drawing up futuristic battle scenarios envisaging decisive tank battles in the deserts of Rajasthan.[12] In this context Milan missiles were purchased to strengthen present anti-tank capability and also as a counter to Pakistan's TOW missiles.

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11 Shekar Gupta, "Defence : The New Thrust", India Today (New Delhi), vol. 10, no. 21, 1-15 November 1985, p. 89.

12 Ibid., p. 88.

According to SIPRI India placed an order in 1981 for the purchase of 3,700 Milan missiles from France.[13] MILAN (Missile O' infanterie Leger Anticlenar) is a wire guided spin-stabilized anti-tank missile system. An advanced second generation system, Milan incorporates a semi automatic guidance technique that requires the gunner to do no more than to maintain the cross wires of his guidance unit on the target during the missile flight. The system comprises a container and launch and control unit. Although heavier than some of the small first generation ATMs Milan is readily portable. It is also suitable for operation from armoured or unarmoured vehicles. In its simplest form the operation is effective in daylight, at dawn and dusk and, by means of battle field flares at night. It can also be fired over fresh water or salt water.

Some French arms sales to India were result of India's procurement policy placing high order of priority for of acquiring sophisticated weapons rather than cheap and almost or less sophisticated Soviet weapons. According to SIPRI India has reportedly acquired Exocet MM-38 ship-to-ship missiles from France in 1982. These missiles were meant to replace Soviet Styx Sh Shms.[14]

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13 SIPRI Yearbook 1984, n. 9, p. 239.

14 Ibid.

MM-38 Exocet Missile

Exocet MM-38 is surface to surface tactical missile designed to provide surface warships with all weather attack capability against other surface vessels. They can be fitted in major and minor warships including fast patrol boats and hydrofoils.

The MM-38 Exocet range is about 23 mm (42 km) flying at very low altitudes. Its cruising speed is high subsonic and it carries a high explosive warhead.

AM-39 Exocet Air-to-Surface Missile

According to SIPRI India has reportedly ordered AM-39 Exocet AMS from France in 1984 to arm 6 Jaguar fighter aircrafts.[15] These AM-39 Exocet are meant to equip Jaguars for maritime strike based in Andaman and Nicobar islands. Am-39 is an air-to-surface version of the all weather anti-ship Exocet missile. It is designated to be launched against naval surface targets from helicopters, maritime patrol aircrafts, and coastal surveillance aircraft and jet strike/attack aircraft.

The weapon system uses the target range and bearing given by the aircrafts air-to-surface radar, which can be

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15 Ibid.

of the current type and an inertial platform or a doppler radar navigator system.

Total Value of French Arms Transfers to India, 1974-83

Tables 3.3 and 3.4 present the value of French arms transferred to India during the period 1974-83. Table 3.3 indicates that the cumulative value of French arms transferred to India during 1974-78 period was $ 30 million. This amount annually averaged to $ 7.25 million. A comparison of French arms sales to India along with other arms suppliers provides more comprehensive picture about France's as an arms supplying position to India. The cumulative values of arms transfers by major supplying countries during 1974-78 period are given below in decending order: Soviet Union $ 1,600 million; UK $ 50 million; Poland $ 40 million; France $ 30 million; US $ 30 million. Thus during 1974-78 period France occupied fourth place in the list of major arms suppliers to India.

Table 3.4 indicates that during 1979-83 period the Soviet Union had supplied $ 3,400 million worth of arms to India. This amount annually averaged to $ 850 million. The next largest arms supplier to India during the same period

TABLE 3.3

VALUE OF ARMS TRANSFERS, CUMULATIVE - 1974-78 : BY MAJOR SUPPLIER AND RECIPIENT
(Million current dollars)

Recipient	Total	USA	USSR	France	UK	FRG	Czechoslovakia	Poland	China	Italy	Others
India	1,900	30	1,600	30	50	10	10	40	-	-	40
Pakistan	775	130	5	240	20	10	10	-	230	-	130

Source: US Arms Control and Disarmament Agency, World Military Expenditure and Arms Transfers (Washington, D.C., 1980), Table IV, p. 160.

TABLE 3.4

VALUE OF ARMS TRANSFERS CUMULATIVE 1979-83 - BY MAJOR SUPPLIER AND RECIPIENT COUNTRIES

(Million current $)

Recipient	Total	US	USSR	France	UK	FRG	Czechoslo-vakia	Poland	China	Italy	Others
India	4,695	40	3,400	1,750	875	5	-	-	-	50	125
Pakistan	1,830	550	20	550	10	195	-	-	390	40	80

Source: (a) US Arms Control and Disarmament Agency, World Military Expenditure and Arms Transfers (Washington, D.C.: 1985), Table III, p. 134.

(b) India Today (Bombay), vol. 10, no. 21, 1-15 November 1985, p. 86.

(c) International Defence Review (Geneva), no. 9, 1982, pp. 1109.

had been France. It had supplied $ 1,750 million worth of arms which annually averaged to $ 437.5 million. Compared to earlier 1974-78 period, the cumulative value of French arms transfers to India during 1979-83 period showed a fifty-fold increase.

Thus, France during this period emerged as the second largest arms supplier to India.

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CHAPTER IV

THE MIRAGE DEAL

Though India has been purchasing a wide range of defence equipment from France, like helicopters, missiles, frigates and aircraft, Mirage-2000 deal is the most important single project in the entire field of Indo-French defence cooperation. India's purchase of Mirage-2000, apart from diversification and modernization point of view, has a strategic dimension too. Its significance could be viewed in the context of action-reaction situation in the subcontinent security environment with the US decision to supply sophisticated arms to Pakistan, particularly the F-16 aircraft. The Indian reaction to this situation was to modernize its armed forces in general and to acquire Mirage 2000 in particular to counter the threat posed by the F-16.

NEW DIMENSION OF INDO-PAK CONFLICT ENVIRONMENT

In US perception, South Asia is not an area of intrinsic strategic importance in terms of global strategy.[1]

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1 R.G. Sawhney, "South Asia : A Prop to Pakistan", World Focus (New Delhi), vol. 6, no. 1, January 1985, p. 13.

