ANATOMY OF PROLIFERATION: THE ISRAELI BOMB AND THE U.S. RESPONSE

Dissertation submitted to Jawaharlal Nehru University
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CERTIFICATE

This is to certify that the dissertation entitled **"Anatomy of Proliferation: The Israeli Bomb and The U.S. Response"**, submitted by **S. Samuel C. Rajiv**, in partial fulfilment of the requirements for the award of the degree of MASTER OF PHILOSOPHY, is his own work, and has not been previously submitted for any other degree of this or any other university.

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

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Dedicated to

My Beloved Parents

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No effort has been spared to enhance the quality and accuracy of this work. However, I own the sole responsibility of shortcomings, if any, in this study.

CONTENTS

INTRODUCTION

This dissertation is about the Israeli nuclear quest and the response that such a quest generated in the United States, arguably the world's most powerful country and Israel's closest ally. Given below is an exposition of the reasons behind undertaking such an effort.

The Nuclear Non Proliferation Treaty (NPT) of 1967 codifies a nuclear weapon state as a nation which has exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967. (Article IX 3 of the NPT)[1] Proliferation of nuclear weapons (meaning the spread of nuclear weapons to different countries - often termed as 'horizontal proliferation') is thus meant to signify an event where a nation explodes a nuclear device and becomes a member of the 'nuclear club'. Defining proliferation as such held good in relation to the five nations that had exploded a nuclear explosive device prior to the above date.[2] The United States was the first nation in the world that had acquired the know

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1 David Fischer, *Stopping the Spread of Nuclear Weapons: The Past and the Prospects* (London: Routledge, 1992), p. 322.

2 The United States conducted its first test on July 16, 1945; the Soviet Union on August 29, 1949; Great Britain on October 10, 1952; France on February 3, 1960; and China on October 16, 1964.

how and expertise to manufacture nuclear explosives. The technology then spread or proliferated to other nations of the 'nuclear club', which was made explicit to the world when these nations exploded nuclear devices themselves.

The NPT definition talks of a nuclear explosive detonation as the ultimate proof of a nation having crossed the 'nuclear rubicon'. Defining proliferation in these terms fails to take into account the efforts that many nations have made and continue to make in order to achieve proficiency over the various stages involved in making nuclear weapons. A successful test no doubt signifies that a nation has achieved expertise in designing nuclear explosives. The test, however, is a culmination of a long arduous process that a nation has to sustain in order to achieve such an expertise. The efforts that precede a test are in themselves gargantuan and are the real variables that determine when a nation conducts a nuclear explosion, if at all it does decide to conduct one. These efforts include those relating to obtain a nuclear reactor or a reprocessing plant (to the weapons-usable plutonium), and centrifuges for enriching uranium/plutonium to a higher purity, (hence reducing the need for large quantities of fissionable material required to make the bomb). Materials such as beryllium (which act as reflectors in a nuclear explosive device to reflect neutrons on to the fissile core, thus optimising the explosive power

of the weapon), and triggering mechanisms such as krytrons (which are extremely reliable high speed switches that trigger a nuclear explosion) were also eagerly sought.

Conceptualising of the 'grey' area, between the efforts nations make to get the necessary know-how to make the bomb and the actual testing of the weapon which signifies that they have succeeded, has taken many forms and spawned numerous terms. These terms include among others, 'ambiguous' (termed as such when a country has a substantial nuclear infrastructure, but its ability to manufacture nuclear weapons based on that infrastructure cannot be proved beyond a point); 'latent' (when a country has built a considerable nuclear infrastructure for energy/power purposes, an infrastructure which can provide it materials for manufacturing a nuclear explosive device, if it decides to get one for itself); 'clandestine'/ 'covert' (this is when a country tries to obtain nuclear materials and technology specifically to be used for weapons purposes, in contravention of existing regulations that are meant to curb such acquisitions).[3] Non proliferation policies have been designed by the nations that had the power of the atom at their command, keeping in mind the nations straddling this 'grey' area. This dissertation focuses on the

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3 Avner Cohen, and Benjamin Frankel, "Opaque Nuclear Proliferation", in Benjamin Frankel (ed.), *Opaque Nuclear Proliferation: Methodological and Policy Implications* (London: Frank Cass, 1991), pp.20-21.

policies of the U.S. government, designed to limit the proliferation of nuclear weapons and technology, as applied to potential proliferators, specifically the Israeli nuclear effort.

The United States, in a sense, was the first proliferator. It exploded its first nuclear device at Alamogordo, New Mexico, on July 16, 1945. This was the 'Trinity' test, the product of the Manhattan Project or the S-1 project of the Office of Scientific Research and Development (OSRD).[4] Having succeeded in developing the bomb ahead of Nazi Germany, the United States decided to put it to practical use. It harnessed the incredible power of the atom to obliterate Hiroshima and Nagasaki and advertised to history the vapourising power of the 'mushroom cloud'.

The ostensible reason for doing so was to bring a rapid end to the war, which had been going on for over four years. The continuation of the war in the Far East, it was believed, would put a tremendous pressure on men and materials needed to subdue the remnants of the Japanese Imperial forces.[5] General Douglas MacArthur estimated that it would take

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4 OSRD was headed by Vannevar Bush, the inventor and administrator, formerly of the Massachusetts Institute of Technology (M.I.T), and the Carnegie Institution. Brigadier General Leslie R. Groves of the Army Corp of Engineers was the officer-in-charge of the S-1 project, whose chairman was James B. Conant, the Harvard president.

5 McGeorge Bundy, *Danger and Survival: Choices About the Bomb in the First Fifty Years* (New York: Random House, 1988), pp.58-63.

a million American troops a minimum of ten years to subdue the Japanese.[6] The Japanese martial spirit was held to be an important factor that would force them to fight till their last drop of blood, a spirit exemplified by the 'kamikaze' or the suicide pilots, who crashed their planes onto targets such as ships.[7] If this was one assessment, there were others like Fleet- Admiral Chester Nimitz who believed that since the U.S. Pacific fleet was pounding Japan with complete impunity, there was no need for an atomic bombing to produce a surrender.[8]

The need to demonstrate the power of the bomb was an essential, unspoken ingredient of the entire war effort undertaken to build the bomb.[9] To have not done so was unthinkable given the massive effort that had gone to outpace Nazi Germany in manufacturing the nuclear bomb. Such arguments were further buttressed by the view that the demonstration of the new deadly force in American hands would have a salutary effect on the Russians. This, American policy makers like President Harry S. Truman and Secretary of War Henry L. Stimson

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6 Edwin Fogelman, *Hiroshima: The Decision to Use the A-Bomb* (New York: Charles Scribner's Sons, 1968), p.92.

7 Bundy, *Danger and Survival*, p. 61.

8 Fogelman, *Hiroshima: The Decision to Use the A-Bomb*, p. 37.

9 Martin J. Sherwin, *A World Destroyed: The Atomic Bomb and the Grand Alliance* (New York: Vintage Books, 1972), p. 5.

believed, would allow America to play a dominant role in defining the contours of the post-war world order.[10]

Having destroyed Hiroshima and Nagasaki, the United States realised the dangerous effects of the spread of this technology to other nations of the world. Even during the war effort, President Franklin Delano Roosevelt and Prime Minister Winston Churchill refused to toe the policy of the international control of atomic energy, as was being advocated by the eminent Danish physicist, Neils Bohr.[11] Emerging as the dominant power in the world with Europe in ruins after Hitler's madness, the U.S. sought to preserve its exclusive rights over the technology. The United States took numerous policy initiatives, put forth proposals and plans, concluded treaties, all to make sure that the spread of nuclear weapons and technology is as restricted as possible. This was to minimise the dangers of its misuse or its use for purposes inimical to the overall security of the world in general and its interests in particular. These interests covered a wide spectrum of issues. They included, among others, the need to prevent accidental or catalytic wars involving its allies or smaller countries and reducing the need to involve itself in local conflicts that could prove to be costly both in terms of

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10 Ibid., pp. 193-219.
11 Ibid., pp. 90-114.

men and materials. Such an involvement was held to be imperative in order to prevent those conflicts from escalating to a nuclear showdown. There was also the need to maintain a robust deterrent posture vis-à-vis the Soviet Union, without trying to worry about any new addition to the 'nuclear club' (especially if the new nuclear nation is under the Soviet 'sphere of influence'). Non proliferation policy instruments also factored in the need to prevent terrorist organisations or the nations supporting these organisations from laying their hands on nuclear materials and technology.

In order to secure these interests, the United States had to apply policy initiatives that it had erected, by it self and in association with like-minded countries, to various nations of the world which exhibited any inclination to go down the nuclear route. These initiatives included both bilateral and multilateral instruments: bilateral instruments like security guarantees, technical assistance programmes, sanctions, among others and multilateral instruments like NATO guarantees, UN sanctions, ad-hoc sanctions, the comprehensive test ban, and nuclear free zones. Nations of proliferation concern to the U.S. included among others Argentina, Brazil, India, Israel, Japan, North Korea, and West Germany. The policy instruments best suited to prevent as well as punish proliferators have been applied to various countries since the dawn of the nuclear age. As

such, security guarantees have been provided to Japan and Australia (which were under the protective shield of the U.S. nuclear forces), sanctions were applied against India, Pakistan, and Libya, among others, in order to prevent or slow-down their possible nuclearisation. Technical assistance was provided to Britain and France (as an incentive to slow-down their vertical proliferation), and UN sanctions were applied against countries like Iraq. Nuclear weapon free zones were also encouraged and acknowledged (like the Treaty of Tlatelolco in Latin America).

Among the countries that did decide to get for it self, a viable nuclear weapons capability was Israel. Israel decided early on that it needed nuclear weapons as the 'ultimate guarantor' of its security. This emanated from the fact that it was surrounded on three sides by Arab States which had not come to terms with its very creation. Having barely survived Hitler's 'Final Solution' with six million of their kind gassed and tortured to death, the Israelis sensed a profound need to prevent another such holocaust from ever happening again. In order to provide for itself a level of security that could not be breached by the hostile Arabs, the Israelis opted for nuclear weapons to be weapons of last resort, the 'Samson option', which would prevent the Arabs from taking the 'first' step towards destroying them.

The subject matter of this dissertation is the efforts that went into the Israeli nuclear quest, and the responses that such an effort generated in the United States. The attempt is to lay bare Israel's motives and U.S. responses, and to compare it to how the U.S. responded to the nuclearisation of other countries of the world, India and Pakistan among others.

The context for the U.S. response is the very close relationship between the two countries. The United States and Israel share an affinity that predates the birth of Israel itself. The U.S. was the dominant factor that facilitated the creation of the State of Israel. Post- independence, their relationship has grown even stronger, encompassing close ties in the political, economic, and military spheres.

The motivation underlying this study, therefore, is to examine how this special relationship affected the nuclear non-proliferation policies of the United States vis-à-vis Israel. This will be done by first examining the special relationship in all its aspects, to verify whether such an assessment has a firm basis in historical reality. After doing this, the dissertation proceeds to ask whether the relationship has had an effect in the way the U.S. treated Israel on the nuclear front.

Three major questions are at the heart of our inquiry. They are:

1) What are the dynamics and the extent of the special relationship, if any, that exists between the United States and Israel?

2) What were/are the U.S. non-proliferation goals, and the policies designed to achieve those objectives?

3) Was there any divergence or convergence in the application of those policies, as regards Israel and the other potential proliferators, like India and Pakistan?

The following chapters are an exposition of the answers to these three questions. The conclusion will test the validity of the hypotheses, based on the analysis of the three chapters.

CHAPTER I

THE U.S. – ISRAELI SPECIAL RELATIONSHIP: AN HISTORICAL ANALYSIS

The United States and Israel share a special relationship that is a complex mixture of religious, political, historical, cultural, and psychological factors. Many events and innumerable actors have played a part in defining the contours of this special affinity. This chapter is basically a historical narrative that attempts to unravel the various strands that constitute this special relationship. The reason this is being done is the hypothesis undergirding this study, namely that the close relationship between the two countries affected the nuclear non-proliferation yardsticks of the United States.

The chapter traces the growth of Zionism, its maturation into a potent political force and the subsequent impact on America and its Jews in particular, the role of the Jewish organizations and individuals who played a pivotal role in moulding presidential policy and public opinion, and the

responses of the United States government, which culminated in the birth of Israel. The chapter concludes with an analysis of the relationship that has been sustained through the rough and tumble of Middle East politics and numerous wars. The following chapters will deal with whether this relationship has had any bearing on the responses by the United States to the covert Israeli nuclear effort.

EARLY AMERICA AND ANCIENT ISRAEL

Israel occupies an important place in the American psyche. This was to a substantial degree sustained and nurtured by the Bible. The early Americans, majority of whom were settlers from other lands, including England and Europe, had internalised the characters and content of the Bible to a great extent. One such internalisation can be found in the nomenclature of the towns and cities of the U.S., many of whose names are biblically derived.[1] Not only did they internalise the contents of the Book, but also believed in the realisation of the promises contained in it, promises like that of the Jews returning to their ancestral land of Palestine. They believed that

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1 Edward Bernard Glick, *The Triangular Connection: America, Israel, and American Jews* (London: George Allen and Unwin, 1982), p.19.

the U.S. had to play a constructive role in order to help in the realisation of such promises.

In spite of these early Biblical linkages and a romantic inclination towards the 'people of the Book', the Jews in early America did face some prejudice. This emanated to a large extent from the professional activities of the Jews. The supposed notoriety of the Jews in business was not well appreciated. In fact, when the very first settlers landed on America's shore, the governor of the State of New Netherlands on Manhattan Island, was not well disposed towards the people "... Who draw all trade towards themselves".[2] No doubt, this attitude and the prejudice that it generated were apparent, but the degree to which the Jews were subjected to such prejudices was a lot less than what they were subjected to in Europe. As such, the 'land of opportunity' was a very favourable destination for the Jews coming out of Europe, for various reasons, including that of escaping from the rampant anti-Semitism of Europe.

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2 Peter Grose, *Israel in the Mind of America* (New York: Alfred A. Knopf, 1984), p.3.

The Jews who were flocking to America were people who were not well off. This is understandable, because they wanted better lives, which they hoped America would provide. It is estimated that by 1920, more than three million Jews migrated to America in search of better lives.[3] These people posed quite a few problems to America and Americans, especially Jewish Americans. They were strangely clothed and quite different from the image of the 'people of the Book' that the Americans had. The assimilation of these poor people with strange customs into the mainstream of American society was proving to be a difficult issue. In order to tide over the problem, the idea of helping the Jews find a separate homeland for themselves was gradually gaining currency. Many destinations were being touted as possible places for the Jews to go to, including South America and Africa. The only destination, however, which would be most agreeable to the Jews was held to be Palestine. It was the place that the God of their fathers had promised them they would return to and it was almost 2000 years since they had been in exile from that place (since it was in AD 71 that they were driven out of Palestine by the Romans). As such, the plan of convincing Jews to return to Palestine had a greater chance of success than any other place. It was therefore for such practical reasons of ensuring a proper place

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3 Ibid., p.31.

for the Jews that forced America to really think in terms of helping them realise their promise of 'Return'.[4]

ZIONISM: ORIGINS AND GROWTH

On the question of the Jewish Diaspora returning to Palestine, the widely held belief was that it could be made possible only by divine intervention (since it was promised so by the God of their fathers and as such was beyond the purview of human efforts). By the early 1800s, however, religious leaders began to stress more on the need for human efforts and initiatives in order to bring this promise of Return/Redemption to fulfilment.[5] Among the early religious leaders who talked of the need for human efforts included Rabbi Zvi Hirsch Kalischer (1795-1874) in Prussia and Moshe Leib Lilienblum (1839-1910) in Lithuania, among others. They argued that the root cause of the problem for the Jews was the lack of an

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4 Ibid., p.34.

