

WHEN ALLIES GO NUCLEAR:  
THE CHANGING NATURE OF THE AMERICAN RESPONSE  
TO 'FRIENDLY' NUCLEAR PROGRAMS

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The thesis examines the historical variation in the American approach to the nuclear programs of US-friendly states since the early 1950s. It argues that the differences in American efforts to thwart such programs depended on the degree of ability and willingness to pursue the nuclear question in a bilateral relationship. Ability is defined as the nature of the military and political alliance between the US and the target state, combined with the level of conventional weapons transfers from the US to the target state. Willingness is identified as the combination of perceived national interests and presidential preferences. The thesis rejects explanations that focus exclusively on power distribution, alliance politics, and regime type in the target state. It argues that, at different stages of nuclear program development, there are different elements that account for the variation in the American approach, all of which fall in either the ability or willingness category. The thesis focuses on three in-depth cases of early proliferators: France, Israel, and Taiwan. It utilizes extensive archival research of primary government documents, memoirs and autobiographies, as well as the secondary literature. The thesis employs a process tracing method to perform cross-case and within-case analyses of key independent variables in order to account for different policy approaches ranging from active opposition to nuclear status acceptance, including nuclear collaboration.

The thesis chronicles the origins of the US global nonproliferation approach, which is still largely in use today. It explains how the US has come to accept several significant exceptions to its proclaimed goal of universal nonproliferation and how

those exceptions altered the nonproliferation agenda. It considers the case of the US-India nuclear energy accord, announced in 2005, as the latest example of the tendency to bend rules for allies. The India case is examined in the final chapter, alongside Pakistan. The thesis offers several conclusions, including the possible effects of rule bending on the global nonproliferation regime. In addition, it suggests that nuclear suppliers, such as the US, can have different response functions to different proliferators and that not all suppliers are homogeneous. Furthermore, the degree of a program's maturity matters in terms of which response tools are available to the US, and how effectively they can be utilized. This thesis argues for the primacy of politics on questions of nuclear non-proliferation. It suggests that a possible fruitful direction for future research would be a consideration of the effects of regionalism on the American response to nuclear proliferators.

## BIOGRAPHICAL SKETCH

Maria Zaitseva was born in Moscow, Russia in 1975. After her parents moved to New York to work for the United Nations in the early 1980s, Maria attended a Russian school run by the Russian Mission to the UN. Growing up in a closed diplomatic community during the last decade of the Cold War, Maria knew that her interests later in life would in some way be connected to international relations and politics. As the East-West rivalry came to an end, Maria was able to transfer to an American high school and graduated from Riverdale Country School in Bronx, NY in 1993. She went on to receive a BA in Political Science from Yale University in 1997 and earned an MA in International Relations from Yale in 2002. Maria enrolled at Cornell to study comparative politics, with a focus on energy politics of the former Soviet Union. In her first two years at Cornell, Maria's academic focus shifted as she gravitated to international relations, and international security in particular. She became increasingly fascinated with the different aspects of proliferation of weapons of mass destruction (WMD), and she settled on that broad area as a focus for her doctoral research. Before choosing the topic for her doctoral thesis, Maria spent some time working on the problem of biological weapons (BW) proliferation and control, and has published a book chapter on the subject in 2010. As part of her doctoral research, Maria did archival work in College Park, MD. She has presented her work at numerous workshops and professional conferences.

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## LIST OF ABBREVIATIONS

AEA	Atomic Energy Act
CENTO	Central Treaty Organization
CIA	Central Intelligence Agency
CWIHP	Cold War International History Project
DEF	Defense (abbreviation in US official documents)
EURATOM	The European Atomic Energy Community
IAEA	International Atomic Energy Agency
JCAE	Congressional Joint Committee on Atomic Energy
JFKL	John F. Kennedy Presidential Library
NARA	National Archives and Records Administration
NATO	North Atlantic Treaty Organization
NCA	Nuclear Cooperation Act
NIE	National Intelligence Estimate
NPT	Nuclear Non-Proliferation Treaty
NSA	National Security Archive (at George Washington University)
NSG	Nuclear Suppliers Group
NNWS	Non-Nuclear Weapon State
NWS	Nuclear Weapon State
POL	Political (abbreviation in US official documents)
RG	Record Group
SEATO	Southeast Asia Treaty Organization
SIPRI	Stockholm International Peace Research Institute
UN	United Nations
USNA	United States National Archive (at College Park, MD)

## **Chapter 1 – Introduction**

I argue in this thesis that the historical variation in the American approach to the nuclear weapons programs of its allies is explained by differences in the ability and willingness of the US to exercise leverage over particular potential proliferators. I measure ability by the type of bilateral alliance, and by the level of conventional weapons transfers from the US to the proliferator. I define willingness as a combination of perceived national interests and presidential attitudes toward nuclear proliferation. This thesis looks at the process of American nuclear response to various nuclear programs from the early 1950s to the present. It focuses on three in-depth cases of early proliferators, and illustrates that the American approach is driven not by economic or technological capacity of proliferating states, or their regime type and nature of external military threats, but by internal and external political factors. In short, I argue in this thesis for the primacy of politics on questions of nuclear non-proliferation.

The United States government has always been an adamant proponent of global nuclear non-proliferation. Since the early days of the Atomic Age, successive American administrations have opposed and battled the spread of nuclear weapons. Furthermore, the US has refused to allow new members into the exclusive nuclear club, comprised of the five nuclear weapon states (NWS) recognized by the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). This exclusivity, however, has not been absolute, and over the years the US has come to accept, either implicitly or explicitly, a few other states as NWSs. The most current such case is India, which

recently concluded a historical nuclear energy cooperation agreement with Washington,<sup>1</sup> despite never having signed the NPT. Proponents of this agreement claim that it will be instrumental in ushering in a new era of cooperation and strategic partnership between the US and India.<sup>2</sup> The critics, however, argue that the agreement not only threatens to undermine the global non-proliferation regime,<sup>3</sup> but also perpetuates a decades-old trend of rule-bending in the American non-proliferation approach, that began long before the George W. Bush Administration. As one US Senator put, the deal sends a message that “...you can misuse American nuclear technology and secretly develop nuclear weapons, you can build a nuclear arsenal in defiance of the United Nations resolution, and you will be welcomed as someone exhibiting good behavior with an agreement with the US.”<sup>4</sup> Some analysts have claimed that the deal “is really about big business.”<sup>5</sup> Moreover, the Agreement signifies a remarkable turnaround in American policy. Only ten years prior to the conclusion of the nuclear accord, the US imposed a series of sanctions on New Delhi

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<sup>1</sup> The agreement was first announced at a meeting between US President G.W. Bush and Indian Prime Minister M. Singh in July 2005. The technical details of the agreement were finalized at the end of July 2007 in a series of meetings between the two sides in Washington DC. It was approved by the US Senate in early October 2008 by a 86-13 vote. Earlier that year, India negotiated a safeguards agreement with the International Atomic Energy Agency (IAEA), and in September 2008 the Nuclear Suppliers Group (NSG) removed its ban on India’s participation in international nuclear trade. ([http://www.nti.org/e\\_research/profiles/India/index.html](http://www.nti.org/e_research/profiles/India/index.html)).

<sup>2</sup> President Obama and his Administration (especially the State Department) have been lending strong support for this agreement. However, Congressional support for the deal has been uneven (see, for example [http://www.globalsecuritynewswire.org/gsn/nw\\_20100405\\_5116.php](http://www.globalsecuritynewswire.org/gsn/nw_20100405_5116.php)). Nonetheless, Kupchan (2010) cites the 123 Agreement as an example of an American concession that acted as an “investment in befriending and building a strategic partnership with India.” (Kupchan, 2010: 394-395)

<sup>3</sup> See, for example, Squassoni (2007) who argues that the “precedent [that the deal sets for others] may make US non-proliferation objectives harder to achieve” and furthermore will showcase the hypocrisy of the American approach of rewarding some states who have not signed the NPT while punishing others.

<sup>4</sup> Remarks by Senator Byron Dorgan (D-N.D.) as quoted in the *LA Times*, October 2, 2008, “India Nuclear Pact is OKd”, by P. Richter.

<sup>5</sup> J. Sri Raman, “The US-India nuclear deal – one year later” October 2009, ([www.thebulliten.org/web-edition/features/the-us-india-nuclear-deal-one-year-later](http://www.thebulliten.org/web-edition/features/the-us-india-nuclear-deal-one-year-later))

for openly testing a nuclear device.<sup>6</sup> A decade later, the US was eager to embrace the concept of a nuclear India. While the deal was initiated during the presidency of George W. Bush, President Barak Obama, who famously declared his vision of a world free of nuclear weapons,<sup>7</sup> embraced it as well. The US-India deal raises an important theoretical and policy-related question: how has the US responded to the challenge of nuclear proliferation of various states and how has that response changed over time?

The American reaction to the nuclear ambitions of its allies<sup>8</sup> is especially interesting. Over the past six decades the US had tried to prevent friends and enemies alike from crossing the nuclear threshold. Opposition to nuclear-armed adversaries is understandable as they may pose direct or indirect security threats to the United States; aspire to play more prominent (and assertive) regional or global power roles as a result of going nuclear; or transfer nuclear technology and material to other states or non-state actors. A friendly state going nuclear, on the other hand, does not pose a direct security threat to the US. In fact, some proponents of 'controlled' proliferation argue that a restrained spread of nuclear weapons may inject some stability into the anarchical self-help international system and make states feel more secure.<sup>9</sup> A nuclear-armed ally might be less likely to seek the protection of the US and less likely to drag the US into a costly conflict on its behalf.

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<sup>6</sup> The American sanctions followed India's May 1998 test. President G.W. Bush lifted these sanctions just three years later in September 2001.

<sup>7</sup> President Obama's speech in Prague, April 5, 2009 ([http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu\\_n\\_183219.html](http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu_n_183219.html))

<sup>8</sup> I understand the concepts of 'friends' and 'enemies' as highly intersubjective (see Oren, 1995 and Oren, 2003). I use the concept of friend and ally (as well as enemy and adversary) interchangeably in this project.

<sup>9</sup> See Waltz, 2003: chapter 1.

Opponents of proliferation, however, point out that it might substantially disrupt the regional balance of power, increasing the chances of regional or even global confrontation. In addition, the potential for nuclear accidents increases as the number of states possessing nuclear weapons grows.<sup>10</sup> Furthermore, a nuclear-armed ally is more likely to pursue an independent foreign policy and be less susceptible to various pressures from the US, which may be interested in influencing nuclear decisions abroad.<sup>11</sup>

Theoretically, the degree of leverage (either in the form of coercion or inducements) that the US can exercise over its adversaries is substantially lower than the amount of influence it has over its allies. Bound by a series of formal and informal military alliances, economically interdependent (through trading arrangements and various international institutions), sharing certain norms as well as political and social values (especially when it comes to democracies), the US and its allies are mutually co-dependent. Some scholars would characterize the relationship between the US and most of its allies as “asymmetrical interdependence,”<sup>12</sup> or the greater dependence of friendly states on the superpower than vice versa. Nonetheless, there is a remarkably important aspect of leverage that the US cannot seriously contemplate when it comes to allies: the ability to exercise a

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<sup>10</sup> See, for example, Sagan’s response to Waltz, 2003: 166-170) on the question of nuclear accidents.

<sup>11</sup> Kroenig (2010), for example, argues that proliferation threatens what he calls ‘power projecting states’ (PPS) more than it threatens the rest of the states because the former have more to lose from proliferation abroad. Specifically, proliferation abroad constrains their conventional military power projection, reduces coercive diplomacy, leads to regional instability, and can cause further proliferation (Kroenig, 2010: 16-32). As a result, PPS fear nuclear proliferation by both allied and enemy states (ibid: 3).

<sup>12</sup> Keohane and Nye, 1975: 367.

military option.<sup>13</sup> The idea of a preventive military strike against a friendly nuclear program simply lacks credibility. At the same time, the amount of pressure that the US can put on allies through means such as military or economic aid cutoff, diplomatic pressure, or threats of security guarantees withdrawal can be great. As a result, the US, during the decades of the Cold War and beyond, had always believed itself capable of influencing certain political decisions and actions of its friends, whether they liked it or not. As the most powerful<sup>14</sup> state in the anti-Communist bloc, the US attempted to exercise power over its friends in order to persuade them not to embark on a nuclear path, or to step off that path in cases where the nuclear program was already underway. If American influence over its allies was (and continues to be) so powerful, then why did the US sometimes fail to dissuade its friends from developing a nuclear weapons capability? What was different in the cases when it did succeed?

These questions are interesting not only from a theory perspective, but are also relevant in light of some of the recent global proliferation developments. As North Korea holds onto its nuclear ambitions, will Japan, and, possibly, South Korea (both allies of the US) re-evaluate their own nuclear postures and decide to go nuclear?<sup>15</sup> As Iran's nuclear program continues to gain momentum, will other regional powers, such as Saudi Arabia or Egypt, embark on a path of nuclear

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<sup>13</sup> Feaver and Niou (1996) point out that a military option (as a response to nuclear proliferation) lacks any serious credibility when contemplated against an ally. There might be high costs associated with a military option against enemies as well (particularly those with substantial military capabilities), so a military option might be viable (and credible) only against small enemies. (Feaver and Niou, 1996: 215).

<sup>14</sup> I will explicate further on the meaning of 'leverage' and 'power' later on in this chapter.

<sup>15</sup> Some scholars do not believe that Japan will go down the nuclear weapons path imminently, but they do not rule out such a possibility completely. See, for example, Hughes, 2007.

exploration and weapons development,<sup>16</sup> and will the closest ally of the US in the region, Israel, be forced to finally shed the opacity surrounding its own nuclear status?<sup>17</sup> This thesis will argue that the nature of the American response to various proliferators, over time and across cases, depends on the ability and willingness of the US to pressure an ally on the nuclear question. This thesis will focus on the elements that influence policy formation and change over time. This basic argument will be illustrated through an in-depth examination of three ‘early proliferators’: France, Israel, and Taiwan. The world today is undoubtedly a much different place than it was in the 1950s when the US first started to articulate its non-proliferation policy. Yet the basic foundation of that policy that the US opposes nuclear proliferation wherever it might spring up has endured through the decades. Over time, the policy took on a significant amendment that allows the US to make occasional exceptions based on a host of factors. Viewed from this perspective, the US-India deal is not an anomaly, but rather a logical consequence of the US non-proliferation approach. I will now turn to a more detailed discussion of the proposed explanation.

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<sup>16</sup> In fact, there have recently been reports that at least eight Arab nations are actively considering domestic nuclear energy programs (Saudi Arabia, Egypt, Morocco, Yemen, Algeria, and Jordan, Tunisia, and United Arab Emirates) – *Yemen Times*, January 18, 2007, from the Carnegie Non-Proliferation Listserve ([www.CarnegieEndowment.org/NPP](http://www.CarnegieEndowment.org/NPP)). In May 2008 the US and Saudi Arabia signed a Memorandum of Understanding on Nuclear Energy Cooperation (<http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=20136>), and in January 2009 the US and the United Arab Emirates signed an agreement for peaceful nuclear energy cooperation (<http://www.usuae123.com/>) (which is currently pending approval in US Congress as of July 2009).

<sup>17</sup> On the eve of the first meeting between the newly elected American President Obama and Israeli Prime Minister Netanyahu in May 2009 some media outlets suggested that the US might be on the verge of forcing Israel to finally shed its nuclear opacity status and to renew a push to have Israel join the NPT as a non-NWS (see, for example, Lake, 2009). Some experts, however, disputed the assertion that a change in the US’s approach to Israel’s nuclear opacity was imminent, or even advisable (Cohen and Perkovich, 2009).

## Proposed Explanation

Despite the fact that the US has held a universal position of opposing the spread of nuclear weapons since the early 1960s, its policies toward its allies have varied over the decades. Not only did the responses differ from state to state, but they also changed over time vis-à-vis the same state. For example, in the case of Israel the US's response ranged from an initial opposition, including threats of withdrawing security guarantees and the coupling of military equipment sales with the nuclear question, to a tacit understanding between the two sides in the early 1970s that the US was going to turn a blind eye to Israel's program while Israel promised never to publicly disclose its nuclear status. In other instances (such as Taiwan) the US followed a consistent and unyielding policy of opposition to nuclear weapons acquisition throughout several different American Administrations and a great deal of domestic political and economic change in the target state. The main question that this study asks is what accounts for this variation?

I argue that the key to understanding the variations in the American response to friendly nuclear programs lies in varying levels of the amount of *security leverage* combined with the *political willingness* to use that leverage over the target state by the US. At the most basic level, this is an argument about ability coupled with determination. However, it would be wrong to assume that if the US wanted to change the target state's nuclear policies badly enough it would succeed in doing so. In fact, the empirical evidence will demonstrate that even in cases where the US

strongly opposed nuclear proliferation in a friendly state, it sometimes failed to convince an ally not to go down the nuclear path.

Despite being one of the most powerful states in the international system,<sup>18</sup> the US, it turns out, has little credible power with allies. Baldwin (1980) already pointed out the possibility that because power is multidimensional, the same actor can be simultaneously strong and weak, “e.g. powerful with respect to some scopes of some actors and weak with respect to other scopes of other actors.”<sup>19</sup> One of the most serious threats that a state can use against another state military force is off the table when it comes to dealing with allies. While there are other instruments of power at the disposal of the US, such as diplomatic pressure, sale of military equipment, threat of sanctions, etc., pressuring allies to adjust their policies can be a tricky proposition as we shall see in the chapters to come. The question then becomes when do opportunities open up for the US to use security leverage that yields positive results? I argue that it is during those moments in time when both the ability of the US to influence allies is high and the US is willing to expend some political capital pursuing the nuclear issue in a bilateral relationship. Before I further expand on my argument regarding the variation of the American response to friendly nuclear programs, it is necessary to define some of the key variables featured in this study and explain their measurement.

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<sup>18</sup> On definitions of power see Dahl, 1957; Barnett and Divall, 2005; Baldwin, 1980 and Baldwin, 2002, among others.

<sup>19</sup> Baldwin, 1980: 497.

*Dependent Variable: Variation in the American Response*

This study's primary focus is on the variation of the American response to friendly nuclear programs (over time and across cases). The American response is a spectrum ranging from explicit nuclear status recognition on one end to strong opposition (short of military confrontation) on the other.<sup>20</sup> The current US-India nuclear deal is an example of the former while the American response to the Taiwanese program in the 1970s and 1980s is an example of the latter. There is a whole array of other responses that fall in between those two extremes, including passive opposition,<sup>21</sup> limited cooperation, and implicit nuclear status recognition. The recognition of a multitude of American reactions goes well beyond Feaver and Niou's (2006) three responses of condemn, strike, or assist.<sup>22</sup> It also allows for the degrees of opposition (passive vs. strong) and support (cooperation and implicit/explicit status recognition). As with most American policies, the responses to nuclear programs abroad are not set in stone. They can be fluid, and can change over time. This study will identify the nature of the American response at the critical junctures when the target states' nuclear programs enter new stages of development.

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<sup>20</sup> As mentioned earlier, a military confrontation is not a credible policy option with allies.

<sup>21</sup> Passive opposition refers to lack of any meaningful US action to retard or reverse the program. While in theory the US is opposed to an ally going nuclear, it adopts a 'wait and see' stance.

<sup>22</sup> A strike option would be off the table with an ally to begin with.

*Independent Variables: Security Leverage and Political Will to Use It*

This study argues that the variation in the American response to friendly nuclear programs is determined by the ability and willingness of the US Government to use security leverage with a target state. What do these things mean in practice?

**Ability (security leverage) + Willingness → Variation in Response**

*Security Leverage (Ability)*

The first consideration is the ability of the US to influence an ally. The US is one of the most powerful states in the international system and has an array of resources available to it, both material and ideational, with which to conduct its domestic and foreign policies. If a state's power consists of resources, then leverage is an application of that power over a target state. Specifically, it is the use of a relatively small amount of resources aimed at gaining relatively large payoffs (in this case, the reversal of a target state's nuclear weapons policy). Surprisingly, international security literature has not paid any significant or systematic attention to the role that leverage can play in decision-making and policy outcomes.<sup>23</sup>

In the 1970s Thomas Wheelock defined leverage as "the manipulation of the arms transfer relationship in order to coerce or induce a recipient-state to conform its policy or actions to the desires of the supplier-state."<sup>24</sup> He distinguished between two modes of leverage: inducement and coercion (although the line between the

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<sup>23</sup> The role of leverage is most frequently discussed in economics, especially finance, where it refers primarily to the use of credit, or borrowed funds, to increase one's speculative capacity and to increase the rate of return on an investment.

<sup>24</sup> Wheelock, 1978: 123

two is often blurry).<sup>25</sup> While Wheelock focused exclusively on weaponry, power resources can be much more varied. In my description of security leverage I include formal and informal security guarantees, either through formal or informal alliances and defense pacts, including troop commitments and promises to protect another state in case of an attack by a third party. As scholars have pointed out, however, power resources do not have to be limited to material ones<sup>26</sup> and can be ideational or normative in nature<sup>27</sup> (e.g., shaming or diplomatic pressure). Diplomatic pressure and normative appeals to join non-proliferation regimes such as the NPT are also part of the American power resources over her allies.

Leverage, then, is an application of power, an ability of actor A to induce actor B to change his or her behavior in a way that they would not otherwise do. The underlying conditions in the A-B interaction are that 1) A wants to alter B's behavior (i.e., the US wants an ally to forego nuclear weapons) and 2) there is a conflict of interest between A and B (i.e., B wants to pursue an independent nuclear capability, while A opposes that course of action). Finally, A believes that it can be successful in its attempt to influence B because A has various material and ideational resources at its disposal to use over B.<sup>28</sup>

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<sup>25</sup> Ibid.

<sup>26</sup> Baldwin highlighted that too much attention has been paid to military power and military resources in IR literature and that the role of non-military power has been underestimated (Baldwin, 2002: 185). This study does not remedy this shortcoming since it focuses largely on military resources (although not exclusively). However, because the issue area at hand concerns a security matter, most of the resources that the US utilized (or thought of using) were military in nature.

<sup>27</sup> Barnett and Duvall, 2005: 50.

<sup>28</sup> These three conditions satisfy Dahl's formulation of power (Dahl, 1957) and fit in with Barnett and Duvall's description of the 'compulsory' type of power which entails direct control of one actor over another (Barnett and Duvall, 2005: 49-51). B, of course, also has some power resources at its disposal that

The application of security leverage depends on how vulnerable an ally is to pressure from a powerful state such as the US. Some allies are clearly more susceptible to the influence of the US than others. Kroenig (2010) defines a state's vulnerability as a dependence on a superpower to meet a target state's security needs.<sup>29</sup> He argues that France, for example, was less vulnerable to American pressure than Taiwan, and was thus able to withstand the opposition of the US when it provided sensitive nuclear assistance to Israel. France, of course, was already a nuclear power at the time it provided Israel with assistance whereas Taiwan was only striving to become one. As a result, France could afford to wield a more autonomous foreign policy and to make policy choices that directly contradicted the desires of the US. Vulnerability, then, should be defined as the degree to which a target state would suffer in the event that the US decided to remove all forms of security support and guarantees from the target state, even if such a scenario is highly unlikely in the context of American allies.<sup>30</sup> It can be argued that most (if not all) US allies during the decades of the Cold War and beyond were to some degree vulnerable to American pressure. Even France, especially before it crossed the nuclear threshold in 1960, was susceptible to the application of security leverage by the US, even though the US ultimately failed to convince it not to go nuclear.

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it can use over A in an attempt to push back and refuse to reverse its nuclear strategy as the ensuing chapters of this study will reveal in more detail.

<sup>29</sup> Kroenig, 2010: 39. See also ft. 21 on Kreonig's definition.

<sup>30</sup> Vulnerability can also be thought of as a degree of 'sensitivity' to, say, sanctions (see Keohane and Nye, 1975 on this). A state that is more sensitive in an interdependent relationship is the one that would incur higher costs if and when sanctions are implemented. (ibid: 368-369).

Leverage can also be affected by the degree of a program's maturity. In the early stages, when a state has not yet sunk vast resources into the nuclear enterprise it might be more appropriate to use various carrots, such as promises of additional aid or security guarantees, that might make the acquisition of nuclear weapons less attractive. In the later stages, if an ally is not responding to American pressure, it might be necessary to use a combination of sticks and carrots, or just sticks alone, such as threat of aid cutoff, retraction of guarantees, or even sanctions.

How, then, do we measure the level of the US's security leverage? In the dyadic relationships between the US and its allies, the *amount* of security leverage that the US has vis-à-vis its allies is almost always more than the other way around. Typically, the US is a major supplier of military technology and equipment to its allies, and is also the one who provides target states with security guarantees (although military alliances, such as NATO, operate on the principle of mutual security assurances). The amount of security leverage can range from high, to medium, to low. I classify states over which the amount of security leverage is *high* as those for which the US is the primary supplier of arms and military equipment and with which the US has a bilateral military alliance.<sup>31</sup> Those states for which the US is a major arms supplier but which are also part of a formal multilateral alliance are classified as *medium* in terms of the amount of security leverage that the US has over them. Finally, states that receive most of their armaments from sources other

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<sup>31</sup> I theorize that a retraction of American security guarantees in a bilateral military alliance is more severe for the target state than the revocation of security guarantees in a situation where a target state is part of a multi-state alliance such as NATO or CENTO. In a broader military alliance, there are other partners who might be willing to come to your defense even if the US had renounced its security obligations. Of course, it is possible (and even likely) that other alliance members might follow suit once the US retracts its security guarantees, and the target state might be left all alone after all.

then the US and which are not part of either a bilateral or multilateral security alliance with the US, are classified as *low* in terms of the amount of leverage that the US has over them.<sup>32</sup>

### Willingness to Use Leverage

Having leverage *per se* does not get you very far: you need to be willing to use it in order for it to be effective. Baldwin (1980) pointed out that there is *potential* and also *actual* power, which are differentiated by the “motivation of the... power wielder.”<sup>33</sup> This distinction leaves room for the possibility of unused power, or power resources that actor A possesses but refuses to use in his or her attempt to modify B’s behavior. The separation of actual and potential power underlines the importance of motivation or *political willingness* to use various power resources in order to obtain a desired outcome, the second explanatory variable accounting for the variation in the American response to different friendly nuclear programs.

Even though the amount of security leverage that the US has over its allies might be high, the willingness to use that leverage could be a different story. Inducing (or even coercing) your friends to change their policy and behavior might cost you dearly in terms of your friendship: the relations between the US and the target state might cool off; the US might face internal domestic opposition to its leverage policy from interest groups at home; or the target state might decide not to support American policies or initiatives in other issue areas. In short, being tough

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<sup>32</sup> I use the data from SIPRI Arms Transfers Database to assess the arms transfer flows between the US and its allies for the years 1950-2006 (see <http://armstrade.sipri.org/>). The in-depth case studies will allow me to assess the degree of willingness to use security leverage.

<sup>33</sup> Baldwin, 1980; 498.

with your friends will always risk significant losses as well as benefits. The perception of the potential cost of leverage application will shape the level of willingness to be tough with an ally. Where the nuclear issue is concerned, the political willingness of the US to use leverage over its allies comes down to the question of whether the US is willing to make nuclear non-proliferation *the* issue in its bilateral relations with a target state. In the end, the US might have the most *potential* power with its allies, but may not have the most *actual* power to use vis-à-vis its friends.

Just as the amount of leverage can vary, so can the willingness to use it. Two primary factors that affect the willingness to pressure an ally are perceived national interests and presidential preferences. Specific national interest or rather their interpretation by US policy-makers, will influence how far the US would be prepared to go on the nuclear question. These interests may include, among others: an acquisition of a reliable ally in an unstable and hostile region; strengthening of a multilateral alliance in the face of a strong adversary; and cooperation on other issues vital to the US's security that necessitate the involvement of a target state. When a specific American national interest is at stake, which could be damaged as a result of the use of leverage, the US may be unwilling to use that leverage, even if it means that the goals of non-proliferation are undermined. Alternatively, when a specific perceived US national interest could be seriously damaged as a result of an American ally pursuing an independent nuclear weapons program, US willingness to use security leverage in an effort to prevent an ally from going nuclear will be *high*. Finally, when no clear US national interest is at stake or when there are competing

interests that could either benefit or suffer from the American application of security leverage over its allies, US willingness will be *medium*.

Apart from perceived national interests, another major factor in determining willingness is presidential preference. A neat categorization of US presidents by their preferences with respect to non-proliferation is challenging, not least because these preferences are fluid and change in response to concrete situations.<sup>34</sup> However, all US presidents treated in this study came into office with a basic conception of non-proliferation policy, which was to prevent nuclear weapons from spreading abroad. Beyond that, there was variation in their tolerance for proliferation, and in their views on who could and could not proliferate with Presidents Kennedy and Nixon being on the opposite ends of the spectrum. The former was a staunch supporter of non-proliferation, either the 'friendly' or 'unfriendly' kind, and saw the conclusion of arms control agreements as one of the top priorities for his administration. The latter had a much less stringent view on the merits of 'friendly' proliferation and believed that a controlled proliferation by some key allies might not be detrimental to American national interests. Other US presidents fell in between these two extremes. In addition, each successive president had to take into account the non-proliferation decisions and policies instituted before him. For example, President Ford could not realistically back out of an implicit US-Israel nuclear agreement reached under President Nixon and radically reverse American policy.

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<sup>34</sup> Presidential preferences on proliferation are also not always easy to glimpse from presidential materials such as memoirs or autobiographies. For example, in President Ford's autobiography (1979), nuclear or atomic weapons are mentioned exactly zero times according to the book's index.

It is important to point out that perceived national interests and presidential preferences are not neatly distinguishable from one another. Perceived interests could influence specific presidential views on proliferation at any given time. For example, even though President Nixon was soft on proliferation, he was greatly opposed to Taiwan proliferating not least because that would have compromised his agenda of normalizing relations with Communist China. Willingness, then, is a subjective category based on interpretation of national interests and the evolving presidential preferences or orientations on proliferation.<sup>35</sup>

### **Alternative Explanations**

An exploration of the variation in American approach to different nuclear programs has not been a subject of extensive scholarly research. While there is an abundance of literature on nuclear proliferation, including investigations of reasons why states might want to go nuclear (Sagan, 1996/97; Waltz & Sagan, 2003; among many others), and of reasons for the reversal of nuclear choices (Reiss, 1995; Paul, 2000; Levite, 2002/03; Solingen, 2007; Jacob, 2007), the specific question of how states respond to proliferation in other states has not been extensively explored, although some new work on the subject is beginning to fill in that gap.<sup>36</sup> Some of the recent ‘supply-side’ proliferation literature,<sup>37</sup> while considering the question of factors that might contribute to proliferation, has also offered insights on the responses to proliferation. Fuhrmann (2009), while not directly addressing

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<sup>35</sup> I will return to the discussion of presidential preferences in the concluding chapter of this thesis.

<sup>36</sup> See, for example, Hayes (2009); Feaver and Niou (2006); Kroenig (2010), Watson (2009).

<sup>37</sup> The ‘demand’ side proliferation literature focuses primarily on the question of why states would want nuclear weapons (or would want to give them up). ‘Supply’ side literature, on the other hand, focuses on factors that may contribute to proliferation or discourage it in other states.

response to proliferation, presents a strong argument for the link between civilian nuclear cooperation agreements (NCAs) and nuclear weapons proliferation. While NCAs have long been used as a way to deter states from developing nuclear capability (by promising assistance with domestic nuclear energy programs), Fuhrmann illustrates how they actually have acted as enablers of proliferation.<sup>38</sup> Sagan (2010), however, has pointed out, that Fuhrmann's findings on NCAs are correlational and not causal.<sup>39</sup>

Kroening's (2010) work is another recent example of the supply-side analysis. It asks why states transfer sensitive nuclear technology and how those transfers affect proliferation. In particular, he pays attention to how 'power-projecting states' (PPS) react to proliferation and how they attempt to prevent transfers of sensitive technology and materials by other states. While Kroening looks at the reaction of states to the transfer of nuclear technology, he sheds some light on how states react to proliferation in general. He argues that PPS will be less likely to provide sensitive assistance than non-PPS; that transfers can occur in the case of a state with which the provider shares a common enemy; and that states that have a super-power patron will be less likely to transfer than those without such a patron.<sup>40</sup> One of the shortcomings of Kroening's work is that it fails to provide an effective definition of 'vulnerability' to superpower pressure. It is an important weakness since one of his

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<sup>38</sup> See Sagan's (2010) critique of Fuhrmann's arguments.

<sup>39</sup> Ibid.

<sup>40</sup> Kroening, 2010: 36-40.

main hypotheses rests on it.<sup>41</sup> Defining vulnerability as a dependence on superpower's security guarantees does not differentiate the degrees of dependence and allows for the claim that the "dangling of the security guarantee carrot" can prevent client states from acting contrary to the wishes of the superpower.<sup>42</sup> In fact, the history of the American response to the nuclear ambitions of its allies reveals that the dangling of the carrot works only some of the time, and the windows of opportunity for an effective application of pressure are rare and fraught with potential pitfalls. Furthermore, Kroenig considers only the *ability* and not the *willingness* to project power in his definition and discussion of power-projecting states. As this thesis will demonstrate, both the ability and willingness to apply leverage are necessary (but not sufficient) conditions for understanding the variations in the American response to other proliferators.

#### *Alternative Explanation # 1: Power of an Alliance Argument*

Despite some notable shortcomings, the new supply-side literature (as well as some demand-side scholarship) provides possible explanations for how states react to proliferation abroad. Kroenig's hypothesis about the sharing of a common enemy suggests an alternative explanation for how states might react to proliferation in other states. While Kroenig himself dismisses the argument that states provide sensitive assistance in order to strengthen an alliance,<sup>43</sup> it might be possible to argue that states react more favorably to proliferation in allied states

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<sup>41</sup> Kroenig defines vulnerability as dependence on a superpower to provide for one's core security needs. He then defines a country as superpower-dependent if it has a defense pact with a superpower and lacks its own nuclear weapons. (Kroenig, 2010: chapter 2).

<sup>42</sup> Kroenig, 2010: 26.

<sup>43</sup> Kroenig, 2010: 45-46.

(especially formal allies) than in non-allied states. In other words, nuclear weapons enhance the power of an alliance. A nuclear-armed ally is stronger and more capable of defending itself than a non-nuclear armed ally.

This argument is supported by the logic of structural realism, which focuses on material capabilities and resources and their impact on states' decision-making, including policy with respect to nuclear programs of allies. For structural realists, power is the main currency of international politics, and the more power a state has, the higher its ranking in the international system's order, and the higher its ability to influence others to do things that they would not otherwise do. Realists define power in terms of capabilities or resources, which presumably you can somehow add up to the total power of a state.<sup>44</sup> Structural realists would argue that a state always strives to strengthen its own power (or power pole under the conditions of bipolarity or multipolarity).<sup>45</sup> Having strong allies could be one way to achieve greater power,<sup>46</sup> especially for an alliance leader such as the US.

The US could have accomplished this increase in power through either an explicit transfer or an implicit support of the acquisition of nuclear weapons by its friends. Nuclear-armed allies would be significantly stronger militarily and would not require the US to come to their defense every time there was a threat against

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<sup>44</sup> See Baldwin's (2002) and his critique of neorealism's approach to power: 183-184.

<sup>45</sup> Even after the end of the Cold War, under the condition of multipolarity, the US continued to desire strong allies. There was a brief debate in the literature about whether nuclear weapons even mattered for the preservation of stability in the international system – while Jervis (1988), Waltz (2003), among others defend the logic of nuclear deterrence, others (Mueller, 1988, for example) have questioned the relevance of these weapons for the stability of world order.