During the 1950s and 60s US perceived South Asian significance in the context US strategy of containing Soviet and Chinese communist powers.[2] In the 1970s South Asia's strategic importance for the US remained limited to its location as a region adjacent to the oil rich Persian Gulf and the Indian Ocean.[3] However, the developments that had taken place in South West Asia during the late 1970s have forced the US to focus more sharply on South Asia than ever before. Briefly these developments were:

(i) In Iran, the trusted and loyal regime of Shah fell giving place to a vociferously anti-American and fanatically religious clergy Ayotollah Ruholla Khomeini;

(ii) In Afghanistan, the success of a communist revolution in April 1978 initiated a chain of events that eventually resulted in a massive military intervention by the Soviet Union in the last week of December 1979.[4]

Since these developments were viewed by US as detrimental to their vital security interests in the South-West Asian region, the US evolved a strategic consensus in which the Pakistan came to occupy a very significant place. It was assigned an

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2 S.D. Muni, "Regan's South Asia Policy : The Strategic Dimension", IDSA Journal (New Delhi), vol. 16, no. 2, October-December 1983, p. 132

3 Ibid.

4 Ibid.

important place in the scheme of defence of American interests in West Asia.[5] Pakistan was to act not only as a bulwark of defence South of Afghanistan but also as a key component in the US offensive design of projecting power in the Gulf and Indian Ocean region.[6] American decision therefore was to further strengthen Pakistan's military capability.[7] In order to strengthen Pakistan's defence capability the Carter administration proposed a package offer of economic and military aid, of $ 400 million for a two-year period, which, however, was rejected by General Zia-ul-Haq as "peanuts".

With the entry of the Republican President, Ronald Reagan in the White House, the entire US-Pak strategic relations were reviewed. Eventually, the Reagan administration concluded with the perception that Pakistan was of great strategic value to the US in its anti-Soviet "Strategic Consensus Plan". Hence it offered $ 3.2 billion military and economic aid, which was eight time more than what the Cater Administration had offered to Pakistan. Pakistan, therefore, had no hesitation in accepting the Reagan aid "package". Under this

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5 B.K. Shrivastava, "Indo-US Relations : Search for Mature and Constructive Relations", India Quarterly (New Delhi), vol. 41, no. 1, January-March 1985, p. 2.

6 Muni, n. 2, p. 134.

7 Shrivastava, n. 5, p. 2.

aid package Pakistan was to be supplied with sophisticated items of military hardware such as F-16 aircraft, attack helicopters, tanks, self-propelled and towed artillery guns, air defence communications and electronic equipment.[8] While modernization could be partially justified in terms of the technological imperative, the qualitative boost in Pakistan's military prowess often gets overlooked or underplayed. Weapon systems such as the F-16s, the Harpoon missiles, the Vulcan-Phalanx air defence equipment, the Mohawk aircraft and Hawkeye early warning system all act as "force multipliers" bestowing a capability to Pakistan to entertain aggression against in India or increased greatly the Pak threat to India.[9]

The Indian perception that Pakistan just cannot afford to get into a war with the Soviet Union except perhaps as a surrogate of the United States, simply rules out the use of its sophisticated weaponry against it. That leaves India as the only target. Though both Pakistan and the US have variously obfuscated this issue, the statement of the US Ambassador to Pakistan, Dean Hinton at Lahore on 10 October 1984 had introduced yet another dimension to the Security threat to India. The Pakistan Times of 11 October 1984,

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8 Sawhney, n. 1p. 13.

9 P.M. Pasricha, "India's Current Strategic Environment", Strategic Analysis, vol. 8, no. 8, November 1984, p. 713.

reported that Dean Hinton having reportedly indicated that the United States would come to Pakistan's help if India committed aggression.[10] The import of this statement should leave little doubt about American backing to Pakistan in the event of a war with India. Barring the use of American troops, this could be total in all other respects.

NATURE OF F-16 THREAT

Of all the military equipment that have been supplied to Pakistan, according to defence experts, F-16 aircraft poses a great threat to Indian security. Speaking on the threat posed by F-16, the then Chief of Air Staff Dilbagh Singh said: "The supply of F-16 by the US to Pakistan represents a major threat to India" and claimed that "there was now an imbalance (in favour of PAF)". He further said that the Indian nuclear plants at Narora, Trombay, and Tarapur together with the Bombay high oil drilling platform and refineries at Mathura and Koyali would be within the reach of F-16 strike action, which would necessitate the strengthening of Indian interceptor capability.[11]

F-16 has unique capabilities of combining bomber, interceptor and fighter roles. With a capacity to carry a

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10 Ibid.

11 Ibid.

bomb-load of 12,000 pounds at twice the speed of sound F-16 has a combat range of 575 miles. However, according to US mass media, it has a potential to travel longer distance if air fuel is provided. Indeed this aspect was demonstrated in the Israel air strike at the Iraqi nuclear installations. With a range of between 350 and 400 nautical miles at low level this lethal plane can hit major static targets almost at will. The induction of even two squadrons of F-16s could drastically alter the security of India. The radar and missile cover given to most places of a strategic importance in India including through electronic countermeasures is very efficient. But F-16s do have the capacity to jam radar controlled guns and missiles; they just will not go into action as a result of jaming by the F-16s in case of an attack. With a speed of more than twice that of sound, the F-16 has multi-barrel 20 mm cannon and air-to-air missile on the wing-tips and when not required to carry extra fuel tanks is equipped to hold more missiles underneath the wings themselves.