5 The transformation of the discourse on the fulfilment of the prophecy of Return through divine intervention into the realm of human efforts is dealt with in Walter Lehn and Uri Davis, *The Jewish National Fund* (London: Kegan Paul International Limited, 1988), pp.1-5. They talk of a divinely ordained relationship between God, the Land of Israel, and the People of Israel. Redemption (restoration of the original status) would be possible only if the Jews returned to the place where the original relationship had been established. This would be made easy, it was felt, by the establishment of a Jewish State, which would be the earthly guardian of both land and people. Thus, the establishment of a Jewish State replaced God as the variable in the original model in due course.

independent territory of their own.[6] Political Zionism grew out of this need, the need to have a territory that the Jews would call their own. Theodor Herzl, the high priest of Zionism, in his *Der Judenstat* (The Jew-State) argued "The Jewish question is ... a national question, and in order to solve it, we must ... transform it into a political world question".[7] It was Herzl and his World Zionist Congress that transformed the need and desire for a Jewish homeland into a vibrant and strong political movement.

AMERICA REACTS

It was hard sailing indeed for the Zionist movement in the United States initially. The poor Jewish immigrants were not attracted to the Zionists cause nor were they convinced of the need to fight for a separate homeland. They were obviously more worried about their day-to-day existence. The richer, assimilated Jews also reacted carefully to the idea of a Jewish State. They were fearful of mainstream America doubting their loyalty and nationalistic credentials. When William Eugene Blackstone, a Methodist businessman, proposed that America use its good offices to

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6 Ibid., pp.7-8.

7 Howard M.Sachar, *A History of Israel: From the Rise of Zionism To Our Time* (Oxford: Basil Blackwell, 1977), p.40.

persuade the Great Power's to give Palestine to the Jews in 1891, the influential Jews opposed it.[8] These Jews were mostly the rich, assimilated people of German ancestry, who belonged to what was called the School of Reform Judaism. The Reformists held the Jews to be Americans of the Jewish faith, just as the other citizens were Americans of the Christian faith. As such, they did not believe the Jews to be people who had the responsibility of realising any 'Biblical' task. The diplomats of the State Department saw the Blackstone project as "chimerical ... involving degraded and undesirable persons".[9] Interestingly, the Christian and secular press, were not so ill - disposed towards the Herzlian idea of a Jewish state. *Harper's weekly* put forth the view that many Christian missionaries viewed the possible success of Zionism as an event that would weaken Judaism and make their task of converting Jews that much easier.[10]

Under such circumstances, Loius Dembitz Brandeis assumed the leadership of the American Zionist Congress in 1914. Brandeis was the first Jew to serve on the Supreme Court of the United States. He was a product of

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8 Glick, *The Triangular Connection*, p.28.

9 *The Executive Documents of The House of Representatives for the Fifty –Third Congress*, House Document, vol.1, p.5350. Cited in Grose, *Israel in the Mind of America*, p. 41.

10 Glick, *The Triangular Connection*, p.40.

the liberal, progressive traditions of 19th century America. He believed in the virtues of 'Cultural Pluralism', the idea that different ethnic groups can co-exist and help each other develop their potentialities.[11] He held that "to be good Americans, we must be better Jews and to be better Jews, we must become Zionists".[12] The Zionist movement grew strong under his leadership because he was able to convince his counterparts that they could be better Americans by being Zionists. The Brandeisian brand of Zionism was as such different from the European Zionist movement. The movement in Europe grew out of the need to stand up against the rampant anti-Semitism and prejudices that the Jews were being subjected to. The American Zionist movement, on the other hand, under Brandeis, grew out of the positive progressive aspects of America, and as such, was on healthier grounds than its European counterpart.

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11 The credit for Brandeis embracing the idea of 'cultural pluralism' over his earlier image of America as the 'melting pot' (Israel Zangwill's term) goes to the philosopher, Horace Kallen. Grose, *Israel in the Mind of America*, pp.54-55.

12 *Encyclopedia Judaica*, Vol. 1V (Jerusalem: Keter/Macmillan, 1971), p.1298. Cited in Glick, *The Triangular Connection*, p.46.

THE BALFOUR DECLARATION

The Zionist effort to establish a Jewish national home in Palestine received a shot in the arm when Arthur James Balfour, the British Foreign Secretary, in a letter to Lionel Walter Rothschild, the head of the Zionist Federation in Britain, promised the same is 1917. The Balfour Declaration, as it was called, was endorsed by President Woodrow Wilson and the Congress, which strengthened the hands of the Zionists further.[13]

It was not all smooth- sailing, however, for the Zionists. The British forces occupied Jerusalem in December 1917 and gradually extended their rule to cover Palestine. In order not to antagonise any group involved in the conflict, they decided not to tinker with the situation as it existed on the ground and to maintain the status quo. This policy was inimical to Zionists interests, the reason being that it stopped the Jewish inflow into Palestine and helped to maintain the Arab majority.

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13 Bernard Reich, *The United States and Israel: Influence in the Special Relationship* (New York: Praeger Publishers, 1984), p.1.

THE INTER – WAR DECADES

America took a keen interest in British-occupied Palestine. The individuals and organisations on both sides of the Zionist movement sustained this interest, those who were for the establishment of a Jewish state in Palestine and those who were against such a thing happening. Both the pro and anti-Zionists were tapping the politicians to further their own agenda. The politicians of course, were more than willing to do so in order to get political capital out of the whole enterprise. Mediating between these diverse interests were the diplomats, who were more often than not the conduits to channel these varied interests. The diplomats themselves showed cold feet on the question of the Jewish State in Palestine. This was the same attitude they had shown earlier with regard to the Blackstone Memorial and would continue to exhibit the same policy traits in their future dealings on Palestine also. The diplomats belonged mostly to the mainstream elite of the American society and were not enamoured of immigrants flooding America, least of all the Jews. They held Jews to be scheming international conspirators, whose machinations were inimical to the policy objectives of the United Sates.[14] Powerful voices like those of Henry Ford also stroked

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14 Grose, *Israel in the Mind of America*, p.84.

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the fires of prejudice against the Jews.[15] If the lack of assimilation of the Jews into the mainstream of American society was held by some to be an important reason why they were facing problems in America, there were others like Reinhold Neibuhr, who argued against forced assimilation. He called forced assimilation "A painless death, but death nevertheless".[16]

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The Great Depression struck America in 1929. The unassimilated, poor Jews found it difficult to make both ends meet (which was an effort even during normal times). The option of emigrating to Palestine and starting life afresh looked very attractive. Thus, practical reasons of survival ensured that the Jews emigrated to Palestine. Brandeis was no longer the head of the Zionist movement in America. His brand of Zionism, rooted in Americanism, and the belief in the progressive traditions of America delivering the goods for the Jews, was not being supported by the realities on the ground. Abba Eban's statement that "I was disturbed by the gap between its sincere rhetoric (of Diaspora Zionism) and the superficiality of its concrete involvement", captures the mood of the times.[17] Migration into

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15 Ford blamed the 'International Jew' for the problems affecting American society. Ibid., p.96.

16 Ibid., p. 97.

17 Abba Eban, *An Autobiography* (London:Weidenfeld and Nicolson, 1977), p. 19.

Palestine was further encouraged by the tough immigration acts that were operating in the U.S. These included the Immigration Act of 1924, which had imposed a rigid quota system against the Jews of Eastern Europe.

THE WHITE PAPER

Just when the Zionists would have thought that things were going their way (though not exactly due to their efforts), Britain put a spoke in the free-flowing Zionist wheel by announcing the White Paper on Palestine in 1939. The objective of this paper was to establish in Palestine "an independent Palestine state, ... in which the Arabs and the Jews share in government".[18] This stand was in contradiction to the earlier policy decision to build a Jewish National home in Palestine (as promised in the Balfour Declaration). Britain issued the White Paper after its mandatory government in Palestine weathered the Arab uprising led by the Mufti of Jerusalem (which had begun in 1936).[19]

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18 Lehn and Davis, *The Jewish National Fund*, p. 61.

19 Ibid.

There was no official reaction to the British White Paper from the United States.[20] This was the period when President Roosevelt was in office. Roosevelt followed an ambiguous policy that pledged support to both the Arabs and the Jews involved in the conflict during the various stages of the struggle.[21] The tough anti-Semitic immigration laws were continued. The degree of Arab opposition to a Jewish Palestine was not understood by him until the Saudi king, Abdul Aziz Ibn-Saud, told him to his face, during their summit meeting on board the cruiser *Quincy* that "the Arabs would choose to die rather than yield their land to the Jews".[22] The one consistent strand though in Roosevelt's thinking on Palestine was that he believed Palestine would be the homeland of the Jews eventually.[23]

FROM EUROPE TO AMERICA: THE BILTMORE CONFERENCE

After World War II, the base of Zionist activities shifted to the U.S. The U.S. became the home for the largest population of Jewry in the world. This was after the Nazi persecution when the majority of the Jews fled to

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20 Richard P. Stevens, *American Foreign Policy and U.S. Foreign Policy* (Beirut: The Institute for Palestine Studies, 1970), p.65.

21 Ibid.

22 *Foreign Relations of the United States*, 1945, Vol. V111, pp.2-3. Cited in Grose, *Israel in the Mind of America*, p.152.

23 Ibid., p.156.

America. The shift in the base of activities was symbolised by the Biltmore Conference of 1942. It adopted a declaration unanimously demanding that "Palestine be established as a Jewish commonwealth integrated in the structure of the new democratic world".[24] This was earlier the dominant demand of the European Zionist movement, which now became the prime demand of the movement based in America. This is understandable because the American Zionist movement had failed to deliver the goods and the radical European Zionists gradually assumed the upper hand in America as well. After this, it was but natural that their prime demands were now those being fought for in America as well. (The Americans Zionists believed that the settlers in Palestine had the responsibility to take the eventual political decisions and it was not for the Zionists in America to decide for the Jews in Palestine if they wanted Statehood or not).

The American Jewish community became increasingly identified with Zionism after the conference. The leadership of the movement now passed on to people like Rabbi Abba Hillel Silver and David Ben-Gurion (the leader of the Labour party in Palestine). The new leaders advocated radical methods to convince America. Silver wanted to create "... a nerve-centre of

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[24] Ibid., p.169.

a revolutionary programme with a mass following".[25] This strategy evolved into the Jewish lobby, the pressure group that tasted a high degree of success in moulding presidential policy and public opinion. Zionist organisations, like the American Christian Palestine Committee (ACPC) were revived. (Harry S. Truman joined the ACPC in 1941). Moderate Zionist leaders, like the chemist Chaim Weizmann, were not very impressed by the public show of strength. He favoured quiet diplomacy, aimed at convertring the people in power in favour of the Zionists cause.

THE HARRISON REPORT

The refugee situation in Europe was murky with conflicting reports regarding the state of affairs and the extent of the holocaust. In order to get a first-hand account, President Harry S.Truman sent an emissary to the Displaced Persons camps (as the refugees were called). Earl G. Harrison, the president's emissary, on looking at the sufferings first hand, agreed with the Jewish Agency's request for 100,000 additional immigration permits to

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25 Ibid., p.172.

Britain. Truman was touched very much by the plight of the refugees as depicted by Harrison. He called the Harrison report "a moving document".[26]

Truman wrote to Clement Attlee, the British Prime Minister, to process the Jewish Agency's request immediately. In spite of the constitution of two committees to look into the feasibility and desirability of allowing this many refugees into Palestine, no common ground could be found. The second committee, in a decision called the Morrison-Grady scheme, recommended the division of Palestine into a Jewish province, an Arab province, a Jerusalem district and a district of the Negev.[27] The Jewish lobby effectively shot down this scheme in Washington.

Having failed to find a common ground between the conflicting interests of the Arabs and the Jews, and its inability to involve the United States in any settlement scheme, Britain turned the problem over to the United Nations. In the words of the foreign secretary, Ernest Bevin, "Her Majesty's government have of themselves no power, under the terms of the

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26 Glick, *The Triangular Connection*, p.78.

27 Sachar, *A History of Israel*, p.271.

mandate, to award the country either to the Arabs or to the Jews or even to partition it between them. ...The only course open to us is to submit the problem over to the judgement of the United Nations".[28]

AT THE UNITED NATIONS

The General Assembly established a Special Committee on Palestine (UNSCOP) giving it "the widest power to ascertain and record facts, and to investigate all questions and issues relevant to the problem of Palestine."[29] The Special Committee voted unanimously that Britain's thirty year mandate over Palestine should be ended. (It was on December 1917 that General Allenby occupied Palestine). A majority proposed that Palestine should be divided into separate Arab and Jewish states. For India, Yugoslavia, and Iran, partition was "unworkable and impractical."[30] This proposal was then put to vote.

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28 Quoted in Eban, *An Autobiography*, p.71.

29 Grose, *Israel in the Mind of America*, p.233.

30 Ibid., p.236.

The Soviet Union supported partition. Partition for Andrei Gromyko, the Soviet delegate to the United Nations, was a "reasonable fall-black position", in the event of an Arab-Jewish state becoming impossible to realise.[31] The change in the Soviet position, which was against the Zionist movement and its demand for a separate State earlier, gladdened the hearts of the Zionists. Abba Eban, the Jewish Agency observer at the UN, called the Soviet decision "a windfall".[32] The Zionists were able to get the American consent to the proposal easily. The U.S. was more than willing to strengthen the decisions of the world body, which it had helped establish immediately after the world war.

The Arab states and countries with large Muslim populations were against partition. Multi-ethnic societies like Yugoslavia and India also supported the Arab view. The Latin American countries, which constituted the largest bloc at the UN, were considered to be in the U.S. sphere of influence. The U.S., however, did not give any policy directions as to which way they should vote.

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31 Ibid., p.243.

32 Eban, *An Autobiography*, pp.75-76.

When the UNSCOP proposal was finally put to vote, out of the total UN membership of 57 countries, 33 countries voted in favour of partition. This was two more than the two-thirds majority required. Thirteen countries voted against partition while 10 abstained. (Siam was the only country that was not represented at the time of voting). For Eban, "it was the first Jewish political victory for three tragic decades".[33]

THE VOTE AND ITS AFTERMATH

The decision at the United Nations cut a raw chord in Palestine. Fighting erupted between the two groups immediately afterwards. The U.S. banned all military shipments to the area to ensure that the fighting did not escalate further. This move hurt the Jewish forces badly, as the U.S. was their primary source of material support. The British, meanwhile, fed up with the situation on the ground, announced their decision to evacuate all their forces by May 15, 1948. The British decision to leave was pre-empted by the establishment of the state of Israel on the 14th of May.

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33 Ibid., p.84.