<sup>46</sup> Although you may run the risk of today's allies turning into tomorrow's adversaries, and thus an empowerment of an ally could eventually translate into having a strong foe in the future.

them (this assumes the logic of deterrence).<sup>47</sup> Furthermore, in the case of the US during the decades of the Cold War most of its allies shared a common enemy the Soviet Union. By Kroenig's logic then, the US should have been more willing to offer nuclear assistance to those allies that also considered the Soviet Union as an enemy.<sup>48</sup> This should have been especially true for an alliance such as NATO formed primarily as a counterbalance to the Soviet military power. NATO, the argument could go, would have been stronger if several of its members possessed indigenous nuclear weapons capability rather than just one state, (the US). In reality, however, the US strongly resisted nuclear proliferation everywhere, inside and outside its military alliances, for example, in France (a NATO ally), Taiwan (another formal ally), Israel (an informal military ally), and India (a non-aligned state). Furthermore, if the US indeed believed that NATO could be strengthened by the possession of nuclear weaponry by its members, then all of the NATO allies would have gone nuclear by the 1980s. It should be noted, however, that, since the 1950s, NATO had institutionalized the practice of 'nuclear sharing' among its members, which involved 'dual key systems' and operation by host country pilots in times of war.<sup>49</sup> Only two NATO members, France and the UK, acquired completely independent nuclear weapons capability, the former despite strong opposition from the US. Finally, the assertion that the US simply gave nuclear weapons to some of its friends

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<sup>47</sup> On deterrence, see Jervis (1982/83); Nalebuff (1988); Cimbala, ed. (2001), among others

<sup>48</sup> This follows from Kroenig's hypothesis # 2: "states will be more likely to provide sensitive nuclear assistance to states with which they share a common enemy". (37-38)

<sup>49</sup> NATO nuclear sharing involved a stationing of US nuclear weapons on the territories of some of its NATO allies. Belgium, Germany, Italy, the Netherlands, and Turkey still host these weapons today. Canada hosted them until 1984 and Greece until 2001. The weapons were technically under US control. The 'dual key system' meant that authorization for their use had to come from both the US and the host country. In time of war, these weapons were supposed to be mounted on and flown (and deposited by) the pilots of the host countries.

(e.g., Israel) was simply not true as the subsequent analysis will demonstrate. Power considerations alone, as discussed by structural realists, cannot account for the variations in the American responses to friendly nuclear programs.

### *Alternative Explanation # 2: Regime Type Argument*

Moving away from systemic factors such as power distribution, one may wish to look at domestic-level variables for clues that would explain a state's reaction to nuclear proliferation abroad. It may be possible that the regime type in the target state might influence the course of the American response to a nuclear program. Some would argue that democracies are more responsible and trustworthy when it comes to nuclear weapons.<sup>50</sup> The argument is that because of the checks and balances embedded in their structure of government allowing for greater accountability and transparency of the decision-making process, democracies would be more vigilant in preventing nuclear accidents, less likely to transfer nuclear material and expertise to unfriendly states and non-state actors, and potentially more willing to submit to international inspections and regulatory regimes than their non-democratic counterparts.<sup>51</sup>

Since many American allies (although certainly not all) are democracies, the American policy-makers may have some flexibility in justifying their decision to allow

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<sup>50</sup> These arguments can be derived from the subset of international relations literature on Democratic Peace, which argues that democracies do not fight one another (see, for example, Russett, 1993; Russett & O'Neal, 2001, among others).

<sup>51</sup> In arguing against the potential benefits of a limited and controlled nuclear proliferation (propagated by Waltz, 2003), Scott Sagan (2003) uses organizational theory to claim that only under the conditions of strict civilian control over professional military organizations and an effective system of checks and balances, can deterrence failure and nuclear accidents be minimized. Such an arrangement is more likely to be found in democracies rather than autocracies, the latter of which is more likely to have either military-run governments or weak civilian-led administrations (Sagan 2003: 48).

(or tolerate) a new NWS that is democratic. Because these states are 'like us', and because their nuclear status does not threaten the US and its allies, the American Administrations can find ways to justify and 'sell' their decision to accept a new NWS to their own people and the rest of the world. In fact, some of the recent research has focused on the role that democratic identity has played in the American responses to various nuclear programs, specifically Iran and India (Hayes 2009). This analysis, however, has not only downplayed the meaning of American sanctions on India in the aftermath of its May 1998 nuclear test,<sup>52</sup> but also did not consider the fact that if democracy were a deciding factor, then the US would have let a number of other countries join the nuclear club, which it simply did not. This thesis will show that democratic identity was not a deciding factor in the American response to other nuclear programs (specifically Israel, or Taiwan in the second round of nuclearization in the 1980s).

A focus on the regime type of a proliferator does not seem to be an effective policy approach even according to some policy practitioners. As George Perkovich (2006) aptly articulated in his critique of the George W. Bush's 'democratic bomb' approach,<sup>53</sup> the promotion of regime change for the sake of controlling nuclear proliferation does little beyond setting counterproductive double standards, and does

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<sup>52</sup> Hayes claims that the American sanctions did not 'securitize' India's nuclear program and that there was always an implicit understanding that "as a fellow democracy, the United States need have no fear of India's nuclear capabilities." (Hayes, 2009: 988)

<sup>53</sup> I disagree with Perkovich's characterization of the American 'democratic bomb' approach as something new and endemic only to the George W. Bush's tenure. The policy of 'rule-bending' for friends has been a long-standing American non-proliferation strategy ever since the early 1960s, as the ensuing chapters of this dissertation will demonstrate.

not get at the root of the proliferation problem in the first place.<sup>54</sup> Furthermore, the “...picking-favorites strategy sabotages international cooperation because not everyone agrees on who is good and who is bad”<sup>55</sup> and, furthermore, it “weakens the cohesion and predictability needed to maintain the rule-based order on which non-proliferation heavily depends.”<sup>56</sup> Perkovich omits an additional important point about the potential pitfall of forcing a regime change for the sake of controlling proliferation: namely, the danger inherent in the very process of democratization which can lead to great political destabilization and potentially even war:<sup>57</sup> a perfect confluence of forces conducive to nuclear theft, transfer, or attack.

More importantly, the analysis of this project will demonstrate that regime-type arguments fail to figure prominently in the course of the American decision-making with respect to the nuclear programs of allies. Even though both Israel and France, for example, were democracies at the time they were developing independent nuclear capability, the US cared little, if at all, about their form of government (although in the case of Israel in particular, regime argument was utilized by the Nixon Administration to justify the US’s implicit decision to recognize Israel’s nuclear status). Similarly, the fact that Taiwan had an authoritarian regime during its first round of attempted nuclear development in the 1970s and was democratizing during the second round of weapons development in the 1980s did not change the American

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<sup>54</sup> Perkovich argues that because controlling nuclear technology and its movements around the world is so hard, “eliminating bad guys seems easier”, at least from the perspective of the G.W. Bush Administration (Perkovich, 2006: 2).

<sup>55</sup> Perkovich, 2006: 3

<sup>56</sup> *ibid.*: 4.

<sup>57</sup> See Mansfield and Snyder, 1995 on this point.

approach to handling Taiwan's nuclear program. The US had consistently opposed Taiwan's proliferation, whether it was a democracy or not.<sup>58</sup>

### *Alternative Explanation # 3: Stages of the Program Argument*

If neither power considerations nor regime type provide good explanations for states' reactions to proliferation in other states, then, perhaps, the response depends on the level of 'maturity' of a nuclear program in question.<sup>59</sup> A program that is far along (say, at the stage of weapon assembly and testing) is much harder to reverse than a program at a stage of theoretical exploration and planning. Furthermore, the US might consider a mature nuclear program as a *fait accompli* and be willing to accept it as opposed to a program that is at a stage of research and development.

Some of the recent scholarship has, in fact, acknowledged the importance of a program's stages for the calibration of an appropriate response (Feaver and Niou, 2006). While not focusing exclusively on friendly programs, the authors have constructed a game-theoretic approach to understanding response. One of the criteria that they use for determining the US's reaction is precisely the stage of the program (along with the type of proliferator and the US's approach to proliferation:

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<sup>58</sup> Some recent scholarship has provided another alternative explanation for nuclear choices in East Asia and the Middle East (Solingen, 2007). It focuses on the orientation of ruling coalitions who were outward-looking and did not wish to lose American patronage by going nuclear. This line of argument, however, fails to account for some key nuclear decisions of American allies, like Taiwan. It does not explain the timing of the two rounds of its nuclear program as both efforts started after the domestic coalitions launched an economic modernization and stabilization programs.

<sup>59</sup> There is some variation in the number of stages of a program that scholars identify. Feaver and Niou (2006), for example, consider five separate stages (216-218). This thesis will focus on three distinct stages – nascent, intermediary, and mature. They closely correspond to the three stages identified by Singh and Way (2004): explore, pursue and acquire. The definitions of each one of these stages will be provided in the 'proposed explanation' section.

purist vs. pragmatist).<sup>60</sup> The authors argue that the US's strategies change depending on whether the program in question is at a stage of weaponization or deployment.<sup>61</sup> Their response choices, however, are limited to only three: condemn, strike or assist. The analysis does not capture the possibility of other, more nuanced responses (such as conceding to the reality of proliferation without assistance, as was the case with the American response to Israel). Furthermore, one of Feaver and Niou's three main criteria for determining an appropriate response is the size of the proliferator.<sup>62</sup> An empirical examination of the Israeli and Taiwanese cases, however, reveals that their respective sizes were not instrumental to the American response. What mattered far more were the strategic importance of an ally to the US, as well as the level of ability to influence an ally, and the degree of presidential resolve to pursue the nuclear issue in the bilateral relations. Other scholars (Kroenig, 2010) have argued that once a program abroad reaches the point of maturity, Washington's calculus could change drastically and the US may decide to embrace the program in question and use it to its own strategic advantage.<sup>63</sup> The empirical analysis of this project will demonstrate that there was *no* perfect correlation between a friendly program reaching maturity and the US deciding to accept it (or even support it).

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<sup>60</sup> Feaver and Niou, 2006: 216-218.

<sup>61</sup> Ibid.: 229.

<sup>62</sup> Both Israel and Taiwan are considered as 'small' proliferators.

<sup>63</sup> Kroenig, 2010: 110. In particular, Kroenig argues that post 1969, the US, "recognizing a *fait accompli* ... decided to engage Israel as an ally against the Soviet Union and its encroachment in the region through its Arab proxies." (ibid.) This suggests that somehow the US did not follow this strategy pre 1969 and that Israel was not America's closest ally in the region well before its acquisition of nuclear weapons.

Notwithstanding these shortcomings of the literature that engages the maturity argument, it remains an important factor in understanding the American approach to various budding nuclear programs. The policy tools available to the US at each stage of the program abroad vary. The ability to utilize these policy tools effectively also depends on how far along the program has progressed. Intelligence about a program changes depending on its stage of development. In the early phase, the US policy-makers know little about the programs abroad, but this knowledge expands as the programs progress. Also, it is easier to imagine persuading an ally to abandon a nuclear course when its program is only in the theoretical planning stage and not at a point of testing a fully assembled nuclear device. By that point, significant resources have been invested, there is political determination to see the project through, and nuclear weapons may have become part of the national identity. As a result, there comes a point when it might simply be too late to try to convince an ally to step off the nuclear path. This thesis will illustrate how a program's maturity played a role in American attitudes toward it and the perceptions of what could feasibly be accomplished in order to reverse it. The study will follow a temporal logic of organization: it will be broken down by development stages of friendly programs rather than by specific country studies over time.

The above brief sampling of the literature on proliferation suggests two things. First, there is a growing interest among scholars about not only the causes of proliferation, but also the responses to proliferation, particularly from powerful states who may or not may not be able to influence the nuclear policy choices in target states. Second, this literature is far from being complete or authoritative on

the subject of states' responses to the nuclear ambitions of others. Shane Maddock's book on the history of the American non-proliferation policy is one of the few scholarly works that comes closest to treating the subject matter explored by this thesis.<sup>64</sup> While it provides a comprehensive review of the formation and implementation of the US's non-proliferation agenda since the end of WWII,<sup>65</sup> it nonetheless suffers from an apparent lack of theoretical underpinning,<sup>66</sup> and stops its analysis abruptly in the late 1960s. The arguments presented in this study focus on the combination of ability and willingness, which are sometimes employed as explanatory variables by large N quantitative studies on proliferation.<sup>67</sup> However, my operationalization of these variables, especially willingness, differs in some important ways from large N work. My analysis is also deeply contextual, and results not broadly generalizable. However, understanding the dynamic process of policy formation can hardly be achieved any way other than the approach proposed in this thesis. I will return to this point in the conclusion.

### *Proposed Explanation Revisited*

The variation in the American response to nuclear programs abroad is determined by a combination of the ability of the US to influence others (i.e., security

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<sup>64</sup> Maddock, 2010. Maddock presents a sinister view of the American non-proliferation policy. He argues that the policy aimed to preserve the American monopoly over nuclear weapons and, later, to secure American hegemonic position in the world and to prevent postcolonial powers from joining the nuclear club.

<sup>65</sup> While Maddock's work essentially asks the question of why the non-proliferation efforts failed, I am looking at a more targeted question of how the US has responded to proliferation ambitions of some of its allies. Maddock offers only a cursory treatment of the cases that are featured in my study and is much more interested in the superpower dynamic with respect to non-proliferation during the decades of the Cold War. He stops his analysis in 1970 and provides only a very brief treatment of the post 1970 period in the concluding chapter.

<sup>66</sup> Maddock does not present a clear theoretical framework and does not engage major scholarly debates and theories on nuclear proliferation.

<sup>67</sup> See Jo and Gartzke, 2007, for example.

leverage), and the willingness to do so. The irony of leverage over friends, however, is that certain policy options, such as military force, are off the table from the start, and other options need careful consideration for fear of worsening a bilateral relationship or undermining vital American interests. Despite being a powerful state (measured by military and economic capacity), American allies have, at times, exhibited a remarkable 'power of the weak' in making independent nuclear choices. Robert Keohane (1971) famously observed that, "possession of superior military or economic force cannot guarantee small-power compliance with big-power interests."<sup>68</sup> The history of the American response to the French and Israeli programs is a perfect example of that logic. These allies were able to pursue an independent nuclear policy that was in direct contradiction to American interests, and eventually secured the tacit approval of the US for their choices.

Given the fact that the US has sometimes failed to persuade its allies to adjust their policies in line with the American interests, the question then becomes: when are there windows of opportunity during which the US can apply security leverage and hope to succeed? I have argued that in order to induce an ally not to pursue a nuclear weapons program, or to renounce one that is already in place, the US needs to have *both* the ability and the willingness to use its security leverage over an ally. Each one is a necessary but not sufficient condition in order for the US to have a chance of dissuading an ally from going down the nuclear path. Furthermore, it appears that only when the combination of ability and willingness is at a high level can the US hope

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<sup>68</sup> Keohane, 1971: 162.

to be successful in influencing the nuclear choices of its allies.<sup>69</sup> Such windows are rare and require strong commitment and consistent pressure from the US.

In addition, these windows are contingent upon the progress of the program in a target state. The three stages of a program can be called nascent, intermediary, and mature.<sup>70</sup> At different stages of the programs' progress, the policy tools available to the US vary, as does the combination of ability and willingness to influence the target state. US knowledge of a program varies depending on its stage of development. As a program matures, the US gathers more intelligence on it and is able to have a progressively clearer picture of nuclear activities abroad. However, this data is never perfect and the US, as a result, acts upon incomplete information. The most opportune period during which the US can influence the course of an ally's program (given high levels of ability and willingness) is during the intermediary stage of its development. At that point, the target state is seriously contemplating pursuing an independent nuclear weapons capability, has done some initial preparatory work, but has not yet made large investment (political, monetary, or scientific) in the endeavor. The US can assemble an array of sticks and carrots aimed at thwarting the program. These could

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<sup>69</sup> The nuclear choices of allies are, of course, determined not only by American influence as an array of other factors can play a role. However, this thesis will focus on US attempts to influence its allies, and not on the internal decision-making process of proliferators.

<sup>70</sup> I characterize a program as 'nascent' when a state is undergoing exploratory work and research on the development of nuclear weapons, including figuring out potential suppliers of the necessary materials, or collaborators who can share technical know-how. An 'intermediate' stage is when research evolves into concrete development, including the construction of necessary reactors, reprocessing plans, the devising of appropriate designs, and the start of actual manufacturing of nuclear weapons and their delivery systems. The political decision to develop nuclear weapons is taken at this stage. Finally, a 'mature' program is when a state has either assembled and tested a nuclear device or when such a device is disassembled, but could be put together on a very short notice. These three stages correspond closely to what Singh and Way (2004) identified as the explore, pursue, and acquire stages. Other scholars have developed additional stages of nuclear program development. See Gaurav Kampani's PhD thesis, "Understanding Three Decades of Lag in Indian Nuclear Decision-Making", Department of Government, Cornell University, forthcoming.

include diplomatic pressure, threat of economic sanctions and suspension of military sales. Alternatively, the US can offer promises of security guarantees, sales of additional military equipment, or troop commitments, among other supports to bolster the target state's security and economic wellbeing. Once the program has reached the point of maturity, it might be too late to try to reverse it, as was briefly the case with the Israeli program in the late 1960s. Furthermore, true nuclear reversals are rarely the result of superpower pressure.<sup>71</sup> In cases where the reversal occurred before the point of maturity, such pressure was only one of several contributing factors.<sup>72</sup>

Finally, the proposed explanation focuses on one specific state that monitors and tries to influence proliferation, the United States. Due to its size, economic and military strength, ability to project power globally, and leadership role in the non-proliferation regimes, the US is in many ways distinct from other proliferation players. The variance in the American response raises the possibility that not only does the US have different response functions to other states that proliferate, but also that nuclear suppliers are not homogeneous. The US may have its own unique way of responding to nuclearization in other states. I will come back to this point in the conclusion.

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<sup>71</sup> The reversal of the South African program, for example, was the result of the changing security environment in the region coupled with domestic political changes (Paul, 2000: 116). See also Zaitseva, 2004. Other reversals, such as Libya and South Korea, to name a few, happened before the program reached the stage of maturity.

<sup>72</sup> On Libya see, for example, Jacob, 2007. On South Korea, see Hersman and Peters, 2006.

## Methodology

In order to examine the variation of American policy toward nuclear-aspiring allies, I undertake several comparative in-depth case studies. I argue that the best way to approach the task at hand is to focus on a small number of cases utilizing a process tracing method,<sup>73</sup> rather than to conduct a large-N study of all past, present and future nuclear proliferators.<sup>74</sup> George and Bennett (2005) outline some of the strengths of a case-study approach, which include conceptual validity and refinement; derivation of new hypotheses; examination of causal mechanisms; and the ability to explore complex causal relations.<sup>75</sup> The case studies approach goes beyond simple historical explanation and can convert historical accounts into analytical ones. With respect to the particular research problem at hand, figuring out what determines the American policy choices vis-à-vis nuclear ambitions of friends, the case studies approach is best suited as it allows for an in-depth consideration of the two primary explanatory variables, security leverage and the political will to use it. A large-N study would not allow for the same level of analysis and contextualization with respect to determining the levels of ability and willingness to influence an ally as a small-N study proposed here would.

The amount of security leverage that the US has vis-à-vis an ally has a rather objective measure, a combination of the type of military alliance, the amount of

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<sup>73</sup> See George and Bennett (2005) on the definition of a case study approach (5) as well as the process-tracing method (6-7).

<sup>74</sup> The case selection logic will be explained in the following section.

<sup>75</sup> George and Bennett (2005: 19-22).

arms' trade, and the arrangement of security guarantees' provision.<sup>76</sup> The measurement of the political willingness to use that leverage is more subjective, necessitating an examination not only of the pertinent American national security interests at the time of policy formulation, but also the content of internal government debates, including possible inter-agency disagreements, intelligence estimates, relevant high level conversations, and presidential attitudes. Especially because the 'willingness' variable does not have a readily available objective measure, a small N study would be best able to capture it.

The process tracing method, which "attempts to trace the links between possible causes and observed outcomes,"<sup>77</sup> will also enable an assessment of how explanatory variables work in conjunction with one another to determine US policy choices and how policy formation is a process (often a lengthy one) that leads to a particular outcome. Furthermore, the project will tackle a combination of within-case analysis and cross-case comparisons, which George and Bennett (2005) consider the strongest means of drawing inferences.<sup>78</sup> Specifically, the study will consider not only individual cases of American allies with nuclear ambitions, but will also examine each of them over time (over the various stages of development of a nuclear weapons program). The ability to influence states' nuclear programs changes over time, as does the willingness to do so.

The proposed research design allows for variance of *both* dependent and independent variables, thus avoiding the selection bias warned about by King,

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<sup>76</sup> See more on this in the 'explanatory variables' section.

<sup>77</sup> George and Bennett (2005: 6). See also their chapter 1, which describes process tracing in greater detail.

<sup>78</sup> Ibid: 18.

Keohane, and Verba (1994).<sup>79</sup> The outcome of the dependent variable, American policy regarding nuclear ambitions of its friends, ranged from explicit recognition of nuclear status and even some cooperation (France), to implicit recognition and non-confrontation (Israel), to strong opposition short of military action (Taiwan).<sup>80</sup> The value of the dependent variable also changed over time in individual cases. For example, in the case of France it went from outright opposition to explicit recognition. In the case of Israel, it also started off as outright opposition, but ended up as implicit recognition. Finally, in the case of Taiwan the value showed little change as the US consistently opposed nuclear proliferation by that particular ally. There is also variation in the values of the independent variables, amount of security leverage and the political willingness to use it. As explained earlier, these values range from low, to medium, to high for both of the independent variables. The empirical chapters that follow will explore in greater detail the changes in the US's ability and willingness to pressure its allies not to develop nuclear weapons.

I will utilize a number of different primary sources ranging from State Department documents; to intelligence estimates and briefs; to records from other key US agencies involved in the problem of nuclear proliferation; to presidential memos and records of conversations.<sup>81</sup> Together with a number of secondary sources, these primary materials reveal how US policy-makers interpreted their

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<sup>79</sup> Specifically, the design allows for variation on the dependent variable (King, Keohane, Verba, 1994: 128-132).

<sup>80</sup> In the two 'minor' cases - India and Pakistan - the policy outcome was explicit recognition and ambiguous recognition, respectively.

<sup>81</sup> I have conducted extensive archival research at the US National Archives in College Park, MD. In addition, I have used the online resources available through the National Security Archive maintained by the George Washington University.

political surroundings, weighed the various policy options available to them at different times, and, finally, came to the policy decisions that to some extent continue to affect the course of global nuclear proliferation.

### **Case Selection**

In order to analyze changes in the American non-proliferation policy, this study looks at a select number of American allies whose nuclear programs date back to the early decades of the Cold War. I use ‘allies’ and ‘friends’ interchangeably in this thesis, and take an ally to mean any state with which the US has any type of security pact, either formal or informal. In particular, this thesis examines different *types* of allies, ones with bilateral security arrangements with the US (Israel); as well as those that are members of formal multilateral alliances (France); democracies (Israel and France) and autocracies (Taiwan until the 1980s); ones over whom the US consistently had considerable security leverage (Taiwan) and those over whom the amount of leverage ranged from low to high (France and Israel).<sup>82</sup> Finally, although the outcome of most of the nuclear programs in my sample is the same, reaching maturity, I wanted to include at least one case of a state that embarked on a nuclear path, but did not reach the stage of maturity (Taiwan) in order to see what might explain the differences between an aborted nuclear program and those that

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<sup>82</sup> Israel, France, and Taiwan are the three primary cases in this study. I will consider two additional cases, India and Pakistan, in the concluding chapter. India is the most recent example of American acceptance of the nuclear status of an ally, one that took place after the conclusion of the Cold War. The difference in the American policy approach to Pakistan, by comparison, yields valuable insights.

pressed forward. The following table illustrates the full universe of nuclear programs, according to the three levels of proliferation:<sup>83</sup>

**Table 1 - Universe of Proliferators**

[US friends are denoted by \*]

Level 1	Level 2	Level 3
Algeria <sup>*84</sup>	Algeria *	
Argentina <sup>*85</sup>	Argentina *	
Australia *		
Brazil <sup>*86</sup>	Brazil *	
China	China	China
France *	France *	France *
Iran	Iran	
Iraq	Iraq	
India <sup>*87</sup>	India *	India *
Israel *	Israel *	Israel *
Libya		
North Korea	North Korea	North Korea <sup>88</sup>
Pakistan <sup>*89</sup>	Pakistan *	Pakistan *

<sup>83</sup> The data is taken largely from Sign and Way, 2004 with some modifications (where noted). The first proliferation level includes states that have taken the decision to seriously explore the nuclear option. Level 2 includes states that have launched a major effort to acquire nuclear weapons. Finally, level 3 includes states that have crossed the nuclear threshold – have assembled and/or tested a nuclear device.

<sup>84</sup> Algeria, though non-aligned, had cordial if uneasy relationship with the US before the 1980s. Algeria’s exploration of proliferation was in the mid 1980s, much later than some other ‘early’ proliferators.

<sup>85</sup> Argentina, while economically dependent on the US, had a volatile relationship with Washington during the Cold War, which worsened in the 1980s in the wake of the Falkland Crisis. Argentina dabbled into the nuclear realm from the 1960s to early 1990s.

<sup>86</sup> Brazil was not a formal US ally during the Cold War and largely gravitated toward the non-aligned movement. It explored the nuclear option from the late 1970s to early 1990s.

<sup>87</sup> India was a non-aligned state during the Cold War. The US imposed sanctions on India after its 1988 nuclear tests, and lifted them in 2001. The bilateral relationship has improved recently, as shown by the US-India civilian nuclear energy deal.

<sup>88</sup> This is an addition to the Singh/Way data

<sup>89</sup> Pakistan was a close US ally through the mid 1960s. The relationship was strained by the two Indo-Pakistani wars (1965 and 1971), and by Pakistan’s efforts in the mid 1970s to start its own nuclear weapons

Romania		
Russia	Russia	Russia
Sweden <sup>*90</sup>		
Switzerland <sup>*91</sup>		
South Africa	South Africa	South Africa
South Korea <sup>*92</sup>	South Korea *	
Taiwan *	Taiwan <sup>93</sup> *	
United Kingdom <sup>*94</sup>	United Kingdom *	United Kingdom *
United States	United States	United States
Yugoslavia		

The main logic for selecting the three primary cases is that they all fit the profile of ‘early proliferators’, or states that explored the possibility of an independent nuclear deterrent in the 1950s and 1960s.<sup>95</sup> These were also the decades when the US was first forced to formulate a coherent formal approach to the problem of ‘friendly proliferators’. This study, therefore, allows me to look at the origins of the American selectivist approach to proliferation, much of which is still in force today.<sup>96</sup> Another argument in favor of looking at early proliferators is that the

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program. Relations improved somewhat after the Soviet invasion of Afghanistan, but were followed by a general American disengagement from the region in the 1990s.

<sup>90</sup> US friendly state but not a NATO member Sweden may have considered an independent nuclear capability in the late 1940s and 1950s. The plans were completely abandoned in the 1960s.

<sup>91</sup> US friendly, but neutral state. Switzerland considered the nuclear option until the mid 1960s, or possibly the 1980s, according to some other sources.

<sup>92</sup> US ally. The South Korean case is, in many ways, similar to the case of Taiwan.

<sup>93</sup> An addition to Singh/Way data. Taiwan’s program was as advanced as South Korea’s, for example. Sign and Way’s omission of Taiwan from level 2 is an important oversight.

<sup>94</sup> US ally. The British program predates any concrete American efforts at formulating a non-proliferation policy.

<sup>95</sup> Taiwan’s program started later than that of Israel and France, but several key events in the 1960s forced Taiwan to seriously consider an independent nuclear deterrent option.

<sup>96</sup> India and Pakistan – two of the more recent proliferation cases – will be reviewing in the concluding chapter and will illustrate how the American ‘selectivist’ approach endured over time.

primary research material available is by far the richest for this period. Key documents from the early 1970s onward have not yet been released or declassified, making an inquiry into the later periods more difficult and less rich in terms of content. Finally, a focus on the early proliferators allows a study of four American administrations (Eisenhower, Kennedy, Johnson, and Nixon) in their dealings with different proliferators.

## **Conclusion**

This thesis examines just one aspect of the global nuclear proliferation challenge: the history and variation in the American response to friendly nuclear programs. It argues that the key to understanding the variation in the American approach, both across cases and over time, lies in the combination of the available security leverage and the US's willingness to use that leverage over its allies to induce them to forego nuclear weapons. The irony of leverage with friends, however, is that certain policy options, such as military action, are off the table, and American threats are therefore not always credible. Furthermore, opportunities for a successful application of leverage are rare, and the US has to seek out moments when its ability and willingness to influence an ally are at high levels. The case of Taiwan illustrates this logic as compared to France and Israel, both of which achieved nuclear maturity and eventual American approval of their nuclear status. The French and Israeli nuclear programs thus demonstrate the power of the weak, the ability of 'lesser' powers to pursue independent policies in spite of superpower's objections.

The US, despite having an abundance of potential power (military, economic and cultural), has sometimes been weak vis-à-vis its friends with regard to nuclear proliferation. While there have been notable exceptions to this assertion (Taiwan and South Korea, for example), the US has, on a number of occasions, failed to use its potential power in order to induce allies to abort nuclear programs. This failure established a decades-long trend of American nuclear ‘exemption’ in which the US either turned a blind eye on the nuclear programs of some key allies, or openly embraced those programs in the name of global and regional security and stability. The latest incarnation of this policy is the case of India and the recently concluded US-India nuclear energy cooperation agreement, which effectively recognizes the nuclear status of India despite its refusal to join the NPT. However, the American recognition of India’s nuclear identity is not without precedent, as this project will demonstrate. In fact, the American treatment of India’s nuclear arsenal is not an anomaly based on the history of the American response to friendly programs. It is yet another significant instance of rule-bending by the US for its friends, a trend that is sure to undermine the global non-proliferation regime and raise serious questions about the commitment of the US to the goal of a world free of nuclear weapons.<sup>97</sup>

This thesis contributes to a broader set of international relations literature that goes beyond the question of why states proliferate or constrain proliferation<sup>98</sup> to ask how states respond to proliferation in other states. In addition, by focusing

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<sup>97</sup> In a speech in Prague in April 2009, American President Obama pledged the “...American commitment to seek the peace and security of a world without nuclear weapons.” (see text of the speech on, for example, [http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu\\_n\\_183219.html](http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu_n_183219.html), accessed August 30, 2009).

<sup>98</sup> See, for example, Solingen (2007); Ganguly (2008); Kapur (2008), among many others.

specifically on the reactions from one state, the United States, this thesis raises the possibility that not all nuclear states are the same and, furthermore, that they might have different reaction functions to different states. While some of the recent proliferation studies have employed large-N quantitative approaches to analyzing nuclear proliferation and its effects,<sup>99</sup> this project utilizes qualitative methodology with a specific focus on archival research. The resulting contextual analysis, while not immune to criticism, has a number of advantages over quantitative methodological approach for understanding the process of policy formation, as I will argue in the concluding chapter. This thesis challenges, as well as expands, a number of competing explanations that focus on power distribution, regime type, and the maturity of a nuclear program abroad. It puts the variation in American non-proliferation policy and approach to friendly proliferators in historical political context. It shows that perceptions of interest and presidential preferences are not frozen in space and time and are highly dynamic. It argues that although contextual analysis may not always allow theoretical generalizations, it affords an opportunity to capture the richness and complexity of political interactions. Finally, although the world today is markedly different from the one during an early Atomic Age, the basic premise of the US non-proliferation policy has remained the same, although some significant amendments were made to it over time, as the foregoing chapters will illustrate. As a result, the past conduct of the US can shed light on how it might act vis-à-vis some current and future proliferators.

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<sup>99</sup> See, for example, Singh and Way (2004); Way and Sasikumar (2004); Jo and Gartzke (2007); the entire April 2009 issue of *Journal of Conflict Resolution*.

## Chapter 2 – Nascent Stage

No two nuclear programs are exactly alike. States decide to acquire nuclear weapons for a variety of reasons.<sup>100</sup> Some states proceed quickly (UK) while others contemplate the decision for decades (Sweden); some flaunt their nuclear status (France) while others stubbornly deny it (Israel). Nonetheless, most programs generally follow several distinct stages of development.<sup>101</sup> States usually start with preliminary exploratory work, including identification of possible sources of necessary materials, technology and know-how. The focus then gradually shifts to plans and designs for research and manufacture facilities. The program enters an intermediary stage of development when a government makes an official decision to commence a military program. A state proceeds with the construction of the necessary plants and reprocessing facilities, and begins the actual design and manufacture of nuclear weapons and their delivery systems. Finally, a program enters a mature stage when a state either tests a nuclear device or fully assembles a device that is ready for testing.<sup>102</sup> Each of these stages has distinct characteristics and presents particular challenges not only for the state pursuing the program, but also for those who monitor the development of the program, such as the United States.

The following chapter will take a closer look at the history of the American response to the early stage of friendly nuclear programs. It will illustrate that the

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<sup>100</sup> See, for example, Sagan (1996/97).

<sup>101</sup> Nascent, intermediary and mature.

<sup>102</sup> Gaurav Kampani articulated two additional stages in his own work on nuclear proliferation: the incorporation of nuclear weapons into the military planning and the operationalization of nuclear weapons into military forces. See Gaurav Kampani, “Understanding Three Decades of Lag in Indian Nuclear Decision-Making”, PhD thesis, Cornell University, forthcoming.

American reaction depended on the ability and willingness to influence allies on the nuclear issue at a time when the US had not itself determined its own non-proliferation strategy and when nuclear knowledge was concentrated in a few states. There are at least two dozen states that have considered going nuclear.<sup>103</sup> Some, such as Australia, Switzerland, and Sweden never went beyond the initial exploratory stage, deciding to give up the idea of nuclear weapons before investing any meaningful resources into the nuclear enterprise. Others, including Argentina, Brazil, and South Korea, went beyond the initial exploratory stage before rolling back their nuclear programs. In this dissertation I focus on three friendly 'early proliferator' states that embarked on the nuclear path following World War II when nuclear technology was new and when only a few states had mastered it. Since all of my cases are 'early proliferators,' there is an unavoidable period effect: for example, the preoccupation of the US with locating and securing raw materials for its own nuclear program. That preoccupation gradually decreased after the 1940s and 1950s. Furthermore, the US's own non-proliferation policy was still poorly formed in the 1950s, a factor that is no longer significant today. Nonetheless, the American response to the early phase of early proliferators shaped the direction of future US endeavors in this field.

The nascent stage of nuclear programs development is typically characterized by a lack of cohesion on the part of both the proliferator and the responder. States contemplating proliferation may not have a clear idea of how they

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<sup>103</sup> See Singh and Way (2004) data (p. 872, footnote 21) for a list of states that they identify as 'exploring nuclear weapons.' See Table 1 of this dissertation for a list of friendly states that have completed the nascent stage.

want to proceed or what the program would entail in terms of costs, materials, technology and know-how. Furthermore, those in charge of making decisions about the program do not always have a clear sense of how the public and the rest of the political leadership might react to it. Sweden, for example, aborted its nascent nuclear program in the mid 1960s primarily due to the anti-nuclear ideology of the ruling party coupled with negative public opinion regarding nuclear weapons.<sup>104</sup> Deliberations on the nuclear question might take years, even decades, before the final decision is made. Switzerland, for example, started its program shortly after WWII, but deliberated about taking it to the intermediary stage well into the 1980s before the government finally decided to disband the commission charged with studying the nuclear question.<sup>105</sup> Furthermore, the early stage of a program might be almost entirely dedicated to the promotion of civilian nuclear energy (as was the

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<sup>104</sup> See Cole (1997). Cole makes no mention of any possible American pressure on Sweden to roll back its program. Neither does he argue that the program was rolled back due to financial considerations. Another analysis of the Swedish program (Bergenas and Sabatini, 2010) hints at the possibility of a US-Swedish deal reached sometime in the late 1960s that guaranteed the extension of the American nuclear umbrella over Sweden since Sweden was not part of NATO. The source cited for this claim is of questionable reputability (an online blog called ‘the Arms Control Wonk’ - <http://guests.armscontrolwonk.com/archive/2535/the-blue-and-yellow-bomb-part-1>) and no concrete historical documents that would support this assertion are cited. The author of the blog claims that he relied on a 2002 book by Wilhelm Agrell and on the writings of journalist Christer Larsson. It is possible that such a deal did in fact take place, but I have not been able to find any archival sources to substantiate this claim. In response to my inquiry about the source for the supposed agreement, the author of the blog, Andreas Persbo, wrote “Swedish Radio, SR1, program from 2010. Some speculation involved, obviously. Can't remember who the guy who said it was though.” (author’s personal correspondence, May 23, 2011). It is also highly unlikely that Sweden would have sought and accepted a US nuclear umbrella guarantee due to its policy of neutrality. I thank Matt Evangelista for raising this point for me.