The greatest attraction of the F-16 is its head-up-display (HUD) system of avionics, to provide pilot continuously with a simmulated trace of the path which the bullets will take if the weapon is fired. This is super-imposed on the view of the target to ensure accuracy and

economy in the use of weaponry. India has lately taken electronic counter-measures to undo the jamming by the planes but good fliers can take care of that too.[12]

This outstanding air superiority fighter can also be used in other roles. It incorporates many advanced technologies and is the only aircraft in the world to operate pulling 9G. It is truly a multimission aircraft. Once air superiority is achieved it can readily be used in the air-to-ground role. This high technology fourth generation aircraft equipped with AN/ALR 60 radar warning receiver and other sophisticated devices, will considerably enhance the potential of PAF. Some recent reports also suggest that the computer software which Pakistan wants to feed into the navigation computer would be a matter of great security concern to India. The F-16 runs on a course that is charted by the computer, which is programmed before aircraft starts on the mission. The programmes are kept ready in the form of cassetts and fed into the computer when the mission begins. The programmes to be prepared for the F-16s would be different depending on whether these are used for a fighter role or strikes on strategic Indian targets or an interceptor role to stop a possible air attack from across the Afghan border. The type of software to be fed into Pak, F-16s has been under

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12 Baranwal, ed., Military Year Book, 1981-82 (New Delhi), p. 37.

discussion between the PAF and the US top brass. Islamabad is reported to have put pressure on the US to ensure that the F-16s are kept in readiness for a possible operation on the Indian side. Hence, the type of software that will be prepared for Pak F-16s is being treated as top secret.

INDIA'S REACTIONS : A SEARCH FOR AIRCRAFT

Confronted with the F-16, India felt compelled to upgrade its air defence by purchasing a suitable aircraft from outside. Indeed, the IAF in its inventory had no suitable aircraft that could effectively counter the F-16 threat. Consequently, the IAF and Defence Ministry started evaluating all aspects of combat aircraft available with western nations and the Soviet Union for purchase, including the terms and conditions of purchase, delivery dates etc.[13] The then Chief of Air Staff Dilbagh Singh speaking in an interview said: "India was examining various proposals relating to defence equipment capable of matching the fighting capabilities of the F-16.[14] The aircrafts available for purchase at that time, were the French Mirage 2000, British Tornado ADV,

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13 Interavia Air Letter (Geneva), 4 August 1981, Entry no. 9805, p. 9.

14 "IAF may Acquire new Fighters", National Herald (New Delhi), 7 September 1981.

Soviet MIG-25 and Sweden's Viggen. In choosing the appropriate aircraft Indian defence experts had to evaluate the capabilities of all these combat aircraft. India finally chose Mirage 2000. To understand this major strategic decision it would be essential first to assimilate all the available information about the capabilities of all the different combat aircraft and then evaluate the merits of the decision in favour of Mirage 2000.

TORNADO

Full scale development of the Tornado Air Defence Variant (ADV) was authorized by the British Government on 4 March 1976. This version is being developed specifically for the Royal Air Force (RAF). It is essentially long-range interceptor model. It has in-flight refuelling facilities which would increase the range of operation. It can operate more than 350 miles from its base at night in bad weather, in heavy ECM conditions, and against multiple targets at low level. Tornado can detect, identify and destroy enemy aircrafts approaching at supersonic speeds at high, medium or low altitudes, using its snap-up or snap-down missiles. Its first control system will be able to engage multiple targets in rapid succession; its weapon systems will be highly restraint to enemy ECM, and it will be able to

operate from damaged airfields by virtue of its good short-field performance.

Armaments of the Tornado ADV consists of single 27mm built-in IWKA-Mauser cannon in the starboard side of the lower forward of fuselage, four BAE dynamics sky flash medium-range air-to-air missile semi-recessed under the central fuselage, and two NWC AIM-9L sidewinder short-range infra-red air-to-air missile on the inboard wing stations.

These weapons will be operated in conjunction with a new all-British Track-while-scan puke Doppler airborne interception radar named Foxhunter. Foxhunter will enable the Tornado ADV to detect targets more than 100 mm (185 km) away and to track several targets simultaneoulsy the sky flash missiles each fitted with an MSDS monopulse seeker head, will be able to engage targets at high altitudes or at low levels below 75m (250 ft) in the face of heavy ECM and at stand-off ranges of more than 22 mm (40 km; 25 km). A new release system, designed especially for sky flash, permits the missile to be fired over the Tornado's full flight envelope. Furthermore the missile is highly capable of tracking targets in ground clutter environment and of discriminating between closely spaced targets. An EMI electronics active fusing system allows these benefits to be realized fully in snap-down attacks against targets flying

at very low level.[15]

The Tornado Offer

While India was searching for a suitable aircraft the British Aerospace (BAC) had started persuading the Indian government to procure Tornado ADV as their futuristic aircraft to meet the IAF needs. In September 1981 the Panavian team had reportedly met senior defence officials including Chief of Air Staff and other officials of Hindustan Aeronautics Ltd (HAL).[16] For the IAF evaluation, the team had presented a detailed project report on the direct sale, assembly and ultimate manufacture of Tornado ADV in India with emphasis on the possible transfer of advanced technology.[17] The Panavian team had reportedly claimed that the life-cycle cost of Tornado would be lower than those of Mirage 2000.[18]

Although the IAF which evaluated Mirage 2000 had submitted a favourable report, the experts had observed some troubles in the test flights of Mirage 2000 prototypes.[19]

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15 The description and capabilities of Tornado ADV, are extracted from Jane's All the World's Aircrafts 1982-83 (London), pp. 113-14.

16 AAS Milav News, vol. 20, no. 239, September 1981, p. 4.

17 Ibid.

18 Ibid.

19 Indian Express (New Delhi), 20 July 1981.

In this context it was pointed out that in the press reports that the Tornado had the advantage of twin engine, which would be a safety factor. Besides twin engine Tornado has the more advanced missile and radar systems.[20] However some disadvantages were pointed out to aid the Indian government decision on the choice of Tornado ADV. First, three countries, Britain, Federal Republic of Germany and Italy would have to clear the sale; secondly, while Mirage 2000 would be available by 1984 the Tornado could only be expected by 1986 at the earliest.[21]

Mig-25 (Fox Bat)

The first opportunity to study the MIG-25 interceptor outside the Soviet Union came when Lt. Vktor Balenko defected in one from the Soviet air base of Sikharoka, 200 km from Valadivostok, to Hakodate airport, Japan on 6 September 1976.