The United States was the first nation of the world to recognize the new State of Israel, which it did on May 14. Truman had already promised Weizmann that if a Jewish State was declared and if the UN Security Council failed in its attempt to establish a trusteeship (which it was trying to do after Britain announced its decision to evacuate Palestine), the President of the U.S. would recognize the new state immediately.[34]

A UN mediator to the conflict, Count Folk Bernadotte, proposed new boundaries, the implementation of which would have turned the Negev over to the Arabs. Secretary of State George C. Marshall accepted the Bernadotte plan in principle. Truman refused all demands that he reject the Bernadotte plan and the Marshall endorsement, as well as the demand to lift the U.S. arms embargo. He, however, woke up to the electoral realities and declared his full support for the Jewish State. This was after his Republican opponent from New York, John Dewey, accused him of betraying pledges to Israel. Truman was sympathetic to the problems of the Jews displaced by the war and the Nazi persecution. After the creation of the State of Israel, the Jews

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34 Grose, *Israel in the Mind of America*, p.278.

had their own state and the humanitarian issue of solving the problems of the displaced people had been taken care of and that was the end of the matter for Truman.[35]

The Middle East as an issue gradually fell off the radar screen of the U.S. foreign policy establishment. The Cold War started in earnest and consumed most of the State Department's energy. The U.S. also had other trouble spots to worry about, like Korea.

BASIS OF THE RELATIONSHIP

After independence, Israel and America embarked on a new path of friendship. They strengthened their old bonds with renewed country to country cooperation that was many times stronger than their relationship with any other country. The following is a broad listing of the bases of the multi-faceted and complex relationship that has governed and still governs the close affinity between the world's most powerful nation and Israel.

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35 Ibid., p.301.

First of all, the U.S. sees Israel as a nation, progressive in its outlook that shares the same ideals that the U.S. holds dear to its heart. These include a democratic form of governance, a 'Western' state affirming its secular credentials, a state wedded to the 'Western' model of development and a state in which, popular culture is similar to that which is found in the U.S. These character traits of Israel get magnified many times over, when viewed against the background of the Arab states surrounding it. These states are held to be 'feudal entities', in which the whims and fancies of the kings or dictators prevail, where the genuine voice of the people is suppressed and where women have a negligible or almost no role to play in the affairs of the country. President Gerald Ford, while toasting Prime Minister Yitzhak Rabin in September 1974, remarked: "The American people have a great deal of understanding and sympathy and dedication to the same kinds of ideals that are representative of Israel".[36]

Secondly, Israel and the U.S. also share a similarity in their respective national experiences. Both are states built upon the hard work and dedication of the early settlers. The religious factor also plays an important role in the

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[36] *White House Press Release*, Sept. 12, 1974. Cited in Reich, *The United States and Israel*, p.185.

way America perceives Israel. It is seen as a country that is the embodiment of the fulfillment of the biblical prophecy of the return of the Jewish Diaspora to Palestine after two thousand years of exile.[37]

Thirdly, and very importantly, the U.S. regards Israel as a political and strategic asset.[38] Israel has been a very good supporter of U.S. policy on the world stage. Israel voted with the U.S. more times than any other country at the UN.[39] Its Arab neighbours, who find it hard to digest the creation of an independent Jewish State over what they consider to be primarily Arab land, have consistently threatened the security of Israel. The security of its borders and its people has been a primary concern in defining Israel's international outlook and decision-making. The United States emerged as the prinicipal arms supplier and a solid bulwark for Israel to lean against. The U.S. was also more than willing to provide Israel with most of what it needed in the hope of achieving policy modifications that furthered its overall security concerns.[40] These included the maintenance of peace and security in the volatile Middle East, the need to deny Russia a chance to meddle in this

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37 Ibid., p.186.

38 Glick, *The Triangular Connection*, pp.155-156.

39 Reich, *The United States and Israel*. P.179. In the 37th General Assembly, Israel agreed with the U.S. 82.6% of the times, more times than any other state.

40 Ibid., p.168.

important region which supplied most of the U.S.'s energy needs, and the need to resist expansion of radical Arab States.

Fourthly, Israel has had great success in obtaining the support of the U.S. Congress as well as the Executive branches of the U.S. government. The reasons for this overwhelming degree of support to Israel, is attributed to Jewish politicians, Jewish votes and Jewish money.[41] The American Jews, constituting roughly 2.5 % of the population, are better educated, have a higher social status, and generally are very politically active. Added to this, they are concentrated in politically crucial states like New York that are vital in influencing the outcome of a close presidential election.

Despite the deep relationship that exists between the two countries, there has been no formal agreement or pact enshrining the common ideals that both the countries share and respect. Israel does not have any mutual security pact with the U.S. The fact that the two countries share a deep and lasting relationship is widely believed in both the countries and grudgingly acknowledged and taken into consideration in the Arab countries. Zbigniew

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41 Ibid., p.192.

Brezezinski has remarked that "The relationship between the U.S. and Israel is ... above any formal ties of alliance or treaties. There are ... direct personal links between America and Israel. ...This relationship is as strong as ever and as enduring as ever".[42]

This special commitment, unwritten as it is, has had policy implications on a wide spectrum of issues ranging from the Middle East peace process to nuclear non-proliferation. The focus of this study is to analyze how this commitment has affected the behaviour of the United States towards Israel in the arena of nuclear non-proliferation. This is especially pertinent, as the security component has been the most vital and dominant factor of the relationship.

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42 Ibid., p.217.

CHAPTER II

THE U.S. AND NUCLEAR NON-PROLIFERATION: AN HISTORICAL ANALYSIS

This chapter is an historical analysis of the nuclear non-proliferation policies followed by the United States. It will deal with the instruments designed to carry out those policies, erected by itself and in association with like-minded countries, designed to limit the proliferation of nuclear weapons. The policy instruments will be analysed in detail, concentrating both on their success stories and their inadequacies, which hindered their utility. The effort will be to distil the non-proliferation attitude of the United States, as it has evolved since the dawn of the nuclear age till recent times.

President Harry S. Truman, telling the world about his decision to obliterate Hiroshima, remarked that "... The force from which the sun draws its power has been loosed."[1] A few days later, Nagasaki was also destroyed.

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1 Quoted in Bundy, *Danger and Survival,* p.131.

The power unleashed on these two Japanese cities has proved to be a difficult force to contend with. Various programmes have been launched and treaties concluded by the powers that had this force at their command in order to achieve their respective policy objectives. These included the maintenance of their dominant positions vis-à-vis the technology needed to make these weapons, strict international control on materials and technology in order to limit the number of nations possessing the know how, among others. These and other measures have been taken in order to prevent what is called the proliferation of nuclear weapons. Proliferation in this sense implies the geographical spread of nuclear weapons, often called horizontal proliferation, to distinguish it from vertical proliferation. Vertical proliferation implies the increase in the quality of weapons and of weapons stockpiles in the possession of the original nuclear powers. An analysis of the literature reveals that the nuclear powers have been more worried about the spread of nuclear weapons and weapons related technology to different nations than the increase in their own weapons stockpiles. They justified this increase in terms of the need to maintain a credible and sure deterrent in the face of newly emerging technologies. This entailed for the superpowers the subsequent changes in strategies needed to factor in the effects of these new

technologies.[2] The United States, being the just nation in the world to explode and use nuclear weapons, developed different policy instruments to deal with the spread of this technology. This chapter deals with these various U.S. initiatives and the effect they had on potential proliferators.

EARLY EFFORTS

It was the Danish physicist Neils Bohr who for the just time talked of the need for the international control of atomic energy.[3] The immediate reaction of President Roosevelt and Prime Minister Churchill, however, promised an entirely different course. They rejected demands for the international control of atomic energy and instead favoured strict government control on all activities concerning nuclear energy. The policy instrument designed to carry out these objectives was the McMahon Act/the Atomic Energy Act of 1946. The Act nationalised all aspects of nuclear

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2 The new technologies sometimes have the opposite effect of limiting the number of weapons in one's inventory. An improvement in the CEP of a missile will make it more accurate and hence reduce the need for more missiles. The Soviet Union, which did not have such comparable missiles (with less CEP), relied more on quantity to achieve the same objectives (as also on strengthening its other legs of the triad, like the strategic bomber force and its submarines).

3 Bundy, *Danger and Survival*, p.114.

technology and activity (from uranium mining to even medicinal isotopes) and forbade the export of nuclear materials and know-how.[4]

The American policy of direct government control held good in the initial years of the U.S. nuclear monopoly. Gradually, it was realised that the Soviet Union had also started a programme to develop nuclear explosives under Igor Kurchatov, as early as 1942.[5] The British were also unhappy with the Americans over the provisions of the McMahon Act. The British had played on important role, along with Canadian scientists, in the Manhattan Project. The Act for them was in total contradiction to the terms of the Quebec Agreement, signed between Roosevelt and Churchill on August 19, 1943.[6] The agreement laid down the basis for co-operation between the two countries on the subject of the 'tube alloys', as the nuclear explosives were called.

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4 Leonard Beaton and John Maddox, *The Spread of Nuclear Weapons* (London: The Institute for Strategic Studies, 1962), p.31.

5 Bundy, *Danger and Survival*, pp.176-178.

6 Beaton and Maddox, *The Spread of Nuclear Weapons*, pp.66-67.

Secretary of State Edward Byrnes appointed the David Lilienthal - Dean Acheson committee to look into the prospects of the international control of atomic energy. The members of the committee included Chester Barnard, Charles A. Thomas, Harry A. Winne, and J. Robert Oppenheimer. The main proposition of the Acheson - Lilienthal report (which was Oppenheimer's idea) was the creation of the International Atomic Development Authority, to which would be entrusted the control of the nuclear materials and activities throughout the world. Bernard Baruch, the U.S. representative to the UN, presented a slightly modified version of the report, called the Baruch Plan. The plan also advocated the power to own and inspect nuclear facilities world-wide. The only difference was that Baruch provided for strict penalties for the violators. These included UN-sponsored sanctions, which were not subject to veto of the Security Council.[7]

The Soviets rejected the plan. They viewed it as an instrument to maintain the nuclear monopoly of the United States. They were especially against the veto clause and the power of the authority to inspect the nuclear

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[7] Fischer, *Stopping the Spread of Nuclear Weapons*, p.32.

facilities. They proposed their own scheme, according to which the U.S. had first to destroy all of its nuclear weapons before the establishment of any international authority. This was the reverse of what the American Plan had proposed, which was for the creation of an international authority first and the destruction of the American nuclear weapons was to be the last step. No common ground could be found and hence no progress could be made on the question of the international control of atomic energy.

The U.S. meanwhile had to face the reality of other nations exploding nuclear weapons. The Soviet Union did it in 1949. The Americans had not expected the Soviets to do so as early as in 1949. The British exploded their first fission device on October 3, 1952. The Americans realised that their policy of maintaining strict secrecy as exemplified by the 1947 Act, was obviously not yielding good results. The French had established the Commissariat a l' Energie Atomique (C.E.A.) which built its first research laboratories at Chattilon, which began operations in 1948.[8]

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8 Beaton and Maddox, *The Spread of Nuclear Weapons*, p.81.

The Canadians had already commissioned their first nuclear reactor, the NRX in 1947, at Chalk River, near Ottawa.[9] India had a fledging nuclear programme under the leadership of Homi J. Bhabha. Countries like India were in need of nuclear equipment and technology to develop their peaceful nuclear energy programmes. The United States was gradually realising that their policies of maintaining strict secrecy were not yielding good results and in addition were preventing them from exploiting the newly emerging markets. The danger for the U.S. was that other countries, especially the Soviet Union, could emerge as the primary source of nuclear materials and technology. Those were the early years of the Cold War and the era of the policy of containment, as advocated by George Kennan. The U.S. was very sensitive to the probable increase in the area of influence of the Soviet Union. It did not fancy the Soviet hand in the emerging global nuclear market.[10]

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9 Ibid., p.99.

10 Gary T. Gardner, *Nuclear Non Proliferation: A Primer* (London: Lynne Rienner Publishers, 1994), p.39.

THE 'ATOMS FOR PEACE PROGRAMME': THE NUCLEAR 'MANNA'

There was also the growing realisation that the American people needed to be informed about the emerging situation in the world. It was felt that there was a need to be more open about nuclear matters, about the growing arsenals of the U.S. and the Soviet Union. This policy of openness about nuclear matters was called 'Operation Candor'.[11] It was also realised that instead of harping on the negative effects of atomic energy, there was also the need to portray the peaceful effects of atomic energy. The 'Atoms for Peace' programme was the result of such a felt need to advertise the positive effects of peaceful nuclear use.

The 'Atoms for Peace' programme was launched by President Eisenhower on December 8, 1953 at the General Assembly of the United Nations. The programme sought to promote the peaceful uses of atomic energy in return for strict safeguards to ensure that such technology would not be used for weapons purposes. Many nations were the beneficiaries of

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11 The term was coined by C. D. Jackson, President Eisenhower's Assistant for psychological warfare. The basis of this policy was a report of a committee headed by Robert Oppenheimer, titled "Armaments and American Policy", which talked of the need to be more open about nuclear issues. Bundy, *Danger and Survival,* p. 290.

the programme. Between the years 1956-1962, the programme provided research reactors and fissile materials to 26 nations.[12] These transfers did not include uranium enrichment facilities or plutonium reprocessing plants. Nevertheless, the transfers included equipment and technology that the nations, which received them, did not possess at that moment or would have taken a long time to develop (like the research reactors and power reactors).

EFFECTS OF THE 'ATOMS FOR PEACE' PROGRAMME

The most important effect of the programme was the creation of the International Atomic Energy Agency (IAEA), which was founded in 1957. The Agency was charged with developing the peaceful uses of nuclear energy world-wide. It was also to be the principal agency to oversee global nuclear facilities.

As a result of 'Atoms for Peace', the first conference on the Peaceful Uses of Nuclear Energy was held at Geneva in 1955, presided over by Dr. Homi J. Bhabha. This conference resulted in the spread of large amounts of

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12 Gardner, *Nuclear Non Proliferation*, p.40.

information regarding reactor technology. The only classified information was regarding the enrichment of uranium. The French even went to the extent of sharing information, regarding the technique for reprocessing spent fuel.[13] The reprocessing technology, apart from the process of uranium enrichment, was one of the methods to develop nuclear weapons. The French were angry at the treatment meted out to them by the American and British scientists. French scientists, who were part of the Manhattan Project, were earlier expelled from Canada.

It is widely believed that the policy of openness that was followed as a result of 'Atoms for Peace' has created many proliferation risks. The open competition for nuclear markets among the countries possessing the technology often led to the sale of nuclear technology with very limited safeguards. Canada, for example, supplied a research reactor to India in 1956 (the CIRUS reactor, an NRX reactor of the type found at Chalk River), to which the U.S. supplied heavy water. This reactor was not subject to international safeguards. As long as the reactor was using Canadian-supplied fuel, it was subject to safeguards. After the Indians started using their own

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13 Fischer, *Stopping the Spread of Nuclear Weapons*, p.40.

fuel, it was beyond the purview of international safeguards. The U.S. also supplied technology for plutonium reprocessing facility.[14] These measures ensured India's supply of plutonium for its 1974 explosion. India characterised the 1974 test as a PNE, a peaceful nuclear explosion, which were permitted under the peaceful uses of nuclear energy. In fact, the chairman of the Indian AEC at the time, Homi J. Sethna, called the test "...an experiment to study the cracking and cratering effects on rocks".[15]

The U.S. also trained engineers in nuclear-related technology as part of the progamme. Almost 1100 Indian engineers were trained by the end of the 1970s.[16] Of course, commercial considerations played an important role in ensuring that the training would force the engineers to opt for U.S. technology (light water reactor technology) in their nuclear plants. However, it also ensured that the trained engineers and scientists became experts in their related fields at the very forefront of technology and could easily use

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14 Gardner, *Nuclear Non Proliferation*, p.40.