<sup>105</sup> While there is very little open source material on the Swiss nuclear weapons program, see Westberg, Gunnar. 2010, October 9. “Swiss Nuclear Bomb”, <http://peaceandhealthblog.com/2010/10/09/swiss-nuclear-bomb/> - accessed January 19, 2011. See also a translation of the 1996 Swiss report on the Questions of Swiss Nuclear Armament written by Jurg Stussi, the Swiss government’s senior military historian (<http://nuclearweaponarchive.org/Library/Swissdoc.html>), accessed January 19, 2011. Both of these documents indicate that while Switzerland might have significantly slowed down any efforts in the nuclear field by the early 1960s (due, in part, to cost considerations), the Swiss, at least theoretically, wanted to keep the nuclear option open until it was finally closed in 1988.

case in Taiwan) and most of the nuclear infrastructure might be constructed with that purpose in mind.<sup>106</sup>

The challenge for the responder (i.e., the United States) during the nascent stage was to understand exactly what, if anything, was going on in the target state in the nuclear field. Intelligence was often limited or plain wrong. While intelligence capabilities, especially technological ones such as satellite imaging, for example, have improved in the last six decades, the challenge of poor information on early programs remains. For a proliferator, an early program was fairly easy to conceal under the guise of a civilian one. Another complicating factor for the US with respect to the early proliferators was the fact that Washington had not yet formulated its own coherent non-proliferation policy. In the mid 1950s, when France was on the brink of veering off in the military direction, the US had not yet issued a single National Intelligence Estimate (NIE) on the problem of nuclear proliferation. The first such NIE was commissioned in 1957. In short, when the early proliferators started their programs, the US did not yet know how to effectively respond to them.<sup>107</sup> Nonetheless, the US already had some powerful persuasion tools at its disposal. Throughout this chapter I will pay particular attention to these tools and how their availability, as well the American willingness to use them, changed over time. Below is a summary of the main variables during the nascent stage of programs' development. For reference, I include a column with American response

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<sup>106</sup> Fuhrmann (2009) makes a persuasive argument about how peaceful nuclear cooperation leads to the proliferation of nuclear weapons. He illustrates how peaceful nuclear cooperation reduces the cost of starting a military program (as most of the necessary technology is dual use in nature) and increases nuclear know-how.

<sup>107</sup> This is a period effect, as explained earlier.

at a particular stage of a program, even though the main focus of this thesis is the variation of that policy over time and across cases.

**Table 2 – Nascent Stage**

	<b>Amount of Leverage (Ability)</b>	<b>Willingness to Use Leverage</b>	<b>American Policy</b>
<b>France</b>	Med→High	Low→Med	Limited cooperation→guarded opposition
<b>Israel</b>	Low→Med	Low→Med	Passive opposition
<b>Taiwan</b>	High	Low	Passive opposition

I now turn to one of the earliest friendly programs that the US had to identify and confront, that of France.

**France (1945-1956)**

The roots of the French atomic program date to before WWII as France was one of the pioneers of atomic research well before the war broke out in Europe.<sup>108</sup> During the war, some of the key French scientists were able to continue their work from abroad. The efforts of the ‘French group’ were partially credited with aiding the American nuclear efforts and eventually to “realize the atomic bomb.”<sup>109</sup> Not surprisingly, shortly after the war ended in Europe, France re-commenced its

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<sup>108</sup> Mendl (1965): 22.

<sup>109</sup> Memo from the Embassy of France in the US, Central Translation Division of the Department of State, November 5, 1945. USNA; RG 59; Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47.

activities in the field of atomic research, and in 1945 it established an agency (Commisariat à l'Énergie Atomique, or CEA) that would oversee all future activities in the field of atomic energy research and development.

The first seven years of the French program (until 1952) were largely devoted to setting up the necessary infrastructure, searching for raw materials, and inaugurating the first French research reactor (which became operational in 1948).<sup>110</sup> During this early stage the US was very interested in assessing any possible raw material deposits that France might discover. Although the US knew that France had few, if any, indigenous resources such as uranium,<sup>111</sup> by 1950 the Americans were trying to determine whether raw materials could be found in the French colonies (especially Morocco) and whether the French would be amenable to discussing some type of joint exploration.<sup>112</sup> The dispatches between the Department of State and the American Embassy in Paris from the early 1950s reveal that in seeking such joint ventures, the US was following a policy of “limited cooperation” with France. While the French appeared to be open to the possibility of collaborating with the US, they were nonetheless concerned about the ‘American

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<sup>110</sup> Mendl, 1965: 22.

<sup>111</sup> Memorandum from H.S. Lowenhaupt, “Review of the French Atomic Energy Development”, July 25, 1946. NSA@GW, US Intelligence and the French Nuclear Weapons Program, Document # 2, accessed 09/04/07.

<sup>112</sup> See, for example, letter to US Ambassador in France David Bruce from Acting Secretary of State James Webb, May 23, 1950. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 80; letter from US Ambassador in France David Bruce to Under Secretary of State James Webb, June 22, 1950. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 80; letter from Robert Terrill, Deputy Counselor for Economic Affairs, US Embassy in France to Gordon Arneson, Office of the Secretary, Department of State, December 28, 1951. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47; and letter from Robert Terrill, Deputy Counselor for Economic Affairs, US Embassy in France to Gordon Arneson, Office of the Secretary, Department of State, April 25, 1952. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47

takeover' of French resources<sup>113</sup> and were undoubtedly looking for a quid pro quo arrangement with Washington.

As the nascent stage progressed, the US could offer France quite a few things that it desired. It is evident from the government documents from the period that the US was starting to think in terms of various levers that it could employ to extract appropriate policy initiatives from the French.<sup>114</sup> First of all, following WWII, the US was a major supplier of conventional arms to France (matched only by Britain in 1950 and 1951).<sup>115</sup> By the mid 1950s, the US was their chief weapons provider. Second, France was formally tied to the US through the NATO military alliance formed in 1949. The alliance commitments insured that the two states were increasingly interdependent in their quests for security and defense of their homelands, particularly against the Soviet threat. However, in the coming years and decades, the French and American visions for the proper organization of that defense system, and the future of Europe in general, differed significantly. These differences resulted in the French withdrawal from the unified military NATO command in the mid 1960s, a development that was closely related to the nuclear question.

There were other modes of possible American leverage that were more specifically related to the French nuclear program. As early as 1946, the US

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<sup>113</sup> Letter from Robert Terrill, Deputy Counselor for Economic Affairs, US Embassy in France to Gordon Arneson, Office of the Secretary, Department of State, April 25, 1952. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47

<sup>114</sup> Recognition of the available levers and their actual applications are two separate matters, of course.

<sup>115</sup> See SIPRI Arms Transfers Database: TIV of arms transfers to France, 1950-2006.  
[http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php)

intelligence community started paying attention to the developments of the French atomic energy program, asking questions such as “are the Frenchmen sending atomic energy technical papers to Russia?” and “what problems are being pursued in French laboratories at the present time?”<sup>116</sup> In the summer of 1948, the State Department prepared a detailed report summarizing the status of the French atomic energy program.<sup>117</sup> Although the report characterized the French effort as ‘modest’ and greatly downplayed France’s ability to produce plutonium, let alone achieve any significant breakthroughs in the military application of atomic energy,<sup>118</sup> it still recognized the program as having great ‘ambitions’. Nonetheless, the program faced serious challenges such as a shortage of sufficiently trained and qualified personnel, no uranium deposits, and a lack of appropriate equipment. The 1952 comprehensive CIA report on the same subject<sup>119</sup> reiterated that the French did not have the manpower or the know-how for their nuclear enterprise, and that funding continued to be a major hurdle (although, as of early 1950s, the financial support for the program was greatly increased as compared to previous years).<sup>120</sup> The conversations with the French in that same year revealed that obtaining American

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<sup>116</sup> Memorandum from H.S. Lowenhaupt, “Review of the French Atomic Energy Development”, July 25, 1946. NSA@GW, US Intelligence and the French Nuclear Weapons Program, Document # 2, accessed 09/04/07. The concern about the French-Russian connection was not baseless; several high ranking members of the CEA, the French Atomic Energy Agency, were known communists, including the head of the Agency until April 1950, Joliot-Curie. The list of questions in this memo also suggests that the Americans had little concrete knowledge about the type of work and research that the French scientists were undertaking at the time.

<sup>117</sup> Office Memorandum to Gordon Arneson from L.E. Seeman, July 23, 1948, “Summary: French Nuclear Program as of June 30, 1948”. USNA, RG 59, Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47.

<sup>118</sup> Ibid.

<sup>119</sup> Report prepared by the Office of Scientific Intelligence, CIA, April 1, 1952. USNA, RG 59; Records of the Special Assistant to the Secretary of State, Records Relating to Atomic Energy Matters, 1944-52, Box 47.

<sup>120</sup> The funding increase was a reflection of the initiation of the first five-year plan of the French nuclear program, commenced in 1952, primarily for the construction of the plutonium producing piles and a factory to prepare the fissile material (Mendl, 1965: 23-24).

expertise and training were among the top priorities for the French in the early 1950s.<sup>121</sup> American nuclear expertise along with substantial military aid and formal alliance commitments were all potential levers at the US's disposal. The US, by the middle of the 1950s, was thus in a favorable position to try to influence France on the nuclear question.

The willingness of the US to cooperate with France during the first half of the nascent stage was limited. As Maddock (2010) argues, President Truman sought to solidify American nuclear superiority during his tenure and did not wish to share nuclear secrets or technology with other states.<sup>122</sup> In the late 1940s, American reluctance was also explained by the fear that the French atomic energy enterprise had been infiltrated by Communists and that the results of any work being done in France in this field might be compromised and passed on to the Russians. In a revealing 1949 memorandum to the Secretary of State which discussed the validity of reports about a possible deposition of the head of CEA, Joliot-Curie (a known Communist), the US theorized that there was actually "an advantage in having Joliot stay on as head of the French atomic energy program, in the sense that so long as he remains, there is no question but that we will refuse our atomic energy assistance to France... If Joliot were dropped, it may make it harder for us to deny requests which might come from the French and which they might feel they could then more

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<sup>121</sup> Memo from Robert Terrill, Special Assistant to the Ambassador to Gordon Arneson, Department of State, April 25, 1952. USNA, RG 59; Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 47.

<sup>122</sup> Maddock, 2011: chapter 3, especially pp. 47-48.

appropriately make.”<sup>123</sup> Joliot alone was not the only problem, the US feared that “the French Atomic Energy Commission [was] riddled with communists and fellow travelers” and that Joliot’s removal “would not be enough to make the French program secure or change our attitude with respect to giving assistance to the French.”<sup>124</sup>

Indeed, Joliot’s removal in April 1950 did not radically change the US’s position on aiding the French atomic program. Even though the US was not willing to help the French program, it was also not prepared to apply the various security levers at its disposal (e.g., conventional arms sales, provision of technical know-how and training of scientific personnel, sale of raw materials or provision of equipment) in order to change the French thinking about her nuclear weapons. By the mid 1950s the US began to learn more about the scope of France’s intentions. By 1955, the US started to suspect that, despite the French proclamations to the contrary, France planned to develop and produce nuclear weapons. By 1952, the CIA hypothesized that, given the hikes in the budget for the program during that year, it might be headed in a more ‘ambitious’ direction and that the French military would soon realize that, over the course of the next three to five years, the program would have yielded enough plutonium to make an atomic bomb.<sup>125</sup> The report went on to assert that “it seems certain that the military will try to take over the plutonium for

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<sup>123</sup> Memorandum for the Secretary from Gordon Arneson, “Reports that Joliot-Curie has Agreed to Give his Services to the USSR in the Event he is Ousted from the French AEC”, May 12, 1949. USNA, RG 59; Records of the Special Assistant to the Secretary of State for Atomic Energy Matters, 1944-52, Box 80.

<sup>124</sup> Ibid.

<sup>125</sup> Report prepared by the Office of Scientific Intelligence, CIA, April 1, 1952. USNA, RG 59, Records of the Special Assistant to the secretary of State, Records Relating to Atomic Energy Matters, 1944-52, Box 47, p. 54.

use in atomic weapons, even though this production would only be a few bombs per year.”<sup>126</sup> Indeed, by the summer of 1955 the French Atomic Energy Commission established a secret atomic unit, and in late 1956 a decision to develop long-range missiles had been taken.<sup>127</sup>

Given that France’s program likely had military ambitions, the US was increasingly reluctant to offer its cooperation. It is important to highlight that the attitude of the US toward another ‘friendly’ nuclear program, that of the United Kingdom, was qualitatively different at this point in time. In 1955, the US and the UK signed an Agreement for Cooperation in the Use of Atomic Energy that allowed for both civilian and (some) military forms of nuclear exchanges.<sup>128</sup> Why was there a difference in the American approach to the British versus the French programs?<sup>129</sup> Despite an eventual close collaboration between the US and the UK in the nuclear sphere (legalized first by the 1955 agreement and, in 1957, by the Bermuda Agreement), the period immediately after World War II saw the severing of nuclear ties between the two states.<sup>130</sup> While some talks between Washington and London regarding possible venues of cooperation continued in the late 1940s and early 1950s, the British program was largely self-sustained and developed to the point of maturity without any meaningful American assistance.<sup>131</sup> By the time the two sides

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<sup>126</sup> Ibid.

<sup>127</sup> Kohl, 1971: 23 and 46. 1955-56 was the point of transition from a nascent to an intermediary phase of the French program.

<sup>128</sup> For more information on the 1955 Agreement, see Simpson, 1986.

<sup>129</sup> Note that in 1953 the British program had matured while the French program was still in a nascent stage.

<sup>130</sup> For a good overview of the history of British nuclear program, and the American collaboration with it, see Simpson, 1986.

<sup>131</sup> Some scholars have argued that the US had offered open assistance to the British nuclear enterprise (Feaver and Niou, 1996: 218), which others claimed that the US did not offer any ‘meaningful assistance’ to Great Britain during the Manhattan Project and strove to preserve the American nuclear monopoly

finally reached an understanding on classified exchanges of nuclear information and materials in 1955, the US could claim that the British program had made ‘substantial progress’ on its own and could thus qualify for American assistance. As we shall see later in this chapter, France, by contrast, failed to qualify for a similar categorization.<sup>132</sup> Furthermore, by the mid 1950s, both the UK and the US were interested in preventing further proliferation and were thus reluctant to offer assistance to any other state seeking nuclear help.<sup>133</sup> Finally, the US saw some strategic advantages to collaborating with the British in the nuclear realm. The US needed raw materials for its own nuclear program, some of which the British could provide;<sup>134</sup> closer cooperation could cut costs and facilitate nuclear production in both states;<sup>135</sup> and, finally, the US was driven by fears of increasing Soviet expansionism and its scientific achievements such as the launch of Sputnik in 1958.<sup>136</sup> Closer collaboration with the UK was seen as strategically beneficial to the US.

The American attitude toward France’s nuclear developments was in contrast with the approach to those of the British. The 1955 negotiations over the

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(Kroenig, 2010: 13, ft 5). For a more detailed discussion of the history of the British-American nuclear cooperation post WWII, see Simpson, 1986. The British tested their first nuclear device in 1953, known as operation “Hurricane”.

<sup>132</sup> See Simpson, 1986: 137-138 on US government discussions of “substantial progress” and worries about the appropriate course of American action when the time came to deal with this issue in regards to France. France, in the mid 1950s, was still in the early stage of development. However, as we shall in the following chapters, the US refused to acknowledge that France had made ‘substantial progress’ immediately following its first atomic test in 1960.

<sup>133</sup> In 1955, for example, France approached the UK with a request for building a gaseous diffusion plant for separating out U-235. The British rejected the request on political grounds (not wanting to aid further proliferation), but, according to Simpson, this episode “made both America and Britain very sensitive to the danger of the French regarding Anglo-American cooperation as a form of unjust discrimination directed against them.” (Simpson, 1986: 121).

<sup>134</sup> Simpson, 1986: 77.

<sup>135</sup> Simpson, 1986: 134.

<sup>136</sup> See Simpson, 1986: 128.

nature and scope of a US-French bilateral agreement on atomic energy cooperation was case in point. The French desired an arrangement that would permit an exchange of classified information between the US and France. The American side was only willing to negotiate a standard research reactor bilateral agreement – similar to the ones it already had with some other European allies.<sup>137</sup>

It is important to note the distinction between the willingness of the US to aid its allies in the development of peaceful, versus military, applications of atomic energy. The former was increasingly promoted as part of President Eisenhower's broader Atoms for Peace program (announced at the UN in December of 1953), while the latter directly contradicted the emerging American non-proliferation agenda.<sup>138</sup> President Eisenhower believed that the program would help to convince NNWS to forego nuclear weapons in exchange for assistance with peaceful nuclear energy development. On the one hand, the US successfully amended the 1946 Atomic Energy Act (AEA) in 1954, which allowed for the declassification and sharing of a large amount of scientific data on nuclear technology, most of which the US was now willing to disclose to its allies in an effort to promote the development of peaceful applications of atomic energy.<sup>139</sup> On the other hand, with the notable exception of the UK, the US was reluctant to share any classified data with its friends

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<sup>137</sup> See, for example, memorandum of conversation, "French Atomic Energy Program", November 15, 1955. USNA, RG 59, General Records of the Department of State, Country Files, 1954 and 1962-62, Box 405; see also memorandum of conversation, "French Atomic Energy Program", October 10, 1955. USNA, RG 59, General Records of the Department of State, Country Files, 1954 and 1961-62, Box 405.

<sup>138</sup> See Fuhrmann (2009) on the link between peaceful nuclear energy cooperation and nuclear weapons' proliferation.

<sup>139</sup> As Glenn Seaborg, the head of the President's Science Advisory Committee under President Eisenhower, noted in his memoirs, the Atoms for Peace proposal "was motivated by a desire to encourage worldwide investigation into the most effective peacetime uses of atomic energy and to begin to diminish the potential destructive power of the world's atomic stockpiles." (Seaborg, 1998: 54).

that could apply to the military uses of nuclear technology, as clearly evidenced by the case of France. While some scholars have claimed that, as the result of the 1954 AEA amendment, the Eisenhower Administration “gave priority to nuclear weapons cooperation with allies over efforts to stem nuclear proliferation,”<sup>140</sup> the American policy toward France from the mid 1950s onward suggests otherwise. Not only was the US not willing to offer France a classified bilateral agreement on atomic energy, the Eisenhower Administration was increasingly emphasizing that the US should refrain from cooperating with the French military nuclear program. This signified that the American willingness to withhold materials and know-how that could aid the program increased compared with that in the earlier period of American response.

There are two primary reasons for why the US was more willing to oppose the French program and to withhold cooperation by the mid 1950s as compared to previous years. First, the US believed that a national French program would directly contradict the American objectives of creating effective international organizations entrusted with the promotion of peaceful development of atomic energy (IAEA<sup>141</sup> and, more importantly, EURATOM).<sup>142</sup> Second, the US was afraid that its other allies (particularly West Germany) would follow the French example, creating a cascade effect of European states seeking to achieve national military nuclear capabilities.

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<sup>140</sup> Cohen, 1998a: 3.

<sup>141</sup> International Atomic Energy Agency. This organization was set up in 1957 as part of the UN’s network to promote the Atoms for Peace program.

<sup>142</sup> European Atomic Energy Community. Established by a March 1957 treaty to promote and safeguard nuclear cooperation among European nations.

The creation of IAEA within the framework of the United Nations and, more importantly, of the European Atomic Energy Community were high priority projects for the US in the mid 1950s. EURATOM held special importance as a vehicle for binding West Germany to the rest of the European community, promoting European integration, and discouraging national nuclear programs.<sup>143</sup> The US believed that its own promises of close cooperation with EURATOM would convince its allies to forego national programs,<sup>144</sup> a goal that could have been directly undermined by a French national nuclear effort. As the EURATOM and IAEA negotiations proceeded in late 1955, the US officials were wondering whether it would be possible to “prevent or at least discourage the establishment of national nuclear weapons industries in countries where they do not already exist.”<sup>145</sup>

This signaled the beginning of the American formal articulation of its own non-proliferation policy. As the American officials put it at the time, the US’s objective should be to “prevent, retard, or minimize the development of nuclear weapons capabilities...by additional nations beyond the present three: the USSR, UK, and US.”<sup>146</sup> By the mid 1950s, only those three states had tested a nuclear device. While there might not have been one single determination that “three nuclear

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<sup>143</sup> Memorandum for the President, “US Support for EURATOM”, September 25, 1956. USNA, RG 59, Records RE: Atomic Energy Matters, 1956-63, Box 1.

<sup>144</sup> Memorandum from Mr. Smith (State/AE) and Mr. Elbrick (EUR) to Mr. Bowie (State), “EURATOM”, September 5, 1956. USNA, RG 59, Records RE: Atomic Energy Matters, 1956-63, Box 1. See also a memorandum “A New US Approach to EURATOM”, September 5, 1956. USNA, RG 59, Records RE: Atomic Energy Matters, 1956-63, Box 1 on this matter.

<sup>145</sup> Memorandum from Livingston Merchant (EUR) to Gerard Smith (State/Atomic Energy), “France and a Nuclear Weapons Industry”, January 31, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944- 63, Box 407.

<sup>146</sup> Memorandum from Livingston Merchant (EUR) to Gerard Smith (State/Atomic Energy), “French Nuclear Weapons Program”, February, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944- 63, Box 407.

powers is enough,” there was a general feeling on the part of US policy makers in the mid 1950s that any further expansion of this small nuclear club should be prevented. At the very least, the US policy should be to “take measures to insure that any assistance it provides in the peaceful uses field [is] not diverted to the production of weapons.”<sup>147</sup> The French case was crucial in this respect. The US expected other states to closely follow the French developments and anticipated that the French national program would be “a major obstacle in the path of any efforts to prevent atoms-for-peace from adding to the danger of atoms-for-war.”<sup>148</sup> The French themselves saw a clear link between their participation and support of the IAEA/EURATOM negotiations and the scope of cooperation with the US. At times, they implicitly threatened to withhold their endorsement of these organizations if the US was not willing to negotiate the arrangements desired by the French (a classified agreement for the sale of enriched uranium, for example).<sup>149</sup>

The US considered several options for dealing with the nascent French program, all of which fell into the ‘carrots’ rather than ‘sticks’ category. The strategy hinged primarily on convincing the French that a national program would be a drain on French resources. This was coupled with the argument that a national nuclear capability would have limited defense utility. As a result, the US tried to offer France certain inducements to forego a national program. They included training of French pilots in the use of nuclear weapons and, possibly, joint custody over nuclear

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<sup>147</sup> Memorandum from Livingston Merchant (EUR) to Gerard Smith (State/Atomic Energy), “France and a Nuclear Weapons Industry”, January 31, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944- 63, Box 407.

<sup>148</sup> Ibid.

<sup>149</sup> See Memorandum of Conversation, “Various French Atomic Energy Matters”, September 24, 1956. USNA, RG 59, General Records of the Department of State, Country Files, 1945, 1948-51, 1960, Box 406.

weapons stored on French territory (something that the French President de Gaulle would strongly lobby for after his return to power in 1958 and which the US ultimately rejected in the early 1960s).<sup>150</sup> Another carrot was a proposed agreement for the sale of American enriched uranium for use in French nuclear submarines.<sup>151</sup> These proposals tended to generate controversy within the US Government: while some agencies supported them, others lobbied against them. In the case of enriched uranium, for example, the US Atomic Energy Commission in the mid 1950s voiced opposition to any potential exchange claiming that the terms of the 1946 US Atomic Energy Act (as well as its 1954 amended version) prohibited export of nuclear materials intended for military application.<sup>152</sup> Later on, one agency in particular, the JCAE (Congressional Joint Committee on Atomic Energy), became a consistent and unrelenting opponent of any proposals of American cooperation with the French nuclear program.

From the very beginning the US realized that any overt pressure on France would be met with strong resistance and, in the worst-case scenario, could backfire. An internal State Department memo from February 1956 warned that while the American objective should be to “obviate or at least minimize a French weapons program,” it could be achieved “(if at all) only if the French themselves decide that

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<sup>150</sup> Ibid.

<sup>151</sup> For some of the conversations with the French regarding the sale of enriched U-235, see, for example, Memorandum of Conversation, “Request for US Material for French Submarine Reactor”, May 1, 1956. USNA, RG 59, Central Files of the Department of State, Politico-Military, Numeric Files, 1953-66, Box 7 and Memorandum of Conversation, “Various French Atomic Energy Matters”, September 24, 1956. USNA, RG 59, General Records of the Department of State, Country Files, 1945, 1948-51, 1960, Box 406.

<sup>152</sup> Memorandum from John Hall (US Atomic Energy Commission) to Gerard Smith (Department of State), “French Request for U-235 for Nuclear Propelled Submarine”, August 20, 1956. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

such a course is in their best interest. Appearances of US pressure, even indirect, will be resented by the French and give rise to charges of discrimination, mistrust of the French and a desire to relegate them to second-class status..."<sup>153</sup> This recognition was further confirmed in the aptly titled memorandum from December 1956 "What US Action Should and Can Be Taken to Discourage Proposed French Nuclear Weapons Program?"<sup>154</sup> The US recognized that its critique of France would only push Paris further down the nuclear road, and that the American attempts at stopping the program might backfire. As a result, the US suggested a tri-mode strategy.<sup>155</sup> The first mode consisted of *persuasion*, using the arguments that the French nuclear deterrent would not be effective on its own, would be economically draining on France, and could push West Germany down the nuclear path. The second involved *promises*, such as agreements to sell enriched uranium for use in French nuclear submarines and the training of French pilots in the use of nuclear weapons. Finally, it included *actions* such as a seven-year contract on the sale of uranium, aid in nuclear reactor development, and unclassified assistance with the French submarine program.<sup>156</sup>

As the nascent stage of the French nuclear program was drawing to a close, the US was facing the formidable challenge of opposing the French national nuclear effort in such a way that it would not undermine the American objectives of

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<sup>153</sup> Memorandum from Livingston Merchant (EUR) to Gerard Smith (State/Atomic Energy), "French Nuclear Weapons Program", February 9, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944- 63, Box 407.

<sup>154</sup> Memorandum from J. Robert Schaetzel (State/AE) to Mr. Smith (State/AE), "What US Action Should and Can Be Taken to Discourage Proposed French Nuclear Weapons Program?", December 6, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63. Box 407.

<sup>155</sup> Ibid.

<sup>156</sup> Ibid.

promoting IAEA, EURATOM, European integration, German non-nuclearization, and non-proliferation in general. There were several security levers available to the US at this stage. They included cutting off conventional military aid to France, and aid with her civilian nuclear program. A retraction of American security guarantees through NATO would have been a rather drastic action on the US's part, especially since it would have hurt the US's own objectives. The willingness to use these levers gradually increased as the US learned more about the direction in which the French program was headed. However, it was dampened by the American recognition of the delicacy of the matter and the growing realization that what France wanted the most from the US was recognition and acknowledgement of French achievements in the field of atomic energy. In short, France wanted to be treated equally with the US's closest European ally, the United Kingdom. Any accord of 'special' treatment or status for France in the nuclear realm would have been close to impossible without the acknowledgement of France's right to possess its own nuclear arsenal, which the US ultimately did.

Eisenhower's administration, for its part, focused on the Atoms for Peace program as a way of dissuading states from developing indigenous nuclear weapons capability, and on promoting international institutions such as IAEA and EURATOM. A support for a national French program would have been counterproductive for the attainment of these objectives. The nascent stage, however, might have been the most opportune time for the US to intervene in the course of the French program. Once the program entered its second phase of development, things moved rather

quickly, and there was little, if any hope, of reversing or even slowing down the program.

### **Israel (mid 1950s – 1960)**

As France was wrapping up its nascent stage, Israel was just entering it. The early phase of the Israeli nuclear program stretched from the mid-1950s to roughly 1960. This period was characterized by passive opposition on the part of the US, which resulted from a lack of experience in dealing with budding proliferators. In addition, the US's refusal to consider the existence of a weapons program in a friendly state was fueled by Washington's tendency to take Israel's assurances and pledges at face value rather than to critically examine the available data. Israel, for its part, made sure that all of its nuclear activities were shrouded in a heavy veil of secrecy. It worked tirelessly to ensure that the US was going to learn as little as possible. For the most part, the US was content during this stage with Israel's public and private assurances regarding the peaceful nature of its nuclear reactors (especially Dimona), and took Israel's guarantees at face value.

The American passive opposition toward the nascent Israeli program could also be attributed, at least in part, to the fact that the amount of leverage that the US had over Israel was relatively low until the early to mid 1960s. Before then, France and Great Britain were major conventional arms suppliers to Israel.<sup>157</sup> In addition, there was no formal military alliance between Israel and the United States, although the two countries enjoyed an increasingly close strategic relationship. This

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<sup>157</sup> See SIPRI Arms Transfers Database for Israel (1950-2006): <http://www.sipri.org/databases/armstransfers>.

relationship only strengthened as the Israeli program progressed, and the US implicitly committed to supporting Israel militarily for decades to come. Lacking any significant security levers, the US focused its attention on trying to further its own interests in the nuclear field.

As with France, the US was probing Israel on the question of joint exploration of raw materials<sup>158</sup> as evidenced, for example, by a memo from the US Atomic Energy Commission to the Department of State from late October 1953.<sup>159</sup> It laid out the desirability of conducting geological reconnaissance for uranium in Israel, as several reports from the previous year indicated that such deposits might indeed be available. The arrangements could not have been made without the involvement of the State Department and, possibly, even more senior interference. Nonetheless, it was clear that the US was interested in exploring potential uranium deposits all over the world without serious consideration of what such exploration might mean for a nascent nuclear program abroad. While the fate of this particular request is not clear, we know that Israel did not have any substantial uranium deposits that it could utilize for its weapons program. In fact, lack of indigenous raw materials figured prominently in later American intelligence estimates on the likelihood and the possible timing of the Israeli program. It was later revealed that Israel had to import much of the material needed from abroad, particularly from France.<sup>160</sup>

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<sup>158</sup> Similar to the case of France, this is a period effect.

<sup>159</sup> Memo from John A. Hall (US Atomic Energy Commission) to R. Gordon Arneson (US Department of State), October 30, 1953. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>160</sup> The French role in the Israeli nuclear program is well documented (see, for example, Kroenig, 2010: chapter 3). Kroenig argues that France was able to provide Israel with sensitive nuclear assistance because it was not a power projecting state (over Israel) and because France did not depend on the US for its

In the mid 1950s, Israel went on a clandestine shopping spree for potential reactors, materials, and nuclear know-how. It probed the American market as well as those of some European states, such as France and Norway.<sup>161</sup> The shopping list was extensive. In 1955, for example, Israel told the US that Hebrew University was interested in obtaining a research reactor from the Americans (the expectation was that the reactor would be donated to the University by individuals in the US).<sup>162</sup> Even with respect to a university research reactor, however, the Israelis were insistent on minimal publicity as this would “tend to prevent any rumors that Israel was attempting to produce an atomic bomb.”<sup>163</sup> In addition to the nuclear shopping spree, Israel entered into a civilian nuclear cooperation agreement with the US in 1955<sup>164</sup> under the Atoms for Peace program. Israel, of course, wanted to obtain more sophisticated nuclear technology than that allowed by the Agreement. The US was careful to reject the requests for sensitive nuclear cooperation<sup>165</sup> as became clear during the negotiations over the construction of Soreq nuclear reactor.<sup>166</sup>

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security. The later assertion could be called into question as France was part of NATO (until the early 1960s) and clearly shared a common enemy with the US, the Soviet Union. The alliance factor could not simply be brushed away with a claim that one alliance member did not depend on another (much stronger one) for its security. Furthermore, Kroenig does not address the question of why the US failed to prevent France from aiding the Israeli nuclear effort. He only concedes that, “perhaps one could argue that the United States was not truly willing to play hardball with Israel and could have done more to prevent sensitive nuclear cooperation between France and Israel”. (ibid: 87) This dissertation offers an explanation for why the US failed to stop both the Israeli and the French programs (and cooperation between them).

<sup>161</sup> The later for heavy water supplies.

<sup>162</sup> Department of State, Memorandum of Conversation, “Peaceful Uses of the Atom; Significance of Changes in the Soviet Union”, February 2, 1955. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 417.

<sup>163</sup> Ibid.

<sup>164</sup> Kroenig, 2010: 69

<sup>165</sup> Kroenig, 2010: 69-70

<sup>166</sup> This reactor was constructed with US help. Israel’s other major nuclear reactor, Dimona, was constructed with the help of France. Dimona, of course, became the primary site of the Israeli military nuclear program while Soreq served civilian energy and research purposes.

The construction of the Soreq reactor<sup>167</sup> was discussed for the rest of 1955. Israel justified its desire to obtain such a reactor on several grounds. First, Israel argued for the need to generate energy “due to the impossibility of securing oil from the Middle East.”<sup>168</sup> Second, it claimed that such a reactor would serve the purposes of conducting peaceful research and education in the nuclear power field.<sup>169</sup> As the Israeli side put it, “the research reactor program was intended merely to start the process of education which would ultimately lead to power.”<sup>170</sup> The American representatives, however, raised a geopolitical concern during this rather technically oriented conversation: had Israel considered the reaction in the Arab world of Israelis producing plutonium on their soil? Israel’s response was characteristically reassuring: the amount produced would be so small that “it could not possibly have military implications.”<sup>171</sup>

The US walked a fine line between raising concerns about possible military applications of the reactor and assuaging them with Israel’s verbal assurances. Israel, for its part, denied any malign activity, and the US accepted the denial. The Soreq reactor was not the main part of the Israeli nuclear program, the French-built Dimona reactor was. However, as Cohen pointed out “..the Soreq reactor actually shielded the Dimona reactor. The construction of the Soreq reactor...was an

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<sup>167</sup> Incidentally, President Eisenhower in 1955 authorized an offer to construct a 1-MW pool-type research reactor in Israel with the help of an American firm (Cohen, 1998b: 81). See, for example, Memorandum of Conversation, Department of State, “Implementation of Research Reactor Agreement”, November 23, 1955. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>168</sup> Memorandum of Conversation, Drs. Bergmann, Dostrowsky, and de Shalit (Israel) and Ambassador Patterson and B. Bechhoefer (US), August 16, 1955. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 417.

<sup>169</sup> Ibid.

<sup>170</sup> Ibid.

<sup>171</sup> Ibid.

important factor indicating why the United States failed to identify Israel's other, top-secret nuclear project, namely, Dimona."<sup>172</sup>

There was some evidence at this stage that while there was no serious political willingness in Washington to confront the Israeli nuclear question, the US was cognizant of not wanting to directly aid any nuclear military effort in Israel. For example, while the US was prepared to assist Israel in the construction of the Soreq nuclear reactor in the 1950s, it was not willing to train Israeli nuclear scientists, as evidenced by the February 1957 memo from the US Atomic Energy Commission to the Department of State.<sup>173</sup> Two Israeli students were denied acceptance to the Argonne reactor school,<sup>174</sup> based on the direct recommendation from the Department of State. The State Department, in turn, justified its decision based on its own policy implemented shortly after Israel's 1956 attack on Egypt that stipulated that "the United States should not provide Israel with technical data or assistance or strategic materials."<sup>175</sup> What is interesting about this particular memo is not only the fact that the Israeli students were not admitted to the program, but that there was an evident lack of communication between the two agencies in question (the Atomic Energy Commission and the State Department). The Atomic Energy Commission's representative complained that they

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<sup>172</sup> Cohen, 1998b: 81.

<sup>173</sup> Memorandum from John A. Hall, Director, Division of Internal Affairs, US Atomic Agency to Gerard C. Smith, Department of State, "Request for Guidance on Dealing with Israel", February 11, 1957. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>174</sup> Part of the Argonne National Laboratory, which is one of the US Department of Energy's largest research laboratories, chartered in 1946. It came out of University of Chicago's Metallurgical Laboratory (which was part of the Manhattan Project). After WWII, its purpose was to develop nuclear reactors for peaceful purposes. <http://www.anl.gov/about.html>, accessed 02/09/07.