Examination of the aircraft (by Japanese and US Military technicians) is said to have revealed that the fuselage weighs about 13,600 kg (30,000 lb.) with the wings,

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20 Indian Express, 20 July 1981.

21 Interavia, n. 13, p. 9.

tail surfaces removed; and the fire control system is bulky and lacking advanced technology. It has very high power (600 kw) devoted to anti-jamming capability rather than range, and there are vacuum tubes rather than solid-state circuitry throughout the avionices. The number of cockpit instruments was described as 50 per cent of those in F-4EJ phantoms of the JASDF. It has smaller and less versatile weapon sight and the Mach meter has a 'red-line' limit at Mach 2.8 which almost certainly represents a never-exceed speed when carrying missiles and pylons rather than the maximum speed of which the 'clean' aircraft is capable. Of partticular interest is the aircraft's high quality airbone computer which in conjunction with a ground based flight control system, enables the interceptor to be vectored automatically on to its targets over long ranges.[22]

MIG-25 Offer

India had received a Soviet offer of MIG-25 'Foxbat A' as an alternative to the apparently favoured Mirage-2000. Along with the supply of aircraft off-the-shelf, they offered licenced production and technology transfer. The Soviets main line of arguments to counter

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22 Jane's All the World's Aircrafts, n. 15, p. 211.

Mirage choice had been that the deliveries of Mirage-2000 would not be possible before 1984 at the earliest as against MIG-25 availability off-the-shelf.[23] Secondly, India could pay for MIG-25 in rupees without spending its valuable foreign exchange. However, India, whose arms supply mainly comes from the Soviet Union turned down the MIG-25 offer in keeping with its declared policy of diversifying the sources of defence purchases. Moreover, India at that time already had two MIG-25 planes, one of which unfortunately was lost in an accident.[24]

Mirage 2000

The Mirage 2000 was selected on 18 December 1975 as the primary combat aircraft of the French airforce from the mid eighties. Under the French government contract it is being developed as an interceptor and air superiority fighter, powered by a single SNECMA M53 turbofan engine.

Description

Type: Single seat interceptor and air superiority fighter.

Powerplant: One "10,000 kg class".

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23 AAS Milav News, vol. 20, no. 241, November 1981, p. 6.

24 "India gets French Credit for Mirage", Times of India (New Delhi), 13 February 1982.

SNECMA after burning turbofan engine: internal fuel capacity: 3,800 litres.

Accommodation :	Pilot only
Max level speed:	Over Mach 2.2
ServiceCeiling	20,000 metre
Range with four 250 kg bombs	920 miles
Armament:	Two 30 mm DEFA 554 cannon with 125 rds per gun

Nine attachments for external stores, five under fuselage and two under each wing. Typitcal interception weapons comprise two Matra 550 Magic Missiles (out board) under wings. Alternatively each of the four under wing hard points can carry a Magic. Strike versions will carry more than 6,000 kg: 13,225 lb of external stores, including 250 kg bombs, or Durandal penetration bombs; three 1,000 kg bombs; four 18 round packs of 68 mm rockets; two packs of 100 mm rockets; seven Beluga cluster bombs; two cannon pods; and three AS.30 laser air-to-surface missiles or three exocet anti-ship missiles.[25]

The Mirage 2000 is full fly-by-wire aircraft with no mechanical backup. The controls are quadruply redundant with an independent emergency control branch tied to a special battery. Overall flight control system continues

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25 Jane's All the World's Aircrafts, n. 15.

fully operational after a first failure and safe flight can be continued after two successive electrical failures, without performance degradation. The extra system tied to its special battery provides an additional factor of safety if the main system is effected by nuclear blast pulse at levels exceeding the main system design.

The multimission Mirage will be equipped with the RDM (multifunction doppler) radar. The RDM has a range of about 100 km in the air-to-air mode and also has a ground mapping and terrain avoidance capabilities, plus air-to-ground ranging. The RDI radar has more capability at low level and retains approximately the same at all altitudes.[26]

Mirage 2000 Offer

The French first offered Mirage 2000 to India in 1978.[27] The offer was renewed again in 1980. The French had brought considerable pressure on Indian decision makers to opt for procurement and production of Mirage-2000. They had offered India "exclusive" production and sales right to the Gulf and South East Asian region for a minimum

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26 Jeffrey M. Lenorovitz, Aviation Week and Space Technology (New York), vol. 116, no. 12, 22 March 1982, p. 45.

27 The Tribune (Chandigarh), 22 May 1981.

commitment of about 150 aircrafts.[28] They offered additionally that they would increase the repurchase of Aloutte III helicopter components from HAL's licenced production programme.[29]

In view of this French offer and in the context of future IAF needs, a team of IAF test pilots had gone to France in December 1980 to test fly Mirage-2000 fighter aircraft.[30] The team was led by Air Commodore Prithi Singh, and the purpose of the team was to undertake routine assessment of Mirage-2000, including flights in both the two-seat and single seat prototypes.[31] In the subsequent months several Indian air force evaluation teams had been to France for detailed inspection and some of its pilots have flown the 35 million dollar plane in test flights.[32] In this regard Aircraft and Systems Testing Establishment (ASTE, Bangalore) had done major trials on Mirage-2000 and evaluated it for the benefit of IAF.[33] The acceptance of any product for use in the IAF is technically entirely

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28 AAS Milav News, vol. 19, no. 228, October 1980, p. 18.

29 Ibid., p. 18.

30 The Tribune, 16 December 1980.

31 AAS Milav News, vol. 20, no. 232, February 1981, p. 17.

32 National Herald, 24 October 1981.

33 "Challenge for Test Pilots", Statesman (New Delhi), 30 November 1981.

dependent on ASTE report.[34] These IAF evaluation teams after a careful evaluation of Mirage-2000 had submitted a favourable report to the Goverrment, on the capabilities and performance of the aircraft.[35] The comments of Indian defence experts favouring the purchase of Mirage-2000 are summarized below.