15 Quoted in Roberta Wohlstetter, 'The Buddha Smiles': Absent-Minded Peaceful Aid and the Indian Bomb, PH 77-04-370-23, Monograph 3, U.S. ERDA (Los Angeles: Pan Heuristics, 1977), p. 4. Cited in Joseph A. Yager (ed.), *Non Proliferation and U.S. Foreign Policy* (Washington D.C.: The Brookings Institution, 1980), p. 106.

16 Fischer, *Stopping the Spread of Nuclear Weapons*, p. 46.

their expertise for weapons purposes if ever there was a political decision that required them to do so.

'Atoms for Peace' was put into operation to prevent the misuse of nuclear materials and technology by ensuring their use under strict safeguards. It did succeed in fulfilling its basic charter to some extent but certain instances of lax applications of its safeguards did result in proliferation risks. France was more explicit in its nuclear dealings in the sense that it supplied Israel with a research reactor (Dimona) and a plutonium-reprocessing plant ignoring international norms to help prevent the spread of such technology.[17] France itself exploded a nuclear device in 1960 in the Sahara, which was followed by China in 1964.

Meanwhile, public opinion was getting mobilised regarding not only the dangers of nuclear proliferation to other nations but also about the dangers of the ever increasing stockpiles of the nuclear nations and the tests that were being conducted indiscriminately to perfect these weapons. An

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17 Gardner, *Nuclear Non Proliferation,* p.40.

urgent need was felt to limit the effects of such rampant testing.[18] The fall-out of such opinion was the Limited Test Ban Treaty (LTBT) of 1963. It prohibited testing in the atmosphere and on land but not the underground tests. China and France did not sign the treaty. Another event, which brought the dangers of nuclear weapons into sharp focus, was the Cuban Missile crisis. The Latin American nations, influenced by the crisis, pledged in the Treaty of Tlatelelco of 1967, not to allow any nuclear weapons in their area.

THE NUCLEAR NON-PROLIFERATION TREATY

The global efforts, to tackle the spread of nuclear weapons, were given concrete form with the conclusion of the Nuclear Non-Proliferation Treaty (NPT). The NPT came into force of March 5, 1970. According to the provisions of the treaty, Nuclear-Weapons States (NWSs) agree not to transfer nuclear weapons to any other state (Article 1), Non-Nuclear Weapons States (NNWSs) agree not to receive any nuclear weapons (Article II) and to accept safeguards on all their sources of fissionable materials (Article III). Article IV enjoins the NWSs to share in the fullest possible

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[18] The first world leader to talk of a Comprehensive Test Ban was Jawaharlal Nehru. This was after 23 Japanese fishermen were exposed to radiation due to unexpected winds from a thermonuclear explosion at Bikini Atoll (conducted by the U.S.). Bundy, *Danger and Survival*, p.329.

exchange of nuclear technology. The treaty makes it obligatory for the NWSs to engage in negotiations to conclude effective arms control and disarmament measures (Article VI). In order to make sure that the NWSs do this, the treaty is not of a permanent nature but calls for a review conference in 1995, i.e., 25 years after it came into force (Article X). The NPT does not prohibit the rights of NNWSs from obtaining the benefits of peaceful nuclear explosions. The treaty also does not stop the transfer of nuclear power technology.

The NPT was the dominant framework to limit the proliferation of weapons of mass destruction post-1970. Its many loopholes, however, were conveniently used by nations to further their own interests. Important NWSs like France and China did not sign it and threshold states like India, Pakistan and Israel refused to join. India held that the Treaty benefited the nuclear powers at the expense of the NNWSs. For nations, which gave up their right to make nuclear weapons, the NWSs promised to provide security guarantees that they would never use nuclear weapons against them. Regarding the countries which had nuclear weapons, it was proposed that

they pledge they would not be the first to use nuclear weapons in any conflict (No-First-Use or NFU).

The security assurances did not carry much weight. The ambiguity of a guarantee stems from the big doubt whether a nuclear nation would risk an attack on its cities and its people to save another nation's cities. This was the reason why the French had earlier opted for an independent nuclear arsenal instead of depending on the American nuclear shield. The question foremost in the minds of the French was: Would the U.S. risk New York or Washington to defend Paris? They believed that it would not necessarily do so.[19]

The NPT strengthened the safeguards regime of the IAEA. The IAEA, however, verifies only whether nuclear material to be used for peaceful purpose is being diverted to military uses. It has no power to verify whether a NNWS is receiving nuclear weapons components from any other state. Iraq conveniently used the loopholes of the NPT to further its own ambitious nuclear programme, in spite of being a signatory to the NPT. After the Gulf

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19 Walter B. Wentz, *Nuclear Proliferation* (Washington D.C.: Public Affairs Press, 1968), p.85.

War, member states voted unanimously to allow the IAEA to make more frequent use of its inspections power to check nuclear facilities in suspected nations.[20]

THE SUCCESS STORIES

The NPT, in spite of its many shortcomings and the non-participation of key nuclear powers, did have important successes. Argentina and Brazil decided against following the path to eventual nuclearisation. In July 1991, both the countries established the Argentine-Brazilian Agency for Accounting and Control, which monitors a safeguards system.[21] This was constituted on the lines of EURATOM in Europe. They also pledged that both the countries would abandon their nuclear weapons programme. South Africa is another success story for the non-proliferation regime. 182 countries have undertaken verifiable legal obligations not to acquire such weapons.[22]

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20 Gardner, *Nuclear Non Proliferation*, p.85.

21 Robert D. Blackwill, and Albert Carnesale, *New Nuclear Nations: Consequences for U.S. Policy* (New York: Council on Foreign Relations, 1993), p. 331.

22 Jayantha Dhanapala, "Prospects for Nuclear Disarmament", *Strategic Digest*, Volume XXIX, Number 6, IDSA, New Delhi, June 1998, p. 948.

Countries which have still not signed the treaty include India, Pakistan and Israel, all of whom have special security concerns, which they believe cannot be addressed, by the NPT regime with its inadequacies. India, after its 1998 tests, has supposedly expressed its willingness to sign the treaty if it is treated as a NWS. The problem with this formulation, however, is that the NPT codified NWSs as those nations which tested a nuclear explosive device prior to 1967. The Clinton administration's rejection of the proposal has forced India to seek not *de jure* but a *de facto* nuclear status.[23] The security dialogue between the two countries (the Jaswant Singh-Strobe Talbott talks) is an ongoing effort to iron out the differences regarding Indian nuclear policy and to strive towards common ground where the interests of both the countries are protected. Pakistan has made its signing of the NPT contingent on India signing it first. For the majority of the countries of the world, nuclear weapons are not the means to ensure security.

INSTRUMENTS TO ENSURE STRICTER SAFEGUARDS

Apart from the institutional framework of the NPT, the U. S. and other nations used a variety of instruments to tighten the safeguards and

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[23] John Cherian, "Out for a Deal?" *Frontline*, July 31, 1998, p.30.

prevent ambitious nations from misusing / utilising the loopholes. The 1974 Indian PNE was a defining factor in forcing the West to get its act together. The 1973 oil crisis triggered by OPEC forced nations to look for alternative sources of energy. Nuclear power plants were an attractive alternative. Since uranium was relatively scarce, plutonium-powered plants were being sought. The IAEA estimated that by the end of the 1980s, more than 40 nations would be using plutonium fuel.[24] To ensure that this large amount of plutonium was not put to military use was a real problem. Apart from this, many nations were showing interest in developing their own indigenous nuclear capability. These nations included Pakistan, which was trying to source a plutonium-reprocessing plant from France for its plant at Chashma.[25] In order to deal with the emerging situation, new instruments were created to have a greater control over the flow of nuclear materials and technology.

These instruments included, among others, the Zangger Committee, which drew up a 'trigger-list' of sensitive equipment and technologies that would require stringent IAEA safeguards on their export to other countries.

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24 Gardner, *Nuclear Non Proliferation*, p.43.

25 Yager, *Non Proliferation and U.S. Foreign Policy*, p.101.

Another such instrument was the Nuclear Suppliers Group or the London club, which came into existence in response to the Indian test of 1974. The NSG further increased the items in the 'trigger-list' and prescribed stricter conditions for the transfer of sensitive materials. It required nations to provide physical security to the materials and a pledge not to transfer the materials which they had received to a third country, without the permission of the original source country. In the face of revelations that Iraq had clandestinely imported sensitive nuclear technology and was pursuing an ambitious nuclear programme, the NSG strengthened its safeguards further and expanded the items on the trigger-list.[26] The list now includes 'dual-use' items.[27] The use of dual-use items was earlier sought to be restricted when the Missile Technology Control Regime (MTCR) was instituted in 1987. This was designed to ensure that the delivery systems of the weapons of mass destruction were not developed by potential proliferators. The most famous example of the application of the MTCR was the two-year ban, which was slapped on Glavkosmos of Russia and ISRO of India, to prevent the supply of cryogenic engines.

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26 This was revealed by the inspections conducted after the Gulf War under the mandate of the UN Security Council resolution 687. Blackwill and Carnesale, *New Nuclear Nations*, p.22.

27 The 'dual-use' items are those which have both civilian and military applications. An example of such an item could be a super-computer. This could be used in advanced scientific calculations related to astronomy or space sciences, as well as to calculate the effects on the heat shield of a missile re-entering the atmosphere, by simulating the conditions through complex calculations.

The Nuclear Non Proliferation Act (NNPA) of 1978 enacted by the U.S. government was the next step after the Zangger Committee and the NSG. The Act banned nuclear trade with nations whose nuclear facilities were not under international safeguards. Another important feature of the legislation was that it discouraged the new technology of fast-breeder reactors. U.S. President Jimmy Carter argued that uranium stocks were sufficient and hence there was no need to develop the breeder programmes. The problem for Carter with the fast-breeder was that they use very little uranium to fuel themselves and are capable of reprocessing/recycling the spent fuel. This would result in the creation of large amounts of plutonium. Carter even proposed an International Nuclear Fuel Cycle Evaluation (INFCE) programme to conduct research into finding other ways to fuelling fast breeders to limit their proliferation risk. But the INFCE failed to find a less dangerous (proliferation-wise) fuel cycle that President Carter was hoping for. In fact, the INFCE favoured breeder technology.[28]

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28 Fischer, *Stopping the Spread of Nuclear Weapons,* p.64.

POLITICS AND NON PROLIFERATION: 'SIAMESE' TWINS?

Political considerations began to play a part in the U.S. non-proliferation strategies in the 1980s under President Reagan. This is best exemplified by U.S.-Pakistani relations after 1980. The Soviet invasion of Afghanistan turned Pakistan into a valuable ally for the Americans. President Carter had cut off aid to Pakistan in 1977 and 1979 to express displeasure at the Pakistani efforts to get the bomb. Reagan, however, asked the Congress to exempt Pakistan from the law stipulating that the U.S. stop assistance to NNWSs that import nuclear materials or technology.[29]

The U.S. treatment of Pakistan is a glaring example of the inter-play of political and strategic factors behind the non-proliferation policies of the nuclear powers. If the NPT was rightly criticised as institutionalising 'nuclear apartheid' and permanently dividing the world into nuclear 'haves' and 'have-nots', earlier instruments like the Baruch Plan were viewed as designed to maintain the nuclear monopoly of the United States by the Soviet Union. The 1953 'Atoms for Peace' programme was not only

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29 An example of such behaviour by Pakistan included the buying of a complete uranium hexaflouride (UF6) plant from the German firm, Migule. Ibid., p. 96.

designed to ensure that the effects of the peaceful uses of nuclear energy were obtained by the countries of the world, but also to see to it that the commercial interests of the American nuclear power plant makers like General Electric and Westinghouse were safeguarded. The training programmes conducted by the U.S. were structured so as to make sure that the engineers trained in U.S. technology (light water reactor technology) would choose the same for their countries. The French, it is widely believed, sold sensitive technology to Israel, including the Dimona reactor, in return for Israeli help in the Anglo-French action the Suez Canal.[30] The French also revealed the technology for reprocessing, as early as in 1955, at Geneva. It would be naïve to think that the non-proliferation efforts of the nuclear powers were only guided by their narrow political and strategic interests. It is important to realise that such factors played an important role in the formulation of policies designed to carry out their national objectives.

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30 Fischer, *Towards 1995*, p.37.

ARMS CONTROL AND NON-PROLIFERATION

The nuclear powers also realised that there was an urgent need to set their own houses in order. They realised that to convince other nations not to make nuclear weapons would look ridiculous in the face of their own expanding nuclear arsenals, which legitimise the very nuclear weapons which they hold to be bad for other nations. The problems of verification however, proved to be a hindrance in the early years to conclude arms control agreements. The SALT-I and SALT-II agreements were the most visible symbols of superpower efforts to address the problems of vertical proliferation. The Strategic Arms Reduction Talks (START) were a step forward towards reduction in not only the quality but also in the quantity of nuclear weapons. START-I was concluded in 1991 and START-II in 1993 with the hope that the superpowers were at last on the road to drastically reducing their nuclear arsenals.[31] START-II was ratified by the Russian DUMA only recently (one of the first acts of the new Russian President Vladimir Putin). The Canberra Commission and the National Academy of Sciences have put forth reports that chalk out a time-bound programme for

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31 START-II limits the number of strategic nuclear warheads to 3500 for both the U.S. and Russia (1/3rd of the size of the arsenals prior to START-1. Shannon Kile, " Nuclear Arms Control" in *SIPRI Yearbook 1997: Armament, Disarmament, and International Security* (Oxford: Oxford University Press, 1997), p.370.

the gradual elimination of the nuclear arsenals of the two superpowers.[32] The International Court of Justice in its ruling in 1995 unanimously enjoined nations of the world to strive towards disarmament.[33] All these factors provide a clue to the pressures on the two biggest nuclear powers to take worthwhile steps towards the goal of Article VI of the NPT.

POST-COLD WAR NON-PROLIFERATION DYNAMICS

The break-up of the Soviet Union created new proliferation problems as instead of a single entity with nuclear weapons, there arose many nations with strategic nuclear weapons in their possession. The U.S. started the Co-operative Threat Reduction (CTR) programme, also called the Nunn-Lugar programme, to reduce the dangerous effects resulting from the dissolution of the Soviet Union. The programme provides assistance to the Russian republics to manage their arsenal and ensures their proper maintenance and provides for their physical security. It also provides funds for the dismantling of strategic nuclear weapons. Belarus, Kazakhstan and Ukraine

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32 Canberra Commission on the Elimination of Nuclear Weapons, *Report of the Canberra Commission on the Elimination of Nuclear Weapons* (Canberra, Australia: Commonwealth of Australia, 1996); Committee on International Security and Arms Control, *The Future of U.S. Nuclear Weapons Policy* (National Academy of Sciences) (Washington D.C.: National Academy Press, 1997).