<sup>175</sup> Memorandum from John A. Hall, Director, Division of Internal Affairs, US Atomic Agency to Gerard C. Smith, Department of State, "Request for Guidance on Dealing with Israel", February 11, 1957. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

...had no knowledge of this policy nor what effect it might have on our cooperation with Israel in the atomic energy field. We would appreciate receiving from you a statement of the Department's policy, referred to above, and your views as to its effect on our cooperation with Israel, including implementation of the bilateral agreement in effect with Israel.<sup>176</sup>

Clearly, the Atomic Energy Agency was left in the dark. As time went by, more and more decisions relating to the Israeli program were made at the highest levels of government (sometimes only at the Presidential level). While directives were usually dispatched to various key US Embassies abroad regarding how to deal with inquiries stemming from Israel's program and the American response to it, there seemed to be a serious lack of synchronization of policy discussion or even dissemination of information regarding policies already adopted by the various agencies of the US government.

The American reluctance to aid any nuclear military efforts abroad was a consequence of an emerging American non-proliferation policy. Even as President Eisenhower endorsed his Atoms for Peace initiative, he was increasingly aware of the looming possibility that other states beyond the US, UK and the Soviet Union might develop nuclear weapons. In the same year that the US barred two Israeli students for studying at the American reactor school (1957), the US government finally decided to systematically address the problem of global nuclear proliferation, or, as it was called at the time, the "Fourth Country Problem."<sup>177</sup> At this point the French program was already entering an intermediary stage while a number of

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<sup>176</sup> Ibid.

<sup>177</sup> Thus far, only the US, UK, and the Soviet Union possessed nuclear weapons. The intent of the National Intelligence Estimate was to predict which state would become the fourth to go nuclear.

other states (including Sweden and Switzerland) were contemplating the wisdom and feasibility of joining the pursuit of the 'ultimate' weapon. A memo from the State Department from May 1957 expressed an urgent need for a National Intelligence Estimate (NIE), arguing that "there has never been a coordinated intelligence estimate which establishes the extent of the problem, taking into account the political and economic and other factors involved, and estimates the probable effects of the development of unconventional capability by fourth countries."<sup>178</sup> The first NIE followed about a month later.<sup>179</sup> The task was to estimate the consequences of proliferation "in terms of US national interests."<sup>180</sup> The study concluded that "unless provided with assistance..., no individual fourth country will be able within the next ten years to develop more than a limited nuclear capability."<sup>181</sup> In contrast to the 'fourth state' front-runners (such as Sweden, West Germany, Japan, France, and Canada), the study asserted that Israel "possesses fewer of the requirements for a successful program and would require major foreign assistance to produce even the first weapons within the next ten years." Should such material become available, however, "...Israel would almost certainly attempt to achieve nuclear capabilities."<sup>182</sup> Such assistance, of course, was already on its way, primarily from France, yet the US intelligence estimate gave no indication of that.<sup>183</sup>

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<sup>178</sup> Memo from W. Park Armstrong (State). "National Intelligence Estimate on the 'Fourth Country Problem'", May 3, 1957. NSA@GW, Document # 1, National Intelligence Estimates, accessed 1/24/07.

<sup>179</sup> National Intelligence Estimate, Number 100-6-57. "Nuclear Weapons production in Fourth Countries: Likelihood and Consequences." June 18, 1957. NSA@GW, Document # 2, NIE, accessed 1/24/07.

<sup>180</sup> Ibid.

<sup>181</sup> Ibid.

<sup>182</sup> Ibid.

<sup>183</sup> Another interesting and pertinent conclusion reached by 1957 NIE was that "once a nation had a civilian atomic energy program encompassing fairly large reactors and processing facilities it requires only relatively little investment in an ordnance laboratory and research in weapons design to initiate a weapons

The urgency of the 1957 NIE indicated that the US was not only taking the nuclear problem seriously, but, possibly, was willing to take some measures to deal with it. Israel, however, did not present an imminent problem in this regard according to the CIA in 1957. For the next three years the American intelligence community continued issuing NIEs on a regular basis and the discussion of the Israeli program gradually expanded. While the 1958 NIE was in many ways similar to the one from the previous year, it now admitted that “if Israel should obtain substantial foreign assistance for a reactor program, it had the technical capacity to produce a few low-yield weapons during the next ten years.”<sup>184</sup> Furthermore, “Israel would almost certainly attempt to achieve modest nuclear capabilities if it could obtain fissionable material. Such material will come from a power reactor program initiated with the assistance of a foreign country.”<sup>185</sup> Despite such conclusions, Cohen argues that US intelligence largely failed to detect any nuclear activity in Israel during the late 1950s, as evidenced, for example, by the inability to correctly identify the photos taken of the Dimona site by an American U-2 spy plane.<sup>186</sup>

The NIE from 1960 appears to have an even lengthier discussion of the Israeli case. Unfortunately, all of the references to Israel in this document have been

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program.” Having reached that conclusion, the CIA must have been well aware that the US was, in fact, helping Israel with its civilian nuclear technology program through the construction of the Soreq reactor. Yet, no explicit discussion of this point was made. Interestingly, Furhmann (2009) reached basically the same conclusion as the 1957 NIE on the link between civilian nuclear assistance and the spread of nuclear weapons.

<sup>184</sup> National Intelligence Estimate, Number 100-2-58. July 1, 1958. NSA@GW, Document # 3a, NIE, accessed 1/24/07.

<sup>185</sup> Ibid.

<sup>186</sup> Cohen, 1998b: 83.

excised.<sup>187</sup> The amount of still classified text suggests that the 1960 NIE had substantially more to say about the Israeli program as compared to previous years.<sup>188</sup> This also suggests that the Israeli program was gradually moving from a nascent stage to an intermediary one, and that the US intelligence was at least partially aware of it.

In late 1960 the apparent acceleration of the program led to a series of accounts in the global press about the possibility of Israel working on a nuclear bomb. The reports also revealed the French connection to one of the reactors. The American side, incidentally, had learned of the French assistance to Dimona in the fall of 1960,<sup>189</sup> and the CIA had further elaborated on the closeness of the French-Israeli military ties in its April 1961 intelligence briefing.<sup>190</sup> Unsurprisingly, the reports from late 1960 about an Israeli bomb provoked a strong reaction, which necessitated both the Americans and the Israelis to issue a series of statements meant to minimize the apprehensions over the prospect of a nuclear-armed Israel.<sup>191</sup>

These statements followed the now-familiar pattern of Israeli insistence on the peaceful nature of their program, and American categorical support of such statements. Following the Israeli public assertion that its research was exclusively

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<sup>187</sup> National Intelligence Estimate, Number 100-4-60. September 20, 1960. NSA@GW, Document # 5, NIE, accessed 1/24/07.

<sup>188</sup> The excised text, which in all likelihood refers to Israel, can be found on pp. 2, 3, 5, 9, and 12.

<sup>189</sup> See, for example, Memorandum for the President from Secretary Rusk, "Israel's Atomic Energy Activities", January 30, 1961. JFKL, President's Office Files, Box 119a.

<sup>190</sup> CIA briefing, "The French-Israeli Relationship", April 27, 1961. JFKL, President's Office Files, Box 119a.

<sup>191</sup> Public Statements Concerning the Israeli Nuclear Reactor, Compiled by S/AE, Department of State), January 17, 1961. USNA; RG 59, Records Relating to Atomic Energy Matters, 1944-63, Box 418.

for peaceful purposes, the State Department insisted on December 19, 1960 that it “welcomes these reported assurances that the Government of Israel has no intention of producing nuclear weapons and that its program is concerned exclusively with the peaceful uses of atomic energy.”<sup>192</sup> Furthermore, the US insisted that its bilateral cooperation with Israel was within the Atoms for Peace program and that the “US cooperation or assistance in any program to develop a nuclear weapons capability would not be possible.”<sup>193</sup> A couple of days later, the State Department reiterated that the Israeli Ambassador had assured the Secretary of State that the “new Israeli reactor now in early stages of construction is for peaceful purposes only” and that it was “intended solely for research purposes to develop scientific knowledge and thus to serve the needs of industry, agriculture, health and science.”<sup>194</sup> The US, however, was also quick to reaffirm its now-formed position on proliferation by stressing that “the US has consistently opposed the proliferation of nuclear weapons capabilities and has consistently advocated appropriate safeguards to ensure that fissionable materials are used for peaceful purposes.”<sup>195</sup> In addition, the incoming Administration in the White House stressed that while the assurances from Israel appeared to be ‘satisfactory’ at this point, the American intelligence services would maintain a “continuing watch on Israel as on other countries to assure that nuclear weapons capabilities are not being proliferated.”<sup>196</sup>

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<sup>192</sup> Ibid.

<sup>193</sup> Ibid.

<sup>194</sup> Ibid.

<sup>195</sup> Ibid.

<sup>196</sup> Memorandum for the President from Secretary Rusk, “Israel’s Atomic Energy Activities”, January 30, 1961. JFKL, President’s Office Files, Box 119a.

These back and forth exchanges between the two sides illustrated how the US followed a status quo approach to the Israeli program in its early years. A medium amount of leverage was combined with medium willingness to use it. Imperfect information about the program was coupled with a changing US attitude about American support for Israel. On the eve of US presidential elections in 1960, Democrats pledged to redress the arms imbalance in the Middle East, which meant an increase in the American aid for Israel.<sup>197</sup> For the rest of the nascent stage Israel continued to deny any allegations of nuclear weapons research and production. It called the 1960 reports an ‘unwitting untruth’ and claimed that the reactor was for peaceful purposes and compared it to a reactor that the Canadians were helping to build in India.<sup>198</sup> Even the French and the British came to Israel’s defense, the former verifying its involvement in the Dimona reactor (but claiming that it was for peaceful purposes), and the later claiming that while the Israeli assurances were most welcome, “there is nothing to suggest that progress is so advanced that it could be used for military purposes in near future.”<sup>199</sup>

As the nascent stage of the Israeli program came to an end in the early 1960s,<sup>200</sup> Israel’s verbal assurances proved enough to dissuade the US from taking

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<sup>197</sup> Puschell, 1992: 12-13.

<sup>198</sup> Ibid. Statements of PM Ben Gurion in the Knesset, December 21, 1960.

<sup>199</sup> Ibid. It should be noted that the British appeared to be more reserved in their acceptance of the Israeli official line than the Americans. Their reservations come through in some of the later documents from the 1960s.

<sup>200</sup> The exact timing of the transition from a nascent to intermediary stage of the Israeli program is debatable. In his new book on the history of Israel’s nuclear program Avner Cohen (2010) argues that the initial decision to explore the possibility of a program was made unilaterally by Israel’s leader Ben-Gurion sometime in the mid to late 1950s. However, the first closed-door leadership meeting that debated the merits of the program did not take place until sometime in the second half of 1962 (Cohen, 2010: 63). Therefore, I designate the first two years of the 1960s as the transition point between the nascent and intermediary stages of the program.

any drastic or even probing actions against its ally. The US was reluctant to confront Israel directly on the nuclear issue, and no serious questions were asked until the early 1960s. Incomplete intelligence was coupled with President Eisenhower's personal unwillingness to take political action over Israel.<sup>201</sup> While the non-proliferation agenda largely took shape during Eisenhower's term in office, his concern for strengthening the Western alliance and containing the Soviet Union took precedence over the promotion of this agenda. In 1954, for example, Eisenhower asked Congress to amend the 1946 Atomic Energy Act thus allowing the sharing of certain nuclear information with the US's European allies.<sup>202</sup> This preference ultimately led to the treatment of Israel as a 'special case', even though such treatment was inconsistent with the American global non-proliferation agenda. US national interest, as understood by the US Administration, trumped the goal of universal opposition to nuclear proliferation in the mid to late 1950s.

According to Cohen, the late 1950s were the only years in which the US could have stopped the Israeli nuclear program,<sup>203</sup> yet the American policymakers were not even thinking in terms of applying any leverage or pressuring Israel in order to dissuade it from going nuclear. The US was more concerned with the promotion of its national interests and security, primarily as they related to containing Soviet expansionism, correcting the arms imbalance in the Middle East, and strengthening the Western alliance. By the end of the nascent stage both the amount of leverage and the willingness to use it were only at a medium level. That was not enough to

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<sup>201</sup> Cohen, 1998b: 84-85.

<sup>202</sup> Cohen, 1998a: 3-4.

<sup>203</sup> Ibid.: 85.

reverse a nuclear enterprise as we shall see in yet another case of an early friendly proliferator, Taiwan.

### **Taiwan (1954-1964)**

Israel was not the only state that started exploring the possibility of a nuclear program in the mid 1950s. Half way across the world another early proliferator,<sup>204</sup> Taiwan, was setting the stage for its nascent nuclear venture. When the Chinese Communists defeated the Nationalist forces in 1949, the later retreated to the island of Taiwan and established the Republic of China (ROC).<sup>205</sup> The tensions between PRC and Taiwan had continued ever since. In the early years they included Taiwan's desire to retake the mainland and defeat the Communist government, a goal that the Taiwanese authorities gradually dropped. The first serious escalation of PRC-Taiwanese tensions involving the disputed offshore islands of Matsu and Quemoy in 1954 led to the US's intervention on behalf of Taiwan and the signing of the US-Taiwanese Mutual Defense Treaty (MDT),<sup>206</sup> which established a formal military alliance between the two states.<sup>207</sup> The MDT committed both parties to "maintain

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<sup>204</sup> For the purposes of the foregoing discussion, I treat Taiwan as a 'state' even though the legal status of Taiwan continues to be disputed. Mainland China (the PRC) claims, as it has claimed since the founding of Taiwan in 1949, that Taiwan is legally part of 'one China' and not a separate sovereign entity. Taiwan is not a member of the UN (its UN seat was revoked in 1971 and the permanent representation on the UN Security Council went to the PRC).

<sup>205</sup> When it was established in 1949, Taiwan was officially known as the Republic of China (ROC). I will use the names Taiwan and ROC interchangeably.

<sup>206</sup> Solingen, 2007: 100. The US-Taiwan Mutual Defense Treaty entered into force in 1954 and lasted through 1979 when it was replaced with a less formal Taiwan Relations Act (a direct result of the US's formal diplomatic recognition of the People's Republic of China (PRC hereafter) and the formal severing of US diplomatic ties with Taiwan).

<sup>207</sup> Interestingly, the PRC-Taiwanese disputes over the offshore islands in the 1950s led the US to seriously contemplate using American nuclear weapons in defense of Taiwan (Tucker, 2001: 124-129). The Air Force advocated the nuclear option most forcibly, and the US Atomic Energy Commission even conducted a series of studies regarding the possible effects of dropping American nuclear weapons on PRC's airfields (ibid: 126). The idea was eventually dropped (in part due to intense pressure from American diplomats

and develop their individual and collective capacity to resist armed attack and communist subversive activities... against their territorial integrity and political stability.”<sup>208</sup> In addition, starting in the early 1950s, the US initiated a major effort to sell American weapons and military equipment to Taiwan and became the largest and, for the most part, the only arms supplier to the new Taiwanese government. This trend continued through most of the Cold War.<sup>209</sup> Security guarantees and arms transfers were two of the three pillars of American leverage over Taiwan. The third lever was American assistance to Taiwan’s civilian nuclear energy program.

As with so many other nuclear weapons programs (Israel and France are just two examples), Taiwan’s road to attaining nuclear capability started with its civilian nuclear energy program.<sup>210</sup> Taiwan’s interest in the peaceful applications of atomic energy began a couple of years after President Eisenhower’s announcement of the Atoms for Peace initiative in December 1953. By the middle of the 1950s, Taiwan was actively seeking American cooperation and assistance in obtaining civilian nuclear research reactors for ROC, complete with training of personnel and the

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stationed in Taiwan). While the idea of ‘losing’ Taiwan to the Communists was extremely disturbing to the US, President Eisenhower’s Administration was not willing to interfere directly into the PRC-Taiwan militarily disputes over the offshore islands (ibid).

<sup>208</sup> Solingen, 2007: 318, f.n. # 2

<sup>209</sup> For the specifics of US arms’ supplies to Taiwan, see SIPRI database on arms imports, 1950-2006 - [http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php). With very few exceptions (e.g., Japan in 1955, 1957, 1969, 1978, and 1982; Belgium in 1969; and Italy starting in the mid 1970s), the US was the only arms supplier to Taiwan. Furthermore, the US was by far the major supplier of arms and military equipment to Taiwan in the years of the Cold War and beyond (in 1987 and 1988, the Netherlands temporarily supplied more arms by volume than the US, but the trend reverted back to the US being the primary supplier and continues to hold).

<sup>210</sup> It is important to note that many accounts of Taiwan’s nuclear program do not have anything to say about the pre-1960s period, of the nascent stage (see, for example, Hersman and Peters, 2006; Mitchell, 2004). Albright and Gay (1998) acknowledge that some US analysts place the start of the Taiwanese program in the 1950s when it was all about Atoms for Peace effort. Unlike France and Israel, there was no indication that Taiwan was thinking along military lines during the nascent stage.

appropriate materials for it.<sup>211</sup> In a July 1955 speech at Penn State University, President Eisenhower made a pledge to support such an effort; furthermore, the US agreed to contribute up to US\$ 350,000 toward the cost of a pool-type, light water research reactor for Taiwan.<sup>212</sup> The President's pledge led to the signing of the official bilateral Agreement for Cooperation with China<sup>213</sup> on Civil Uses of Atomic Energy.<sup>214</sup> Just like Israel, Taiwan repeatedly claimed that the proposed research reactor was purely for peaceful purposes, more specifically, for "aid in training, research and the manufacture of short-lived isotopes."<sup>215</sup> It should be noted that the US was greatly supportive of Taiwan's efforts in this regard (i.e., the construction of an isotopes laboratory), even offering to train qualified Taiwanese students at the prestigious Oak Ridge Institute for Nuclear Studies.<sup>216</sup>

The first nuclear reactor in Taiwan opened in 1956 at the National Tsing Hua University.<sup>217</sup> In the following year, and through the early 1960s, Taiwan went on a 'nuclear shopping spree', not unlike Israel's in the mid 1950s. It attempted to purchase more nuclear research reactors (including some from the US), establish an

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<sup>211</sup> See, for example, Memorandum of Conversation, "Cooperation on Atomic Energy", June 6, 1955. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400; Memorandum of Conversation, "Implementation of the Agreement for Cooperation with China", October 5, 1955. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400.

<sup>212</sup> See memorandum from the Chairman of the US Atomic Energy Commission to the Ambassador of ROC H. Tong, May 2, 1958. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400.

<sup>213</sup> In many cables and correspondences from the period, the US referred to Taiwan (ROC) as 'China'. PRC was referred to as 'Communist China'.

<sup>214</sup> The Agreement was initially signed in 1955. In 1958, there was an amendment to the Agreement, which allowed the US to export small quantities of nuclear material, U-235 (uranium), U-233 (uranium) and plutonium to Taiwan. See Memorandum to the President from the Chairman of the US Atomic Energy Commission, November 13, 1958. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400.

<sup>215</sup> Memorandum of Conversation, "Implementation of the Agreement for Cooperation with China", October 5, 1955. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400.

<sup>216</sup> Ibid.

<sup>217</sup> Mitchell, 2004: 296.

isotope lab, set up a fallout monitoring station, and send its students to train abroad (including at the US's Argonne National Laboratory).<sup>218</sup>

By the early 1960s, all three major components of the American leverage with Taiwan, security guarantees, arms' sales, and aid with the civilian nuclear program, were in place amounting to a *high* level of available leverage. The willingness to use that leverage, however, was at a *low* level, partially because the US was simply not associating Taiwan with nuclear weapons at this time. In the half dozen National Intelligence Estimates (NIEs) that the US issued starting in 1957 and continuing through the mid 1960s, Taiwan was not once mentioned as a potential nuclear proliferator (although the PRC figured prominently in these assessments starting in 1957).<sup>219</sup> The first NIE that discussed Taiwan's possible desire for nuclear weapons was not until 1966,<sup>220</sup> two years after a development that clearly influenced the course of Taiwan's nuclear program, the PRC's nuclear test of 1964.

Communist China's test of a nuclear device in October 1964 had a profound effect on Taiwan's mentality regarding its security. The subsequent American reaction to Taiwan's numerous concerns revealed the extent to which the American side was not (yet) willing to utilize its leverage with Taiwan in order to prevent it from developing nuclear weapons capability. Even before China's atomic test, Kennedy initiated a policy of gradually reducing Taiwan's dependence on American

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<sup>218</sup> See, for example, Memorandum of Conversation, "Development of Atomic Energy Program in China", February 27, 1957. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400; Memorandum of Conversation, "Chinese Atomic Energy Developments", April 18, 1957. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400; Memorandum from C. Sullivan to A. Wells of the Atomic Energy Commission, April 7, 1959. NARA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 400.

<sup>219</sup> See NSA@GW; National Intelligence Estimates, Document # 2.

<sup>220</sup> See NSA@GW; National Intelligence Estimates, Document # 12.

aid, a move that was supported by the US Congress. This policy toward Taiwan continued throughout President Johnson's years as well.<sup>221</sup> American aid reduction after the Chinese nuclear test left Taiwan feeling vulnerable. China's test marked the transition of Taiwan's nuclear program from a nascent to an intermediary phase.

Taiwan's reaction to PRC's 1964 test was strong and swift. Despite the US's oral assurances that Washington was willing and able to provide its nuclear deterrent to Taiwan against the PRC, there were strong voices of skepticism among the Taiwanese ruling elite who doubted the credibility and effectiveness of American promises. In particular, some Taiwanese officials were worried that a nuclear attack from the Mainland would effectively destroy the majority of Taiwan's infrastructure and kill its population and that any subsequent retaliation by the US would be pointless.<sup>222</sup> Furthermore, some in Taiwan harbored serious "...doubt regarding the US willingness and determination to expose themselves to the possibility of nuclear attack as a consequence of a US nuclear response to a Chicom [PRC] nuclear attack on Taiwan."<sup>223</sup> As a result, Taiwan urged the US to take preemptive action and to bomb the PRC nuclear installations.<sup>224</sup> President Johnson's Administration rejected this course of action. In particular, Taiwan pressed the US that an attack on the Mainland was "imperative before the Chicom [PRC] develop a

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<sup>221</sup> Tucker, 2001: 170.

<sup>222</sup> See Airgram from US Embassy Taipei to the Department of State, "Comments re Effectiveness and Credibility of US Nuclear Deterrent in Far East in Wake of Chinese Communist Nuclear Detonation", October 27, 1964. NARA; RG 59; Central Files, 1964-66, POL-DEF, Box 1617.

<sup>223</sup> Ibid.

<sup>224</sup> Mitchell (2004: 296); Albright & Gay (1998: 55)

complete weapons and delivery system.... This is not only necessary in the interest of Taiwan's security but also in the interest of the security of free Asia generally."<sup>225</sup>

The American refusal to take preemptive action against the PRC and its nuclear installations caused panic and disappointment in Taiwan. The US was not willing to take a firm stand against China by overtly supporting Taiwan. In addition, the US was increasingly bogged down in the Vietnam conflict, which was draining it economically, militarily, and politically. Washington was concerned about a possible Chinese involvement in Vietnam,<sup>226</sup> and did not wish to provoke this outcome by engaging with China militarily. The US should have viewed this juncture as critical for Taiwan's thinking about its own nuclear weapons capability, particularly in the face of the mounting threat from Communist China. In fact, scholars point to the 1964 test as a catalyst for Taiwan's decision to establish an indigenous nuclear weapons program.<sup>227</sup> However, there was little that the US was doing at the time to dissuade Taiwan from going nuclear, including using the various sources of American leverage available. This inaction suggests that the willingness to use leverage remained *low* at this stage of Taiwan's program. In fact, it took the American intelligence community almost two years after the PRC's nuclear test to even raise the possibility that Taiwan might be studying the prospect of acquiring nuclear weapons. Such a course was considered quite unlikely by the CIA, which argued that "...although there are a number of US-educated National Chinese

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<sup>225</sup> Airgram from US Embassy Taipei to the Department of State, "Comments re Effectiveness and Credibility of US Nuclear Deterrent in Far East in Wake of Chinese Communist Nuclear Detonation", October 27, 1964. NARA; RG 59; Central Files, 1964-66, POL-DEF, Box 1617.

<sup>226</sup> Tucker, 2001: 201-208.

<sup>227</sup> Hersman and Peters (2006: 542), Mitchell (2004: 296), Albright & Gay (1998: 55).

scientists with a high degree of competence in the nuclear field, the Chinese Nationalists do not have the capability to produce such weapons domestically. They would have to import unsafeguarded uranium, a suitable reactor, and almost all other necessary equipment.”<sup>228</sup> The 1964 PRC test, however, led directly to Taiwan’s decision to establish a nuclear weapons program – a move that marked the transition from the nascent to the intermediary stage of Taiwan’s nuclear military enterprise.

## **Conclusion**

As we have seen in the preceding pages, a nascent stage of nuclear weapons programs can be a time of great uncertainty, both for the proliferator and for those who follow them from afar. The programs oftentimes lack direction, resources, materials and necessary expertise. They also suffer from an absence of a clear directive from the political leadership of a country regarding their future, utility, and feasibility. The various components of a program might be dispersed among various civilian agencies and institutes, and usually lack an overarching organizational and directional logic.

Historically, the US had poor intelligence about nascent programs abroad or simply failed to correctly interpret the data available. Incomplete information hindered the US from gaining any meaningful momentum aimed at targeting a budding nuclear program abroad. In addition, the challenge posed by the early proliferators was that their nascent programs came at a time when the US was only

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<sup>228</sup> NIE number 4-66, “The Likelihood of Further Nuclear Proliferation”, January 20, 1966. NSA@GW, National Intelligence Estimates, Document # 12.

starting to formulate its own non-proliferation policy. The first intelligence estimate addressing the problem of nuclear proliferation was not written until 1957, several years into the nascent programs of France, Israel, and Taiwan. Finally, the US tended to focus on issues such as the global search for suitable raw materials and the promotion of peaceful applications of nuclear energy.

The first venture was clearly evident in the cases of France and Israel where the US probed its allies for possibilities of jointly exploring raw materials reserves wherever possible. The US hoped that its second endeavor, the promotion of the Atoms for Peace agenda announced under President Eisenhower in 1953, would prevent anyone from wanting to develop nuclear weapons. The foregoing discussion of the early proliferators (as well as recent academic research on the subject)<sup>229</sup> demonstrated that the civilian nuclear infrastructure put in place during the nascent stage of a program served as a necessary foundation for a military nuclear undertaking. Taiwan's program, for example, seemed to have been exclusively devoted to the civilian nuclear enterprise until an external security shock, Communist China's nuclear test of 1964 and an American refusal to take strong punitive action, redirected the Taiwanese program on the military track.

It could possibly be argued that during the early decades of the atomic age (1950s and early 1960s) the US still did not realize how easily atoms for peace could be turned into atoms for war.<sup>230</sup> As a result, the promotion of peaceful nuclear

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<sup>229</sup> E.g., Furhmann, 2009

<sup>230</sup> An argument that Fuhrmann (2009) expounded on several decades later. Nonetheless, even the very first NIE from 1957 acknowledged that once an extensive civilian program was in place, it required "relatively little investment" to turn into a weapons program.

cooperation between the US and its allies was seen as greatly beneficial to American security and non-proliferation in general. It is interesting to note that the US *still* continues to follow the policy of promoting peaceful nuclear energy cooperation, even with the hindsight of past proliferation that arguably sprang from such cooperation. Washington's recent enthusiasm with regard to nuclear energy promotion in the Middle East<sup>231</sup> is the latest example of this approach. In all three cases examined above, the US viewed civilian nuclear cooperation as one of the main pillars of bilateral interaction with its allies. However, the US was not yet seriously thinking of this interaction as a way of inducing an ally to abstain from developing nuclear weapons. This link became much more prominent in the intermediary stage of the programs' development, especially as illustrated by the case of Taiwan.

In fact, the US was not yet seriously linking any types of security leverage to the nuclear issue with her allies during the nascent stage of the programs' development. While the amount of leverage available varied from case to case, the American willingness to use it was consistently at either a low level or, as was the case with France and Israel, reached a medium level by the time the programs entered an intermediary stage. While the US presidents (starting with Eisenhower) worried about the spread of nuclear weapons beyond the three nuclear states, the

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<sup>231</sup> Several Arab nations have recently expressed a desire to commence domestic nuclear energy programs, including Saudi Arabia, Egypt, Morocco, Yemen, Algeria, Jordan, Tunisia, and the United Arab Emirates. To that end, the US signed a Memorandum of Understanding on Nuclear Energy Cooperation with Saudi Arabia in May 2008 and an Agreement for Peaceful Nuclear Energy Cooperation with the United Arab Emirates in January 2009. These actions preceded the current political unrest and anti-government demonstrations in much of the Middle East that started in January 2011. The future of American civilian nuclear cooperation in the region might hinge on the outcome of these protests.

US adopted a policy of passive opposition to these programs. Presidential preferences on proliferation were to preserve the American monopoly over nuclear technology and know-how, although the early 1950s it had already spread to the Soviet Union and Britain. At the same time, no American president exhibited strong determination to confront the nuclear issue in bilateral relations with allies. In theory, the US did not wish to see other states enter the nuclear club. In practice, the US was not exercising leverage application over its allies to reach that goal. Concerns about perceived national interests such as the spread of Soviet influence and a focus on building multilateral institutions such as IAEA and EURATOM took precedence over the non-proliferation agenda. As regional Cold War conflicts, such as Vietnam, were gaining momentum and demanded increased American attention, the US did not see it prudent to incite additional ones (as would have been the case had the US attacked Chinese nuclear installations in 1964). France was an exception as the US tried to tie some inducements to its non-proliferation effort. However, the willingness to apply overt pressure on France was missing.

Cohen (1998b) argued that, at least in the case of Israel, the nascent stage was the only time when the US could have reversed Israel's nuclear program. This assertion is not necessarily accurate, as I will illustrate in the following chapters. The US was not willing to exercise security leverage with early proliferators even though the nascent stage was undoubtedly a time of opportunities for the US. It was a time to offer incentives to its allies to forego nuclear weapons. It was also a chance to demonstrate the downsides of undertaking a domestic nuclear effort and the negative consequences of going nuclear. Furthermore, it was a period in which to

send clear messages to allies about what the US was prepared to do in case the program became militaristic. Such warnings were not sent in any of the cases that I examined. Even in later stages, the American messages often lacked credibility and were usually not followed by concrete actions. Finally, what the US had to be cognizant of during the nascent stage were the triggers that could force the program to cross the line between nascent and intermediary stages. In the case of Taiwan, the US clearly missed the signals. The Communist China's 1964 nuclear test and Taiwan's subsequent panic did not seriously register with the US for at least two years. In the case of Israel, the US was fooled by an ally's repeated assurances that proved to be false. Finally, in the case of France, the US was more focused on the promotion of unity within the Western alliance than on the task of European non-proliferation.

All in all, the nascent stage could have been critical in the reversal of several nuclear programs. However, it was not the only time when the US could have successfully applied security leverage in order to induce an ally to change his or her nuclear course. As the following chapters will demonstrate, the confluence of a high amount of security leverage and a high level of willingness to use that leverage was responsible for producing positive results in terms of American nuclear non-proliferation efforts. This does not mean that nuclear programs fold up or reverse *only* because of American pressure, whether in the form of inducements or punishments.<sup>232</sup> Nonetheless, in the three cases of early proliferators under

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<sup>232</sup> States can decide to roll back their nuclear programs for a host of reasons that may have little, if anything, to do with the US. To name a few, these could include high financial costs (e.g., Switzerland);

examination, the US *tried* to play a pivotal role in the nuclear developments. However, in the early stage, the US lacked the willingness to confront any possible nuclear military activity abroad. American presidents preferred to follow the course of passive opposition, which did not necessitate any confrontation in the bilateral relations with allies on the nuclear question. The US was also more focused on its national interests such as containment of Soviet influence and institution building, including within the Western alliance, than non-proliferation. As a result, some nuclear programs flourished, as we shall see in the following chapter.

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domestic politics (e.g., Sweden, South Africa); international pressure or coercion from a superpower other than the US (e.g., Ukraine, Belarus and Kazakhstan). On South African reversal see, for example, Liberman, 2001; Mitchell 1995a and 1995b; Stumpf, 1995/96. Solingen (2007) recently argued that Taiwan's nuclear reversal could also be attributed to domestic politics, specifically the interests of domestic elites. I will question Solingen's interpretation in the next chapter and illustrate that her arguments do not account for the timing of Taiwan's two rounds of nuclearization. Furthermore, I will refute her assertion that Taiwan yielded easily to American pressure. On the nuclear reversals in the former Soviet states see Zaitseva, 2004. The three former Soviet cases are unique because they all inherited the nuclear stockpiles of the former Soviet Union. The decisions to give up the weapons, however, were taken after the countries gained independence in the early 1990s.

### Chapter 3 – Intermediary stage

The transition from a phase of exploration to the active military application of nuclear energy is marked by an official state decision to pursue a nuclear program. Sometimes these decisions are made in secret by a handful of elites, or even unilaterally by a state's leader. Other times, they are reached in a more democratic manner and are preceded by a public discussion of the merits of acquiring nuclear weapons. Regardless of how this decision is made, the program enters an intermediary stage, and a state enters a race to construct and test a nuclear device. In addition, an increasing amount of a country's resources must be dedicated to the nuclear enterprise.

Some states, including Algeria, Argentina and Brazil, have entered this phase but never reached the point of developing an actual nuclear device and decided to abort their programs before they reached a point of maturity.<sup>233</sup> Other states, such as India, Pakistan and North Korea, maintained a steady pace of nuclear development until they exploded their first nuclear devices<sup>234</sup> and became *de facto* nuclear powers.

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<sup>233</sup> Algeria explored the nuclear option in the 1980s when it built two nuclear reactors and devoted a great deal of effort to uranium exploration. These efforts were abandoned in the early 1990s, apparently partially due to US pressure. Both Argentina and Brazil abandoned their nuclear weapons ambitions in the early 1990s as well, especially after the two sides established a bilateral inspections agency to verify that nuclear energy in both countries would be used only for peaceful purposes. See NTI country profiles for the above three states on <http://www.nti.org/index.php>.

<sup>234</sup> Both India and Pakistan conducted their nuclear tests in May 1998 (although India also conducted what it called a 'peaceful nuclear explosion' in May 1974); North Korea conducted its first nuclear test in 2006. See NTI country profiles on <http://www.nti.org/index.php>.

Historically, an intermediary stage of a program's development has been a time of rapid activity. After a critical decision on the nuclear question was made, states have accelerated their development and production efforts. Some countries, such as France, made little effort to hide either their ambitions or the progress of the program. In fact, the first French nuclear test was so widely anticipated that some states introduced a resolution at the United Nations General Assembly regarding the fallout from the test well before the explosion actually took place. Other states, such as Israel, staunchly guarded the secrets of their nuclear development. Specifically, Israel resorted to repeatedly lying about its nuclear program, even to its close allies and supporters, including the United States. Historically, many states carried out an intermediary program before they joined international regimes such as the NPT, and some abandoned the programs just before the signing of international agreements governing nuclear non-proliferation.<sup>235</sup> Taiwan was one of several exceptions to this trend. Its two rounds of intermediary programs occurred after it joined the NPT.<sup>236</sup>

Since an intermediary stage of a nuclear program is a time of accelerated activity aimed at constructing a finished nuclear product as quickly as possible, those wishing to influence the program have a relatively brief window of opportunity in which to act. The levels of ability and willingness to influence an ally had changed as compared to a previous stage. Yet only in cases where the US was robust on both of these variables did it have any hope of reversing a friendly

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<sup>235</sup> For example, Argentina acceded to the NPT in 1995, followed by Brazil in 1998. Both states abandoned their nuclear programs in the early 1990s.

<sup>236</sup> Taiwan, or the Republic of China (ROC), signed the NPT in 1968. Its first round of intermediary program stretched from 1967 to 1978 and its second round was in 1987-88.

program. In addition, one of the challenges that faced the United States in this efforts was the proper determination of the timing and the reasons that a program was shifting gears and entering an intermediary stage. The US was not always good at this task. In the case of Taiwan, for example, Washington did not correctly interpret the consequences of Communist China's 1964 nuclear test on Taiwan's nuclear program. It wasted almost two years before it started to seriously consider the possibility of Taiwan's acquiring nuclear weapons.