The defence experts first enumerated some of the criticism of the Mirage-2000. The experts pointed out that there has been a criticism of delta-wing of the Mirage-2000 on the point that it induces drag. Further they noted that critics had pointed out that the aircraft was designed only for high altitudes interception and not suited to low flying missions. The defence experts rejected these criticism by pointing out that Mirage-2000 with its fly-by-wire system and relaxed stability was capable of low flying missions. They noted that the delta-wings too had advantages. Though low wing loading aircraft respond to gusts a certain amount of stability has been created with the aid of computers. The computer controlled stability in Mirage-2000 takes care in meeting the gust response without creating the work load for the pilot. Thus, the Mirage-2000 can operate equally

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34 The Statesman, 30 November 1981.

35 Indian Express (New Delhi), 20 July 1981. See also Interavia Air Letter, 4 August 1981, entry no. 9805, p. 9; Asian Recorder (New Delhi), vol. 28, no. 22, 28 May- 3 June 1982, entry no. 16621.

well at low as well as high altitudes and has been tested in different configurations by an evaluation team of IAF pilots in France, the defence experts affirmed. Moreover, experts pointed out that in a typical air defence mission a Mirage-2000 carrying two Matra Super 530-D missiles will be able to intercept and destroy Mach-3 class intruders coming at high altitudes, in about five minutes after scramble take off.

The experts said that the Mirage-2000 weapons system was of the integrated type widely using all possibilities of digital data processing technology and programmable computers. The fire control system permits engagement of targets with long range air-to-air missiles like the Matra Super 530-D infra-red magic missiles for dog fight and close combat.

The experts further noted that the aircraft's performance in many respects exceeded expectations. Its low level manoeuverability, for example, was better than anticipated and excellent landings around 100 knots. Approach is made at around 140 knots which is good for a delta-wing aircrafts.[36]

Since the technical decision had favoured the procurement of Mirage 2000, a political decision was

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36 "France Offers better engines for Mirage 2000", Statesman, 23 November 1981.

taken by the Indian government in favour of Mirage. On 16 October 1981 the cabinet informed the IAF top brass that a decision to purchase Mirage 2000 had been taken.[37]

In the same month the then India's defence secretary P.K. Kaul along with the Chief of the Air Staff Dilbagh Singh went to Paris to complete negotiations for early delivery of the plane, and to finalize its price, financial arrangements, assembly and manufacture in India.[38] It was expected at that time, that the Prime Minister Mrs Indira Gandhi would sign the proposed deal during her visit to France in November. However, the deal did not mature during her visit. Reports indicated that India was seeking better credit terms from France before signing the deal.[39]

Despite this slow progress a "Memorandum of Understanding" for the purchase of 150 Mirage 2000 jets by India from France was signed in January 1982 in New Delhi.[40]

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37 Bob Dilip, "Chasing a Mirage", India Today (New Delhi), vol. 6, no. 21, 1-15 November 1981, p. 136.

38 Tribune, 22 October 1981.

39 AAS Milav News, vol. 20, no. 242, December 1981, p. 18.

40 The Memorandum of understanding outlines among other things the kind of financial help France would be prepared to extend to India for the payment of Mirages. See Hindustan Times, 7 February 1982.

Though the deal was almost through, the Letter of Intent could not be exchanged with France, mainly because of high rate of interest to be charged on credits to India for the purchase of Mirage-2000.[41] However, after lengthy negotiations with the French government, India concluded an "Intention" to proceed for the supply of Mirage-2000 aircraft. According to London based Milay News, the French manufacturer in Paris was provided 10.5 per cent down payment on the contract. Rest of the payment was to be made through export credits from France over a nine-year period at an annual interest rate of 9.2 per cent.[42] Replying to a question in Rajya Sabha on the Mirage deal on 27 April 1982 the then Defence Minister R. Venkataraman said: "Prolonged negotiations took place with the French suppliers until a satisfactory reductions and improvements in financial terms were secured during this discussions. The cost of the procurement is substantially covered under a credit arrangement for which satisfactory terms and conditions were settled after discussions with the Government of France and the French suppliers.[43]

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41 The difference on the rate of interest on the total cost of contract had led to fresh negotiations with the French Government, according to Hindustan Times. The Indian financial experts had discovered that the rate of interest was on higher than was calculated by Indian side. Consequently a high-level Indian official delegation again went to Paris to negotiate the interest rate with the French Government. Hindustan Times, 8 April 1982.

42 Milav News, vol. 21, no. 247, May 1982, p. 7. Also see, Aviation Week and Space Technology (New York), vol. 116, no. 17, 26 April 1982, p. 24.

43 Asian Recorder (New Delhi), vol. 28, no. 22, 28 May-3 June 1982, entry no. 16621.

These credit facilities were crucial to the Indian Mirage-2000 order, which was also conditional on French guarantees to ensure uninterrupted deliveries of the aircraft and associated equipment, weapons, and spares in the event of war.[44] According to original plans, India was to purchase 40 Mirages as complete weapon systems; and another 40 Mirages assembly in India from Knocked down parts (CKD parts) plus 70 Mirages to be manufactured in India under French licence. However, in October 1982, the Indian goverrment announced that it would limit its contract for 40 mirages only and would not go for assembly and licenced production of the aircraft.[45] These 40 mirages would be delivered from France as a complete weapon systems between October 1984 and early December 1986, and would equip two IAF air defence squadrons as a specific counter to a similar number of F-16s being supplied to Pakistan.[46]

When India decided against the assembly and licenced production, considerable pressure had been applied by the French from President Mitterrand downwards, to conclude an agreement for a licenced production programme for the Mirage-2000 as a follow on to the initial purchase

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44 Milav News, no. 41, p. 7.

45 Milav News, vol. 21, no. 253, November 1982, p. 3.

46 Ibid., p. 3.

of 40 of these air superiority fighters.[47] Dassault's Chairman B.C. Valliers had offered "unrestrained access to Mirage-2000 technology" if India opted for licenced production of this plane.[48] They had also offered to help Hindustan Aeronautics Ltd (HAL) with development of the projected Light Combat Aircraft (LCA) and technology transfer of highest order.[49] Despite these impressive offers India did not go for the licence production of Mirage-2000, for various technological and financial reasons.