33 Ibid., p.392.

have acceded to the NPT as NNWSs, thus ensuring that these countries are also within the ambit of the global non-proliferation order. As recently as on June 4, 2000, the U.S. and Russia agreed to convert 34 tonnes of weapons-grade plutonium into non-weapons grade nuclear materials.[34]

The Comprehensive Test Ban Treaty (CTBT) is another prominent effort in the global non-proliferation drive. First proposed by Jawaharlal Nehru in 1954, the treaty is now 152-members strong. India and Pakistan have not signed it. Indian objectives to the treaty were that it did not commit the nuclear powers to any time-bound disarmament plan and it allowed Sub-Critical Experiments (SCEs) and computer simulation of explosions in the laboratories, which would allow the NWSs to refine their weapons design. After its 1998 tests, Indian scientists have made it known that they have sufficient data to simulate tests in the laboratory and that therefore the government can go ahead and sign the treaty. The treaty will not come into force until India and Pakistan sign it due to its special Entry-Into-Force (EIF) clause, under Article XIV.[35]

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34 *The Hindu*, June 5, p.1.

35 Under this article, the treaty cannot enter into force until 180 days after it has been signed and ratified by 44 specific countries, including the 5 declared NWSs and the states of India, Pakistan, and Israel.

President Clinton announced the negotiation of a Fissile Materials Cut Off Treaty (FMCT) in the UNGA in September 1993. The twin pillars of the Clinton administration's non-proliferation policy have been the early conclusion of the CTBT and the FMCT. The U.S. declared a moratorium on the production of plutonium for explosive purposes in 1992. There has not been any great progress on the FMCT because some countries including India insist that the treaty should apply only to future production of fissile material and not the current stockpiles. Whereas others, including Pakistan (with India in mind) and the Arab states (with Israel in mind), insist that the existing stockpiles should be declared and placed under international safeguards as well, instead of just being confined to the future production of fissile material.[36]

CONCLUSION

This chapter has provided a broad overview of the non-proliferation efforts on the part of the nuclear weapons states, especially the United States, to limit the dangers of nuclear proliferation. Many schemes have been designed, programmes formulated and treaties signed in order to give

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36 Kile, "Nuclear Arms Control", p.388.

proper direction to the global efforts to achieve the same. President Kennedy's prognosis regarding the number of nuclear nations has fortunately not come true.[37] The dangers posed by the nuclear arsenals of the nuclear powers and the ambitions and security concerns of the nations facing unstable environments are very real. Nuclear weapons and the option to produce nuclear weapons are viewed as a legitimate means to ensure the security of their respective countries, be it India vis-à-vis China, Pakistan vis-à-vis India or Israel vis-à-vis the Arab states. We also have countries like Argentina and Brazil, which realised that they would be better off without nuclear weapons and renounced their options. Countries like West Germany, Japan, Sweden, Netherlands, South Africa, Australia, Canada among others, which had the capability to make nuclear weapons, decided against exercising the option. India tested an explosive in 1974 but did not go in for overt weaponisation for more than a decade. What made these countries behave the way they did can be found in the overall security situations facing these nations and the way the political leadership responded to those situations. For France, it was case of the credibility of American nuclear guarantees, which they believed would not hold when the situation

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37 In 1962, he had held the view that within the next decade, anywhere between 15-25 nations would have the nuclear bomb. Fischer, *Stopping the Spread of Nuclear Weapons*, p.5.

demanded its use. Hence, they decided to go in for an independent nuclear arsenal. China had and still has historical claims on many places, including Taiwan, Quemoy, Matsu, and Pescadores. It realised that in order to get its way on its claims, it had to develop nuclear weapons to face the nuclear armed U.S., which was the dominant strategic factor in the areas surrounding the claims.[38] Both China and France also had great-power ambitions and believed that nuclear status would enhance their prestige. President Charles de Gaulle's statement that "... France cannot be France without greatness", best exemplifies this attitude.[39] Japan and West Germany were the two nations most capable of crossing the 'nuclear rubicon', but they did not need to do so as they were protected by the American nuclear shield. They decided that the benefits of clinging to it far outweighed the dangers of exercising the option on their own. Israel, with its peculiar security environment (surrounded on all sides by Arab states) decided that nuclear weapons were the only means of guaranteeing its survival. Israel even went to the extent of denying the same right to any of it rivals (the attack on the Osiraq reactor in 1981 in Iraq best exemplifies this attitude).

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38 Wentz, *Nuclear Proliferation*, p.56.

39 Bundy, *Danger and Survival*, p.473.

The next chapter will concentrate on the Israeli nuclear quest. It will trace its growth since its inception and examine the political and strategic factors behind its decision to go nuclear. This will be examined in the light of the response to the programme generated in the U.S., its long-time ally and friend. The effort will be to distil the non-proliferation attitude of the U.S. towards Israel and see if there is any convergence or divergence as regards the application of the policy towards Israel and other states.

CHAPTER 111

THE ISRAELI NUCLEAR QUEST AND ITS CONSEQUENCES

This chapter will trace the Israeli nuclear quest, the actors who played a vital role in directing and shaping that quest, and most importantly, will focus on the response that such a quest generated in the United States. This will be done after examining the size of the Israeli nuclear arsenal and the implications of that arsenal. The chapter will also incorporate the Arab reactions to the Israeli nuclear effort.

Israel had a violent birth. It came into existence on May 14, 1948 after the culmination of the struggle for a Jewish State, a struggle that was moulded to a large extent by Theodor Herzl and his World Zionist Congress. Zionism's success proved to be a thorn in the Arab flesh. The Arabs could not come to terms with the new-born State of Israel, which they firmly believed was formed on land that belonged primarily to the Arabs. Surrounded on three sides by Arabs bent on throwing the Israelis 'into the sea' (with the Mediterranean Sea making up the last frontier), securing Israel

and its people from the hostile Arabs was the primary task facing Israel's leaders. Various policies have been formulated and resources mobilised to achieve this end. The problem for Israel, however, was that it is a small country with limited strategic depth and scarce resources. In such a situation, the role of science assumes importance. Whatever resources Israel had would be used to secure the country, and science and technology was one such important resource that had to be exploited to provide Israelis with the necessary means to do so.

It is in this context that nuclear weapons and their development were viewed as being the ultimate guarantor of the nation's security. The efforts that went into realizing this objective are the subject matter of this chapter.

THE QUEST BEGINS

The Israeli quest for nuclear weapons can be said to have begun at the very birth of Israel itself. In 1948, the Negev was the site that was prospected for radioactive minerals. Uranium was found but in very minute quantities as part of the phosphate deposits.[1] The Israel Defence Forces

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[1] Faud Jabber, *Israel and Nuclear Weapons: Present Option and Future Strategies* (London: Chatto and Windus, 1971), p.15.

(IDF) had a separate Department of Science, called the HEMED, where different kinds of explosives were perfected and improved upon. HEMED was later incorporated into the Ministry of Defence and renamed as EMET or the Research and Infrastructure Division. HEMED GIMMEL was one of the units in the science corps founded by the scientist, Israel Dostrovsky. Dostrovsky also founded the Institute for Isotope Research at the Weizmann Institute of Science. The HEMED GIMMEL (which was later renamed as Institute 4) and the Weizmann Institute of Science, were the breeding grounds for Israel's early nuclear scientists and technicians.[2] In order to get practical experience and knowledge at the cutting edge of nuclear physics, Israel also sent its students to study abroad under eminent physicists, like Enrico Fermi at Chicago, Wolfgang Pauli at Zurich, among others. The students who studied and came back assumed important positions at the Weizmann Institute. They also founded the Department of Nuclear Physics at the Institute in 1954. All these efforts were taken in order to create a solid foundation, which would sustain Israel's nuclear effort in the future.

In order to give proper direction to these efforts, the Israel Atomic Energy Agency (IAEA) was created in 1952. This agency functioned within

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2. Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), p.21.

the Ministry of Defence. It is a pointer to the real motives of the Agency, which was to oversee the work related to the development of nuclear explosives.[3]

THE DYNAMICS OF THE FRENCH-ISRAELI NUCLEAR RELATIONSHIP

Israel realised early on that, without outside help, it would be very difficult for it to go forward quickly to realise it nuclear ambitions. Of the countries of the world that had the technology to help it, France was the most favourable candidate. This seems ironic given the close relationship that was developing between Israel and U.S., and the crucial role that the U.S. had played in the creation of the State of Israel. There were many reasons why the French connection was so strong though.

The U.S. had adopted a policy of strict government control and secrecy on nuclear materials and activities as part of the 1946 McMahon Act. Washington even stopped co-operating with the British, who had played an important part, along with the Canadian scientists, in the Manhattan Project. The fact that even the British were debarred from

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3 Jabber, *Israel and Nuclear Weapons*, pp.17-19.

reaping the effects of what they had jointly sown would have impressed upon the Israelis the difficulties of getting any sort of help from the Americans in the nuclear field.

The French, on the other hand, were seen as a nation that could be tapped to further Israel's agenda. Jewish scientists, working on the French nuclear project, like Moshe Sordin, were regular visitors to Israel and to Ben-Gurion.[4] The nuclear relationship between France and Israel was by no means a one-way street, with only one side benefiting from the partnership. France was in need of critical technology for its own nuclear program. The Americans and the British were maintaining strict secrecy regarding the technologies involved. One such technology was the process of manufacturing heavy water (used as a moderator to cool down the fast-moving neutrons in a nuclear reactor). Israel Dostrovsky had perfected a new technique to manufacture heavy water.[5] France showed a keen interest in this technology. France also acquired the process of extracting uranium from very low - grades of phosphate from Israel.[6]

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4 Ibid., p.21.

5 Peter Pry, *Israel's Nuclear Arsenal* (Boulder, Colo.: Westview Press, 1984), p.6.

6 Jabber, *Israel and Nuclear Weapons*, p.22.

Not just scientific reasons were responsible for the Israeli-French co-operation on nuclear matters. Important political considerations also played a part. The French were very angry with Gamal Abdel Nasser of Egypt, who they believed, was the force behind the trouble in Algeria, which was costing it much, in terms of lives and money.[7] Another important reason why the French sold the Dimona reactor to Israel was supposedly the Israeli help given to France and England during their attack on the Suez Canal.[8] This attack was an attempt to topple Nasser, France's 'bete-noire' at Algeria.

Due to the inter-play of all the above scientific, political, and strategic factors, it was but natural that France was the dominant country to play a crucial role in Israel's nuclear development. The most important help that France gave to Israel was in the form of the Dimona reactor, the construction of which began in 1957 and which was completed in 1964.

THE NAHEL SOREQ REACTOR

Israel was earlier the beneficiary of U.S. nuclear largesse. The U.S. had realised that its policy of maintaining strict government control was

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7 Pry, *Israel's Nuclear Arsenal*, p.10.

8 David Fischer, *Towards 1995*, p.37.

coming in the way of its tapping the emerging nuclear markets worldwide. The 'Atoms for Peace' programme, unveiled by President Eisenhower in 1953 at the UNGA, was a golden opportunity for Israel to get some first-hand experience in running nuclear reactors. The Nahel Soreq reactor, supplied as part of 'Atoms for Peace', was rated at 5 mega-watt thermal (5MWth). It was fuelled by an enriched uranium - aluminum alloy and used natural water as a coolant. The reactor supplied to Israel, renamed Israel Research Reactor-I (IRR-I), was of the same type that was supplied to Greece and Turkey, among others, by the U.S. The reactor had no significant military value, as it did not produce any plutonium.[9] The reactor, however, did prove to be an important training ground for technicians and scientists as also for research and development.

THE DIMONA REACTOR

The centre-piece of the Israeli nuclear effort is the reactor built by France at the village of Dimona. It was a 40 MWth (in the beginning) reactor capable of producing 10-15 kilograms of plutonium a year. It uses uranium as a fuel and heavy water as a moderator. The reactor is similar to the French G-I and the Indian CIRUS reactor (which of course is the Canadian NRX

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9 Jabber, *Israel and Nuclear Weapons*, p.31.

reactor). Crucially for Israel's bomb-making desires, it also got the technology for reprocessing the spent fuel of Dimona (and hence to make plutonium necessary for the bomb). The credit for making this deal possible goes to Shimon Peres, who used his contacts with Prime Minister Bourges-Maunoury to sign the deal and got it approved by the cabinet a few hours before his government lost power.[10]

The French – Israeli nuclear co-operation, which was secured through personal contacts and kept secret from the world, ran into rough weather in 1959, when Charles de Gaulle wanted the French authorities to stop helping Israel. The French knew that the reprocessing facility at Dimona would give Israel the capability to make nuclear bombs and de Gaulle was not prepared to be the one who facilitated Israel's nuclear status. France was also building bridges with the Arab world and felt that the disclosures of its secret help to Israel would hurt its standing.[11] The Israeli government entered into negotiations with the French. After a series of meetings and proposals and counter-proposals, the French assistance was terminated. This was after the French government agreed to let the contracted company (Saint-Gobain

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10 Matti Golan, *Peres* (Tel Aviv: Shocken, 1982), pp.72-74. Cited in Cohen, *Israel and the Bomb*, p.58.

11 Cohen, *Israel and the Bomb*, pp.73-75.

Nucleaire) finish the job that it was already contracted to do without any direct involvement of the French government as such. The net result of the long process of negotiations was that the French technicians were working at the plant almost till 1963-64, the same period at which the work at Dimona was completed. Dimona was activated in 1964.

To get the required amount of heavy water to the plant was a big problem for the Israelis. They contacted the Americans to sell them heavy water (about 10 tonnes) but the Americans insisted on strict safeguards. The only other country that could have met Israel's needs was Norway, the world's biggest producer of heavy water. After negotiations, an agreement was concluded between Israel and Norway in 1959 (which was kept secret till 1979). Between the years 1959 and 1963, Norway supplied Israel 20 tonnes of heavy water.[12] The amount of heavy water imported by to Israel also gives us a clue about the capacity of the Dimona reactor. The original reactor needed 10 tonnes of heavy water. Israel, however, imported almost 30 tonnes of heavy water (inclusive of 20 tonnes from Norway, 4 tonnes

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12 Frank Barnaby, *The Invisible Bomb: The Nuclear Arms Race in the Middle East* (London: I.B.Tauris and Co. Ltd. 1989), p.9.

from the U.S. under the 'Atoms for Peace' programme and 4 tonnes from France). This would be enough for a 70 MWth reactor.[13]

DIMONA IN THE OPEN: THE U.S. INSPECTIONS

An American U-2 spy plane revealed the presence of Dimona, in 1960, which the intelligence community identified as a nuclear reactor. When queried by the Americans, the Israelis told them that the site under construction was a 'textile' plant.[14] They could not have possibly concealed as large a structure as the Dimona under a blanket. Britain confirmed the sale of the heavy water from Norway to Israel. Britain was the original destination for the heavy water, but did not buy it as it had sufficient quantities for its purposes. The U-2 pictures were also revealing the ground realities and Israel was bound to face questions that needed some good answers. President Eisenhower sternly warned Israel not to use the reactor for developing nuclear explosives.[15] President Kennedy insisted on Israel allowing U.S. teams to inspect Dimona for the U.S to be sure of its peaceful nature. The first team of two U.S. scientists visited Dimona on May 20,

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13 This was the output of the reactor as revealed by Mordechai Vanunu, the technician who worked at the plant for 10 years and who later revealed the secrets of the Dimona in 1987 to the London- based '*Sunday Times*'. Ibid., p.44.