Another challenge for the US was the problem of intelligence gathering. In some instances evidence collection through on-site inspections, satellite imaging, embassy reporting, defector information, and other activities, was straightforward, albeit laborious. However, the US had a very hard time proving the existence of a military program when the state in question deliberately led the US astray. Given the incomplete or even conflicting reports about a program, the US had to decide what actions, if any, it was ready to take against an ally in order to influence its nuclear development. Imperfect information hindered the ability of the US to influence nuclear programs. As an intermediary stage progressed, Washington had to figure out whether it was willing to make the nuclear issue the main issue in a bilateral relationship. More often than not, the US balked when push came to shove, unable to garner the political willingness needed to confront the problem.

Finally, it was the intermediary stage of friendly nuclear programs that gave rise to a precedent of 'exceptionalism' in American non-proliferation policy. Whether the US chose to look the other way, or to even cooperate with a nuclear

program that it previously deemed damaging to US national security, the US established a pattern of accepting friendly nuclear programs that it either could not or was not willing to influence with its various security levers. France and Israel were both stark examples of this approach. Taiwan served as an important contrast during this crucial stage of weapons development. The following chapter will explore why and how the US was successful in persuading Taiwan to abandon its nuclear ambitions even though the task proved difficult and long. I will begin with a close examination of the two failed American attempts at reversing a friendly program, France and Israel. In the end, it was apparent that, especially in the case of France, the intent of the US was to minimize the damage from the program when it became obvious that a complete reversal would not be possible. Below is the summary of the key variables during an intermediary stage and a column illustrating the corresponding American approach.

**Table 3 – Intermediary Stage**

	<b>Amount of Leverage (Ability)</b>	<b>Willingness to Use Leverage</b>	<b>American policy</b>
<b>France</b>	High→Med	Med	Strong opposition→non confrontation
<b>Israel</b>	Med→High	Med	Strong opposition→non confrontation
<b>Taiwan # 1</b>	High	Low→Med→High	Strong opposition
<b>Taiwan # 2</b>	High	High	Strong opposition

**France (1956-1960)**

A significant turning point in the course of the French nuclear program (and a suitable marker for separating the nascent and intermediary phases) was the Suez crisis in the fall of 1956. Following President Nasser’s nationalization of the Suez Canal, France, the United Kingdom, and Israel launched a military operation against Egypt. The cease-fire that followed was largely imposed by the US on its allies. The American actions left France bitter and frustrated. France would go on to argue that the United States could never be completely relied on in case of an emergency. As a result, France felt more than justified in pursuing an independent nuclear deterrent. A series of decisions made by the French government during 1957 clearly set France on a nuclear weapons course, and the process was only accelerated once General de

Gaulle returned to power in 1958. The first French atomic test took place less than five years after France publicly acknowledged that it was pursuing nuclear weapons capability (in February 1960).<sup>237</sup>

As the French program entered an intermediary stage by late 1956, there were an increasing number of reports (both from within the American intelligence community and from France herself) confirming that the program was headed in the military direction. In the summer and fall of 1957 the CIA reported that there was growing political support within France for an independent nuclear deterrent.<sup>238</sup> Discussions of an impending nuclear weapons production program were found even in the French press,<sup>239</sup> which commented not only on the target dates for first weapons production, but also on the first atomic explosion. This was in sharp contrast to the case of Israel, where both the government and the press strictly denied any military nuclear activity in line with Israel's official policy of 'nuclear opacity'. Although the estimated timing of the first French test varied in intelligence reports, it was generally believed that the test could take place sometime in the late 1950s. The actual test occurred in February of 1960.<sup>240</sup>

US officials were very concerned about France's program, especially as it related to US national interests at the time. Specifically, the US worried about the

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<sup>237</sup> Mendl, 1965: 26. Mendl wrote that the first official admission of a military program came in 1957.

<sup>238</sup> CIA Bulletin, October 9, 1957. USNA, CREST database, accessed 4/18/07.

<sup>239</sup> See, for example, reports about a L'Aurore article in February 1957 in a memorandum from Deane Hinton (DRW/WER) to Robert Schaezel (State/AE), "French Nuclear Weapons Program", February 14, 1957. USNA, RG 59, Records of the Office of West European Affairs, 1957-58, Box 1. See also a Memorandum for Gerard Smith from American Embassy in Paris, "Translations of newspaper articles on atomic energy", February 15, 1957. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>240</sup> Shortly after de Gaulle came back to power, he signed a resolution setting the date for the first test (Kohl, 1971: 83).

effects of the French program on the “4<sup>th</sup> country problem” (i.e., the expansion of the nuclear club beyond the three nuclear powers); the consequences for EURATOM<sup>241</sup> and West German policy; and the prospects for a disarmament agreement.<sup>242</sup> A top-secret State Department memorandum from late 1956 that recapped an inter-agency conversation about the status of the French program reported that “there was a discussion of the imminence of the French obtaining a native nuclear weapons capability, and it was agreed that the United States should consider steps which might be taken to avoid this.”<sup>243</sup> The memo did not specify which steps.

The security levers available to the US vis-à-vis France at this time were similar to those that the US had at its disposal during the nascent stage. The US continued to be a major supplier of conventional arms to France during the 1956-60 period.<sup>244</sup> The US also possessed the know-how, raw materials, and equipment that could be used in the French program. In addition, the French were increasingly interested in getting American (as well as British) aid with preparations for their

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<sup>241</sup> The European Atomic Energy Community. The agency was established in order to coordinate the members’ research programs for the peaceful uses of atomic energy. EURATOM was established in March of 1957.

<sup>242</sup> See, for example, memorandum for the Secretary (Not Sent) from Gerard Smith (State/AE), “US Action to Discourage Accelerated French Nuclear Weapons Program”, December 19, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 407. See also Memorandum (Not Sent), “What US Action Should and Can Be Taken to Discourage Proposed French Nuclear Weapons Program?”, December 19, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 407. These worries were also echoed in the first National Intelligence Estimate (NIE) produced by CIA in 1957. See NIE number 100-6-57, “Nuclear Weapons Production in Fourth Countries: Likelihood and Consequences”, June 18, 1957. NSA@GW, Document # 2, National Intelligence Estimates, accessed 1/24/07. Although the NIE predicted that France could produce its first nuclear weapon in 1958, it mistakenly argued that “the French would probably undertake to produce a few nominal weapons which would satisfy their desire to demonstrate their capability.” In reality, the French program became much larger than the first NIE could have envisioned.

<sup>243</sup> Memorandum for the file, “Meeting with General Loper, Ambassador Dillon, Mr. Unger, Mr. Farley, Mr. Smith – Discussion re Nuclear Weapons”, December 7, 1956. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>244</sup> [http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php), accessed 10/15/07.

first atomic test. Requests for such help became increasingly frequent by the end of 1957.<sup>245</sup> France also continued to lobby the US for a classified US-French bilateral agreement that would permit exchanges of secret nuclear information. American officials continued to deny these requests.<sup>246</sup> Despite these rejections, the US believed that refusing *all* cooperation with the French would be detrimental to American interests and would only serve to accelerate the pace of the French program. This was in line with President Eisenhower's non-proliferation agenda, which sought to limit proliferation through an Atoms for Peace initiative and a test ban agreement which, at the same time, encouraging nuclear sharing within NATO.<sup>247</sup> Consequently, the US purposefully avoided inclusion of the provision of unclassified help under the terms of the unclassified bilateral agreement to France's military atomic program.<sup>248</sup> The US was in principle was in favor of limited cooperation with France, such as the sale of enriched uranium for the French nuclear submarines, and heavy water for the French submarine reactor.<sup>249</sup> Final

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<sup>245</sup> See, for example, Memorandum for the Secretary of State, December 17, 1957. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408; Memorandum of Conversation, "French Inquiry Regarding Visit of French Experts to Nevada Testing Site", December 27, 1957. USNA, RG 59, Records of the Office of West European Affairs, 1957-58, Box 1. The proposed Nevada site visit (scheduled for early 1958) was meant as a good-will gesture to the French; no classified information was released as part of the visit.

<sup>246</sup> The unclassified bilateral agreement on cooperation in the peaceful applications of atomic energy was signed in 1959, and amended several times in the following years. A classified agreement between the US and France on military atomic energy cooperation was finally signed in 1985.

<sup>247</sup> See Maddock, 2011: chapters 4 and 5.

<sup>248</sup> See, for example, Memorandum for the Secretary from Gerard Smith (State/AE), "Bilateral Power Agreement with France", May 28, 1957. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404. In part, the memo argued that "...any effort to employ the bargaining forces of peaceful uses assistance under the bilateral as a means of discouraging the French weapons production ambitions would merely accelerate the French program, rather than discourage or defer it."

<sup>249</sup> See, for example, a memorandum of conversation, "French Request for Enriched Uranium for Nuclear Powered Submarine", November 13, 1957. USNA, RG 59, Records of the Office of West European Affairs, 1957-58, Box 1.

approval of these transactions, however, necessitated an amendment to the US Atomic Energy Act.

It is important to note that American reasoning on the question of nuclear cooperation with France started to shift at this stage. The US no longer denied France's right to have a weapons program, but was now determined not to aid that effort. In a memo to the Secretary of State in May 1957 a State Department official stipulated that "our [US] policy is **not** to refuse atomic energy assistance to countries interested in or engaged in weapons production (i.e., U.K.), but merely to receive guarantees that any assistance we provide shall not be used for such purposes."<sup>250</sup> Furthermore, a February 1957 memo for the Secretary of State maintained that "the US approach to the French on this problem [their weapons program] has not been to dissuade them from building weapons since it is believed that such a course of action might well be counter-productive."<sup>251</sup> This represented a significant shift from the previous formulations of American policy in the early 1950s when the US hoped that the French program could be rolled back and even reversed. What the new approach suggested was that, as long as the US could not be implicated in explicitly aiding a nuclear weapons production effort, it was willing to look the other way and not to insist that a close ally's program should be reversed. The shift also signified a decrease in the US's willingness to apply security leverage on France in order to retard their nuclear weapons effort.

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<sup>250</sup> Ibid. Emphasis in the original.

<sup>251</sup> Memorandum for the Secretary from Mr. Elbrick (EUR) and Mr. Smith (State/AE), "French Nuclear Weapons Program", February 26, 1957. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

The US continued to argue that a full-blown weapons production program would strain France economically, diminish its commitments under the EURATOM treaty, and have a negative effect on any future disarmament negotiations.<sup>252</sup> France, however, was not impressed by these arguments. In fact, its position was gradually hardening, as evidenced by Paris' steady refusal to grant storage rights for American nuclear warheads on French territory.<sup>253</sup> The American position was solidifying in return. Internal government documents from late 1957 revealed that the US had no intention of seriously considering a classified bilateral agreement with France, even if the Atomic Energy Act were amended.<sup>254</sup>

The Act was indeed amended in 1958. This was the second revision under President Eisenhower, and it was meant to accommodate the growing US deployment of nuclear weapons in Europe.<sup>255</sup> As a result of the 1958 amendment, the French expected that the American position on US-French nuclear cooperation would change and that the US would be more open to exchanges of classified information and equipment with France. In fact, the American position changed little, if at all, from the previous years. President Eisenhower and his successors had to perform a balancing act between satisfying the needs of the NATO alliance and

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<sup>252</sup> See, for example, Background notes for the talks with the French PM Mollet, February 20, 1957. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>253</sup> Memorandum, "Atomic Energy Relations with France", December 5, 1957. USNA, RG 59, Records of the Office of West European Affairs, 1957-58, Box. 1

<sup>254</sup> See Memorandum of Conversation, "French Interest in Nuclear Weapons Production", November 29, 1957. USNA, RG 59, Records of the Office of West European Affairs, 1957-58, Box 1; see also NATO Heads of Government Meeting Background Paper, "US (and UK) Cooperation with France in Nuclear Weapons Research and Production", December 3, 1957. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408. The former document in particular revealed that by late 1957 the US "did not expect that the French could be dissuaded from continuing limited nuclear weapons research and from testing a simple nuclear weapon in the near future."

<sup>255</sup> This refers to the nuclear sharing arrangement among NATO members, which started in the mid 1950s and became an increasingly prominent feature of NATO war planning.

reaching an understanding with France on the nuclear question. A State Department position paper from early 1958 argued that, while the US was not denying France's right to have nuclear weapons, it simply could not enter into closer cooperative arrangements with the French.<sup>256</sup> Why was there such a strong reluctance on the part of the US to cooperate with France, especially since a model for a classified cooperation existed in the case of the US-British nuclear relationship?<sup>257</sup>

The US presented France with a number of reasons for repeatedly declining classified cooperation. The US pointed to the 4<sup>th</sup> country problem, or the fear of spreading nuclear weapons to states beyond the US, the USSR, and UK. It argued that the US Congress would not approve such cooperation. Finally, it called attention to the fact that security safeguards in the French atomic industry were rather lax, raising concerns about possible leaks of information and equipment to unauthorized parties.<sup>258</sup> However, internal government discussions from the period revealed that the primary reasons for the US's hesitation to cooperate with France were quite different. Two of the most significant were the importance that the US attached to the EURATOM project, and the American desire for the cohesion and

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<sup>256</sup> Memorandum, including a draft position paper, "US Response to French Inquiries on Nuclear Weapons Cooperation", February 14, 1958. USNA, RG 59, Special Assistant to the secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>257</sup> The US, in fact, claimed (largely in its talks with the French) that a close US-UK cooperation in the nuclear field was possible because following WWII the British developed their nuclear industry independently, without US help (at least until 1957). The validity of these claims can be seriously questioned; nonetheless, the US clearly differentiated its approach to the UK from its approach to France. See, for example, Talking points, "French Nuclear Weapons Program", July 1, 1958. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>258</sup> In fact, in late 1958 the US sent a team of American inspectors to France in order to determine the level of security at the French Atomic Energy Commission. The results of the investigation were negative (the security standards were deemed to be sub par). The US based its explanation for putting on hold further cooperation with France on nuclear-power submarines based on this finding. See, for example, Memorandum dated December 5, 1958, "French Nuclear-Powered Submarine". USNA, RG 59, Politico-Military Numeric Files, 1953-66, Box 7.

strength of the NATO alliance, both of which would have been undermined by an independent French nuclear program. As a result, the US's thinking about the French program (and the appropriate American response to it) was henceforth framed in terms of enhancing NATO and EURATOM interests. Any consideration of possible cooperation with the French (for example, in the area of nuclear submarines) was now couched in terms of strengthening those two organizations.<sup>259</sup>

Attempts to persuade the French to limit their rapidly growing military program were increasingly tied to the promotion of NATO interests, which were seen as inextricable from the American interests in general. In a State Department memo to the Atomic Energy Commission dated March 1958, the Secretary's Assistant argued that

[the US's] object should be to convince them [the French] that their nuclear weapons requirements are fully met from the NATO stockpile and that the US is prepared to cooperate wholeheartedly with the French to promote the civil and military uses of nuclear energy, except the production of nuclear weapons, which would be highly wasteful of limited NATO resources and dangerous to French and NATO security interests.<sup>260</sup>

The US considered several proposals in 1958 regarding how best to convince the French of the utility of relying on NATO rather than a national program for defense. One was particularly interesting. Recognizing that General de Gaulle was determined to pursue a national French program at any cost, an internal State

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<sup>259</sup> "Any cooperation with the French in the nuclear submarine field should be carried out in a manner calculated best to further the general authority and responsibility of EURATOM and of NATO", read a January 1958 memorandum "Cooperation with the French with Respect to Nuclear-Propelled Submarine", January 29, 1958. USNA, RG 59, Records Re: Atomic Energy Matters, 1956-63, Box 2.

<sup>260</sup> Memorandum for Admiral Paul Foster (AEC) from Philip Farley (State), March 18, 1958. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

Department memo raised the possibility of a NATO nuclear weapons authority<sup>261</sup> (a form of joint custody). This was something that de Gaulle himself would seek from the US later that year (and for several years to come), and which the US would ultimately reject as unfeasible. At the time, however, the State Department believed that “France would not pursue an independent weapons program so long as its requirements were met by the Authority, to which the US would grant or irrevocably lease weapons, as needed.”<sup>262</sup> The US never followed through with the proposal, as evidenced by what became a critical correspondence between General de Gaulle and President Eisenhower (later Kennedy) on the question of NATO reorganization and nuclear weapons control.

Less than six months after coming to office, General de Gaulle sent a personal letter to President Eisenhower, the main purpose of which was to express the French leader’s misgivings about the organization of the Western alliance, and to propose a tripartite custody arrangement of nuclear weapons. This was meant to break up the American monopoly over weapons control in the context of NATO.<sup>263</sup> In particular, the letter argued that “it appears necessary to it (France) that on the level of world policy and strategy there be set up an organization composed of: the United States, Great Britain and France.”<sup>264</sup>

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<sup>261</sup> Memorandum from Gerard Smith to the Secretary, “French Nuclear Weapons Program”, June 26, 1958. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>262</sup> Ibid.

<sup>263</sup> Letter from General de Gaulle to President D. Eisenhower, September 17, 1958. JFKL, Papers of President Kennedy, National Security Files, Box 73.

<sup>264</sup> Ibid.

The frustration over not being accorded treatment similar to the British was not new for France. However, this irritation continued to grow as the French nuclear program accelerated, and, eventually, it resulted in de Gaulle's decision to partially break away from the NATO alliance in the mid 1960s. In effect, an accordance of preferential treatment to France (on par with the UK) became another potential security lever at the US's disposal. The US did not seriously think about this lever until almost two decades later when President Nixon considered, for the first time, clandestine cooperation with the French. President Eisenhower's reply to de Gaulle took more than a month; the American President rejected de Gaulle's proposal for NATO re-organization, arguing that "we cannot afford to adopt any system which would give to our other allies, or other free world countries, the impression that basic decisions affecting their own vital interests are being made without their participation."<sup>265</sup> Eisenhower chose not even to address de Gaulle's proposal for a tripartite custody arrangement over nuclear weapons. Eisenhower continued to walk a fine line between resisting France's attempts to secure preferential treatment from the US and preserving the cohesion of the Western alliance. De Gaulle's second attempt at forcing the issue of alliance re-organization in the summer of 1960 no longer explicitly mentioned joint control over nuclear weapons, although the French leader continued to stress the shortcomings of the Western alliance and pressed for some form of 'tripartite cooperation' between the US, UK,

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<sup>265</sup> Letter from President D. Eisenhower to General de Gaulle, October 20, 1958. JFKL, Papers of President Kennedy, National Security Files, Box 73.

and France.<sup>266</sup> For the next several years, de Gaulle persisted in raising this point over and over again without any success.<sup>267</sup> The US was simply not interested in sharing control over its nuclear warheads.

While tensions at the highest levels of government were increasing between the US and France during Eisenhower's last two years in office (1958-1960), considerations of at least minimal cooperation with France in the atomic energy field continued. A comprehensive statement on US policy toward France from early 1959 conceded that it was "...unrealistic to expect either that US reservations or that French internal financial considerations might be able to dissuade de Gaulle from this [nuclear weapons production] course."<sup>268</sup> Nonetheless, it was recognized that France was an important, if not vital, component of the Western military alliance, and preserving the cohesion of the alliance was paramount. As a result, one of the policy guidelines was to "explore feasibility of developing nuclear cooperation with France..."<sup>269</sup> The US continued to negotiate the terms of the sale of enriched uranium for the French submarine propulsion reactor<sup>270</sup> (the draft unclassified agreement on the sale was ready in early 1959) with the French.<sup>271</sup> In addition, the

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<sup>266</sup> See letter from General de Gaulle to President Eisenhower, August 9, 1960. JFKL, Papers of President Kennedy, President's Office Files, Box 116a.

<sup>267</sup> While this thesis does not deal directly with nuclear decision-making by friendly proliferators, it is fairly clear that presidential preferences mattered not only on the American side, but also on the side of the proliferators. De Gaulle's role in the course of the French nuclear program can not be underestimated.

<sup>268</sup> "Statement of US Policy on France", 1959 [exact date unclear]. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>269</sup> Ibid.

<sup>270</sup> Minutes of a Meeting, Department of State, "US-French Discussion of Cooperation on Atomic Energy for Mutual Defense Purposes", January 27, 1959. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>271</sup> Memorandum for the Secretary from Philip Farley (State/AE), "Military Atomic Energy Cooperation with France", February 3, 1959. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

US was contemplating the sale of a propulsion reactor (for installation in a French nuclear sub) and the training of French personnel in the installation and operation of such a reactor.

In several Congressional testimonies from the late 1950s, the State Department argued that such forms of cooperation with France served an important purpose. For example, one such statement claimed that “...it is in our interest that there be a close cooperation with France which can serve to align the French Government more closely with ourselves. We have no illusions that General de Gaulle will be a partner easy to get along with. A difficult but strong and reliable ally may, however, prove the better one in the end.”<sup>272</sup> In additional testimony (arguing for the Congressional approval of the unclassified US-French atomic energy cooperation agreement), the Secretary of State urged that “...in the interest of the security of the United States, we believe that we should continue to assist France to strengthen itself and to maintain its place as an important contributing member of the alliance. We believe that the supply of fuel as contemplated by this proposed agreement would be a permissible and helpful measure to this end.”<sup>273</sup> Emphasis on alliance strength (and the strength of its individual members) had gradually taken precedence over the considerations of non-proliferation and opposition to the military applications of atomic energy by the late 1950s. That is not to say that Eisenhower abandoned his agenda of opposing atoms-for-war. However, it was becoming clear that the US was willing to make certain accommodations for some of

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<sup>272</sup> Congressional Testimony, Draft, March 4, 1959. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>273</sup> Congressional Testimony, June 12, 1959. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

its friends in the name of alliance strength and cohesion, short of providing explicit assistance in the manufacture of nuclear weapons.

The spirit of cooperation, however limited, was partially disrupted in the spring of 1959, when de Gaulle announced his decision to withdraw France's Mediterranean Fleet from wartime assignment to NATO. This signaled the beginning of a long process of France's gradual distancing from NATO's military command. In response to De Gaulle's warnings, the US finally drew an explicit linkage between the provision of American assistance to the French program and the French posture with respect to NATO. The issue linkage was not public (i.e., the US did not present it as such to the French), but certain US agencies involved in the cooperation effort started "deliberate slowdowns" as a result of de Gaulle's announcement.<sup>274</sup> In particular, a decision on the sale of a submarine reactor was put on hold, while the sale of enriched uranium proceeded.

In addition to France's attitude toward NATO, the US was increasingly worried about the rumors of a possible collaboration between France, West Germany, and Italy in the research and manufacture of nuclear weapons.<sup>275</sup> Such stories first appeared in late 1957<sup>276</sup> and continued for years to come.<sup>277</sup> West

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<sup>274</sup> Memorandum to the Secretary from Livingston Merchant (EUR), "Nuclear Cooperation with France", April 23, 1959. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>275</sup> Kohl (1971) described this as "nuclear flirtation" in 1957-58 (pp. 54-61). According to the US documents, this flirtation continued beyond 1958. M. Evangelista also provides an historical account of a series of conversations between high-ranking officials from these three states on the possibility of collaborating on 'modern military technology'. (Evangelista, forthcoming in 2012). This attempt at tripartite cooperation was abandoned after France decided to develop its own nuclear arsenal in 1958. (ibid.)

<sup>276</sup> See Office Memorandum from Robert Schaetzel (State/AE) to Philip Farley (State/AE), "Nuclear Weapons Development in Europe", November 12, 1957. USNA, RG 59, Special Assistant to the Secretary

German officials, as well as top French diplomats, have always denied these allegations.<sup>278</sup> Regardless of the official denials, the US was, quite understandably, very worried about the possibility of such collaboration,<sup>279</sup> although US intelligence never came up with concrete evidence to support these suspicions.

Meanwhile, the French program was progressing rapidly. It reached a critical point in February 1960 when France tested its first atomic weapon. Despite the test, the US waited three years to acknowledge that France was now a nuclear power. The French atomic test did not come as a surprise to American policymakers. In fact, the US knew about the upcoming test for at least two years. The French were quite open in their dealings with the US and the UK about their test preparations,<sup>280</sup> especially as part of a strategy to seek assistance with the test itself. An NIE prepared by the CIA in 1958 placed the timing of the first test sometime in late 1958

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for Energy and Outer Space, 1944-63, Box 408. In particular, the memo stated that “there is... a general agreement that the Germans are collaborating with the French in this [weapons research and development] program”.

<sup>277</sup> These rumors kept popping up in the US official documents up until at least 1970. See, for example, Memorandum for Mr. Kissinger from Helmut Sonnenfeldt, “French Initiative for French-German Military Cooperation, including on Tactical Nuclear Weapons”, November 3, 1970. USNA, Nixon Paper, NSC, Box 677. See also letter to Philip Farley (State/AE) from Max Isenbergh (Special Assistant for Atomic Energy, US Embassy in Paris), February 3, 1958. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>278</sup> See Memorandum to the Secretary from Thomas Hughes, “Franco-German Military Nuclear Cooperation”, June 6, 1963. USNA, RG 59, Records Re: Atomic Energy Matters, 1956-63, Box 2. See also Airgram to the Department of State from US Embassy in Paris, “France-German Nuclear Contacts”, October 17, 1964. USNA, RG 59, Central Files of Department of State, 1964-66, Defense, Box 1627.

<sup>279</sup> Documents from the period clearly indicated that the US was paying close attention to this problem. See, for example, Confidential summary “Recent History of Franco-German Cooperation on Nuclear Energy Matters”, May 9, 1963. USNA, RG 59, Records Re: Atomic Energy Matters, 1956-63, Box 2, among others.

<sup>280</sup> See, for example, the Memorandum of Conversation (between American and British officials), “US and UK Atomic Energy Cooperation with France”, August 15, 1958. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404. See also Current Intelligence Weekly Summary, September 18, 1958, which stipulated that the first test could be as early as fall of 1958. NSA@GW, Document # 10, US Intelligence and the French Nuclear Weapons Program, accessed 09/04/07.

or early 1959.<sup>281</sup> It appears that knowledge about the upcoming test was so widespread that, in the fall of 1959, the UN General Assembly discussed an item introduced by Morocco that opposed the impending explosion. The African states supporting Morocco were primarily concerned about the effect of possible fallout from the test on their territories.<sup>282</sup>

Given that the test was widely anticipated, the US had some time to figure out if any major changes to its policy toward France should take place as the result of the explosion. The French certainly expected a major shift in the American approach now that France had joined the nuclear club. In a conversation with State Department officials in the spring of 1960, French diplomats conveyed that their bosses in Paris believed that now “that France has exploded successfully a nuclear device France [was] entitled as a matter of right to cooperate with the United States in this field.”<sup>283</sup> In fact, it turned out that the US had no intention of changing its policy toward France as the result of the French test. Moreover, the US was now explicitly linking the issue of de Gaulle’s partial withdrawal from NATO with any future considerations of classified nuclear cooperation between the US and France. In fact, the US emphasized to the French that “...the reluctance of the French to cooperate in important NATO defense arrangements had an unfortunate effect on US views...”<sup>284</sup> Further evidence of such issue linkage could be found in the US-

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<sup>281</sup> NIE 100-2-58, “Development of Nuclear Capabilities by Fourth Countries: Likelihood and Consequences”, July 1958. NSA@GW, Document # 3a, National Intelligence Estimates, accessed 1/24/07.

<sup>282</sup> See Central Intelligence Weekly Summary, CIA, October 8, 1959. CREST @ USNA, accessed 04/18/07.

<sup>283</sup> Memorandum of Conversation, “Possible US-French Nuclear Weapons Cooperation”, March 17, 1960. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>284</sup> Ibid.

French conversations about further cooperation in the field of atomic submarines. By 1960, France was not the only European state seeking American sub assistance. The Netherlands in particular was asking for American help as well. The French were clearly disappointed when the US proceeded with its consideration of aid to the Dutch, while seemingly ignoring the French requests. In response, the American diplomats informed the French that “the US had willingly engaged in negotiations with the French until their actions vis-à-vis NATO had led to suspension.”<sup>285</sup>

Despite this rebuff to the French, internal government negotiations on the scope of American assistance to France, particularly with regard to their submarine program and the sale of enriched uranium, continued. Inter-agency divisions on the question became apparent. The State Department, for example, was in favor of continuing the provision of sub assistance (provided, however, that the French NATO policy improved, and that cooperation was done within the NATO framework).<sup>286</sup> The Department opposed the sale of enriched uranium on the grounds that such policy would be a departure from the US’s 4<sup>th</sup> country guidelines and could lead other states to follow France’s suit.<sup>287</sup> The Congressional Joint Committee on Atomic Energy (JCAE) strongly opposed any continued cooperation with France, basing its opposition primarily on the French attitude toward NATO,<sup>288</sup>

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<sup>285</sup> Memorandum of Conversation, “US-French Cooperation on Military Applications”, May 19, 1960. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>286</sup> Memorandum to Mr. Merchant from Ivan White, May 26, 1960. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>287</sup> Memorandum for the Secretary from Philip Farley (State/AE) and Ivan White (EUR), “Military Atomic Energy Cooperation with France”, May 26, 1960. USNA, RG 59, Politico-Military Files, 1953-66, Box 7.

<sup>288</sup> Memorandum for General Norstad from Russell Fessenden (EUR), “Summary of US Discussions with France on Cooperation on Nuclear Submarines”, August 16, 1960. USNA, RG 59, Politico-Numeric Files, 1953-66, Box 7.

a position that they continued to hold consistently up until the end of the committee's existence.<sup>289</sup>

A new twist in the US's arguments concerning cooperation with France after its 1960 test was the use of the vaguely defined term "substantial progress." US officials argued that supplying France with enriched uranium, for example, would necessitate another amendment to the Atomic Energy Act, "...since special nuclear material for use in atomic weapons can only be provided to a nation which has made 'substantial progress' in the development of atomic weapons, a status for which France does not presently qualify."<sup>290</sup> The problem was that the Act did not actually specify the meaning of 'substantial progress', leaving it open to interpretation. A document from 1960 tried to shed some light on this definition by arguing that the JCAE elaborated in its report from the summer of 1958 that 'substantial progress' equaled an independent production capability,<sup>291</sup> another concept that was open to interpretation and manipulation. In the eyes of the US, only the United Kingdom had achieved such status by the early 1960s. The French, of course, disagreed, especially after their first successful test. This haggling over the definition of 'substantial progress' continued for the next three years, suggesting that, in the interim, the US

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<sup>289</sup> The Committee was disbanded in August, 1977.

<sup>290</sup> Memorandum for the Secretary from Philip Farley (State/AE) and Ivan White (EUR), "Nuclear Weapons Cooperation with France", April 21, 1960. USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404.

<sup>291</sup> "Atomic Energy Assistance to Allies Under the Atomic Energy Act of 1954, as Amended", undated document (most likely from 1960). USNA, RG 59, General Records of the Department of State, Country Files, 1958-60, Box 404. The JCAE report spelled out that a nation that had achieved substantial progress is one that had "achieved a capability on its own of fabricating a variety of atomic weapons, and constructed and operated the necessary facilities, including weapons research and development laboratories, weapon manufacturing facilities, and weapon-testing stations, and trained personnel to operate each of these facilities."

simply refused to accept France's nuclear status and operated under the assumption that the French nuclear program had not sufficiently matured.

By the end of the intermediary phase of the French nuclear program, US-French relations were growing increasingly tense. The American refusal to effectively acknowledge France's achievements in the field of atomic energy, especially the significance of its atomic explosion, infuriated General de Gaulle and bolstered France's desire to continue on the course of national nuclear development. President Eisenhower and his administration no longer entertained any notions of completely reversing the French nuclear program. The focus had increasingly shifted to the decision of whether the US should cooperate with France's rapidly developing program and, if so, how much. While some cooperation between the two states in the area of civil atomic energy continued, it was less than adequate from France's perspective. This, however, did not deter the French from persisting in their requests for greater and more in-depth cooperation with the US. De Gaulle's increasing dissatisfaction with the organization of the Western alliance and the role that France played in it, led to a series of decisions that by the mid 1960s had greatly distanced France from NATO. The US was aware of these shifts in France's policy, but still believed that General de Gaulle could be persuaded to temper his ambitions with respect to NATO re-organization and the scope of the French nuclear enterprise. De Gaulle's decision hardened the American position on nuclear cooperation with France, and, for the first time, the US drew explicit linkages between France's participation in NATO and continued US assistance.

The increased willingness of the US to at least contemplate the application of various security levers at their disposal, such as the provision of conventional arms, sales of enriched uranium and nuclear propulsion reactors, and assistance in the field of atomic testing, was tempered by the realization that bullying France to change her policy ran the risk of backfiring and would likely only solidify France's position. In the end, the US did not deny France's right to have nuclear weapons. Instead of trying to completely reverse the French program the US attempted to minimize the damage from it. Keeping the NATO alliance intact and strengthening it continued to be the chief national interest for US policymakers. The broader non-proliferation agenda always figured in the background of these considerations, but it was not until Eisenhower's successor took office in January 1961 that the goals of non-proliferation took precedence. France became the first important 'exception' to the American non-proliferation effort. Of course, France went on to become one of five NPT-recognized nuclear weapons states. In that regard, the French program did not derail or sabotage American efforts to construct a global non-proliferation regime in the late 1960s. The same could not be said about another case of American 'exceptionalism' in the field of nuclear non-proliferation, the case of Israel.

### **Israel (1961-1967 or 1969)**

The intermediary phase of the Israeli nuclear program spanned the 1960s. Three successive American administrations, Kennedy, Johnson, and Nixon, tried to find ways to persuade Israel to abandon its nuclear ambitions. When those attempts

failed, the two sides tried to come to a negotiated understanding of how to handle Israel's nuclear *fait accompli*.

Throughout most of the decade the US believed that it could exercise a certain amount of leverage over Israel in order to discover her clandestine nuclear activities and persuade her to abandon those activities. The American attempts focused primarily on two types of leverage: inspections of the Dimona nuclear site by American scientists, and the link between the sales of advanced American military equipment and technology and the nuclear issue. A third, much less utilized, means of leverage was political pressure tied to security guarantees that the US had implicitly had provided to Israel since the days of Israel's founding. The perceived amount of leverage and the likelihood of its success varied over the years and under different administrations. In the end, the use of American leverage failed to accomplish its goal of not allowing Israel to go nuclear. Despite a significant amount of available leverage, there was never a sufficiently strong political willingness to pressure Israel on the nuclear question. Even during the tenure of President Kennedy, one of the most passionate advocates of non-proliferation among US presidents, the willingness to confront Israel on the nuclear question never reached a high level. After a decade of cool relations between the US and Israel following its founding in 1948, the American attitude toward Israel started to shift by the late 1950s.<sup>292</sup> There was an increased push at the Presidential and Congressional levels

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<sup>292</sup> See Puschel, 1992: 11-12.

for more American aid to Israel in the early 1960s,<sup>293</sup> spurred by the increased strategic importance of Israel to the US,<sup>294</sup> the political developments in the Middle East,<sup>295</sup> and the growing domestic support for Israel among the American public.<sup>296</sup> By the late 1960s, as the perception of American ability to use leverage effectively declined in the eyes of US policymakers, the US became more willing to recognize the reality of a nuclear-armed Israel.<sup>297</sup> This recognition eventually had to be reconciled with the broader American goals of nuclear non-proliferation.

President John F. Kennedy (JFK) was, perhaps, the most passionate supporter of non-proliferation compared to his predecessors. While Eisenhower certainly was concerned about the '4<sup>th</sup> country' problem and attempted to prevent proliferation through the Atoms for Peace initiative, JFK was unequivocally opposed to vertical proliferation by allies and foes alike. In addition, he placed enormous value on arms control agreements, such as the Partial Test Ban Treaty, and what would become the NPT.

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<sup>293</sup> President John F. Kennedy won the 1960s elections with over 80% of the Jewish vote. In the early 1960s Democrats in particular pledged to redress the conventional arms imbalance in the Middle East by increasing US military aid to Israel. (Puschel, 1992: 13). The US Congress was very sympathetic to this initiative as well. It should be noted that the foreign policy establishment, especially the State Department, was not as enthusiastic about closer military cooperation with Israel as the White House and Congress, although the intelligence community valued intelligence sharing arrangements with Israel that started in the 1950s. (ibid: 11-12, 14).