Indian Version of Mirage-2000

The first Mirage 2000s delivered to India would be powered by SNECMA M-53-5 engine rated at approximately 20,000 lb thrust. The more powerful M-53-p2 engine would be retrofitted later.[50] This two-step process had been choosen because M-53 engine development had lagged behind the pace of Mirage-2000.

The first few Mirages would have the RDI multi-mode radar. Later the French would give the RDM pulse

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47 Milav News, vol. 22, no. 256, February 1983, p. 17.

48 Ibid., no. 266, December 1983, p. 16.

49 Ibid.

50 Aviation Week and Space Technology (New York), vol. 116, no. 17, p. 24.

Doppler which has a look-up and look-down capability. The Indian Mirages would be fitted with latest internal mounted intelligence gathering equipment (ESM) and active jamming electronic devices (ECM). Internal mounting of ESM and ECM passive and active electronic equipment, unlike in other aircraft would give the Mirages outside platforms which could be used for weapons.[51]

Training Indian personnel for the Mirage 2000 has been conducted both in France and India. Shorter term training has been handled by Dassault Breguit while longer term work is being coordinated by France's Formation International Aeronautique et Spatiale (FIAS). FIAS was established with the help of France's Groupment Industries Francaises Aeronautiques et Spatiale (GIFAS) industry organization to expand French technological and industrial contracts world wide. This is being accomplished through training centers abroad and training activities within France. FIAS activity is used in direct support of France's military and civilian export arrangements such as the Indian Mirage-2000 purchase.[52]

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51 Asian Recorder, no. 42, entry no. 16909.

52 Aviation Week and Space Technology, n. 49, p. 25. Also see Business India (Bombay), 19-May-June 1986, no. 214, p. 24.

Some Advantages of Mirage-2000 Over F-16

According to Avions Marcell Dassault (AMD) spokesman the Mirage 200 is far superior to the American F-16 both air defence and ground attack roles. The following are some of the advantage of Mirage-2000 over F-16.[53]

Air-to-Air: Mirage 2000 has long range Matra super 530 missile. F-16 has no long range missile. Mirage's short range Matra Magic Missile is better than the Sidewinder missile of F-16, because its infra-red seeker has a larger scanning capability. Through DEFA gun (33 mm) in a half second burst, the explosive weight delivered is six times more than F-16s 20 mm gun.

In air combat, the Mirage-2000 has a rolling speed superior to the F-16. Fuel consumption is much less than that of F-16. This means that Mirage-2000 can remain in air combat for a longer time than the F-16.

Mirage has much larger variety of specialized air to ground weapons. These are:

(i) While Mirage has laser guided missile Asrospatiale AS 30L, the F-16 has no equivalent for it.

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53 V. V. Eswaran, "Mirage 2000 is Far Superior to F-16", Hindustan Times (New Delhi), 26 January 1984.

(ii) Mirage is equipped with laser guided bomb Matra but US does not export it.

(iii) Mirage has anti-radar missile Armat Matra- but US does not export it.

(iv) Mirage is equipped with specialized durandal anti-runway bomb. The US does not have such bombs and the USAF buys it from France.

The electtronic countermeasures system of Mirage-2000 is extremely comprehensive, whereas the US supplied only a 'limited capability' system in F-16 delivered to Pakistan. Moreover, Mirage has exclusive air-to-sea missile: AM-39 exocet missile--there is no equivalent in F-16. Finally enemy is less probable directly in the case of Mirage 2000 because of its aerodynamic shape.

France's two year long efforts to sell Mirage-2000 to India reflects its commercial nature of arms sales policy. France displayed no political or strategic motives during these negotiations, except to win an order for 150 aircraft and to conclude a licence production agreement with India. Had India agreed to purchase 150 aircraft; France could have earned considerable foreign exchange through the sale. French interest was that by securing a large order for Mirage-2000 from India, they could decrease unit cost of

Mirage 2000, by longer production runs for the French air force (In fact, French Air Force remains the largest Mirage-2000 customer. It has projected a need for little more than 200 aircraft for its conventional and nuclear fighter squadrons). Seen in the above perspective, French commercial interests to secure a large order from India could be understandable. Unfortunately, it did not work the way French wanted as India too had financial constraints in payment. However, the point is not to show the degree of French success in arms sales but to show their commercial nature of arms sales policy.

India on the other hand procured 40 Mirage-2000 to redress the imbalance caused by the induction of F-16 in Pakistan. The induction of Mirage-2000 by India is said to have taken care of IAF needs, at a time when the country's air defence capability needed a thorough and urgent boosting. The Mirage 2000 significantly contributed in meeting Indian security needs. Before the induction of Mirage-2000 strategic locations in India (atomic power plants, oil drilling platforms etc) had been vulnerable to F-16 strike as was observed by the then Chief of Air Staff Dilbagh Singh. Like the Israelis who had used F-16s to damge Iraqi nuclear reactor, Pakistan too could use F-16s to destroy Indian nuclear plants, oil refineries, and

other strategic locations before the IAF could respond effectively. It is true that India has superiority in numbers of MIG-21, MIG-21 Bis, MIG-23s and Jaguars, but India could have paid unacceptably high price without Mirage-2000, in order to enforce its numerical superiority over F-16s. Seen in this perspective the induction of Mirage-2000 significantly contributed in meeting Indian security needs and considerably strengthened IAF air defence capability.

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CHAPTER V

INDO-FRENCH DEFENCE COLLABORATION

India is one among few developing countries, which is producing a wide range of defence equipment domestically. Most important motivations which necessitates domestic production of arms in developing countries are political and economic. In political context domestic arms production capacity of a country enables its government to act more independently of arms supplier country. Particularly for a country like India, that follows a nonaligned policy, self-sufficiency in arms production has special significance, since it helps to reduce the outside influence on its policy. However, since India lacks the necessary military technology to develop sophisticated defence equipment, defence collaboration with developed countries has become unavoidable. France is one such developed country which is providing necessary military technology in some areas in which India is interested. India's main assistance in missile technology is coming from France and also from West Germany. India is producing frigates, missiles and helicopters under French licence. In the initial stages, licenced manufacture of a weapon is

more expensive than outright purchase of the same weapon from a foreign source. However, the essential merit point is, in the long run the country becomes self-sufficient in that particular area of weapon production. Moreover, the initial costs on Research and Development (R&D) of that particular weapon could be avoided.