14 Cohen, *Israel and the Bomb*, p.85.

15 Shlomo Aronson, *The Politics and Strategy of Nuclear Weapons in the Middle East: Opacity, Theory and Reality, 1960-91, An Israeli Perspective* (Albany: State University of New York Press, 1992), p.71.

1961. The crux of their report was favourable to Israel as the scientists did not find any weapons – related activity at the plant (the plant was still being built then). [16] However the team favoured frequent visits, preferably after a year to re-check the facility. In a meeting with Kennedy, Ben-Gurion talked of the plant as a source of power to help in the desalinisation of seawater to help the desert of Negev bloom! In order to ensure regular visits by Americans, an agreement was signed according to which, Israel would permit the visits in exchange for HAWK surface - to - air missiles (SAMs).[17]

President Kennedy was willing to go to the extreme to see to it that Israel confirmed to his global non-proliferation norms.[18] He believed consistently that more nuclear weapon states in the world would lead to instability and danger and viewed the Israeli case as being extremely threatening in the volatile Middle East. Ben-Gurion sensed Kennedy's pressure on the nuclear issue and tried to avoid a confrontation with the U.S. He tried to convince the U.S. that Dimona would not be used for weapons purposes. After 1969, U.S. inspection team concluded that it could not say with certainty that there was no weapons development going on at Dimona,

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16 Cohen, *Israel and the Bomb*, pp.105-107.
17 Bundy., *Danger and Survival*, p.501.
18 Cohen, *Israel and the Bomb*, p.193.

in the face of the over bearing restrictions imposed on the team. After 1969, Israel unilaterally stopped the visits. After 1969, the Dimona was out of bounds to any foreign government.[19]

THE CLANDESTINE EFFORTS

Meanwhile, during the years of avoiding a showdown with the U.S., Israel was clandestinely busy in securing for Dimona the required materials to keep it running in the face of strict international control on all nuclear materials. The Israeli effort to do so is best illustrated by the 'Plumbat Affair'.[20] In 1968, 200 tonnes of 'Yellow Cake' (uranium oxide – U_3O_8), originating in Antwerp, Belgium, bound for Milan, Italy, aboard the ship Scheersberg A, mysteriously disappeared. The yellow cake was being transported in tins labelled plumbat (lead). Hence called the 'Plumbat Affair'. It is widely believed that Israeli agents ran the show from the beginning of the operation to smuggle the uranium to Israel. Lloyd's Register of Shipping, London, revealed that the ship, Scheersberg A, belonged to Biscayne Traders Shipping Company, a company owned by Dan Aerbel, a confirmed MOSSAD agent, who was later convicted for murder in Norway.

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19 Ibid., pp.329-333.

20 Elaine Davenport, Paul Eddy, and Peter Gilman, *The Plumbat Affair* (London: Andre Duetsch Ltd, 1978).

Another Israeli clandestine effort was the smuggling of more than 100 kgs of highly - enriched - uranium (HEU), from the firm Nuclear Materials and Equipment Corporation (NUMEC).[21] Zalman Shapiro, who had worked in the Manhattan Project and was a Zionist, founded the firm. Israel also smuggled krytrons. These are extremely reliable, high-speed switches which are used as triggering mechanisms in a nuclear weapon.[22]

THE SIZE OF THE ARSENAL

The decision to manufacture nuclear weapons, by all accounts, was taken after the Six-Day war of June 1967.[23] At the end of the war, Israeli forces captured stocks of Egyptian chemical weapons in the Sinai. This was one factor, which could have hastened the decision to go nuclear. Regarding the number of weapons Israel had in its inventory, analysts differed on the exact number. This followed in part from the strict secrecy surrounding the programme and the clandestine efforts to obtain materials for the program. An expert group, constituted by the UN Secretary General, Kurt Waldheim, was unable to conclude whether Israel had the bomb or not. Former IDSA Director, P.R. Chari, held the view that Israel did not possess nuclear

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21 Fischer, *Toward's 1995*, p.37.
22 Leonard S. Spector, *The New Nuclear Nations* (New York: Vintage Books, 1985), p.24.
23 Barnaby, *The Invisible Bomb*, p.24.

weapons. He based this view on doubts about the plutonium-separation plant, which is a pre-requisite for making the plutonium necessary for the bombs. He held that the lack of any Israeli nuclear test supported his arguments that Israel could not have a deterrent.[24] If this was one view, the other extreme was the view held by authors like Seymour Hersh, who concluded that Israel had hundreds of low– yield fission devices, including even thermonuclear devices.[25] Mordechai Vanunu, the technician who worked at Dimona for 10 years, in his 1987 story to the London-based *Sunday Times*, has revealed that Dimona produces 40 kgs of weapons- grade plutonium in a year. This amount would be enough for Israel to have produced 100-150 weapons.[26] This was a good deal more than what earlier experts like Leonard Spector had predicted (who talked in the range of 20-25 nuclear weapons) and a lot less than what Seymour Hersh believes Israel has.

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24 P. R. Chari, "The Israeli Nuclear Option: Living Dangerously", *International Studies*, Vol. 16, No. 3, 1977, New Delhi, pp. 347-350. Cited in Shai Feldman, *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982) p.14.

25 Rodney W.Jones; Mark G. McDonough; with Toby F. Dalton, and Gregory D.Koblentz, *Tracking Nuclear Proliferation* (Washington D.C.: Carnegie Endowment for International Peace, 1998), p.205.

26 Barnaby, *The Invisible Bomb*, p.25.

IMPLICATIONS OF ISRAELI NUCLEAR WEAPONS

The fundamental Israeli position on the question of nuclear weapons was first put forth by Shimon Peres, in a meeting with President Kennedy in 1961. He told Kennedy that Israel had no nuclear weapons at that time and it would not be the first country to introduce nuclear weapons into the Middle East.[27] Prime Minister Rabin added in 1975 that Israel couldn't afford to be the second either to introduce nuclear weapons into the region.[28] Following the attack on the Osiraq reactor in Iraq, Prime Minister Menachem Begin added another tenet to the policy by declaring that Israel would prevent any attempt by its enemies to acquire nuclear weapons. [29]

The Israeli leaders from Ben-Gurion's time onwards have viewed their nuclear weapons as weapons of last resort, as the ultimate guarantor of their security. Israel has fought four wars with the Arab states. Defeat in any of these wars could have entailed the end of Israel as a state. General Yigal Allon's statement that "either you win the war or you will be driven into Mediterranean", captures their sense of predicament.[30] In order to deal with

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27 Rodney W.Jones, et al., *Tracking Nuclear Proliferation*, p.206.

28 Frank Barnaby, "Capping Israel's Nuclear Volcano", in Ephraim Karsh, (ed.) *Between War and Peace: Dilemmas of Israeli Security* (London: Frank Cass, 1996), p.105.

29 Rodhney W.Jones et.al., *Tracking Nuclear Proliferation*, p.206.

30 Yigal Allon, "The Making of Israel's Army", in Michael Howard (ed.), *The Theory and Practice of War* (London: Cassells, 1965), p. 362. Cited in Jabber, *Israel and Nuclear Weapons*, p.106.

the situation, they have no doubt developed their conventional strength, their armed forces being one of the best equipped and modern in the world. In fact, the United States has used every opportunity to strengthen Israel conventionally in order to prevent it from exercising its nuclear option. The earliest example of such a policy was the sale of the HAWK SAMs, under the Kennedy administration, in return for Israel allowing the U.S. to inspect the Dimona reactor. It was felt that to punish Israel for its nuclear activities, by withholding conventional arms deliveries, would enhance the speed of the Israeli nuclear quest.[31] Israel has not admitted the presence of nuclear weapons nor has it threatened to use them or made preparations to use them in any of the wars. One exception could be the 1973 Yom Kippur War. When faced with what seemed to be imminent defeat, Prime Minister Golda Meir is supposed to have ordered the Israeli Jericho nuclear missiles to be deployed.[32] Even at this time, the U.S. speeded up the conventional arms transfers to tilt the balance in Israel's favour and thus prevent Golda Meir from carrying out her threat.

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31 Feldman, *Israeli Nuclear Deterrence*, p. 211.

32 Aronson, *The Politics and Strategy of Nuclear Weapons in the Middle East*, p.143.

One can argue that given its conventional superiority, Israel has no use for nuclear weapons. Israel's nuclear weapons are not required to deter Arab nuclear weapons, because the Arabs do not have any. The Israeli argument is that its nuclear weapons deter any kind of hostile action on the part of the Arabs, which would result in large-scale death and destruction of Israeli populations and targets. The oft-repeated argument in favour of nuclear weapons is that they deter Arab chemical and biological weapons. The firm Israeli conviction (which they want the Arabs to take seriously) is that a chemical weapon attack on Israel will in all certainty escalate to the use of nuclear weapons against the Arab aggressor.[33]

THE ARAB RESPONSE

The Arab response to the Israeli nuclear effort has been to try to develop its own nuclear capability. The most prominent Arab nations in search of nuclear weapons have been Iraq, Iran, Libya and Egypt, among others. Iran, under Shah Reza Pahlavi, pursued a vigorous nuclear programme and started construction on the nuclear reactors at Bushehr. The work was stopped after the 1979 revolution. Iran was also planning to buy 440 MW reactors from Russia. It also entered into an agreement for a 10 MW reactor with India in

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[33] Barnaby, *The Invisible Bomb*, p.80.

November 1991.[34] The plan was initially cancelled due to U.S. pressure but later it was renewed. Iran did sign the NPT in 1970 and its nuclear sites at Bushehr, Isfahan, Tehran, and Moellam Kalayeh (the Indian reactor site) have been subject to IAEA safeguards. Egypt ratified the NPT in 1981. One of the main reasons for Egypt doing so was that it wanted to get nuclear power reactors, the sale of which was even encouraged under Article IV of the NPT to further the peaceful uses of nuclear energy. [35] Iraq was another country, which, in spite of being a signatory to the NPT, pursued a vigorous nuclear weapons programme, the true extent of which was only revealed after the Gulf War (under the mandate of the UN Security Council Resolution 687). Some of the states, like Iraq and Libya have tried every method to get a weapons-capability clandestinely. Libyan leader Muammar Qadhhafi even requested China to supply him a nuclear weapon.[36]

Apart from trying to obtain nuclear weapons of their own, the Arab states also developed their non-conventional capabilities like chemical and biological weapons (which were a lot easier to obtain than the nuclear weapons). Syria explicitly stated that its chemical weapons programme was

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34 Barnaby, "Capping Israel's Nuclear volcano", p.101.
35 Barnaby, *The Invisible Bomb*, p.85.
36 Ibid., p.99.

undertaken in order to counter the Israeli nuclear weapons programme.[37] Chemical weapons were seen as the 'poor man's deterrent', which would keep any future conflict in the region to the conventional level itself.[38] The Arab states have also gone all out to develop their missile capability to deliver their chemical weapons. The Soviets were their primary source of missiles earlier, but in recent times, North Korea and China have emerged as their main source. Syria not only received from North Korea SCUD missiles (Version-C), but also entered into an agreement to produce them domestically. Syria also received M-9, solid- fuelled, 600 kms range missiles from China. [39]

The Arab states also firmly believed that, in the event of an Israeli nuclear attack, the Soviet Union would come to their rescue. Syrian Foreign Minister Mustafa Tlas was one such firm believer.[40] This would of course then entail U.S. involvement and the dangers of escalation. This eventuality, they believed, would in all likelihood prevent Israel from using nuclear weapons in the first place. According to some analysts, this was unlikely because the Soviet Union rejected the Indian request to provide the same

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37 Aronson, *The Politics and Strategy of Nuclear Weapons in the Middle East*, p.206.

38 Ibid., p.192.

39 Ibid., p.283.

40 Feldman, *Israeli Nuclear Deterrence*, p.183.

protection against China and it could not have committed itself to protecting the sovereignty of Syria or Egypt against an Israeli nuclear attack either.[41]

Another route that the Arab response to the Israeli nuclear effort took was the move to declare the Middle East as a Nuclear Weapon Free Zone (MENWFZ). Iran first proposed it in 1974. Countries like Iran and Egypt insist on countries of the region acceding to the NPT before the creation of a NWFZ. Israel, on the other hand, views the NPT as not serving its security interests, insists on negotiations with all countries of the region in order to provide for a sound basis of regional security, accompanied by verifiable arms control measures.[42] The prospects for a MENWFZ took bleak. Israel though has signed the CTBT, which it considers to be a verifiable arms control regime.[43]

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41 Ibid., p.184.

42 Avner Cohen, "The Nuclear Issue in the Middle East in a New World Order", in Efraim Inbar, and Shmuel Sandler (eds.), *Middle Eastern Security: Prospects for Arms Control Regime* (London: Frank Cass, 1995). p.55.

43 Rodney W. Jones et al., *Tracking Nuclear Proliferation,* p. 208.

THE U.S. RESPONSE

The only substantive contribution of the U.S. to the Israeli nuclear effort has been the Nahel Soreq reactor, given to Israel as part of the 'Atoms for Peace' program. France has given substantive help to the Israeli's, as we have seen. The U.S., being a very close ally of Israel and a superpower has had a substantial impact on the evolution of Israeli nuclear policy. The U.S. rejected initial Israeli moves to source nuclear reactors that had military applications (which produced plutonium), rejected Israeli requests for heavy water without safeguards (which Israel secured from Norway, though it did supply Israel with 4 tonnes under 'Atoms for Peace'). After Dimona was revealed, the initial U.S. reaction was very blunt, with Eisenhower warning Israel not to go down the weapons route. Kennedy turned the screws even tighter, when he insisted on Israel allowing U.S. teams to inspect Dimona on a regular basis. In order to prevent Israeli nuclear efforts, the U.S. strengthened Israel's conventional forces. During the Johnson administration, pressure was applied on Israel in order to force it to give a commitment that it would not produce nuclear weapons. This commitment was to have been given in return for the supply of F-4 Phantom aircraft that the U.S. was selling to Israel.[44] Israel of course did not give such a commitment. The insistence on the commitment was

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[44] Feldman, *Israeli Nuclear Deterrence*, p. 211.

illustrative of U.S. efforts to prevent Israeli nuclearisation, while strengthening its conventional forces. In effect, the global non-proliferation norms were being applied as strictly in the case of Israel as they were all over the world.

The Middle East for the U.S. was an important region, a vital energy source with a very volatile history. The U.S. viewed the increase in the number of nations possessing nuclear weapons as being dangerous to world peace. The U.S. believed that this increased the risks of accidental war and 'catalytic wars' (where a nuclear exchange between two smaller countries would escalate to a superpower nuclear exchange) and the subsequent danger for the U.S. to get itself involved in such a conflict. Its non-proliferation efforts were intended to limit the number of potential proliferators, by ensuring a strict control of nuclear materials and technology and to prevent the misuse of nuclear materials through their use for peaceful purposes.