<sup>294</sup> Puschel, 1992, details the evolution of the so-called 'strategic cooperation' between the US and Israel starting in the early 1960s. Rather than having a linear trajectory, the relationship underwent many challenges and bumps along the way. However, since the 1960s onward, Israel increasingly gained strategic importance for the US and Washington was increasingly concerned about countering the spread of Soviet influence in the Middle East and saw Israel as a vital player in that effort.

<sup>295</sup> By the 1960s, the Soviet Union was providing increased amount to arms to its clients in the Middle East leading Washington to fear the conventional arms imbalance in the region (Puschel, 1999: 13). In addition, Arab radicalism became in growing issue in the region in the 1960s. (ibid.)

<sup>296</sup> Public support for Israel in the US grew particularly in the aftermath of the Six Day War in 1967. As Puschel puts it, "all in all, support for Israel grew to some four to five times greater than support for Arabs – substantially higher margin than before the war." (Puschel, 1992: 14).

<sup>297</sup> The US implicitly recognized Israel's nuclear status. I use the term 'implicit' because, technically, Israel is a non-declared nuclear state.

When Kennedy took office in January 1961, the US experienced its first serious pang of doubt over Israel's supposedly peaceful nuclear program. These reservations followed a series of rumors about the Dimona reactor that began to swirl in December of 1960. Israel's public reaffirmations about her peaceful intentions no longer satisfied American policymakers, despite the public American support for Israel's claims.<sup>298</sup> Internal government memos from the period show that the Israeli statements "have not removed the grounds for doubt that this is solely a peaceful uses venture"<sup>299</sup> and that "...if the Defense Ministry does have responsibility for all Israeli atomic energy activities, this is most unfortunate in terms of the impression the Israelis and we want to create of their atomic energy objectives."<sup>300</sup> The US Atomic Energy Commission questioned the true purpose of the Israeli reactors. A memo to the State Department in the spring of 1961 stated that, "to the best of our knowledge, Israel's two known reactors (one still under construction) are not connected with desalinization projects in that country."<sup>301</sup> The British approached the Americans with their own concerns.<sup>302</sup> The British Ambassador in Tel Aviv reported the following message from Israeli officials from early 1961:

...the Israeli Government had no intention to undertake the development of production of nuclear weapons but could not be

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<sup>298</sup> Nor did they satisfy America's closest ally, the United Kingdom.

<sup>299</sup> Memo for the Secretary from Raymond F. Courtney (S/AE), "Israeli Atomic Energy Program". January 6, 1961. USNA; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>300</sup> Memo to Mr. Jones and Philip Farley (S/AE), "Israeli Atomic Energy Program". February 1, 1961. USNA; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>301</sup> Memo from A.A. Well, Director, Division of Internal Affairs, US Atomic Energy Commission, to Philip Farley (Department of State). "Nuclear Reactors for Conversion to Salt Water", April 10, 1961. USNA; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>302</sup> See, for example, letter from the British Embassy in Washington to US State Department dated January 4, 1961. USNA, Records Relating to Atomic Energy Matters, 1943-66, Box 418.

expected to bind themselves to an undertaking on this point forever, especially if circumstances changed.<sup>303</sup>

It is interesting to note the wording used by Israel in this particular exchange – while Israel was not doing anything nuclear weapons-related *now*, it reserved the right to change its course of action *later*.<sup>304</sup> In hindsight, such statements later formed the basis of the Israeli justification for pursuing a clandestine nuclear program.

However many doubts the US might have had about the Israeli program, the US was intent on not publicizing the issue. The Americans understood that fueling speculation about Israel's alleged nuclear weapons would generate negative reactions from the Arab states and the Soviet Union, thus hurting American interests in the Middle East and exacerbating relations with the Soviets. Fearing that Israel was going to go nuclear, Arab leaders could have been forced to ask Moscow to supply them with nuclear weapons in order to equalize the balance of military power in the region. In a State Department memo from early 1961, the Assistant Secretary wrote that:

...we do not believe ... that extended public speculation regarding the Israeli atomic energy program will advance the interests of the United States, and we have taken and will continue to take any feasible measures to damp down speculation on this matter and in particular

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<sup>303</sup> Ibid.

<sup>304</sup> See further exchanges between the British and Israelis as they were reported back to the US in a letter from C.D. Wiggin (British Embassy in Washington) to P.J. Farley (US State Department), January 13, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418; and a letter from C.D. Wiggin (British Embassy in Washington) to P.J. Farley (US State Department), January 23, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418 in which Israel further elaborated that "...times might change and in the meantime Israel was surrounded by enemies. This, however, did not mean that the Israel Government had any intention now of developing or producing atomic weapons. It would only consider doing so if a change in circumstances made this a necessity." The particulars of such 'change' were not discussed.

to avoid giving occasion for renewed suspicions and possible undesirable reactions in the Arab world.<sup>305</sup>

Despite agreeing to maintain a façade of secrecy, the US was increasingly insistent in the early 1960s that Israel provide it with more detailed information regarding its nuclear activities. Knowledge about the program was limited, while the concerns about it increased. American policymakers began to utilize the first type of what they thought would be effective US leverage, inspections of the Dimona reactor site by teams of American nuclear scientists. The US was hoping that such visits would either clear up (and eliminate) the doubts about the intentions of the Israeli program, or, alternatively, would turn up hard evidence in support of the American suspicions which the US could then use to dissuade Israel from going further down the path of nuclear weapon construction.<sup>306</sup>

From the very beginning, however, it was clear that the Israeli side was going to orchestrate every aspect of the preparation for and the execution of the American visit (and all the subsequent visits after the original May 1961 inspection). Israeli insistence on secrecy was absolute. The Israeli Ambassador to the US demanded that the visit be 'quiet' since "Ben Gurion cannot afford to have it appear that he has invited an American to see Dimona under US pressure."<sup>307</sup>

While some officials in the State Department recognized the potential backlash

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<sup>305</sup> Memo from William Macomber, Jr. (Assistant Secretary, Department of State) to James Ramey (Joint Committee of Atomic Energy), January 19, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>306</sup> Evidence supporting the US's high hopes about the upcoming Dimona visits could be found, for example, in the Memo to the Secretary from C. Lewis Jones (NEA), "President's Suggestions re Israeli Reactor", February 2, 1961. USNA; RG 59, Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>307</sup> Memo to the Secretary from Lewis Jones (NEA), "Visit to Dimona Reactor in Israel", March 7, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

from keeping the visits so secret, the US did not leak the issue in public.<sup>308</sup> In private, the US raised their concerns with Israel on a number of occasions, such as during an April 1961 conversation with a member of the Israeli Embassy in Washington:

We [the US] told Gazit [Israel Embassy] that we thought it desirable from Israel's point of view that sooner or later the results of the visits should become generally known, at least to our friends and allies such as the United Kingdom which was also concerned. Gazit replied that for the moment the invitation had been extended only to the United States...<sup>309</sup>

Israel controlled every aspect of the Dimona visits, including the timing, access to specific areas at the reactor site, the choice of the accompanying personnel, the length of the inspections, permitted note-taking, etc.<sup>310</sup> All the subsequent Dimona visits followed a similar pattern.<sup>311</sup> Not a single Dimona inspection turned up evidence of nuclear weapons-related activity, and every post-inspection report seemed to support Israel's official line regarding the peaceful nature of the reactor.<sup>312</sup>

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<sup>308</sup> Memo to the Secretary from Lewis Jones (NEA), "Your appointment with Israel Ambassador Harman, 3 pm, Wednesday, April 12", April 11, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>309</sup> Memorandum of Conversation between Lewis Jones (NEA) and Mordechai Gazit (Embassy of Israel), April 17, 1961. USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>310</sup> See Memorandum of Conversation, M. Gazit (Embassy of Israel) and A. Meyer (NEA), May 1, 1961 and the draft report on the May 1961 visit sent to the Special Assistant Secretary, Department of State, May 26, 1961, both at USNA; RG 59; Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>311</sup> Visits were conducted only on Saturdays (a Jewish holiday); no photo taking was permitted; a representative from the Ministry of Defense accompanied US scientists everywhere; and visits did not last more than a day.

<sup>312</sup> See, for example, evidence to that effect after the first Dimona visit: Memorandum to McGeorge Bundy from L.D. Hattle (Executive Secretary), May 26, 1961 and a June 29, 1961 memo from A.A. Wells "Israeli Dimona Reactor", both at the USNA; RG 59, Records Relating to Atomic Energy Matters, 1944-63, Box 418.

The visits, originally agreed upon during a Kennedy-Ben-Gurion meeting in New York in 1961, continued through 1969, when President Nixon and Prime Minister Meir finally agreed to end them.<sup>313</sup> In a way, the visits became a semi-formalized charade in which the Americans believed they were making headway in their attempts to thwart the Israeli nuclear program.<sup>314</sup> In reality, Israel was completely in control and denied the American scientists access to any part of Dimona that would reveal incriminating evidence. Over time, the Dimona visits became increasingly less relevant as a policy tool, even though the US continued to push Israel on everything from the timing to the scope of the inspections. An internal memo dated October 1964 was instructive in terms of illustrating the American thinking on the issue at the time. The memo was precipitated by an Israeli deferral of an American request for a timely Dimona visit. The US was frustrated, and the memo argued for a strong American reaction. Lack of forceful response, according to the memo, “sets in motion a dangerous drift toward a turning point in the history of the Near East, namely a decision by Israel to develop nuclear weapons.”<sup>315</sup> Such failure could be “damaging to our national security interests”.<sup>316</sup> The author of the memo went on to argue that once the decision to develop nuclear weapons was made by Israel,

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<sup>313</sup> Cohen, 1998b: 96.

<sup>314</sup> US believed that it could control the timing of the visits, for example, but Israel followed an unrelenting line of managing everything Dimona-related. See, for example, discussions about further Dimona visits: Memorandum of Conversation, Ambassador Harman (Israel), Mr. Gazit (Embassy of Israel), P. Talbot (NEA), and W. Hamilton (NEA), “Broadened Access to Israel’s Nuclear Reactor”. November 14, 1961 and Memo to the Secretary from P. Talbot and R. Strong (NEA and NE), “Another Visit to Israel’s Dimona Reactor”. June 22, 1962. Both at USNA, RG 59, Records Relating to Atomic Energy Matters, 1944-63, Box 418.

<sup>315</sup> Memorandum to Mr. Talbot (NEA) from R. Davies (NE), “Dangers of Delaying Israel’s Request to Defer Dimona Inspection”, October 19, 1964. USNA; RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646.

<sup>316</sup> Ibid.

...it could well withstand any pressures for inspection we might bring to bear. Our major means of coercion are curtailment of military and economic aid.....The only effective way to prevent Israel from embarking on a nuclear weapons course is not to permit an opportunity for such a decision to be implemented covertly.<sup>317</sup>

While clearly thinking in terms of pressure levers that it could apply to Israel, the US started to concede that there might be little, if anything, that the US could do to reverse the program once Israel made a decision about nuclear weapons. Dimona visits continued until the late 1960s with absolutely no success in turning up evidence to support the American suspicions regarding Dimona.<sup>318</sup> The amount of leverage that the US exercised over Israel through the Dimona inspections was minimal at best. When the visits finally came to an end in 1969, the US was already contemplating the best way to accept the reality of an Israel with nuclear weapons.

Besides the Dimona inspections, a much less utilized American lever was political pressure on the Israeli government, especially when it was tied to American security guarantees. JFK felt it necessary to resort to this lever partly because the American intelligence estimates regarding Israel were becoming more alarming. In a 1961 NIE, for example, the US estimated that “Israel ha[d] strong incentives to develop a nuclear capability against its Arab neighbors and ha[d] received significant assistance from France.”<sup>319</sup> Indeed, the French involvement in the Israeli

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<sup>317</sup> Ibid.

<sup>318</sup> However, in 1965, an American scientific attaché in Tel Aviv Robert Webber issued a rare report concluding that Dimona was in fact not for scientific research and training, but rather was related to Israel’s national security. (Cohen, 1998b: 190-193).

<sup>319</sup> National Intelligence Estimate, Number 4-3-61. “Nuclear Weapons and Delivery Capabilities of Free World Countries Other than the US and UK”, September 21, 1961. NSA@GW, Document # 6B, National Intelligence Estimates, accessed 1/24/07.

nuclear program was extensive throughout the first half of the 1960s,<sup>320</sup> and Paris and Dimona were even accorded the status of 'twin-cities'.<sup>321</sup> The 1961 NIE estimated that the timeline for Israel's production of its first nuclear device was somewhere in 1966-67. The 1963 NIE, though still having most references to Israel redacted, concluded that Israel was developing a sophisticated delivery missile system.<sup>322</sup> This new intelligence, coupled with JFK's firm stand on non-proliferation and his attempts to construct an international non-proliferation regime, resulted in the US intensifying its pressure on Israel. Perhaps the most prominent example of this was JFK's May 18, 1963 letter to Israeli Prime Minister Ben-Gurion in which President Kennedy wrote that:<sup>323</sup>

..we have a deep commitment to the security of Israel... This commitment and this support would be seriously jeopardized in the public opinion in this country and in the West as a whole if it should be thought that this Government was unable to obtain reliable information on a subject as vital to peace as the question of the character of Israel's effort in the nuclear field.<sup>324</sup>

The threat of withdrawing security guarantees was repeated in Kennedy's letter to Ben-Gurion a month later in which he insisted on more regular (bi-annual) visits to Dimona.<sup>325</sup> It was further repeated in a letter to new Israeli Prime Minister

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<sup>320</sup> France radically changed its position on aiding the Israeli program in the aftermath of the 1967 Six Day War.

<sup>321</sup> Airgram to the Department of State from US Embassy in Tel Aviv, "French Technicians in Israel." January 16, 1964. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068.

<sup>322</sup> National Intelligence Estimate, Number 30-2-63. "The Advanced Weapons Programs of the UAR and Israel", May 8, 1963. NSA@GW, Document # 7, NIE, accessed 1/24/07

<sup>323</sup> The text of the letter can be found in an Outgoing Telegram from the Department of State to American Embassy in Tel Aviv, May 18, 1963. JFKL, President's Office Files, Box 119a.

<sup>324</sup> *ibid.*

<sup>325</sup> Outgoing Telegram, Department of State, to American Embassy in Tel Aviv, June 15, 1963. JFKL, President's Office Files, Box 119a.

Eshkol shortly after he came to power in the summer of 1963.<sup>326</sup> Israel's eventual response to Kennedy reaffirmed the pattern of interaction between Israel and the US on the nuclear issue. Israel continued to insist on the peaceful purpose of Dimona, while reluctantly allowing American scientists to visit the reactor site. Behind closed doors, Israel continued to pursue its nuclear option. As Cohen wrote, "this approach required that Israel be less than honest with the United States."<sup>327</sup>

The remaining means of leverage, the sale of military equipment, was not utilized in earnest until the Johnson and Nixon years. Under the Kennedy Administration, there were certainly numerous requests from Israel for conventional weaponry and military aid, most of which were approved by the US.<sup>328</sup> The Israelis used a number of arguments to support their requests. These included the need to counter-balance the increasing conventional weapons build-up by the Arabs, especially the Egyptians. In addition, Israel felt vulnerable to a surprise air attack and thus needed to bolster its air defenses.<sup>329</sup> The US denied the Israeli requests only when it felt that they concerned offensive arms or technology that

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<sup>326</sup> Outgoing Telegram, Department of State, to American Embassy in Tel Aviv, July 4, 1963. JFKL, President's Office Files, Box 119a.

<sup>327</sup> Cohen, 1998b: 165.

<sup>328</sup> For an example of a military equipment purchase, see Memorandum for the Special Assistant to the Assistant Secretary of Defense International Security Affairs (ILN), "Request Involving the Purchase of Military Equipment, Materials or Services under the Foreign Assistance Act of 1961, as amended", August 26, 1963. USNA, RG 59; Central Foreign Policy Files, 1963, Def US-ISR, Box 3758.

<sup>329</sup> Memorandum to H. Symmes (NE) from Harold Glidden (RNA/NE), "Israeli Arguments in Requesting Hawk Missiles", May 5, 1964. USNA; RG 59; Central Foreign Policy Files, 1964-66, Def 12-5, Box 1645.

could be utilized for non-conventional weapons. Such refusals continued through 1968, at which time the US revised its Israel-related military aid policy.<sup>330</sup>

The coupling of military sales with the nuclear question became central to the American strategy for persuading Israel to reverse nuclear course in the mid to late 1960s. Putting oral pressure on Israel, as was done by president Kennedy, was clearly not enough, and the US had to think in terms of concrete “carrots and sticks” when dealing with the Israeli nuclear question.<sup>331</sup> President Johnson, while largely continuing JFK’s approach to non-proliferation,<sup>332</sup> commissioned a comprehensive US evaluation of the problem in 1964, which became known as the Gilpatric report. The study proposed four different orientations for American policy ranging from ‘permissive’ proliferation that accepted the inevitability of the spread of nuclear weapons, to an all-out effort to stem proliferation at virtually any cost.<sup>333</sup> While rejecting most of the recommendations of the study,<sup>334</sup> Johnson went ahead with

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<sup>330</sup> For a sample of such a refusal (a rather unusual occurrence), see Memorandum for McGeorge Bundy from B. Read (Executive secretary), “Deferral of Decision to Sell Radar Equipment to Israel”, October 9, 1963. USNA; RG 59, Central Foreign Policy Files, 1963, Def US-ISR, Box 3758.

<sup>331</sup> The US made references to ‘putting pressure’ on Israel (as well as Arabs in the context of signing the NPT) on multiple occasions. For an example, see Memorandum of Conversation between State Department representatives (The Secretary, M. Goldstein, and T. Judd) and Mrs. Dean and Stewart (UK), February 10, 1966, “Israel”. USNA; RG 59; Central foreign policy files, 1964-66, Pol. 7, Box 2346. Working through its Embassy in Tel Aviv, the US oftentimes relayed messages like “..the USG attaches [great importance] to discouraging an Israel-Arab arms race in general, and nuclear proliferation in particular.” Airgram from US Embassy in Tel Aviv to Department of State, March 9, 1967. USNA; RG 59; Central foreign policy files, 1967-69, Def 12-5, Box 1559

<sup>332</sup> Gavin (2004) claimed that Johnson’s policy departed from Kennedy’s in that it was a far more forceful approach to proliferation than before. Gavin, interestingly, does not even consider the case of Israel in the analysis.

<sup>333</sup> Gavin, 2004: 110.

<sup>334</sup> On Gilpatric report, see, for example, Gavin, 2004. See also Brands, 2006. There is some disagreement in the literature over how much President Johnson accepted the recommendations of the report. Gavin (2004) claimed that Johnson adhered to them completely, while Cohen (1998) disagrees with that characterization. Maddock (2011) is unambiguous in stating that Johnson rejected the Gilpatric report and that he concurred with Secretary of State Dean Rusk who claimed that the report’s proposals threatened US national security and “unwisely sacrificed alliance cohesion to arms control goals.” (Maddock, 2011: 243-244). Furthermore, while different government agencies held differing views on what the US’s overall

concretely linking US military aid to Israel with the nuclear question.<sup>335</sup> The sales of American tanks and fighter jets to Israel were a perfect opportunity for this strategy.

The negotiations over the sale of M-48 tanks in 1964 were clearly tied to nuclear weapons.<sup>336</sup> The US refused to approve the tank sales until Israel allowed Washington to assure President Nasser of Egypt that the purposes of Dimona were peaceful.<sup>337</sup> In a memo to the National Security Advisor Bundy in February 1964, the State Department argued that it “..regard[ed] reassurance to Nasser about Israel’s nuclear intentions and capabilities as essential to offset the news of Dimona’s having gone critical”<sup>338</sup> (which happened in December of 1963). Furthermore, the State Department believed that “..passage of such reassurances as [the US] can give is the minimum to prevent some drastic United Arab Republic move to acquire a new level of Soviet weaponry.”<sup>339</sup> Israel was opposed to this course of action, believing that in order to prevent an armed Arab-Israeli conflict, Nasser must be deterred rather than reassured.<sup>340</sup> It took a meeting at the highest level (between Prime Minister Eshkol and President Johnson in June 1964) to finally resolve the issue, in exchange for the sale of American M-48 tanks, to be delivered via West Germany, Israel

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approach should be, the report did not support a case-by-case approach, which the US adopted in later decades.

<sup>335</sup> Johnson, like his predecessors, did not see a contradiction in supporting nuclear sharing within NATO and the non-proliferation efforts, such as the signing of the NPT.

<sup>336</sup> Cohen, 1998b: 196-202.

<sup>337</sup> Keeping the Arab states (especially Egypt) reassured about Dimona was high on the American priority agenda throughout this stage of the American response to the Israeli nuclear program and beyond. Heightened Arab suspicions about Israel’s nuclear activities could easily have led to the destabilization of strategic political and military balance in the region and could have provoked a negative reaction from the Soviets.

<sup>338</sup> Memorandum to McGeorge Bundy from Benjamin Reed (Executive Secretary, Department of State), “Need to Reassure President Nasser on the Peaceful Nature of the Dimona Reactor”, February 11, 1964. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068.

<sup>339</sup> Ibid.

<sup>340</sup> Cohen (1998b): 200.

“agreed to let [the US] reassure Nasser on Dimona” as well as to allow for the possibility of future negotiations over placing the Soreq nuclear reactor under the IAEA safeguards.<sup>341</sup>

The issue of transferring safeguards from the US to the IAEA was an important one for the US, and one that the Israelis resisted bitterly. The haggling over the safeguards between the two sides and the proposed extension of the US-Israeli bilateral agreement on the civil uses of atomic energy was yet another example of the diminishing ability of the US to influence Israeli decision-making on the nuclear issue.<sup>342</sup>

Several years later, in the fall of 1968, the most important military purchase negotiations to date began over the sale of American Phantom (F-4) fighter jets to Israel. They came almost a year after the conclusion of the Six-Day War in June of 1967.<sup>343</sup> The conflict, fought between Israel and Egypt (aided by Jordan, Iraq, and

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<sup>341</sup> Cohen, 1998b: 205. In 1965, additional sales of M-48 tanks were, once again, tied to the nuclear issue and to the American insistence that Israel accept IAEA safeguards for its nuclear reactors. Israel refused on the grounds that Egypt had not accepted such safeguards either. As Cohen put it, “finally, the Americans gave up.” Ibid.: 207. What followed was a Memorandum of Understanding in which the US reiterated its security guarantees to Israel and Israel, in turn, promised not to be the first state to introduce nuclear weapons into the Middle East (this was the first formalization of this particular formulation). Ibid.

<sup>342</sup> See, for example, Memorandum of Conversation, “Transfer of Bilateral Safeguards to the IAEA”, June 3, 1964. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068; Memorandum for Herman Pollack, Department of State from the US Atomic Energy Commission, “Agreement for Cooperation in the Civil Uses of Atomic Energy”, February 25, 1965. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068; and Memorandum for McGeorge Bundy, the White House from Benjamin Reed, the Acting Secretary, Department of State, “Agreement for Cooperation in the Civil Uses of Atomic Energy”, March 9, 1965. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068.

<sup>343</sup> This is considered to be the third major Arab-Israeli conflict. The first conflict (1948-49) broke out shortly after the formation of Israel as the Arab states contested the very idea of the creation of a Jewish state on what they considered to be Arab territories. The second conflict, in 1956, is known as the Suez Canal crisis, which involved a conflict between Egypt and Israel (together with France and the United Kingdom). Egypt emerged as a victor in the crisis as Israel (along with France and UK) was pressured to withdraw. There were several additional notable crises that followed, including the 1973-74 Yom Kippur War, the 1982 conflict between Israel and the PLO, and the 2006 war between Israel and Lebanon. It is important to note that in the aftermath of the 1967 Six-Day War, France radically changed its policy by

Syria), resulted in a resounding victory for the Israelis. Israel came to occupy new territories, including Gaza, Sinai, Golan Heights, and the West Bank, whose fate remains contentious to this day.

Despite its swift victory in the Six-Day conflict, Israel pressed the US for the sale of F-4 fighter jets and the negotiations began in 1968. The F-4 talks clearly illustrated to the US the limits of its ability to influence Israel on the nuclear issue. Even though the discourse about the sale was heavily couched in terms of leverage on the American side, the transaction was eventually made possible by decoupling the F-4 and the nuclear issues. The sale also marked a turning point in the nature of the military supply relationship between the US and Israel. For the first time, the US was about to become Israel's primary provider of weapons, including offensive arms. At the start of the sale negotiations, American policymakers were clearly aware of this and, as a result, they insisted that "...we should seek to gain certain of our own political objectives with Israel in return for the sale."<sup>344</sup>

The two primary objectives for the US in these negotiations were gaining Israel's cooperation on the peace settlement,<sup>345</sup> and obtaining further clarity and commitments regarding the nuclear question. Coupling the F-4 sales with the peace settlement was seen as problematic, so the US hoped to tie the nuclear question to the jet sales instead. American intelligence on the Israeli program was still not

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imposing an arms embargo on Israel and, over time, shifting its favor toward the Arab states. This was a significant departure from France's earlier policy, which was instrumental in the commencement of the Israeli nuclear program.

<sup>344</sup> Briefing Memorandum to the Secretary from Parker Hart (NEA), "Issues to be Considered in Connection with Negotiations with Israel for F-4 Phantom Aircraft", October 15, 1968. USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1558.

<sup>345</sup> The peace settlement issue was a by-product of the 1967 Six-Day War.

complete,<sup>346</sup> yet the US knew that Israel was building strategic missiles,<sup>347</sup> and the Americans were convinced that it made little sense to have such missiles unless Israel intended to equip them with nuclear weapons. The negotiations over F-4 sales seemed like a perfect opportunity to raise this point with the Israelis:

We do not have it in our power to obtain ultimate assurances from Israel that she will never produce nuclear weapons or deploy strategic missiles. But the coming negotiations on the F-4, and their implications of an American commitment to Israel's conventional military superiority, are *our last best chance* to obtain commitments that will make it more difficult for Israel to take the critical decision to go nuclear. The F-4s not only assure in large measure Israel's continuing air superiority, they represent the single most dramatic and necessary addition to Israel's military arsenal for the next several years. They should relieve much of the impetus to move into the missile and nuclear field.<sup>348</sup>

Furthermore, in a November 1968 memo, the State Department speculated that the US

...would be unlikely for some time to have any lever as effective as this one to a) induce the Israelis to sign the NPT promptly, and b) to obtain a commitment that they will not develop or acquire a surface-to-surface missile capability for carrying nuclear weapons.<sup>349</sup>

Failure on the US's part to "use the leverage of the F-4s to get commitments on the NPT and on missiles may cost us dearly,"<sup>350</sup> the State Department memo argued. Further, the US felt that it was "in as favorable a position to

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<sup>346</sup> The Briefing memo stated that "...there is evidence that Israel has taken a number of steps which, if successful, would reduce substantially the time needed to develop a deliverable nuclear weapon. All evidence suggests that present Israeli policy is to maintain its nuclear option and to proceed with a program to reduce to a minimum the lead time required to exercise that option." (ibid.)

<sup>347</sup> The US confirmed that two MD-620 strategic missiles were delivered to Israel from France, and that more might be on the way (ibid.)

<sup>348</sup> Ibid. (emphasis mine)

<sup>349</sup> Information Memorandum to the Secretary from Henry Owen (S/P), "Quid Pro Quo for F-4 "Phantom" Fighters", November 1, 1968. USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1558.

<sup>350</sup> Ibid.

link the two [issues] as [they were] likely to be,”<sup>351</sup> suggesting that the US clearly realized the limitations of its ability to use leverage of any kind to influence Israel, and that it was sensitive to the fact that Israel was probably rapidly advancing with both its nuclear and missile programs. It is interesting to note, however, that the US was still not absolutely sure that Israel had even made the decision to go nuclear or not. In reality, Israel’s program had most likely entered the mature stage at this point, even though no open test of a nuclear device ever took place.<sup>352</sup>

At the same time that the US was attempting to tie the F-4 sales to the nuclear question, it was also working hard at trying to convince Israel to join the NPT as a non nuclear-weapon state (NNWS). As the negotiations over the NPT gained momentum in the mid to late 1960s, Israel came up with an official doctrine of ‘nuclear opacity’ or what Cohen calls *amimut*.<sup>353</sup> Following an unprecedented internal debate in the mid 1960s on the merits of leaving the nuclear deterrent option open,<sup>354</sup> Israel pledged that it would ‘not be the first country to introduce

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<sup>351</sup> Ibid.

<sup>352</sup> Cohen, 1998b: 298. Cohen writes that by early 1967, CIA distributed reports that speculated that Israel had already produced all the necessary components for the bomb and that it would take only six to eight weeks to assemble it. (ibid.) Cohen also writes that “if physical possession of nuclear weapons is the criterion by which a state is judged to be a nuclear-weapon state, then, by May 1967 [the eve of the Six-Day War], Israel was a nuclear-weapon state.” Cohen, 1998b: 275.

<sup>353</sup> For an in-depth discussion of the origins of *amimut* and its formulation and application, see Cohen, 2010.

<sup>354</sup> See, for example, Airgram from US Embassy in Tel Aviv to the Department of State, “Israeli Committee for a Nuclear-Free Zone Opposes Dimona Reactor”, January 27, 1964. USNA; RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646. “Articles in the Hebrew Press on Friday, January 31, 1964, Nuclear Weapons in the Middle East”. USNA; RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646. It is interesting to note that one of the articles in this compilation argued that the United States and the Soviet Union would “not allow Israel to become a nuclear country” and that nuclear weapons might actually carry certain disadvantages. For another opposition view to the nuclear option see Airgram from US Embassy Tel Aviv to the Department of State, “Ahdut Avoda Views on Some Aspects of Foreign and Defense Policy”, July 23, 1965. USNA; RG 59; Central foreign policy files, 1964-66, Box 2345. For a

nuclear weapons into the Middle East'. This formulation was vague at best, complicated by the fact that Israel and the US did not see eye to eye on the precise meaning of the word 'introduction'.<sup>355</sup> For the Americans, it meant physical possession of nuclear weapons.<sup>356</sup> For the Israelis, it meant the actual use of weapons in a conflict situation. Over time, Israel endorsed a more nuanced approach that maintained that "a state could possess a nuclear explosive device but so long as that device was 'unadvertised' and 'untested' it could not be considered as having been 'introduced'."<sup>357</sup> By the late 1960s, Israel had made yet another adjustment to its formulation and promised the US that it would not become a 'nuclear power'

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support of the nuclear option, see Airgram from US Embassy in Tel Aviv to the Department of State, "Atomic Option for Israel: a Press Dialogue", March 3, 1964. USNA, RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646. For more Israeli justification of leaving the nuclear option open (and further investing in Dimona), see Telegram to the Department of State from US Embassy in London, July 8, 1965. USNA; RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646. See also Airgram from US Embassy in Tel Aviv to the Department of State, "Peres (and Dayan) on Nuclear Matters and US Relations", September 22, 1965. USNA; RG 59; Central foreign policy files, 1964-66, Box 2345. Additional evidence of certain Israeli factions supporting a nuclear option can be found in Airgram from US Embassy in Tel Aviv to Department of State, "Begin on Nuclear Disarmament", April 13, 1966. USNA; RG 59, Central foreign policy files, 1964-66, Def 15, Box 1646. Airgram from US Embassy in Tel Aviv to Department of State, "Israeli Journalists and Nuclear Deterrence", February 7, 1967. USNA; RG 59; SN filed, 1967-69, Def 12-5, Box 1557.

<sup>355</sup> For Cohen's discussion of 'introduction' and 'nuclear weapon', see Cohen, 1998b: 316-318.

<sup>356</sup> "The Issues for Decision" memo dated July 14, 1969. USNA; Nixon files, NSC, Box 604. The authors of the memo wrote that "for our own purposes, 'possession' means the availability of a device that could be exploded on a short notice, but we do not want to get into a debate over how many hours or days short of actual assembly a nation can be without 'possessing'." The memo goes on to stress an important point saying that "we cannot enforce a precise understanding and therefore should mainly concern ourselves with building a record that will permit us to defend taking our distance from a nuclear Israel if ever Israel's use of those weapons threatens to involve us in nuclear confrontation." (ibid.) The US was already consciously working on creating a certain image and account of its involvement (or rather non-involvement) in Israel's program. The US's priority is clearly shifting away from stopping or reversing the Israeli program and toward figuring out ways of how the US can save face and possible accusations should the knowledge about the program become public.

<sup>357</sup> Memorandum of Conversation, Y. Rabin (Ambassador of Israel), S. Argov (Israeli Embassy), M. Raviv (Israeli Embassy), E. Richardson (Acting Secretary, Department of State), S. Packard (State Department), A. Atherton (Country Director, Israel and Arab-Israel Affairs), July 29, 1969. USNA; Nixon files, NSC, Box 605. Israel was more than willing not to advertise its nuclear capability (keeping in line with its adopted approach of nuclear opacity) and Israel never openly tested a device.

rather than not possess nuclear weapons.<sup>358</sup> The US eventually accepted Israel's language and classification. As Henry Kissinger explained to President Nixon in an October 1969 memo, the Israeli formulations were

...vague and leave definition to the Israelis. It is not practical for us to try to define them restrictively because we could not determine Israeli adherence to our definition. What we have to settle for, I believe, is an Israeli commitment that will prevent Israeli nuclear weapons from becoming a known factor and further complicating the Arab-Israeli situation.<sup>359</sup>

Kissinger, in effect, was acknowledging that the US lacked the ability to verify Israel's adherence to any given formulation and should, instead, focus its efforts on preventing the knowledge about the program, still unconfirmed, from getting out. As a result, the US eventually accepted the Israeli formulation, which is in effect today.<sup>360</sup> As Israel's declaration about not introducing nuclear weapons into the region circulated the world in the mid 1960s, the US found itself increasingly performing damage control by reassuring various Arab leaders and even its allies, all of whom were increasingly worried about the prospect of Israel becoming a nuclear state. Publicly supporting Israel's official line about its peaceful nuclear intentions and reiterating the American policy of non-proliferation, LBJ's administration denied any knowledge of Israel's imminent entry into the ranks of

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<sup>358</sup> Such formulation was deliberately vague, but was more in line with the NPT language than Israel's previous formulations. Israel now defined 'introduction' as a transformation from a non-nuclear weapon state (NNWS) to a nuclear weapon state (NWS). The distinction between NNWS and NWS was laid out in the NPT. It described the obligations of a NNWS as "not to manufacture or otherwise acquire nuclear weapons or other explosive devices." However, it did not define 'manufacture' or 'acquire', making the Israeli formulation purposefully vague. See Memorandum for the President from H. Kissinger, "Israel's Nuclear Program", November 6, 1969. USNA; Nixon files, NSC, Box 605.

<sup>359</sup> Memorandum for the President from H. Kissinger, "Rabin's Proposed Assurances on Israeli Nuclear Policy", October 8, 1969. USNA, Nixon files, NSC, Box 605.

<sup>360</sup> This is yet another example of the American inability to use leverage to convince Israel to do something. Of course, accepting American formulation would have meant seriously jeopardizing Israel's nuclear option, even if it could be construed that a disassembled weapon is equivalent to non-possession. For further discussion on the debate over the meaning of 'introduction', see Cohen & Burr, 2006: 3.

nuclear powers. In 1965, for example, replying to Jordan's anxieties about a nuclear Israel, State Department representatives assured Jordanian officials that:

...[USG] continues to watch very closely possible nuclear weapons capability by Near Eastern countries. We are most strongly opposed to idea of nuclear proliferation in Near East and elsewhere. We have no evidence that Israel or any other Near Eastern state is in position to develop nuclear weapons in near future or that they have decided to develop or otherwise acquire them.<sup>361</sup>

Jordan's worries were shared by other Arab states, including Lebanon and Saudi Arabia, among others. In her replies to the various Arab leaders, the US continued to stress its own commitment to non-proliferation, including a commitment to the NPT, and to deny any concrete knowledge of the nuclear weapons-related activities in Israel.<sup>362</sup> Even in its private conversations with its closest ally, the United Kingdom, the US (especially the State Department) stressed a lack of any concrete evidence to support the prediction of Israel's imminent crossing of the nuclear threshold.<sup>363</sup>

Despite these private and public denials, however, American intelligence regarding Israel's nuclear program was mounting through the mid 1960s. These

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<sup>361</sup> Outgoing Telegram from the Department of State to US Embassy in Amman, November 4, 1965. USNA, RG 59; Central foreign policy files, 1964-66, Def 12-1 to 12-5, Box 1644.