The following defence equipment is being produced by India under French licence:

(1) Missiles: (a) Nord SS.11
(b) Milan ATMs

(2) Helicopters: (a) HAL (Aerospatiale) SA 315 LAMA
(b) HALL (Aerospatiale) SA 316 B Aloutte III

(3) Frigates: Type A 69 AVISOS Frigate

Nord SS.11

In 1969 India had purchased (50) Nord SS.11 ATMs from France and subsequently India started to manufacture this missile under French licence. Year of licence was 1970 and complete production rights were handedover in 1974.[1] Indigenous content in the missile reached to 70 per cent by 1973-74.[2]

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1 SIPRI Year Book 1977, p. 298.

2 SIPRI, Arms Trade Registers, The Arms Trade with the Third World (Cambridge: Mass, 1975), p. 35.

Milan Anti-Tank Missile

According to SIPRI India has concluded an agreement with France in 1981 for the licenced production of Milan ATMs.[3] This would be a follow on contract from earlier Bharat Electronics production of SS.11 ATMs under French Aerospatiale licence.[4] The licenced production was scheduled to start in 1985.

HAL (Aerospatiale) SA 315 LAMA

India is producing Aerospatiale SA 315 lama helicopter under French licence granted in September 1970.[5] The Indian name is Cheetah. Initial production was from French built components. Delivery of helicopters with completely locally built materials started in 1976. A total of 140 had been delivered by HAL (Bangalore) by September 1981.[6]

HAL (Aerospatiale) SA 316 B Aloutte III

India is producing Aerospatiale SA 316 B Aloutte III, under French licence granted in 1962.[7] The Indian name of

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3 SIPRI, World Armaments and Disarmament : SIPRI Year Book 1984 (Stockholm, 1984), p. 239.

4 AAS Milav News (London), vol. 20, no. 241, November 1981, p. 7.

5 SIPRI, n 1, p. 298.

6 Jane's All the World's Aircrafts 1982-83 (London, 1983), p. 95.

7 SIPRI, n. 5, p. 298.

the helicopter is Chetak.

An armed version of the Chetak is being developed by HAL for Indian Air Force and Navy carrying four air-to-surface missiles on lately mounted Booms.[8] HAL supplies Indian built components for French built Aloutte IIIs.[9]

Type A 69 Avisos Frigate

According to SIPRI India has reportedly concluded an agreement with France for the licenced production of Type A-69 Avisos Frigate in February 1974.[10] 25-30 frigates were planned under licenced production.

Design Collaboration with HAL

Aerospatiale has also been collaborating with HAL for a design and development of Advanced Light Helicopter (ALH). HAL concluded an agreement with Aerospatiale in 1970 for the design, development and manufacture of ALH within ten years of the date of the agreement.[11] This advanced

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8 Jane's All the World's Aircrafts, n. 6, p. 95.

9 Ibid.

10 SIPRI World Armaments and Disarmaments Year Book, 1976 (Stockholm, 1976), p. 244.

11 Ravindra Tomar, "India's own Aircraft-I : HAL Chops and Changes for 15 Years", The Statesman (New Delhi), 17 December 1981.

light helicopter is intended mainly for light strike duties for the IAF and the Indian Navy in the mid 1980s. It will be powered by single Turbomeca Astazou XX engine. Six prototypes were to be built by HAL while the first test-flight was scheduled to take place in 1981, with initial deliveries to Indian Army scheduled to begin in 1983.[12] The agreement provided for a payment of $ 750,000 to Aerospatiale by HAL in 10 annual instalments.[13]

Offer of Fighter Aircraft Plant

In addition to the above mentioned collaboration with India, France had offered to set up a plant to manufacture Mirage F-1 aircraft which was however rejected by India. The offer was made by a three-man delegation from Government Des Industries Francaises Aeronautiques et Spatiales (GIFAS) during its visit to New Delhi in September 1976. The spokesman of the delegation M. Jacques Noetinger had said that the proposed Mirage plant could initially assembly the F-I, and progressively increase the manufacture of sophisticated components up to 100 per cent.[14] Had

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12 AAS Milav News (London), vol. 16, no. 183, January 1977, p. 13.

13 The Statesman, 17 December 1981.

14 AAS Milav News, vol. 15, no. 180, October 1976.

India accepted the French offer this project would have enabled India to produce under French licence more than 250 F-Is as well as supply of some Indian built components to Dassault line. According to the French delegation India was the only country in South East Asia that had been offered this proposal. Apart from this Mirage F-I offer France had offered to cooperate with India in production of missiles and civilian aircraft. Not only for the Mirage F-I but also for Mirage-2000 French had offered "unrestrained access to Mirage-2000 technology" if India went for licenced production.

GIFAS Expanding Role in India

The Groupment des Industries Francaises Aeronqutiques et Spatiales (GIFAS) comprises 130 firms, which manufacture a wide range of aircraft aerospace equipment, and aircraft accessories (both military and civil aviation).[15] Matra, Thomson, Aerospatiale are some of its reputed members.

In order to promote their sales in India, GIFAS as a group has been visiting India since 1960 at regular

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15 The details mentioned here about GIFAS are taken from Business India (Bombay), no. 214, May-June 1986, p. 24.

intervals of two years, though some of the individual companies have had links with India since as early as 1954. Keen to expand their existing major role in India, GIFAS has organized an aerospace equipment exhibition in New Delhi and Bangalore in May 1986 under the sponsorship of the French embassy. The exhibition covered both civil and military aviation aimed at "creating long term collaboration with Indian industry, not only contract at a time, but a mutual interdependence" as a GIFAS official put it.[16] This clearly indicates that French aeronautical companies are keen to expand their existing major role in India.