Despite the fact that Israel continued its single-minded pursuit of nuclear weapons and reports that it did succeed in doing so, the U.S. did not react violently and try to cut-off its massive aid to Israel. This was in great measure sustained by the ambiguous nature of the Israeli nuclear policy. As long as Israel did not admit it had nuclear weapons, and as long as there was

no 'solid' proof that Israel did have the bomb, the U.S. found it convenient to continue its aid and maintain the special relationship. In doing so, however, the American administrations, especially after Kennedy, did show a substantial degree of partiality in dealing with Israel. An example of such behaviour was when President Johnson did not inform his Secretaries of State and Defence of the information given to him by the C.I.A Director about the existence of Israeli nuclear weapons.[45] The same attitude guided the U.S. policy decisions during the Nixon and Ford administrations. President Nixon, according to the strategic analyst Shlomo Aronson, never raised the nuclear issue with Israel during his term.[46] C.I.A Director Richard Helms told the Senate Foreign Relations Committee that Israel had nuclear weapons on July 7, 1970.[47] This was the first time that an official of the U.S. government acknowledged the presence of Israeli nuclear weapons. Even after this acknowledgement, there was no reduction in American support to Israel. On the other hand, the aid to Israel was increased. This was in response to the increased Soviet aid to Egypt.[48] Such policy decisions were indicative of U.S. desire to further its regional policy objectives, like that of trying to negate the increasing Soviet

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45 Ibid., p.216.
46 Ibid., p.215.
47 Ibid.
48 Leonard Spector, *Nuclear Proliferation Today* (Cambridge, Mass.: Ballinger Publishing Company, 1984), p.128.

influence in the Middle East. Nixon also offered Egypt and Israel nuclear power reactors, as a sop after the 1973 Yom Kippur war. Israel was also not required either to accede to the NPT, or accept international safeguards on all its nuclear installations. The reactor sale was also not contingent on Israel renouncing the development of nuclear weapons.[49]

The Glenn-Symington Act has not been applied in the case of Israel. The Act prohibits the U.S. from giving economic and military aid to countries that either export or import a nuclear enrichment plant, a nuclear reprocessing plant, or explode a nuclear device. The Act is applicable only to those countries that engage in the above activities after August 7, 1977, the date of the law's enactment.[50] Israel conveniently escaped punishment under the provisions of the Act, as it did not indulge in activities that are violative of its provisions. It has neither tested a nuclear explosive device after 1977, nor was it the recipient or exporter of any nuclear materials and technology like the reprocessing plants (though it did obtain clandestinely nuclear technology like krytrons after 1977). In fact, the Act stipulates that the President need not apply its provisions to any state, if he is of the opinion that such an application

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49 Ibid.

50 Feldman, *Israeli Nuclear Deterrence*, p.219.

would jeopardise the 'security and survival' of the State concerned.[51] Successive U.S. governments have come to the conclusion that the application of the Act would indeed jeopardise Israeli security and survival, and therefore have not applied it against Israel. In 1979, the U.S. voted against an Iraqi resolution in the UNGA, calling on it to open all of its nuclear facilities to IAEA inspections. This was in spite of the fact that the Iraqi resolution was consistent with the U.S. 1978 legislation, the Nuclear Non Proliferation Act. Israel's special treatment continued under the Reagan administration. In 1981, after the C.I.A informed the House Foreign Affairs committee that Israel had 10-20 nuclear weapons, Reagan's White House chose to ignore the assessment.[52]

It can be argued that the above indiscretions on the part of the U.S. constitute a clear case of a special relationship that is different from how the U.S. responded to the nuclearisation of other countries. That, however, would be too narrow a conclusion to be drawn. The reason is that the U.S. acted well within its security concerns while dealing with Israel. The stability of Israel and its security are important goals of the U.S.'s Middle East foreign policy.

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51 Barnaby, *The Invisible Bomb*, p.154.

52 Feldman, *Israeli Nuclear Deterrence*, p.225.

Israel is an important case of the U.S. tempering its foreign policy to suit its regional goals. The Israeli admission of nuclear capability would throw the U.S. policy into rough weather. The reason is that there are a host of curbs in the U.S. that prescribe punishment to any new nation going nuclear (like the Glenn-Symington Act and so on). Israel depends on U.S. aid to a large extent and any cut-off in that aid would entail serious repercussions on Israel, which would have a negative effect on the Middle East. The U.S. does not want this to happen, as an unstable Middle East would hurt its interests and increase the political and security costs of its involvement in the already volatile region. Israel is a special case no doubt, but it is also one among the important cases which have received special attention due to their peculiar security situations.

Another good example of the U.S. tempering its non-proliferation goals, in to order to suit its overall policy objectives, can be found in the case of Pakistan. After the 1979 Soviet invasion of Afghanistan, Pakistan's importance as a strategic ally increased manifold. The U.S. was willing to turn a blind eye to Pakistan's clandestine and covert efforts to get nuclear weapons. This is illustrated by President Reagan's treatment of Pakistan when he forced the Congress to resume aid to it. President Carter had suspended this in 1977 as well as in 1979, when it became known that Pakistan had acquired a

uranium enrichment facility from a West German firm.[53] This was done as per the provisions of the Glenn amendment to the International Security Assistance Act of 1977. After the 1974 Indian PNE, the U.S. did not stop its aid to India in the nuclear field. This was in spite of the fact that India refused to sign the NPT and refused to submit her nuclear facilities to full-scope safeguards. Going against the provisions of the 1978 Nuclear Non Proliferation Act (NNPA), the Carter administration supplied India with 38 tonnes of enriched uranium nuclear fuel.[54] Earlier, the Kennedy administration had sold France a dozen KC-135 jet tanker planes. These planes were needed primarily to refuel the Mirage-1V bombers of the French nuclear strike force, the *'force de frappe'*.[55] All this was done in spite of the strong opposition of the United States to an independent French nuclear force. William Bader's statement that the U.S. policy towards proliferation was "not entirely negative, (but) merely selective" best captures the U.S. non-proliferation attitude.[56] It was selective keeping in view the overall policy objectives. Israel therefore, was not seen as an exceptional case in U.S. eyes.

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53 Gary T. Gardner, *Nuclear Non Proliferation: A Primer*, p.47.

54 Feldman, *Israeli Nuclear Deterrence*, p.205.

55 Ibid., p.199.

56 William Bader, *The United States and the Spread of Nuclear Weapons* (New York: Pegasus, 1968), p.31. Cited in Feldman, p.198.

In the spring of 1990, Saddam Hussein threatened to "set half of Israel ablaze" by using his "binary chemical weapons".[57] He also deployed Soviet-made SCUD-B missiles, armed with chemical warheads, aimed at Israel. After he invaded Kuwait, Saddam did shower SCUDs on Israel. The Gulf war brought into sharp focus the question of Israeli nuclear weapons and Arab chemical weapons, developed to a substantial degree to deter the Israeli nuclear arsenal. Israeli Prime Minister Yitzhak Shamir warned the Iraqi leader that if he did carry out his threat to rain missiles tipped with chemical warheads on Israel, he would have to pay a "terrible, horrible" price.[58] Commentators deduced that this could have only meant a nuclear retaliation. If indeed Saddam was prevented from launching chemical weapons on Israel because of the threat of an Israeli nuclear retaliatory strike, it would show that Israel's conviction that it needs nuclear weapons to deter Arab chemical weapons is correct.

President George Bush put forth his 'Bush initiative' on arms control at the end of the Gulf war to minimise the dangers of the spread and use of unconventional weapons in the Middle East. The initiative talked of proposals

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57 Aronson, *The Politics and Strategy of Nuclear Weapons in the Middle East*, p.245.

58 Ibid.

for ensuring a verifiable ban on the production of materials used in making nuclear bombs (HEU and plutonium), a freeze on the acquisition, production and deployment of chemical and biological weapons, and a complete ban on missiles beyond a certain minimal range. Among other things, it called upon the nations of the region to join the NPT and submit their nuclear installations to IAEA safeguards. It also talked of the need to strive for the establishment of a Middle East NWFZ. The countries of the region, however, including Israel and the Arabs, gave a cold shoulder to the initiative. The Arab countries insisted on Israel signing the NPT first and putting all its nuclear facilities, including Dimona, under international safeguards.[59] Most importantly, the Arab countries have not either signed or ratified the chemical and biological weapons convention and have vowed not to do so until Israel signs the NPT. The multi-lateral working group on Arms Control and Regional Security (ACRS) has been formed to tackle the question of the Middle East arms controls measures in 1992.[60] The nuclear issue has however remained a difficult one to tackle. The Israeli policy of the lack of transparency is a major hindrance in order to ensure verifiable arms control measures. The Israelis insist it is the other way round. They cite the example of the Iraqi case and the

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59 Barnaby, "Capping Israel's Nuclear Volcano", p. 109.

60 Cohen, "The Nuclear Issue in the Middle East in a New World Order", p.54.

inability of providing full-proof regimes as the reason for their not surrendering their nuclear facilities to IAEA inspections.

ISRAEL'S NUCLEAR OPACITY

The U.S. has taken at face value the official Israeli explanations that it does not have the bomb nor would it be the first to introduce them into the region. This unique Israeli formulation is at the root of the U.S. response to the Israeli nuclear effort. This policy of Israel has been earlier called `ambiguous', `clandestine', `covert', `semi-covert', and so on.

The term that perhaps best describes the Israeli nuclear effort is 'opaque' nuclear proliferation. Author and strategic expert, Benjamin Frankel, first coined the term. For Cohen and Frankel, Israel in the 'ideal type' of 'opaque' proliferation, in contract to the U.S., which according to them is the 'ideal type' of 'visible' proliferation.[61] Israel has not conducted any nuclear tests, has denied possessing nuclear weapons, has not directly threatened the Arab states with nuclear weapons, and does not have a military doctrine, like the U.S. or any other overt nuclear power, that incorporates nuclear weapons into the

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61 Avner Cohen and Benjamin Frankel, " Opaque Nuclear Proliferation", p.23.

overall security framework.[62] All these factors, for Cohen and Frankel, constitute the characteristics of an opaque proliferation. Basically, it implies a lack of transparency regarding nuclear weapons.

Cohen further elucidates the concept and lists out the various factors, which have led to the development of the concept.[63] These include the early need for secrecy on the part of the Israeli nuclear effort. Leaders like Ben-Gurion went to extreme lengths to protect the secrecy of the project. Except a handful of persons, no one else knew about the nuclear effort. Opacity was also necessitated by the need to impress the international community, especially the U.S., about the lack of any Israeli intentions to go nuclear. This was especially important due to the fact that Israel was heavily depended on the U.S. for its help and aid and any stoppage on that count would have been a real problem indeed. This policy suited the U.S. interests quite well and it generally accepted the official Israeli position (of being not the first country to introduce nuclear weapons) at face value. The policy of opacity also helped

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62 Israel though is widely believed to have obtained the data of the first French nuclear test in 1960. Pry, *Israel's Nuclear Arsenal*, p.16.
In 1979, the U.S. VELA satellite (used to detect nuclear explosions) operated by the U.S. airforce, detected a 'double flash' on September 22, over the South Atlantic Ocean. (The 'double flash' is a characteristic of a nuclear explosion). The U.S. believed that if a test had indeed taken place, (which has not been proved based on the evidence at hand and hence characterised as a 'zoo event', an event which cannot be explained), Israel was the prime candidate which could have conducted the test followed by South Africa.
Barnaby, *The Invisible Bomb*, pp.14-21.

63 Cohen, *Israel and the Bomb*, pp. 1-6.

the other superpower, the Soviet Union. A visible nuclear posture on the part of Israel would have forced it to do something worthwhile to allay Arab fears, like giving them nuclear weapons and helping them develop their own indigenous nuclear capability.

The third important factor that fostered Israeli opacity was the need to not provoke the Arabs from getting nuclear weapons themselves. As long as the Arab states were not certain of the Israeli nuclear posture, it was believed they would not take any steps to further aggravate the situation. It was not easy, however, to fool the Arabs for long. They embarked on their own nuclear programmes vigorously. However, due to international pressure and the difficulties involved in the effort, they concentrated their efforts on developing biological and chemical weapons and largely succeeded in doing so.

Another factor, which helped Israel in maintaining its policy of nuclear opacity, was the very concept of nuclear proliferation itself. As long as a country did not conduct a nuclear test and talk of an overt visible posture, it was given the benefit of doubt (and characterised as 'ambiguous', 'covert',

'latent'). Israel used these problems of a lack of proper definition of proliferation and successfully became a nuclear weapons state, in stages.

CONCLUSIONS

Israeli nuclear opacity has stood it in good stead. It has got what it wanted, a nuclear weapons capability designed to protect it from any Arab design. They now believe that the Arab threat of throwing them into the Mediterranean cannot come to fruition, because that would entail the obliteration of the Arab state in return. It has also seen to it that no other state acquires a comparable capability (the bombing of Osiraq).

The Middle East peace process has an important bearing on the nuclear question. Prime Minister Shimon Peres in 1995, stated " give me peace and we will give up the atom".[64] This was a reformulation of the Israeli's stated stand on the MENWFZ, which they are willing to negotiate only after the establishment of comprehensive peace and the settlement of outstanding disputes, especially the territorial disputes, including the Golan Heights, which Israel captured from Syria after the 1967 war and the issue of the Palestinians

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64 "Peres: ` Will give up the Atom' if peace Achieved, " Qol Yisra'el (Jerusalem) December 22, 1995, in FBIS-NES-95-247, December 26, 1996, p.51. Cited in Rodney W. Jones et. al., *Tracking Nuclear Proliferation*, p.207.

and their demand for Jerusalem as their capital. The 'land for peace' process is being vigorously pursued, in which Israel would be allowed to keep the land that it got in the 1967 war in return for lasting peace. The U.S. effort to act as a broker has been repeatedly frustrated by the intransigence of the two sides, of going back on pledges (as was done by the former Prime Minister Benjamin Netanyahu, who was not well- intentioned towards the Oslo accord), the complex inter-play of the opposing views of the various domestic constituencies on either side, and terrorist organisations like the HAMAS, which have still not reconciled to the idea of the peace process. It can only be hoped that the people and leaders of the Middle East find a common ground on which to settle differences, so that the chances of conflagration do not arise. At the same time, it essential to not give up on concluding concrete and verifiable arms control measures, including on nuclear and chemical weapons, so that the dangers of their use gets reduced drastically.

The concluding part of the dissertation would be a broad overview of the analysis of the previous three chapters, and the results that such an analysis has put forth, regarding the subject matter of the dissertation, which is the Israeli nuclear effort and the U.S. response to such as effort.

CONCLUSION

The finding of this study is that the United States and Israel do share a special and complex relationship. The relationship is buttressed by historical, religious, psychological, political, economic, and strategic factors, among others. This affinity had a major role in the creation of Israel and was sustained and nurtured in the post-independence period, that is, after 1948.

Secondly, the study looked at how this affected the U.S. response to the covert nuclearisation efforts of Israel. The U.S. was inimical to the initial Israeli efforts to get the technology necessary for making the bomb. The response of the Kennedy and the Eisenhower administrations is pertinent in this regard. During this period, the U.S. viewed the possible nuclearisation of its close ally in the Middle East as being against its overall strategic objectives. These objectives included the maintenance of peace and security in a region supplying most of the U.S.' s energy needs, basically to ensure that the costs of the U.S. involvement arising out of any problems in the region, was reduced to a substantial degree.