<sup>362</sup> See, for example, Airgram from the US Embassy in Beirut to the State Department, "Arab Views on Israel Nuclear Armaments", March 25, 1966. USNA; RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646 and an Outgoing Telegram from the Department of State to US Embassy in Jidda, June 7, 1966. USNA; RG 59, Central foreign policy files, 1964-66, Def 12-1 to 12-5, Box 1644.

<sup>363</sup> Memorandum of Conversations, R. Owen (British Embassy) and W. Wolle (OIC, Arab-Israeli Affairs), "Israel and the Question of Nuclear Proliferation", July 26 and August 2, 1965. USNA, RG 59; Central foreign policy files, 1964-66, Def 15, Box 1646. See also Outgoing Telegram from the Department of State to the US Embassy in London, February 26, 1964, USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068 and a Memorandum of Conversation, "Israeli Nuclear Development", April 20, 1964, USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068. The latter two documents discuss the information that the US passed on to the British about the January 1964 Dimona inspection by American scientists. The inspection could not uncover any military activity at the reactor site and concluded that the "plant has no weapons-making capability at present."

estimates did not always support, and sometimes even contradicted, one another. A 1964 NIE, while partially excised, argued that “the other nations which we now believe may develop nuclear weapons in the next decade are India, and perhaps Israel and Sweden.”<sup>364</sup> In a CIA memo dated only a couple of months later an analyst concluded that:

Israel probably has decided not to build nuclear weapons. However, there would be a better than even chance that Israel would develop such weapons if it felt that it was unable to maintain its military superiority over the Arabs. If the Arabs acquired a nuclear capability, the Israelis almost certainly would initiate a program. Israel’s atomic energy program is less advanced than India’s and the manufacture of nuclear weapons would take longer.<sup>365</sup>

In early 1965, however, the State Department was warning the White House that even though the Dimona inspections were not turning up any hard evidence that would implicate the Israelis, the Department “...remain[ed] concerned that Israel may have succeeded in concealing a decision to develop nuclear weapons.”<sup>366</sup> The 1966 NIE estimated that Israel could produce and test its first nuclear device sometime in 1968, even though the report could not even confirm that the decision to construct such a device had been made. The report went on to say that

...for the next few years, at least, Israel will probably judge that it can maintain its security through acquisition of conventional weapons

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<sup>364</sup> National Intelligence Estimate, Number 4-2-64, October 21, 1964. NSA@GW, Document # 9, NIE, accessed 1/24/07.

<sup>365</sup> CIA Memorandum, “Nuclear Weapons Programs Around the World”, December 3, 1964. NSA@GW, document # 10, NIE, accessed 1/24/07. The memo was part of the CIA’s input to the Gilpatric report commissioned by LBJ on the problem of nuclear proliferation. For a more detailed discussion of the Gilpatric report, see Brands, 2006.

<sup>366</sup> Memorandum for McGeorge Bundy from Benjamin Reed, Executive Secretary, “Dimona Inspection and Need to Implement Initiative to Prevent Nuclear Proliferation in the Near East”, February 5, 1965. USNA, RG 59, Central Foreign Policy Files, 1964-66, Box 3068. The memo pointed out that there were several reasons for concern, including Israel’s previous deceit on the question of Dimona, the procurement of missile technology from France, an abundance of questions that remained unanswered on the Israeli side, and the apparent military planning of the Israeli side which included the use of nuclear weapons.

from the US and other Western sources. However, Israel probably would develop nuclear weapons if it came to believe that the threat from the Arab states could no longer be contained by conventional means. In this situation, even a combination of international agreements, pressure from the US, and explicit security guarantees might not restrain the Israelis.<sup>367</sup>

Given the increasing American concerns over the Israeli program, Washington felt that Israel's membership in the NPT should not be up for debate. American policymakers predicted that Israel might take a hard stance on the negotiations, or even delay them, which would give Israel a chance to continue working on their missile and nuclear programs and then confront the US with a *fait accompli*. The Americans also anticipated that Israel would insist on decoupling the F-4 sales from the nuclear issue (which, in fact, they did).<sup>368</sup> However, the US was unambiguous in its belief that a nuclear Israel would hurt American national interests and that this was a matter "that not only ha[d] a crucial bearing on the Arab-Israel problem, but also directly affect[ed] US security interests."<sup>369</sup>

The American insistence on Israel's signing of the NPT in late 1968 (either through direct appeals to Israel or through tying the issue to F-4 sales) was, in effect, the US's last attempt at preventing Israel from going nuclear.<sup>370</sup> The US and the

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<sup>367</sup> National Intelligence Estimate, Number 4-66, January 20, 1966. NSA@GW, Document # 12, NIE, accessed 1/24/07.

<sup>368</sup> See, for example, Telegram to the Department of State from US Embassy in Tel Aviv, October 28, 1968, "NPT-Phantoms". USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1557.

<sup>369</sup> Briefing Memorandum to the Secretary from Parker Hart (NEA), "Issues to be Considered in Connection with Negotiations with Israel for F-4 Phantom Aircraft", October 15, 1968. USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1558. In particular, the US was worried that Israel's nuclear status would prompt Arab states to seek their own nuclear capability, either independently or with the assistance of the Soviet Union. In addition, Israel's acquisition of nuclear weapons would further fuel an arms race in the Middle East, and increase a likelihood of a US-Soviet confrontation.

<sup>370</sup> Israel's signature would, in effect, have amounted to a promise not to possess and manufacture nuclear weapons, a promise that Israel was not willing to make.

United Kingdom saw the Israeli signature as vital to NPT's success.<sup>371</sup> The long, and often contentious, negotiations between the US and Israel over NPT are well documented in Cohen's 1998 account.<sup>372</sup> During his last weeks in office, President Johnson made a personal appeal to the Israeli Prime Minister Eshkol to sign the NPT. The appeal was rejected, and Israel simply reiterated her already established position that it would not be the first state to introduce nuclear weapons into the Middle East. In his appeal, however, Johnson did not link F-4 sales and the nuclear question,<sup>373</sup> a move that was repeated by his successor in the White House, President Nixon.<sup>374</sup> Such issue decoupling at the presidential level signified an admission of American limitations with respect to Israel's nuclear program. While President Johnson wanted to be tough on proliferation, he was not willing to be tough on Israel. Nixon would prove to be less tough on both accounts. In the end, the American efforts with respect to Israel and the NPT failed. After months of skirting the NPT issue<sup>375</sup> and refusing to give the US a direct answer, Israel simply repeated

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<sup>371</sup> For example, for the British view see Telegram to the Department of State from US Embassy in London, "Israel and NPT", December 10, 1968. USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1556. The British argued that, without Israel's signature, it would be close to impossible to convince Arab states to ratify the NPT.

<sup>372</sup> Cohen, 1998b: chapter 16.

<sup>373</sup> Ibid.

<sup>374</sup> As Puschel writes, by the time President Nixon came to office, all the pieces for strategic cooperation between Israel and the US were in place. The Nixon era ushered in even closer cooperation between the two states than during the 1960s. The US continued to be concerned about the growing Soviet influence in the Middle East and, as a result, was willing to supply Israel with even more arms than it did before. (Puschel, 1992: 16) Despite the State Department's continued skepticism about the increase in American aid, there was strong presidential, congressional, and public opinion support for the strategy in the early 1970s. (ibid.)

<sup>375</sup> For example, see Action Memorandum to the Secretary from Parker Hart (NEA), "F-4 Negotiations", October 31, 1968. USNA; RG 59; SN Files 1967-69, Def 12-5, Box 1558 and Telegram to the Department of State from US Mission to the UN (NY), "NPT/Israeli Nuclear Intentions", November 15, 1968. USNA; RG 59; SN files, 1967-69, Def 12-5, Box 1558.

its non-introduction pledge. The sale of F-4 fighter jets was decoupled from the nuclear question and approved by the end of 1968.<sup>376</sup>

Having lost the battle over the NPT, fewer and fewer voices in the US government were advocating the use of leverage with Israel to resolve the nuclear question. As the perceived effectiveness of American leverage declined, the US gradually started looking toward the future by anticipating the various arguments that Israel might use in order to justify its decision to go nuclear. These arguments ranged from the Soviet threat to the potential for Arab conventional superiority, as well as the Israeli need to ensure its security and survival by any means possible.<sup>377</sup> The US predicted, however, that Israel would not risk going public with the revelations about its nuclear arsenal “because it would feel that it should not risk the loss of public or official support in the US.”<sup>378</sup>

During the first year of Nixon’s presidency, American perception of the effectiveness of leverage continued to decline, although it did not disappear completely from the internal government discourse. Nixon’s own attitudes on proliferation differed from those of his predecessors. Unlike Kennedy and Johnson, Nixon felt that some proliferation by key states (such as Israel) would not be detrimental to US national interests. These views became more apparent throughout his tenure in the White House. In the first year, however, there were still some (albeit feeble) attempts to thwart the Israeli nuclear program. The Dimona

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<sup>376</sup> Cohen, 1998b: 319.

<sup>377</sup> Department of State memo from W.N. Dale to Mr. Austin, November 15, 1968. USNA; RG 59; SN Files, 1967-69, Def 12-5, Box 1557.

<sup>378</sup> Ibid.

visits (the last one of which took place in July of 1969) and the sales of arms were still the primary modes of leverage that the US thought it could utilize in its dealings with Israel. However, by 1969, it was clear that the Dimona inspections were not working, and the last visit was a perfect example of how Israel controlled absolutely everything relating to it,<sup>379</sup> leaving little room for doubt about which side actually had more leverage vis-à-vis the other with respect to Dimona.

The limitations of the US's ability to influence Israel was recognized in other areas as well, such as the negotiations over the peace settlement. In a March 1969 briefing memo to President Nixon on the eve of Prime Minister Eban's visit to Washington, the State Department directly asked the question "how can we force Israel to take our view seriously?"<sup>380</sup> While the peace settlement was the main item on the agenda for Eban's visit, the nuclear question figured prominently as well. The State Department did not have a unified view of how much pressure the US should apply to Israel regarding the nuclear question.<sup>381</sup> The Department of Defense had more of a consensus and argued that "we should not waste our limited leverage with

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<sup>379</sup> On the Israeli refusal to grant the US-requested timing of the visit, see, for example, Telegram to the Department of State from US Embassy in Tel Aviv, "Dimona Visit", July 31, 1969. USNA; Nixon files, NSC, Box 604. On the unsatisfactory report on the visit, see Telegram to the Department of State from US Embassy in Tel Aviv, "Dimona Visit", August 8, 1969. USNA; Nixon files, NSC, Box 604.

<sup>380</sup> Briefing Memorandum, Abba Eban's Visit, "The Crucial Decisions", March 4, 1969. USNA; Nixon files, NSC, Box 604. It is interesting to note that the word 'force' was crossed out by hand and changed to 'induce', signifying a softening of language used (even internally) in US dealings with Israel.

<sup>381</sup> As previously mentioned, State Department was one of the few American agencies that traditionally expressed reservations about close strategic alliance with Israel and questioned the utility of providing Israel with massive amounts of US aid. As Puschel explained it, the State Department saw "Israel's strength and regional policies as simply making the diplomat's job that much tougher." (Puschel, 1992: 17).

Israel on the question of [peace] settlement but should concentrate on winning their agreement to push their nuclear development no further.”<sup>382</sup>

By the late 1960s some American policymakers came to the conclusion that using arms sales as leverage was not productive.<sup>383</sup> They believed that the only inducement for Israel “would be if the United States told the Israelis that if it actually embarked on the manufacture of nuclear weapons, it would cause a fundamental change in the US-Israeli relationship, including our long-standing concern for Israel’s security.”<sup>384</sup> Similar to Kennedy’s 1963 letter to Eshkol, this approach advocated the coupling of the nuclear question with the provision of American security guarantees to Israel. The issue came down to how far the US was willing to push Israel using not only hollow threats, but concrete actions as well. Some policymakers believed that “our [US] chances of influencing Israel’s policy basically hangs on the extent to which we are willing to make this a crunch issue in our relations with Israel.”<sup>385</sup>

Although neither Nixon nor his national security advisor Kissinger wanted to make this a ‘crunch issue,’ the US considered using leverage through the rest of 1969.<sup>386</sup> As time went by, however, various departments started to recognize the

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<sup>382</sup> Ibid. There are three things particularly noteworthy about this statement: 1) there was a recognition that the amount of leverage was ‘limited’; 2) some agencies, like DoD, were still under the impression that the US could influence the course of the Israeli program; and 3) there was a lack of intra-agency agreement on the most appropriate approach toward Israel.

<sup>383</sup> For a discussion of the pros and cons of using arms sales as leverage with Israel, see Wheelock (1978), although he discussed the period of the 1970s rather than the 1960s.

<sup>384</sup> Briefing Memorandum to the Secretary from Joseph Sisco, Israel’s Nuclear Policy and implication for the United States”, April 3, 1969. USNA; Nixon files, NSC, Box 604.

<sup>385</sup> Ibid.

<sup>386</sup> See, for example, “The Issues for Decision” memo dated July 14, 1969. USNA; Nixon files, NSC, Box 604.

diminishing effectiveness of American leverage. In a memo to the Assistant to the President for National Security Affairs, for example, the Secretary of Defense argued that “we considered making delivery of the F-4s contingent on assurances that Israel would not develop a nuclear capability, and as we deliver more and more nuclear capable equipment to them, our leverage on them decreases.”<sup>387</sup> In fact, much as Johnson did at the end of 1968, Nixon allowed the decoupling of the sales of F-4 jets from the discussion of nuclear issues with the Israelis.<sup>388</sup>

By some accounts Israel moved from an intermediary to a mature stage of the program on the eve of the 1967 war.<sup>389</sup> Much as was the case with France, it took the US at least several years to come to terms with this reality.<sup>390</sup> In fact, the US might not have known for certain that the Israeli program had matured until the fall of 1969, when Nixon and Meir held a closed-door meeting on the question. Before the meeting, the US commissioned one more round of assessments of the Israeli

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<sup>387</sup> Memorandum for the Assistant to the President for National Security Affairs from the Secretary of Defense, “American Interests in the Arab-Israeli Conflict”, August 22, 1969. USNA; Nixon files, NSC, Box 604.

<sup>388</sup> See, for example, Briefing Memorandum to the Under Secretary from R. Davies (NEA), “Call on you by Israeli Ambassador Rabin Thursday, August 28, at 11 am”, August 27, 1969. USNA; RG 59; SN files, 1967-69, Def 12-5, Box 1557.

<sup>389</sup> See, for example, Cohen, 2010: XXV. Nixon and his National Security Advisor Kissinger were strong believers in the strategic value of Israel in the context of American strategic objectives (i.e., counterbalancing Soviet influence in the Middle East) at any given time. (Puschel, 1992: 16-20). In fact, Puschel writes that, in the early 1970s, “Nixon and Kissinger’s major goal remained to thwart Soviet objectives in the area and not to befriend Israel.” (ibid.: 20).

<sup>390</sup> Cohen (1998b) argued in his study that some US policymakers reached the conclusion in the mid 1960s that the Israeli nuclear program could not be stopped, rather than in the late 1960s (Cohen, 1998b: 214). According to Cohen, since the mid 1960s, the US’s main agenda was not about reversing the Israeli program, but about convincing Israel not to openly become a nuclear weapon state. However, this argument does not explain the numerous evidential materials from the period of the mid 1960s to the end of 1969 in which the discourse still revolved around preventing Israel from ‘introducing’ nuclear weapons as defined by the US (i.e., not possessing them). I argue that the more appropriate turning point for American policy and approach was during the year 1969, in which we see mounting evidence of the American thinking about how to live and deal with a nuclear Israel rather than how to prevent her from going nuclear in the first place.

program known as NSSM 40.<sup>391</sup> While there was evidence that the White House was willing to exert *some* pressure on Israel over the nuclear question, the key policymakers, including President Nixon and his National Security Advisor Kissinger, did not desire a direct confrontation with Israel over this issue.<sup>392</sup> Instead, by the fall of 1969, the US was slowly developing a strategy to handle a nuclear Israel, and to minimize the damage from a potential acknowledgement of Israel's nuclear status.

The September 1969 Nixon-Meir meeting was, in many ways, a turning point in the US-Israeli relationship. It was also a shift in the Israeli program, as the state finally acknowledged to an ally, albeit secretly, the existence of nuclear weapons.<sup>393</sup> Even though no official record of it exists,<sup>394</sup> scholars have made an argument that the US-Israeli nuclear understanding was finally reached during the Nixon-Meir meeting.<sup>395</sup> What we do know for sure is that the nuclear question was indeed raised,<sup>396</sup> and that the two leaders came to an informal understanding about Israel's

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<sup>391</sup> The NSSM 40 and many documents relating to it remain classified. For a longer discussion of what is known about NSSM 40, see Cohen & Burr, 2006. See also Cohen, 2010: 1 and 9-13.

<sup>392</sup> Cohen & Burr, 2006.

<sup>393</sup> For a detailed discussion of the meeting, see Cohen, 2010: chapter 1.

<sup>394</sup> Not surprisingly, Nixon does not mention anything about the nuclear question in his memoirs while discussing the September meeting with Meir (Nixon, 1978: 592). Kissinger also does not raise the nuclear question in his account of the meeting (Kissinger, 1979: 370-371).

<sup>395</sup> The meeting was private and, apparently, no note-takers were present. If indeed there were any notes on the meeting, they remain classified. For a greater discussion of the Meir-Nixon meeting and its background context, see Cohen & Burr, 2006. See also Cohen, 2010: 23-28. Cohen bases his argument on some newly declassified State Department documents, even though the minutes of the meeting (both on the US and the Israeli side) are still missing or remain classified.

<sup>396</sup> See Memorandum to the President from H. Kissinger, "Discussion with the Israelis on Nuclear Matters", October 7, 1969. USNA; Nixon files, Box 605. In particular, Kissinger wrote that "during your [Nixon's] private discussion with Golda Meir, you emphasized that our primary concern was that the Israelis make no visible introduction of nuclear weapons or undertake a nuclear test program." It might be possible to speculate that Meir revealed the full extent of Israel's program to Nixon during that private meeting. In this respect, it is interesting to recall Cohen's discussion of Meir's position on how to deal with the Americans and their questions about Israel's program during the Kennedy years. Back in 1963, Meir essentially advocated telling Kennedy the truth about Israel's program and couching it in security terms. At the time,

nuclear program and the American policy with respect to its going forward. Specifically, Meir promised Nixon that Israel would not change its 'declaratory pledge'<sup>397</sup> and would keep its nuclear weapons under wraps. In return, Nixon apparently promised his Israeli counterpart that the Dimona visits would come to an end and that the US would stop pressuring Israel to sign the NPT as a non-nuclear weapons state.<sup>398</sup>

In the end, the US failed to persuade Israel to abandon its nuclear program during the intermediary stage. Despite various security levers available to the US and numerous efforts to use them, the US never made the nuclear question a "crunch issue" in the bilateral relationship. By the time President Nixon came into office in early 1969, America's willingness to try to reverse the Israeli program had waned compared to previous years. US policy makers had gradually been coming to a realization that, short of a major showdown with Israel over its nuclear policy, the US was not effective in influencing Israel on this issue. In 1969 the US had a President in the White House who was fully on board with that view. As Kissinger explained in his memoir, Nixon "favored a strong Israel because he did not want the United States to have to fight Israel's battles – which was exactly Mrs. Meir's view as

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Prime Minister Eshkol rejected her reasoning. (Cohen, 1998b: 164). Perhaps the time was right in 1969 for Meir to follow her advocated position and 'come clean' about the program to Nixon. In return, Israel asked the US to stop pressuring it to sign the NPT (at least in private), to end the Dimona inspections, and not to publicize the issue to the extent possible.

<sup>397</sup> i.e., the pledge that Israel would not be the first to introduce nuclear weapons to the Middle East

<sup>398</sup> Many US policy-makers understood the difficulties of persuading the non-signatories of the NPT to join the Treaty, not just Israel. As the former Chairman of AEC, Glenn Seaborg, wrote in his memoirs in 1981, "the nuclear powers, particularly the United States, have tried from time to time to persuade various of the nonsigners to change their minds. The nonsigning nations have been quick to point out an apparent element of hypocrisy in this endeavor." (Seaborg, 1981: 291).

well.”<sup>399</sup> It became evident during the Nixon-Meir meeting in the fall of 1969 that Israel had already developed a nuclear capability at that point. The challenge that the US faced following the Nixon-Meir summit was how to reconcile the US’s implicit recognition of Israel’s nuclear status with the broader non-proliferation agenda. In short, the US needed to figure out how to defend yet another instance of nuclear exception for one of its friends.

### **Taiwan (1967 – 1978 and 1987-1988)**

Shortly before the US got a definitive confirmation in 1969 that Israel had gone nuclear, it faced another challenge from a friendly nuclear proliferator, this time in Asia. Taiwan presented an interesting and important contrast to other cases of early friendly proliferators. In this particular instance the US was actually successful in persuading Taiwan to abandon its military nuclear program. The critical American policy initiatives that took place during the two separate intermediary phases of the Taiwanese program will be detailed in the following section.

Among scholars specializing in Taiwan and its nuclearization, there is a general consensus that US policies in the mid 1970s and again in the mid 1980s were instrumental in rolling back Taiwan’s nuclear weapons program.<sup>400</sup> However, at least one scholar (Solingen, 2007) has recently questioned this interpretation.<sup>401</sup>

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<sup>399</sup> Kissinger, 1979: 371.

<sup>400</sup> See, for example, Albright and Gay (1998); Hersman and Peters (2006); Mitchell (2004); and Tucker (2001).

<sup>401</sup> Solingen does not completely discount the role played by the US in pressuring Taiwan to roll back its program. What she argues, however, is that Taiwan’s liberalizing ruling coalitions were highly susceptible to American pressure on the nuclear question because they calculated that their interests would best be

Solingen argued that Taiwan's nuclear choices were driven by the interest of Taiwan's liberalizing coalitions that wished to stay in power and to modernize the economy.<sup>402</sup> It appears, then, that the interests of these coalitions aligned with those of the US on the nuclear question.

Nonetheless, Solingen's model does not account for the timing of Taiwan's two separate rounds of an intermediary nuclear weapons program. The 1970s effort commenced *after* the domestic coalitions launched economic modernization and stabilization programs. In addition, the second round of the program in the 1980s is puzzling if, as Solingen claims, the general orientation of outward-looking coalitions had not seriously changed since the 1950s.<sup>403</sup> Furthermore, it could be argued that US interests with respect to the direction of Taiwan's nuclear program simply aligned with those of some of Taiwan's elites (but not all, as there were internal disagreements in Taipei about the appropriate course of the nuclear program). Finally, contrary to what Solingen argues, Taiwan did not 'yield easily' to American pressure to reverse its program.<sup>404</sup> In reality, it took the US several years during the 1970s to pressure Taiwan to give up its nuclear ambitions. Even that effort was not completely successful as evidenced by a second round of Taiwan's program in the 1980s.

There are also some shortcomings in the explanations offered by scholars who do agree that the US was instrumental in dismantling Taiwan's nuclear

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served by not alienating American patronage and support (author's personal conversation with E. Solingen, May 4, 2011).

<sup>402</sup> Solingen, 2007: chapter 5.

<sup>403</sup> Author's personal conversation with E. Solingen, May 4, 2011.

<sup>404</sup> Solingen, 2007: 116.

program. For example, Albright & Gay (1998), as well as Hersman and Peters (2006), credit the US with the program's reversal, but both fall short of discussing the specific mechanisms by which the US achieved that goal. Mitchell (2004) argues that American pressure played a decisive role, but does not provide an answer as to why the US pressure was successful in this particular case and not in others. The following discussion will fill in these gaps by illustrating how a combination of a *high* level of American leverage and strong willingness to use it produced a US policy that dealt with the nuclear ambitions of an ally that was different from those utilized with some other close strategic American friends, such as Israel and France.

*Taiwan: Intermediary Stage – Round # 1 (1967-1978)*

In the aftermath of the nuclear test by the PRC nuclear test in 1964 and the subsequent American refusal to directly bomb PRC nuclear installations,<sup>405</sup> certain members of Taiwan's ruling elite began to seriously consider an indigenous nuclear weapons program. Several months after the first nuclear test by Communist China, Taiwan was desperately looking for ways to bolster its defenses through conventional means, such as an enhanced air strike capability. Taiwan hoped that one of its closest allies, the US, would aid it with this effort.<sup>406</sup> Washington's strategy, however, was characterized by verbal assurances regarding the availability of the

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<sup>405</sup> A move that Taiwan had been pressuring the US to take in the mid 1960s

<sup>406</sup> See Airgram from US Embassy in Taipei to the Department of State, "Conversation with Minister of Defense on US Nuclear Deterrent", April 14, 1965. NARA; RG 59; Central Files, 1964-66, POL-DEF, Box 1617.

American nuclear deterrent for Taiwan and a refusal to directly bolster the offensive capabilities of its strategic ally.<sup>407</sup>

These developments led, in 1967, to the establishment of the so-called 'Hsin Chu Program,'<sup>408</sup> the code name for Taiwan's nuclear weapons program.<sup>409</sup> The proposal for the \$140 million program apparently came from the Ministry of Defense and the decision regarding its authorization was made by a handful of top Taiwanese officials.<sup>410</sup> The support for the program was not unanimous, and it had some prominent critics among the Taiwanese elite.<sup>411</sup> The enterprise was placed under the authority of the Institute of Nuclear Energy Research (INER), a civilian nuclear research institution, and, as Mitchell (2004) writes, "it was therefore relatively easy to keep secret a nascent weapons program, although evidence and security leaks seeped out of the system over time."<sup>412</sup>

It does not appear that the US had direct knowledge of the establishment of the weapons program until several years after 1967. Some scholars argue that the

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<sup>407</sup> It is interesting to note that in late fall 1964, some members of the State Department explored a proposal that would have provided "...nuclear weapons under US custody for use by 'friendly Asian' military forces in the event that China threatened to attack them." (Perkovich, 1999: 91). These friends included Taiwan. Ultimately, the proposal was rejected as highly problematic and unfeasible. Taiwan did not know about its existence. (ibid: 91-93).

<sup>408</sup> The program was named for the city outside Taipei where the National Tsing Hua University was located.

<sup>409</sup> For a more detailed discussion of the Hsin Chi Program, see Mitchell (2004).

<sup>410</sup> There is still some debate regarding the exact timing of the decision and the identity of the individuals involved in it. See, for example, Mitchell, 2004: 296.

<sup>411</sup> Albright and Gay (1998) describe the role played by Professor Ta-You Wu (the former President of the Academia Sinica in Taipei) who heavily criticized the program to President Chiang Kai-Shek. Albright and Gay write that Chiang's own views on the program were unclear, but that Chiang's son (Chiang Ching-kuo) might have been the main driving force behind the proposal (Chiang Ching-kuo became Taiwan's President in 1978 shortly after his father's death). (Albright and Gay, 1998: 56).

<sup>412</sup> Mitchell (2004: 297).

CIA confirmed the existence of the program only in 1974.<sup>413</sup> However, a 1966 NIE mentioned for the first time the possibility that Taiwan might consider such a program in the wake of the PRC's nuclear test. The CIA considered the odds of its success to be low.<sup>414</sup> At least one cable from the US Embassy in Taipei in 1966 suggested that there might have been suspicions about some weapons-related activity starting that year. Specifically, the airgram reported to the State Department that "...at the direction of President Chiang [Kai-shek], the [ROC] Defense Ministry continues to try to develop an atomic weapon and delivery system, according to a source close to the effort."<sup>415</sup> It is interesting to note that the driving force behind the effort was identified as President Chiang himself,<sup>416</sup> contrary to what Albright and Gay (1998) suggested. This particular cable, much like the CIA assessments that would come later, argued that Taiwan would have a hard time acquiring an indigenous weapons capability due to a lack of nuclear material in the country, problems associated with missile capability, and inability to recruit scientists from abroad.<sup>417</sup> At this stage the US showed little, if any, signs of willingness to challenge Taiwan's nuclear program. Lacking any concrete evidence about the program, President Johnson and his advisors had not paid any particular attention to this potential problem. This attitude began to slowly change as Taiwan's program entered an intermediary stage.

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<sup>413</sup> Hersman & Peters (2006: 543); Albright & Gay (1998: 57).

<sup>414</sup> NSA@GW; National Intelligence Estimates, Document # 12

<sup>415</sup> Airgram from US Embassy Taipei to the Department of State, "Indications GRC Continues to Pursue Atomic Weaponry", June 20, 1966. NSA@GW, Taiwan's Nuclear Intentions, 1966-76, Document # 8.

<sup>416</sup> The Airgram argued that there were prominent critics of the effort in Taiwan, but that "President Chiang has insisted that the effort continue." (ibid.)

<sup>417</sup> ibid.

By about 1967-68, the US had started to focus on Taiwan's continuing 'nuclear shopping spree' that dated back to the 1950s. As part of the Hsin Chu Program, Taiwan envisioned procuring and operating a heavy water reactor, a heavy water production plant, a reprocessing research laboratory, and a plutonium separation plant.<sup>418</sup> The various components and materials for these nuclear projects had to be acquired abroad. Over the years, the sources were as varied as West Germany, Canada, France, South Africa, and the US, among others.<sup>419</sup> In 1966-67, Taiwan negotiated the purchase of a nuclear reactor from West Germany. The US treated the sale with great skepticism. It eventually approved it, once it was satisfied that the IAEA safeguards for the reactor were in place and that it was for peaceful research and energy generation.<sup>420</sup> Despite approving the sale, privately the US was not persuaded that the reactor would have no military application. Some US diplomats wrote to the State Department that they were "not convinced that the purpose motivating [ROC's] desire for Siemens reactor [was] unrelated to interest in nuclear weapons research".<sup>421</sup> There were additional large-scale nuclear purchases such as the heavy water reactor from Canada in 1969 (which became operational in

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<sup>418</sup> Mitchell, 2004: 297.

<sup>419</sup> See Mitchell, 2004: 297. The US, for example, supplied plutonium for civilian research under the terms of the bilateral Agreement on Cooperation on Civil Nuclear Energy signed in the 1950s. Interestingly, in 1966 there were reports about a visit by Taiwanese scientists to Israel, although the US did not know many details about the purpose or the outcome of the visit. (see NSA@GW, Taiwan's Nuclear Intentions, 1966-76, Documents # 1-2). Apparently, the Taiwan-Israeli contacts did not end then. An intelligence report from 1970 highlighted another visit by Taiwanese scientists to Israel, supposedly aimed at procuring surface-to-surface missiles and missile technology. (see Intelligence Note, "Republic of China/Israel: the Strange Alliance", January 21, 1970. NARA; RG 59; Central Files, 1970-73, DEF Chinat, Box 1698.)

<sup>420</sup> For a detailed discussion about the 1966-67 sale of the West German reactor, see documents from NSA@GW, Taiwan's Nuclear Intentions, 1966-76, Documents # 3-7; 9-11. Document # 7 in particular highlights US's growing concern with the appropriate safeguards for all reactors and nuclear equipment going to Taiwan, an indication that the US was starting to worry that without such safeguards, the Taiwanese program would take a military turn and be beyond anyone's control.

<sup>421</sup> NSA@GW, Taiwan's Nuclear Intentions, 1966-76, Document # 9.

1973), and natural uranium from South Africa<sup>422</sup> in the late 1960s by Taiwan. In 1970, work began on the so-called 'hot lab'.<sup>423</sup> In the meantime, Taiwan signed the NPT in 1968, legally committing itself not to produce nuclear weapons.<sup>424</sup>

After its establishment in 1967, the Hsin Chu program was undoubtedly influenced by certain developments in US-Taiwanese relations as well as the changes in the US-PRC affairs, starting specifically in the early 1970s. In the late 1960s, the US gradually reduced military aid to Taiwan,<sup>425</sup> a move that was contemplated as far back as the Kennedy Administration.<sup>426</sup> Even though in real terms US military aid to Taiwan never ceased during the years of the Cold War and beyond, in the late 1960s, there were numerous discussions about the possible effects of a decrease of American military assistance to Taiwan. The US worried, for example, that a decline in US military aid would prompt Taiwan to re-direct resources from its economy toward the military, thus jeopardizing the wellbeing of Taiwan's economic sector.<sup>427</sup> Despite these worries, the US categorically opposed

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<sup>422</sup> Mitchell, 2004: 298.

<sup>423</sup> Albright and Gay, 1998: 57.

<sup>424</sup> Although we now know that this was precisely the time when the Taiwanese nuclear program was starting to gain momentum.

<sup>425</sup> See, for example, a telegram from US Embassy Taipei to the Department of State, "Discussion with Defense Minister re: Military Assistance", August 9, 1968. NARA; RG 59; Central Files, 1967-69, DEF Chinat, Box 1531.

<sup>426</sup> Tucker, 2001:209. In fact, the US was phasing out its direct aid to Taiwan since the early 1960s – the first step was the phasing out of direct economic aid (which ended in 1965). The US always encouraged Taiwan to 'wean itself' from American aid by promoting foreign direct investment, among other things. By the mid 1960s, when the economic situation in Taiwan improved greatly, President Johnson declared that the US economic aid to Taiwan was a success and that it was time for Taiwan to graduate from being dependent on the US (Tucker, 2001: 170-172). The phasing out of direct military aid took much longer. In reality, the American military aid did not decline substantially even in the late 1960s. The SIPRI database on arms transfers suggests that there was a brief decrease in the amount of US transfers from 1967 to 1968, but then it picked up again. The US did not cease to be the major arms supplier to Taiwan, making this a very important component of the American security leverage.

<sup>427</sup> Airgram from US Embassy Taipei to the Department of State, "Political Effects of Current Military and Economic Development on Taiwan; Part I, Background Factors", October 5, 1968. NARA; RG 59; Central Files, 1967-69, DEF Chinat, Box 1531.

the provision of US military assistance (or, for that matter, military assistance from other Western nations) that would serve offensive purposes. For example, in 1968, the US rejected Taiwan's request for a squadron of American F4C planes<sup>428</sup> and, in 1969, it opposed the sale of West German M-47 tanks to Taiwan,<sup>429</sup> arguing that both types of equipment could serve offensive purposes.

The relative reduction of American military assistance to Taiwan in the late 1960s was coupled with another policy change that Taiwan interpreted as a lessening of the US's security commitments to Taiwan, a reduction in American patrols in the Taiwan Straits.<sup>430</sup> The US explained its decision to Taiwan as purely an economic necessity and continued to reassure the Taiwanese leadership that "the US defense commitment of course remained unchanged."<sup>431</sup> Nonetheless, Taiwan interpreted this change as a sign that the US was renegeing on its obligations under the 1954 Mutual Defense Treaty. The move, not surprisingly, left Taiwanese top officials very worried.<sup>432</sup> In fact, Taiwan was so perturbed by the American policy that President Chiang Kai-shek sent a personal message to President Nixon in November 1969 urging him to reconsider the American decision.<sup>433</sup> The US refused

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<sup>428</sup> Telegram from US Embassy Taipei to the Department of State, "Discussion with Defense Minister re: Military Assistance", August 9, 1968. NARA; RG 59; Central Files, 1967-69, DEF Chinat, Box 1531.

<sup>429</sup> Telegram from US Embassy Taipei to the Department of State, "GRC Interest in Purchase of M-47 Tanks", February 6, 1969. NARA; RG 59; Central Files, 1967-69, DEF Chinat, Box 1531.

<sup>430</sup> The waterway separating Taiwan from Communist China.

<sup>431</sup> Memorandum of Conversation, "Taiwan Straits Patrol and GRC Submarine Request", November 14, 1969. NARA; RG 59; Central Files, 1967-69, DEF Chinat, Box 1531.

<sup>432</sup> See, for example, the telegram from US Embassy Taipei to the Department of State, "Modification Taiwan Straits Patrol", November 12, 1969. NARA; RG 59; Central Files, 1967-69, DEF, Box 1532.