The volume of trade contracted by GIFAS over the last five years is indicative of the number of contracts that Indian firms have entered into with these companies.[17] In 1980, the total value of contracts was fr 250 million; in 1981 fr 563 million; in 1982 (the year 40 Mirage were brought for IAF), fr 7,015 million; in 1983 fr 640 million. Agreement worth fr 1,850 million were contracted for in 1984; and in 1985 the figure was fr. 1,800 million. What

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16 Ibid., p. 24.

17 The values of contracts mentioned here for 1980-85 period are: (a) applicable only for aircraft and associated equipment, (b) includes both civilian and military contracts.

these figures suggest is that the trade between French aeronautical companies and India is in the up-swing over the last five years.

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CHAPTER VI

CONCLUSION

Political will reinforced by the imperative of national defence and economics has made France one of the topmost sources of military equipment and technology in the world, next only to the two superpowers. France has been the number three arms exporter in the world for more than a decade and a half now. It has defence supply relationship with well over 100 countries and its time tested military hardware ranges from submarines and tanks to most sophisticated missiles and warplanes. The French are not burdened with the kind of political considerations which govern the arms transfers decision of the superpowers, as also by and large their allies. Commercial calculations reign supreme in French deals. Lack of "political strings" has been an important factor that contributed largely to the success of French arms sales. Many Third World nations who wanted to diversify their sources of arms in order to reduce super power influence on their security and foreign policies have turned to ~~India~~ France. Argentina, India, Iraq, Pakistan, Peru and Saudi Arabia are some of the examples.

In 1950s and 1960s the Indian arms procurement policy greatly constrained French arms exports to India. The commercial nature of French arms sales policy and the French preference for ex-French colonial African states for concessional military assistance were hardly encouraging factors for Indian arms procurement policy makers. Commercially India preferred to acquire arms from Britain (in 1950s) and Soviet Union (1960s onward) rather than from France. The Soviets provided weapons at a relatively cheap price. In the case of Britain specially in 1950s Indian arms procurement policy-makers were greatly influenced by the favourable balance of payments position with British. Moreover during the entire 1950s India's arms procurement policy was influenced by its past colonial links with Britain. Hence bulk of the Indian military requirements came from Britain. Britain remained primary arms supplier to India until 1962.

Paradoxically France was the second largest arms supplier to India during the 1950s. Available evidence indicated that Indo-Pak conflict environment brought some modification in the general Indian arms procurement policy. The introduction of American arms in Pakistan in 1950s produced the process of action-reaction syndrome in the Indo-Pak military procurement policy. India was reluctant purchaser of any major weapons from superpowers in view

of its non-alignment policy. Hence when Pakistan received American arms in 1950s India acquired French and British weapons. Consequently, France emerged as second largest arms supplier to India in 1950s.

In 1960s the Soviet Union had preponderance over India's arms procurement policy. The commercial nature of the French arms sales could hardly compete with the cheap or lower price of Soviet arms transferred to India. Moreover the Soviets agreed for rupee payment for the Soviet arms purchased by India. The Soviets could make such financial concession because they have political and strategic interest in South Asia. In this respect France has no political or strategic interest in South Asia.

The modification in the Indian arms procurement policy from 1970s onwards was largely responsible for the major French arms sales to India during the period under review 1975-85. The modernization process of the Indian armed forces which began soon after the 1962 Sino-Indian war assumed another dimension in 1970s with the programme to introduce sophisticated arms. When procuring sophisticated and high technology arms assumed priority, Indian arms procurement policy had to be modified in two respects. First, the high cost of sophisticated weapons or low cost of

almost or less sophisticated Soviet weapons were not to determine in procuring sophisticated arms. This modification in the Indian arms procurement policy greatly facilitated French arms sales to India as it is essentially based on commercial transaction. Moreover the low price of Soviet arms was no longer a factor that went against French arms sales. Once financial aspect assumed secondary consideration in Indian arms procurement policy, next logical step followed. The Indian arms procurement policy makers recognized that national interest was better served by diversification of sources of arms supply rather than depend exclusively on Soviet arms even if the sophisticated nature of the Soviet arms were almost comparable with that of Western arms. This modification in Indian arms procurement policy too suited French arms sales. Thus, France during the period 1975-85 emerged as the second largest arms supplier to India both in terms of value and quantity.

Available evidence indicated that France during the period under review had supplied similar weapons to both India and Pakistan. In fact, such weapons were acquired by Pakistan before India acquired them. This leads to the conclusion that France had introduced such weapon systems in the Indian neighbourhood so as to generate similar demand from India. India could procure these arms because

France had no conditional sales offer for its weapons. Both Pakistan and India were treated similarly as far as arms sales were concerned. Indeed this is exactly what the commercial nature of the French arms sales policy had been so far. Thus Indo-Pak action-reaction arms procurement policy ensued.

A more pronounced Indo-Pak action-reaction syndrome had been in the context of the US decision to sell Pakistan the highly sophisticated war plane F-16. India reacted by acquiring French Mirage-2000. However in selling Mirage-2000 to India French had no easy time. Mirage-2000 had to compete with other equally comparable aircraft like Tornado, MIG-25 and Viggen. Finally, France could clinch the deal apart from better performance evaluation of Mirage-2000 through some financial concessions essentially providing credit facilities to India for payment.

Indo-French defence collaboration especially licence production of French weapon systems in India had been another dimension of French transfer of technology to India. So far this cooperation has been beneficial to India in the field of manufacturing sophisticated anti-tank missiles and helicopters in India. The possibility of technology transfer and local production of Mirage-2000

was more probable in 1982 than in 1986. Indeed, India has given up the programme of manufacturing Mirage-2000 locally.

There is no doubt that India procured much more sophisticated and high technology French weapons during the period 1975-85 than earlier. This was more as a result of action-reaction syndrome in Indo-Pak military procurement policy and diversification of sources of arms supply. France could compete better with Soviet Union in sales of arms during the 1975-85 period than earlier years. Still the Soviet Union is the major supplier of arms during the period under review followed by France. In value terms French arms sales to India has been more during the period 1975-85 than earlier years. However, when compared with the other arms suppliers, France occupies second place preceded by the Soviet Union.

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