Israel did not leave any stone unturned in realising its objective of becoming a nuclear weapon nation. It did so however, in such a manner so as not to hurt U.S. policy interests, beyond a point. Israel vowed it would not be the first country of the region to introduce nuclear weapons, all the while maintaining (though with great difficulty in the face of overwhelming evidence to the contrary, like the Vanunu revelations) that it did not have nuclear weapons in its inventory. This was sustained by the Israeli policy of a complete lack of transparency regarding nuclear matters, characterised as 'opacity'. Israel's nuclear opacity helped it in maintaining its special affinity with the U.S., prevented the Arab nations from going down the nuclear route (sometimes forcefully as exemplified by the Osiraq bombing), and saved the Soviet Union from the neccessity of trying to get involved in the region, like helping the Arab states get their own nuclear weapons option.

In accepting the Israeli formulation that it did not have any bombs, in the face of overwhelming evidence that it was otherwise, the U.S. did show partiality in dealing with Israel. Israel was, however, not the sole recipient of such partiality. The U.S. moulding its non-proliferation policies to suit its regional policy objectives can be found in the case of countries like Pakistan

also. The U.S., as such, was 'selective' in applying its non-proliferation policies, keeping in mind its overall policy objectives.

The question is: Were these policy objectives moulded by the demands of the special relationship between the two countries? The analysis reveals that it was not necessarily so. The U.S. is committed to the security of Israel, its people and its borders. It is equally committed to the security of the Arab nations, a primary source of energy supply. The difference in the help provided to Israel and to the other nations in the region can be found in the geo-strategic significance that the U.S. attaches to Israel. It believes that its help to Israel is needed to maintain the regional equilibrium, as an unstable Israel, without U.S. help, would make the region more prone to frequent and costly U.S. intervention.

There is also a limit to the influence of the Jewish votes, Jewish money, and Jewish lobby in determining the contours of the country-to-country relationship. An important example to prove that this is the case is quite illuminating. Richard Nixon came to power with less than one-third of the Jews voting for him.[1] In 1973, he was in his second term in office and

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1 Glick, *The Triangular Connection*, p.106.

there was no way he could stand again for the presidency. In the 1973 Yom Kippur war, when Egypt and Syria attacked Israel, he ordered a massive dose of support, both military and economic, to be given to Israel. The reasons behind Nixon acting so were not the imperatives of any electoral politics. The Nixon administration viewed its policies and interests in the Middle East were best protected by helping Israel, in that particular moment. The U.S. did not want an unstable Israel, facing imminent defeat, further complicating the situation for itself and for the U.S., by preparing to deliver a nuclear retaliation (with reports that Golda Meir was in fact thinking and acting in those terms).

The U.S. is a 'realist' nation in the truly Waltzian sense. The Monroe Doctrine, enunciated by President James Monroe, brooked no interference in areas where the "rights and interests of the United States are involved".[2] In order to secure those rights, the U.S. uses a set of policy instruments, in order to achieve to the optimum extent the overall policy objectives that protect and further those interests. The influence of interest groups, like the Jewish lobby, are effective in so far as trying to narrow the gap between U.S. national interests and the interests of that particular group or country. Where

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2 Wentz, *Nuclear Proliferation*, p.187.

such a gap is narrowed to the barest minimum, the interests of the U.S. and countries like Israel look similar and hence give rise to the false opinion of a sense of partiality in dealing with those particular nations. In the final analysis, however, what counts are primarily U.S. policy interests and objectives and not the other way round. This is the lesson that has been brought forth by the analysis of the dissertation on the Israeli nuclear quest and the U.S. response to that quest.

BIBLIOGRAPHY

PRIMARY SOURCES

Canberra Commission on the Elimination of Nuclear Weapons, *Report of the Canberra Commission on the Elimination of Nuclear Weapons* (Canberra, Australia: Commonwealth of Australia, 1996).

Committee on International Security and Arms Control, *The Future of U.S. Nuclear Weapons Policy*, (National Academy of Sciences) (Washington D.C.: National Academy Press, 1997).

Report of an Independent Task Force co-sponsored by the Brookings Institution and the Council on Foreign Relations, *After the Tests: U.S. Policy Toward India and Pakistan* (New York: Council on Foreign Relations Press, 1998).

SECONDARY SOURCES

Books

Arnett, Eric, *Nuclear Weapons After the Comprehensive Test Ban: Implications for Modernisation and Proliferation* (New York: Oxford University Press, 1996).

Aronson, Shlomo; with Brosh, Oded, *The Politics and Strategy of Nuclear Weapons in the Middle East: Opacity, Theory, and Reality, 1960-*

1991, An Israeli Perspective (Albany: State University of New York Press, 1992).

Barnaby, Frank, *How Nuclear Weapons Spread: Nuclear-weapons Proliferation in the 1990s* (New York: Routledge, 1993).

_____, *The Invisible Bomb: The Nuclear Arms Race in the Middle East* (London: I.B. Tauris and Company Ltd., 1989).

Beaton, Leonard, and Maddox, John, *The Spread of Nuclear Weapons* (London: The Institute for Strategic Studies, 1962).

Bhatia, Shyam, *Nuclear Rivals in the Middle East* (London: Routledge, 1988).

Blackwill, Robert D., and Carnesale, Albert, *New Nuclear Nations: Consequences for U.S. Policy* (New York: Council on Foreign Relations, 1993).

Brenner, Lenni, *Zionism in the Age of Dictators* (Kent: Crooom Helm, 1983).

Brenner, Michael J., *Nuclear Power and Non Proliferation: The Making of U.S. Foreign Policy* (New York: Cambridge University Press, 1981).

Bundy, McGeorge, Crowe, William J., and Drell, Sidney D., *Reducing Nuclear Danger: The Road Away From the Brink* (New York: Council on Foreign Relations, 1993).

Bundy, McGeorge, *Danger and Survival: Choices About the Bomb in the First Fifty Years* (New York: Random House, 1988).

Campbell, John C., *Defence of the Middle East: Problems of American Policy* (New York: Council on Foreign Relations, 1960).

Cohen, Avner, *Israel and the Bomb* (New York: Columbia University Press, 1998).

Drell, Sidney, *Facing the Threat of Nuclear Weapons* (Seattle: University of Washington Press, 1983).

Eban, Abba, *An Autobiography* (London: Weidenfeld and Nicolson, 1977).

Eban, Abba, *My Country: The Story of Modern Israel* (London: Weidenfeld and Nicolson, 1972).

Ehteshami, Anoushiravan, *Nuclearisation of the Middle East* (London: Brassey's, 1989).

Evron, Yair, *Israel's Nuclear Dilemma* (London: Routledge, 1994).

Feldman, Shai, *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982).

_____, *Nuclear Weapons and Arms Control in the Middle East* (Cambridge, Mass.: The MIT Press, 1997).

Fischer, David, *Stopping the Spread of Nuclear Weapons: The Past and the Prospects* (London: Routledge, 1992).

_____, *Towards 1995: The Prospects for Ending the Proliferation of Nuclear Weapons* (Cambridge: Cambridge University Press, 1993).

Fogelman, Edwin, *The Decision to Use the A-Bomb* (New York: Charles Scribner's Sons, 1968).

Forsberg, Randall; Driscoll, William; Webb, Gregory; and Dean, Jonathan, *Non Proliferation Primer: Preventing the Spread of Nuclear, Chemical, and Biological Weapons* (Cambridge, Mass.: The MIT Press, 1995).

Frankel, Benjamin, *Opaque Nuclear Proliferation: Methodological and Policy Implications* (London: Frank Cass, 1991).

Gardner, Gary T., *Nuclear Non Proliferation: A Primer* (London: Lynne Rienner Publishers, 1994).

Glick, Edward Bernard, *The Triangular Connection: America, Israel and American Jews* (London: George Allen and Unwin, 1982).

Green, Stephen, *Taking Sides: America's Secret Relations with a Militant Israel, 1948-1967* (London: Faber and Faber, 1982).

Grose, Peter, *Israel in the Mind of America* (New York: Alfred A. Knopf, 1984).

Harvard Nuclear Study Group, *Living with Nuclear Weapons* (Cambridge, Mass.: Harvard University Press, 1983).

Hersh, Seymour M., *The Samson Option: Israel's Nuclear Arsenal and American Foreign Policy* (New York: Random House, 1991).

Jabber, Faud, *Israel and Nuclear Weapons: Present Options and Future Strategies* (London: Chatto and Windus, 1971).

Jansen, Michael E., *The United States and the Palestinian People* (Beirut: The Institute for Palestinian Studies, 1970).

Jones, Rodney W., McDonough, Mark G.; with Dalton, Toby F., and Koblentz, Gregory D., *Tracking Nuclear Proliferation* (Washington D.C.: Carnegie Endowment for International Peace, 1998).

Karem, Mahmoud, *Nuclear-Weapon-Free Zone in the Middle East: Problems and Prospects* (New York: Greenwood Press, 1988).

Karsh, Efraim (ed.), *Between War and Peace: Dilemmas of Israeli Security* (London: Frank Cass, 1996).

Karsh, Efraim., and Sandler, Shmuel (eds.), *Middle Eastern Security: Prospects for an Arms Control Regime* (London: Frank Cass, 1995).

Kemp, Geoffrey, and Stahl, Shelley A., *The Control of the Middle East Arms Race* (Washington D.C.: Carnegie Endowment for International Peace, 1991).

Kimche, John E., *Palestine or Israel* (London: Secker and Warburg, 1973).

Kincade, William H., and Bertram, Christoph (eds.), *Nuclear Proliferation in the 1980s: Perspectives and Proposals* (New York: St. Martin's Press, 1982).

Lehn, Walter and Davis, Uri, *The Jewish National Fund* (London: Kegan Paul International, 1988).

Meyer, Stephen M., *The Dynamics of Nuclear Proliferation* (Chicago: University of Chicago Press, 1984).

Pilat, Joseph F., and Pendley, Robert E. (eds.), *Beyond 1995: The Future of the NPT Regime* (New York: Plenum Press, 1990).

Pry, Peter, *Israel's Nuclear Arsenal* (Boulder, Colo: Westview Press, 1984).

Reich, Bernard, *The United States and Israel: Influence in the Special Relationship* (New York: Praeger Publishers, 1982).

Reiss, Mitchell, *The Politics of Nuclear Non Proliferation* (New York: Columbia University Press, 1988).

Riess, Mitchell, and Litwak, Robert S., *Nuclear Proliferation after the Cold War* (Washington D.C.: Woodrow Wilson Centre Press, 1994).

Sachar, Howard M., *A History of Israel: From the Rise of Zionism to Our Time* (Oxford: Basil Blackwell, 1977).

Sagan, Scott D., and Waltz, Kenneth N., *The Spread of Nuclear Weapons: A Debate* (New York: W.W. Norton and Company, 1995).

Shaw, Timothy M. (ed.), *The Many Faces of National Security in the Arab World* (London: Macmillan, 1993).

Sherwin, Martin J., *A World Destroyed: The Atomic Bomb and the Grand Alliance* (New York: Vintage Books, 1972).

SIPRI Yearbook 1997: Armament, Disarmament, and International Security (Oxford: Oxford University Press, 1997).

SIPRI, *Nuclear Proliferation Problems* (Cambridge, Mass.: The MIT Press, 1974).

Smoke, Richard, *National Security and the Nuclear Dilemma: An Introduction to the American Experience in the Cold War* (New York: McGraw-Hill Inc., 1993).

Spector, Leonard, *The New Nuclear Nations* (New York: Vintage Books, 1985).

Stevens, Richard P., *American Zionism and U.S. Foreign Policy* (Beirut: The Institute for Palestine Studies, 1970).

Subrahmanyam K. (ed.), *Nuclear Myths and Realities* (New Delhi: ABC Publishing House, 1981).

Truman, Harry S., *Year's of Trial and Hope* (New York: Doubleday, Garden City, 1956).

Vital, David, *Zionism: The Formative Years* (Oxford: Clarendon Press, 1982).

Wentz, Walter B., *Nuclear Proliferation* (Washington D.C.: Public Affairs Press, 1968).

Wheatcroft, Geoffrey, *The Controversy of Zion* (London: Sinclair-Stevenson, 1966).

Yager, Joseph (ed.), *Non Proliferation and U.S. Foreign Policy* (Washington D.C.: The Brookings Institution, 1980).

Articles

Beres, Louis Rene, "Power and Survival: Why Israel Needs Nuclear Weapons", *International Journal of Group Tensions*, Vol. 26, No.1, Spring 1996, pp.21-60.

Cerniello, Craig, "Clinton Sends CTB Treaty to Senate", *Arms Control Today*, Sept. 1997, p.25.

Cherian, John, "Out for a Deal?" *Frontline*, July 31,1998, pp.24-30.

Cohen, Avner, and Miller, Marvin, "Facing the Unavoidable: Israel's Nuclear Monopoly Revisited", *Journal of Strategic Studies*, Vol. 3, No. 3, Sept. 1990, pp.64-76.

Dhanapala, Jayantha, "Prospects for Nuclear Disarmament", *Strategic Digest*, Vol. XXIX, No. 6, June 1998, pp.947-953.

Evron, Yair, "Opaque Proliferation: The Israeli Case", *Journal of Strategic Studies,* Vol. 13, No. 3, Sept. 1990, pp.45-63.

Feaver, Peter D., Niou, Emerson M. S., "Managing Nuclear Proliferation: Condemn, Strike or Assist", *International Studies Quarterly*, Vol. 40, No. 2, June 1996, pp.209-224.

Feldman, Shai, "Middle East Nuclear Stability: The State of the Region and the State of the Debate", *Journal of International Affairs*, Vol. 49, No. 1, Summer 1995, pp.205-230.

Joshi, Sharad, "Israel's Nuclear Policy: A Cost-Benefit Analysis", *Strategic Analysis*, Vol. 23, No. 12, March 2000, pp.2084-2110.

Muralidharan, Sukumar, "Breakthrough or déjà vu?" *Frontline*, Sept. 11, 1998, pp.98-99.

Nupur, Vyoma, "Israel's Nuclear Posture: A Cost-Benefit Analysis", *Strategic Analysis*, Vol. 22, No. 3, Oct. 1998, pp.1019-1029.

Polden, David, "Israel's Nuclear Weapons", *Philosophy and Social Action*, Vol. 23, No. 1, Jan-Mar 1997, pp.50-53.

Sagan, Scott D., "Why do States Build Nuclear Weapons: Three Models in Search of a Bomb", *International Security*, Vol. 21, No. 3, (Winter 1996/97), pp.54-86.

Sethi, Manpreet, "U.S. Pursuist of Nuclear Non Proliferation: Check and Checkmate", *Strategic Analysis*, Vol. 23, No. 6, Sept. 1999, pp.909-922.

Spector, Leonard S., "Nuclear Proliferation in the Middle East", *ORBIS*, Vol. 36, No. 2, Spring 1992, pp.181-198.

OTHER SOURCES

The Hindu (New Delhi).

The Times of India (New Delhi).