<sup>433</sup> See memorandum for H. Kissinger from J. Holdridge, "Your Appointment with Ambassador Chow Shu-kai – Addendum", November 14, 1969. NARA; Nixon files, NSC Files, Box 751. See also telegram from US Embassy Taipei to the Department of State, "Modification Taiwan Straits Patrol", November 16, 1969. NARA; RG 59; Central Files, 1967-69, DEF, Box 1532. The telegram conveyed that Taiwan 'acquiesced' to the American decision about the patrol issue, supposedly after the US reassured Taiwan that some minimal patrolling of the Straits would continue.

to change its mind, indicating a toughening of the American stance in its dealings with Taiwan, even though, at this point in time, the hardening was not explicitly linked to Taiwan's nuclear weapons program.

If the Straits patrol issue shook Taiwan's confidence about the depth of the American security commitment, it was nothing compared to the apprehension that Taiwan felt about the changes in US-PRC relations which became one of the cornerstones of Nixon's presidency. The goal of achieving a formalization of political relations with Communist China, otherwise known as Normalization, was prompted by strategic reasoning on both sides.<sup>434</sup> Nixon devoted an increasing amount of his attention to this goal, all the while realizing that the US-Taiwanese relations might potentially suffer in the process. Nixon saw the normalization of relations with China as a way to counterbalance to influence of the Soviet Union; settle the conflict in Vietnam; gain access to Chinese markets; and reap some domestic political benefits.<sup>435</sup> Nixon wanted to be perceived as a peacemaker and a great statesman and the 'opening up' of China was a perfect opportunity.

The prospect of closer ties between Washington and Beijing, Taiwan's major external enemy, made politicians in Taipei increasingly worried and uncomfortable in the early 1970s. While the US made some attempts to prepare Taiwan for the

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<sup>434</sup> For more in-depth discussion of Normalization, see, for example, Tucker (2001), Chapter 4. For the US, Tucker writes, the advantages of the Normalization policy included a creation of a counter-balance to the Soviet Union (by putting Moscow on the defensive); a way of settling the war in Vietnam (by hoping that the PRC would pressure Hanoi to settle the war); and incurring both international and domestic accolades (e.g., Nixon wanting to be seen as a great peacemaker and negotiator). For the PRC, Normalization also meant the creation of a counter balance to the Soviet Union (especially as a way of countering the Brezhnev Doctrine which was increasingly being applied in Eastern Europe in the late 1960s); economic benefits from closer ties to the American market; and the resolution of the question of PRC's membership in the UN. (Tucker, 2001: 219-221).

<sup>435</sup> Tucker, 2001: 219-222.

upcoming policy changes,<sup>436</sup> Washington failed to notify Taipei ahead of time about Nixon's announcement of his historical visit to China.<sup>437</sup> This prompted a sharp and critical response from Taiwan.<sup>438</sup> In private, the American diplomats acknowledged that the Nixon White House was cognizant of the fact that US-PRC normalization would harm US-Taiwanese relations.<sup>439</sup> However, this recognition did not translate into additional assurances to Taiwan from the US beyond the verbal confirmation of American commitments to Taipei under the existing treaties and agreements.

The early 1970s brought additional worries for Taipei. The international political atmosphere was now more conducive to formal political recognition of PRC. Nixon's February 1972 trip to China brought about closer US-PRC ties. In

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<sup>436</sup> See, for example, letter from President Nixon to President Chiang dated March 27, 1970, in which Nixon informed Chiang that he [Nixon] "...would be remiss in [his] duty to the American people if [he] did not attempt to discover whether a basis may not exist for reducing the risk of a conflict between the US and Communist China, and whether certain of the issues which lie between us may not be settled by negotiation." Nixon added, however, that "...there shall be no change in the firmness of our commitment to the defense of Taiwan and the Pescadores", anticipating in advance Taiwan's negative reaction to the changes in American policy. NARA; Nixon files; NSC Files; Box 751.

<sup>437</sup> See telegram from the Department of State to US Embassy Taipei, "Letter to President Chiang from President Nixon", July 16, 1971. NARA; RG 59; Central Files, 1970-73; POL Chinat. Box 2205. Nixon's announcement about his PRC trip came on July 15, 1971; in his letter to Chiang, he apologized for not giving Taiwan the heads-up about the visit (although one wonders if this was a deliberate lapse on the part of the US) and continued to impress on Taiwan the seriousness of American security commitments to Taiwan, invoking his personal relationship with Chiang in the course of the assurances.

<sup>438</sup> Even though the White House anticipated a critical response from Taiwan, it speculated that Taipei would try to avoid extremism in its critique of the US's new policy for fear of weakening American support. This suggests that the US perceived its influence over Taiwan (and Taiwan's dependency on the US's security guarantees) to be high and effective. See Memorandum for the President from the Secretary of State, "Probable GRC Reaction to Your Announced Visit to Mainland", July 21, 1971. NARA; RG 59; Central Files, 1970-73, POL Chinat, Box 2205. President Chiang's reaction in January 1972 indeed avoided extremism, although it clearly communicated to the US Taiwan's unease over the new policy. For example, in a personal letter to Nixon, President Chiang wrote that he was "...confident that, with your [Nixon's] wisdom, rich political experience, and your thorough understanding of the true nature of the Chinese Communist regime, you would certainly have full cognizance of Peiping's treacherous tactics and intrigues in its international activities and would be beguiled." NARA; Nixon Files; Box 751.

<sup>439</sup> Tucker (2001: 235). In particular, the US diplomats argued that Nixon and Kissinger felt at the time that "...in terms of American national interests, you have to take some risks in that [US-Taiwan] relationship in order to move ahead with China. Clearly, Nixon and Kissinger wanted to "square the circle". They wanted to open up with China without having to go too far in destroying our relationship with Taiwan and, in the course of doing this, not only hurting our international reputation for steadiness and friendship with our allies, but also stirring up domestic opposition to mistreating an old friend." (ibid.)

addition, PRC was granted a seat on the Security Council of the United Nations, which was previously held by the government of Taiwan.<sup>440</sup> For a long time, the US struggled to keep Taiwan's seat at the UN, even as the US's outright opposition to PRC's membership in the organization was waning. In early 1971 the White House still hoped to save Taiwan's seat by virtue of pushing for 'dual representation', although the American policymakers conceded that keeping Communist China out of the UN was no longer realistic.<sup>441</sup> The US ended up losing its battle on behalf of Taiwan, as it did not get the necessary number of votes in the General Assembly for keeping Taiwan in, and the Taiwanese representatives wound up walking out of the Security Council even before the vote had been taken.<sup>442</sup>

In the aftermath of its expulsion from the UN, Taiwan was also expelled from the IAEA, although, in 1970, it began negotiating a trilateral nuclear safeguards

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<sup>440</sup> For a more detailed discussion of the UN membership question see, for example, Tucker (2001: 260-267 in particular). The UN question dated back to the early 1960s, when, allegedly, President Kennedy promised Chiang Kai-shek that the US would use its veto on the Security Council to keep Taiwan in the organization (if Taiwan didn't block the entry of Mongolia) (Tucker, 2001: 181). Throughout the 1960s, the US saw its mission with regard to this question as 'keeping Taiwan in and Communist China out'. By the late 1960s and early 1970s, however, there was an increased international support for the idea of granting PRC UN membership, and the US gradually shifted its policy toward supporting the so-called 'dual representation' that would allow both states to be in the UN. Dual representation never materialized. In 1971 the PRC was formally granted a seat in the UN as Taiwan lost its membership in the organization.

<sup>441</sup> See, for example, Memorandum from H. Kissinger to President Nixon, "Chirep Memo", March 26, 1971. NARA: Nixon Papers; NSF; NSSM, Box H-177; Memorandum for the President from Secretary of State William Rogers, "Some Shifts in Taipei's Position on Recognition of the PRC and Chinese Representation", May 19, 1971. NARA: Nixon Papers; NSF; NSSM, Box H-177; Memorandum for the President from H. Kissinger, "Chinese Representation at the United Nations", April 9, 1971. NARA: Nixon Papers; NSF; NSSM, Box H-177. The last document in particular highlights some of the intra-departmental disagreements on this question. The State Department was advocating a change in the US's position of 'keeping PRC out and Taiwan in' which would reflect a growing recognition for the support that the PRC's membership was gaining worldwide. Nixon's national security adviser H. Kissinger, however, disagreed, fearing that a change in policy would merely delay Taiwan's expulsion by a matter of months, or maybe a couple of years. By the summer of 1971, however, the US was already pushing hard for 'dual representation' – see "Statement by the Honorable William P. Rogers, Secretary of State, Concerning Chinese Representation in the United Nations", August 2, 1971. NARA: Nixon Papers; NSF; NSSM, Box H-177.

<sup>442</sup> Tucker, 2001: 260.

agreement (between the US, the IAEA, and Taiwan) that would treat Taiwan as a non nuclear-weapons state.<sup>443</sup> Post-expulsion, the three parties decided that the agreement would informally provide a basis for safeguarding Taiwan's nuclear facilities and materials.<sup>444</sup> At around the same time, the IAEA initiated a series of inspections of Taiwan's nuclear installations, and the resulting reports helped fuel American worries about the intentions of Taiwan's nuclear energy program.<sup>445</sup>

Concerns about Taiwan's nuclear plans found their way into American intelligence reports and estimates in the early 1970s. As previously mentioned, the first reference to the possibility of Taiwan obtaining an indigenous nuclear weapons program dated back to 1966. CIA reports from the early 1970s were inconclusive in their assessment of the intentions and scope of Taiwan's program, although it was evident that the intelligence community was paying closer attention to the matter than it did during the 1960s. In 1972, the CIA issued a special NIE entitled "Taipei's Capabilities and Intentions Regarding Nuclear Weapons Development," the first report focusing specifically on Taiwan's nuclear goals.<sup>446</sup> The report warned that "...the evidence suggests that the generation of electric power is not the only serious interest that the GRC [Taiwan] has in the nuclear field" and that "...it might be possible for the GRC to fabricate a nuclear device as early as 1976." Nonetheless, there was "no reliable information on the military and political calculations behind the GRC's activities in the nuclear field," and there were a number of serious

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<sup>443</sup> Albright and Gay, 1998: 58.

<sup>444</sup> Ibid.

<sup>445</sup> See, for example, Memorandum of Conversation, "German Inquiry Regarding Safeguards on Export of Parts to ROC Reprocessing Plant", November 22, 1972. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 12.

<sup>446</sup> NSA@GW; US Opposed Taiwanese Bomb During 1970s, Document 1A.

deterrents to Taiwan's effort to go nuclear.<sup>447</sup> Among these considerations were the high costs of obtaining nuclear capability and, more importantly, concerns about a possible US reaction. The report speculated that:

...almost certainly there is fear that exercising a nuclear weapons option might endanger the further support of the US. Taiwan's security is so heavily dependent on the continued adherence of the US to the Mutual Defense Treaty, that any move on Taipei's part which might imperil that relationship would not likely be taken without long and careful study.<sup>448</sup>

At the time of the CIA report (1972), the US did not believe that the decision regarding the initiation of the program had yet been made. In fact, it had most likely been made around 1967.<sup>449</sup> Throughout the following year, the US continued to privately argue that Taiwan's nuclear intentions were unclear and that no firm decision on weapons had been reached.<sup>450</sup> Only in 1974 did the CIA finally conclude that Taiwan had a military nuclear program.<sup>451</sup>

Even before the CIA finally confirmed that Taiwan was interested in acquiring nuclear weapons, the US started taking steps to prevent such an outcome as evidenced, for example, by American policy regarding Taiwan's 1972-73 attempt to purchase a reprocessing plant from West Germany. As soon as the US learned about Taiwan's interest in procuring a plant in 1972, it began a campaign to block

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<sup>447</sup> *ibid.*

<sup>448</sup> *ibid.*: 5.

<sup>449</sup> Albright & Gay, 1998: 56.

<sup>450</sup> See Memorandum of Conversation, "ROC Nuclear Intentions", April 5, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 23; Memorandum to Mr. Sneider from M. McDonnell, "Reported ROC Nuclear Weapons Development Program", April 7, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 24.

<sup>451</sup> Albright & Gay, 1998: 57.

the sale. The initial opposition was ostensibly on economic grounds.<sup>452</sup> As time progressed, it became more and more clear that the US opposed the sale on political grounds and was increasingly equating Taiwan's interest in reprocessing technology with their desire to manufacture nuclear weapons. In early 1973, US opposition to the sale of the reprocessing plant became more vocal and more forceful as the American diplomats made "...formal representations to ROC concerning serious problems involved in ROC acquisition of a nuclear fuel reprocessing plant."<sup>453</sup> Despite Taipei's verbal assurances to the US that no military nuclear activity was taking place, Washington was not satisfied and was concerned that Taiwan did not "...fully appreciate degree of seriousness USG concern (sic) about proposed reprocessing plant."<sup>454</sup>

The nature of this diplomatic communication between Washington and Taipei in early 1973 suggested that willingness of the US to make the nuclear issue a pressing one in US-Taiwanese relations was *high*, although overt threats about the application of American leverage did not surface for several years. The US was

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<sup>452</sup> Memorandum from L. Moser to Mr. Green, "Nuclear Materials Reprocessing Plant for ROC – Information Memorandum", December 14, 1972. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 13. Even though this memo urged that Taiwan should be discouraged on economic grounds, it nonetheless stated that "...any frank discussion with the ROC regarding the basic reason for our lack of enthusiasm, i.e., that the plant might be used to manufacture nuclear weapons materials or might be interpreted as having that objective, should be done, if at all, through an approach by Embassy Taipei to senior GRC officials".

<sup>453</sup> Telegram from State Department to Embassies in Bonn, Brussels, Taipei, "Proposed Reprocessing Plant for Republic of China", January 4, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 14. The American opposition was framed in terms of NPT export prohibitions.

<sup>454</sup> Telegram from State Department to Embassies in Taipei, Bonn, "Proposed Reprocessing Plant for Republic of China", January 20, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 16. The State Department asked the US Embassy in Taipei to communicate to the Taiwanese officials that "USG, quite frankly, is apprehensive that if ROC proceeds with reprocessing plant and adequate international safeguards cannot be applied, some governments might believe ROC to have object (sic) of acquiring nuclear weapons capability." In the US's view, then, the 1970 tripartite agreement on safeguards was not adequate to guarantee appropriate oversight of Taiwan's nuclear facilities.

willing to confront Taiwan not least because the prospect of a nuclear armed Taipei would have raised the possibility of a regional conflict that could take on a nuclear dimension. Furthermore, Taiwan's nuclearization would have sabotaged any improvement in US-Sino relations as China was sure to claim that the US had assisted Taiwan with its nuclear program. By February 1973 Taiwan claimed that it had 'complied' with US wishes to abandon the purchase of a reprocessing plant, partly due to worries that a continued insistence on the sale would compromise American support for Taiwan's civilian nuclear energy program.<sup>455</sup> In reality, however, the plan was far from abandoned. The reprocessing plant issue came up again, this time even more forcefully, in late 1973, and it came to a head in 1976. Taiwan's subsequent actions directly contradicted Solingen's claim that Taiwan yielded 'readily' to US demands.<sup>456</sup>

Taiwan's assurances in early 1973 regarding the abandonment of a reprocessing plant purchase clearly did not satisfy the US, and, throughout the rest of the year, the US continued to voice its dissatisfaction with Taiwan's alleged plans for the purchase.<sup>457</sup> The US also insisted on a visit by a team of American nuclear experts to Taiwan's nuclear research institute. This visit was separate from the ones that the IAEA had been conducting since the early 1970s. This inspection, which took place in November of 1973, had a political purpose, and its goal was to

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<sup>455</sup> Telegram from US Embassy Taipei to State Department, "ROC Decides Against Purchase of Nuclear Reprocessing Plant", February 8, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 18.

<sup>456</sup> Solingen, 2007: 116.

<sup>457</sup> See, for example, Memorandum of Conversation, "ROC Nuclear Energy Plans", August 29, 1973. NSA@GW; Taiwan's Nuclear Intentions, 1966-76, Document # 27; Telegram from State Department to US Embassy Taipei, "Call on Assistant Secretary Hummel by Victor Cheng", September 4, 1973. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 2A.

“...demonstrate concretely our [the US’s] suspicions of ROC [nuclear] intentions and the seriousness with which we regard this matter.”<sup>458</sup> The inspection was fundamentally different from those conducted at Dimona in Israel, for example. This time, the US was on the offensive. The American expert team was instructed to tell Taiwan that the US “...had reason to believe they [Taiwan] were still interested in developing a capacity to manufacture nuclear weapons” and that the US considered “..the ROC desire to establish an independent reprocessing facility as one sign of this intention.”<sup>459</sup> The expert group’s visit also served as an opportunity for the US to warn Taiwan of possible American retaliation in case Taiwan refused to comply with the US’s insistence to drop the sale. The threats were quite vague at this point, but they were firm nonetheless.<sup>460</sup> The report from the visit should have been encouraging to Washington. Taiwanese officials once again reaffirmed their commitment to drop the idea of purchasing a reprocessing plant.<sup>461</sup> However, American concerns over the plant and Taiwan’s nuclear program in general only intensified by the mid 1970s.

Things came to a head in 1976 under President Ford who largely continued Nixon’s approach to non-proliferation and focused on a détente with the Soviet Union as a cornerstone of American disarmament policy. In 1976, the US formally

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<sup>458</sup> Memorandum to Mr. Hummel from R. Sullivan, “Nuclear Study Group Visit to Taiwan”, October 29, 1973. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 2B.

<sup>459</sup> *ibid.*

<sup>460</sup> *ibid.* In particular, the team was instructed to communicate to Taiwan that “should we [the US] believe that the ROC has moved from consideration of a nuclear weapons program to actual implementation (sic), we would be forced to react. That reaction would be based upon the circumstances at the time.”

<sup>461</sup> Telegram from US Embassy Taipei to State Department, “Fonmin Reaffirms ROC Decision to Refrain from Acquiring Nuclear Reprocessing Plant”, November 23, 1973. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 3B.

threatened to use its security leverage with Taiwan in order to resolve the nuclear issue. President Chiang Kai-shek had died a year earlier (1975) and was succeeded by his son, Chiang Ching-kuo, who, according to some scholars, was in favor of a military nuclear program.<sup>462</sup> While it was hard for the US to decipher the nature of the internal Taiwanese political debates about the desirability of nuclear weapons,<sup>463</sup> Washington relied on a combination of inspection reports and telegrams from the US embassies in Europe and Asia to draw an alarming picture of Taiwan's nuclear program. By 1975-76, the IAEA inspections, which had been going on since the beginning of the decade, concluded that activities at Taiwan's main nuclear research facility, INER, needed further investigation.<sup>464</sup> In 1976, the IAEA returned to Taiwan. While no reprocessing activity was discovered at the time,<sup>465</sup> it was revealed that ten fuel rods were missing.<sup>466</sup> In addition, in the summer of 1976, the US received new information suggesting that Taiwan might not have dropped its idea of purchasing a reprocessing plant after all and was still shopping around for one, this time from a Dutch source.<sup>467</sup>

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<sup>462</sup> Albright & Gay, 1998:56. This is not a foregone conclusion, however, although the intensification of the Taiwanese nuclear program in 1976 (after Chiang Kai-shek's death when Chiang Ching-kuo was still Premier) and its re-starting in the mid 1980s (when Chiang Ching-kuo was the President) might not have been accidental.

<sup>463</sup> The role of individual leaders in the proliferating states might have played a big role, as was the case in France under de Gaulle. At the time, however, the US may not have known the degree to which Chiang Ching-kuo supported a nuclear program for Taiwan.

<sup>464</sup> Albright & Gay, 1998: 58.

<sup>465</sup> See, for example, a report on the conversation between a *Washington Post* reporter and the director of IAEA safeguards division, Telegram from US Mission to IAEA in Vienna to State Department, August 19, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 4D.

<sup>466</sup> Mitchell, 2004: 299; Albright & Gay, 1998: 58.

<sup>467</sup> Telegram from US Embassy in the Hague to State Department, "Nuclear Fuel Reprocessing Plant", July 7, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 4A. Taiwan had apparently approached a Dutch company called Comprimo and was seeking some know-how for a reprocessing plant. See also a Telegram from US Embassy Brussels to State Department, "Nuclear Reprocessing in ROC", August 20, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 4E. This telegram

Despite Taiwan's official denial of American accusations regarding the purchase of a reprocessing plant (including Taiwan's oral pledge not to manufacture nuclear weapons, and assurances that all of its nuclear activities were for peaceful purposes only),<sup>468</sup> the US decided in the fall of 1976 to issue an official demarche to the government of Taiwan on the question of nuclear weapons. Washington had determined that a demarche should impress on Taiwan that absolutely no reprocessing could take place on the island.<sup>469</sup> The language of the demarche was purposefully threatening and, for the first time, an explicit linkage was made between the nuclear question and the provision of American aid to Taiwan.

The American willingness to take a firm stand on the issue was clear, as the demarche argued that the US "...would be remiss if [it] failed to make crystal clear to the ROC [the US's] firm opposition to [Taiwan's] acquiring a national reprocessing facility, and the serious consequences which would result from their failure to respect [the American] position."<sup>470</sup> These consequences were also spelled out in much greater detail than ever before: Taiwan's "...development of a national reprocessing facility would fundamentally jeopardize the prospects for continued cooperation between our two governments in the nuclear field"<sup>471</sup> (i.e., civilian nuclear technology). Furthermore, the demarche threatened that the issue could be

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alleged that Taiwan approached Comprimo seeking spent fuel reprocessing technology and plant equipment, requests that were denied by the Dutch.

<sup>468</sup> Telegram from US Embassy Taipei to State Department, "Ambassador Meets with Foreign Minister Shen to Discuss Recent Press Reports Concerning Reprocessing in Taiwan", August 31, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 5A.

<sup>469</sup> Telegram from State Department to the US Embassy Taipei, "ROC's Nuclear Intentions", September 4, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 6A.

<sup>470</sup> *ibid.*

<sup>471</sup> *ibid.*

taken up by the US Congress which had the authority “...to deny US military and economic assistance to a country that acquires a national reprocessing capability”<sup>472</sup> (i.e., Taiwan). Finally, the US also threatened to tie the question to the provision of American security guarantees by claiming that “should the ROC or any other government seek national reprocessing facilities, this would risk jeopardizing additional highly important relationships with the US.”<sup>473</sup> Not only was the US able, but also willing to apply ample pressure on Taiwan on the nuclear issue.

Taiwan’s response to the American demarche came about a week later and included the now familiar proclamations that Taiwan would ‘not manufacture nuclear weapons’ and that all of its nuclear research was purely for peaceful purposes.<sup>474</sup> Furthermore, Premier Chiang Ching-kuo claimed that he had told his own military leaders that “...to manufacture nuclear weapons would be like dropping a rock on one’s own feet” and that it was never “...in the thoughts [of his top scientific advisors and experts] to make nuclear weapons; [their] purpose was peaceful research.”<sup>475</sup> The Premier went on to suggest that the US should station one to three long-term American experts in Taiwan who would have full access to Taiwan’s nuclear facilities in order to further assuage US suspicions and worries

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<sup>472</sup> *ibid.*

<sup>473</sup> *ibid.* Note that while this particular formulation was ostensibly not singling out Taiwan, it was nonetheless directly addressed to Taipei with respect to the American suspicions about the reprocessing plant.

<sup>474</sup> Telegram from US Embassy Taipei to State Department, “ROC’s Nuclear Intentions: Conversation with Premier Chiang Ching-kuo”, September 15, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 7A.

<sup>475</sup> *ibid.*

about Taiwan's nuclear program.<sup>476</sup> Two days later, an article appeared in the Taiwanese press recounting a cabinet meeting at which Premier Chiang once again pledged that "...the ROC has never had the intention to manufacture nuclear weapons, nor has there been any fact to indicate that it has."<sup>477</sup> The cabinet affirmed that the government "...has no intention whatsoever to use its human and natural resources for the development of nuclear weapons or to obtain equipment for reprocessing spent nuclear fuel."<sup>478</sup>

Despite the numerous assurances from Taiwan, the US continued to harbor doubts about Taiwan's nuclear intentions. The US Congress held hearings on Taiwan's nuclear activities in October 1976 which stressed that an acquisition of nuclear weapons by Taiwan would be contrary to American non-proliferation and regional interests, and that the US had done all that it could to prevent that outcome, prompting Senator Case (R-NJ) to comment that "we've ridden the ROC quite hard on this one."<sup>479</sup> Besides general proliferation concerns, the US was also cognizant of how a nuclear-armed Taiwan might affect the regional balance of power. Furthermore, it was worried about the consequences for the future of the US-Sino relationship at a time when the partnership was still nascent and when the US was gearing up to officially recognize Communist China. The PRC warned the US that "...it

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<sup>476</sup> *ibid.* Note that this was quite a different response than the one from, say, Israel, during the American inquiries into Israeli nuclear activities. Neither Israel nor France had ever suggested to the US that it should station American nuclear experts in their countries in order to monitor nuclear activities there.

<sup>477</sup> Telegram from US Embassy Taipei to State Department, "ROC's Nuclear Intentions", September 17, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 7B.

<sup>478</sup> *ibid.*

<sup>479</sup> Telegram from State Department to US Embassy Taipei, "Congressional Hearing on ROC Nuclear Activities", October 9, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 8.

would hold the US responsible in the event Taiwan acquired nuclear weapons”<sup>480</sup> and that Communist China suspected that the US might be aiding Taiwan’s nuclear effort,<sup>481</sup> which put an even greater emphasis on the US to try to avoid such an accusation.

Taiwan’s assurances in the fall of 1976 did not placate the US. For the next several years, the US continued to inundate Taipei with its concerns about reprocessing technology and about Taipei’s nuclear weapons intentions.<sup>482</sup> The American concerns intensified after yet another inspection by the team of American nuclear experts that took place in January 1977.<sup>483</sup> The post-inspection report was not encouraging as it provided “...a technical confirmation of our [American] suspicions about the particular role of INER<sup>484</sup> in implementing the apparent GROC decision to acquire the capability to produce a nuclear explosive device.”<sup>485</sup> The only way to deal with the problem, according to the US Embassy in Taipei, was for the US government to “...take a very strong position regarding its whole nuclear research

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<sup>480</sup> Memorandum from B. Levin to Mr. Armstrong, “PRCLO Comment on Taiwan Nuclear Development”, October 12, 1976. NSA@GW; Taiwan’s Nuclear Intentions, 1966-76. Document # 29.

<sup>481</sup> Ibid.

<sup>482</sup> See, for example, Telegram from US Embassy Taipei to State Department, “ROC’s Nuclear Intentions: Conversation with Premier”, October 12, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 9A; Memorandum of Conversation, “ROC Nuclear Intentions”, November 18, 1976. NSA@GW; Taiwan’s Nuclear Intentions, 1966-76, Document # 30; Telegram from State Department to US Embassy Taipei, “Taiwan’s Continuing Interest in Reprocessing”, January 8, 1977. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 10B.

<sup>483</sup> Even before the visit took place, the US intended to continue pursuing the matter with Taiwan. In an instructions telegram about the visit, American diplomats suggested to team members that they should “...convey the impression that despite the hospitality it [the team] has received at ROC hands the team is not assured by what it has seen, and has continuing doubts...” (this conclusion was reached *before* the team had arrived in Taiwan!). Telegram from US Embassy Taipei to State Department, “US Nuclear Team Visit”, December 30, 1976. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 10A.

<sup>484</sup> Taiwan’s main nuclear research institute.

<sup>485</sup> Telegram from US Embassy Taipei to State Department, “US Nuclear Team Conclusions and Recommendations”, February 17, 1977. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 10G.

and development program.”<sup>486</sup> Some concrete steps that the American inspectors suggested as a result of their trip to Taiwan were shutting down the TRR (Taiwan’s Research Reactor); terminating all plutonium activities; ending all activities related to nuclear spent fuel reprocessing; and completely redirecting all research toward peaceful purposes.<sup>487</sup> These demands eventually made their way into the second formal American demarche to Taiwan issued in March 1977<sup>488</sup> that led to the signing of the US-Taiwanese Agreement on the future direction of Taiwan’s nuclear program.

The intensification of pressure reflected the priorities of the new White House Administration under President Carter, which put a greater emphasis on nuclear non-proliferation than the previous administration. Carter’s experience with nuclear power and technology as a navy officer early in his career shaped some of his views on nuclear issues later on.<sup>489</sup> He placed great emphasis on arms control treaties, such as SALT II,<sup>490</sup> and was not an advocate of civilian nuclear power.<sup>491</sup> The US went beyond scrutinizing Taiwan’s possible reprocessing activities to include all weapons-usable materials research and development. The explicit coupling of the nuclear question with the provision of American arms supplies and

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<sup>486</sup> *ibid.*

<sup>487</sup> *ibid.*

<sup>488</sup> Telegram from State Department to US Embassy Taipei, “Nuclear Representation to the ROC”, March 26, 1977. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 13A. Once again, the demarche clearly specified that the US was prepared to use its security leverage with Taiwan in order to achieve the desired outcome (“...unless the ROC’s nuclear program is significantly modified to eliminate all proliferation risks, we will not be able to continue cooperation on peaceful nuclear energy matters. Other important relationships between us will also suffer.”)

<sup>489</sup> See, for example, Seaborg, 1998: 259-263.

<sup>490</sup> Strategic Arms Limitation Talks that began in 1972 with the Soviet Union with an aim of signing an agreement, which limited strategic offensive weapons systems. The agreement was signed by President Carter and Soviet Premier Brezhnev in the summer of 1979

<sup>491</sup> Seaborg, 1998: 259-263.

security guarantees continued. The US also threatened sanctions in case Taipei decided to pursue a nuclear weapons program, and such “sanctions would not be confined to nuclear matters but would also affect a wide range of relations, including military cooperation.”<sup>492</sup>

The second American demarche and the US-Taiwanese agreement of spring 1977 effectively shut down Taiwan’s nuclear research reactor (TRR) and negotiated the transport of all spent nuclear fuel out of the country. The Carter White House had seemingly achieved the desired outcome, the reversal of Taiwan’s nuclear program during its intermediary stage, and the US clearly believed that its efforts had paid off.<sup>493</sup> Nonetheless, the US kept up its pressure on Taiwan through the rest of the 1970s, issuing yet another (third) demarche in the fall of 1978 in response to the concerns raised by an inspection by an American nuclear expert team conducted in July 1978<sup>494</sup> and the lingering concerns of various American officials.<sup>495</sup> The demarche clearly annoyed President Chiang, who provided his assurances to the US regarding the peaceful intentions of the Taiwanese nuclear program and who pointed out that Taipei “...had been ready to tolerate many investigations by the

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<sup>492</sup> Telegram from US Embassy Taipei to State Department, “US Nuclear Team Visit to ROC – Calls”, January 19, 1977. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 10E.

<sup>493</sup> See Memorandum for the President from Z. Brzezinski, “Weekly National Security Report # 11”, April 29, 1977. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 14. In particular, President Carter’s National Security Advisor argued that “...it [was] now quite clear that the Taiwanese Institute of Nuclear Energy Research has been ordered to terminate its heavy water reactor project and close the hot laboratory. The American effort to crack down on this project clearly yielded its desired results.”

<sup>494</sup> Telegram from US Embassy Taipei to State Department, “Nuclear Team Visit: Initial Calls: Discussions with CIST Director Tang”, July 31, 1978. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 20A.

<sup>495</sup> Internal State Department Memorandum from Gerald Smith to Allen, March 10, 1978. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 19. In particular, the memo disclosed that there was “...lingering suspicion, not entirely without foundation, that bomb-related work may be continuing in Taiwan.”

US... No other country has offered to work in such a cooperative spirit. There is nothing that is not open to US surveillance.”<sup>496</sup>

By the end of the 1970s, the US finally considered the option of stationing a handful of American nuclear experts in Taiwan on a long-term basis,<sup>497</sup> while, at the same time continuing to be vigilant about any signs of military nuclear activity in Taiwan. By 1980, the various elements of the 1977 US-Taiwanese agreement were being fully implemented.<sup>498</sup> These included the conversion of the main research reactor from high to low-enriched uranium; removal of all spent fuel from Taiwan, mainly to the US; and the gradual selective granting of some nuclear export licenses to Taiwan, but only after careful consideration of the purpose of various items.<sup>499</sup>

The above analysis once again proves that Taiwan did not yield “easily” to American pressure to suspend its reprocessing activities.<sup>500</sup> The application of American leverage translated directly into the modification, and eventual reversal, of Taiwan’s nuclear program<sup>501</sup> during its intermediary stage. It took more than four

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<sup>496</sup> Telegram from US Embassy in Taipei to State Department, “Follow-Up to Nuclear Team Visit: Demarche to President Chiang”, September 8, 1978. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 21A. Indeed, Chiang’s observations were true: Taiwan had offered the US an unprecedented level of access to its nuclear facilities, as compared, for example, to the US’s other allies, such as Israel or France. The US’s approach to Taiwan, however, showed a clear consistency of approach, which was not present in either the Israeli or the French cases.

<sup>497</sup> Telegram from US Embassy Taipei to State Department, “Proposed Assignment of US Nuclear Scientists to ROC”, September 18, 1978. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 21E.

<sup>498</sup> Telegram from US Embassy Taipei to State Department, “US Nuclear Technical Team Visit”, May 11, 1979. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 26.

<sup>499</sup> On licenses, see Telegram from US Embassy Taipei to State Department, “Exports of Nuclear Materials and Equipment to Taiwan”, June 16, 1980. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 27A; Telegram from State Department to US Embassy Taipei, “Export of Nuclear Materials and Equipment to Taiwan”, June 19, 1980. NSA@GW; US Opposed Taiwanese Bomb during 1970s, Document # 27B.

<sup>500</sup> Contrary to the assertions made to Solingen (2007: 116).

<sup>501</sup> Contrary to Solingen’s argument about the role of the American coercion (2007: 104). Whether there was or was not a consensus among the Taiwanese elite about the direction of Taiwan’s nuclear military

years after the CIA declared its suspicions about Taiwan's nuclear ambitions for the US to convince Taipei to reverse its nuclear course, and required several formal demarches. This hardly constituted an easy capitulation. The eventual reversal resulted from a consistent and prolonged application of threats regarding the use of American security leverage. Whenever new information about Taiwan's nuclear activities surfaced, the US reacted quickly by sending in teams of American nuclear experts, issuing formal demarches, and raising the issue with Taiwan at the highest level of government. The US was motivated by strong national interests, including the normalization of US-Sino relations started under President Nixon and an avoidance of a China-Taiwan showdown, which could have resulted from Taiwan acquiring a nuclear weapons capability. By the end of the 1970s Taiwan stopped its nuclear program at an intermediary stage. The program's termination, however, was not absolute, as we shall see below.

#### *Taiwan Intermediary Program – Round # 2 (1987-88)*

The geopolitical context in which Taiwan restarted its nuclear program in the 1980s was quite different from the one of the late 1960s and early 1970s, although some of the security issues facing Taipei were similar, if not more exaggerated, by the early 1980s. In 1979, the US completed the process of formally recognizing Communist China, Taiwan's primary external rival and threat, which meant a formal change in diplomatic relations between Washington and Taipei. The Mutual Defense

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program was not the most relevant part of the story. There was some indication that Premier (and later President) Chiang Ching-kuo might have been supportive of the clandestine nuclear effort, but that he ordered a stop to nuclear activities (at least temporarily) in the face of various American threats of use its security leverage with Taiwan.

Treaty, which had been in force between the US and Taiwan since 1954, had been replaced by the Taiwan Relations Act (TRA) of 1979.<sup>502</sup> The TRA was a way for the US to continue relations with Taiwan, both diplomatically and militarily, in light of the new realities of the PRC recognition. There was strong Congressional support for the TRA, as American lawmakers felt that the US had an obligation not to abandon an old friend, despite the official change in the status of the relationship.<sup>503</sup> Furthermore, under both Presidents Carter and Reagan, the US continued to support the sale of military equipment to Taiwan, much to the displeasure of the PRC, which protested that this represented a significant challenge to the process of Normalization of US-Sino relations.<sup>504</sup> This policy was in line with the overall shift in the American approach to defeating Communism under President Reagan, which entailed not only a massive military buildup domestically, but also conventional arms support for US allies.

US-Sino negotiations about the extent of the American military assistance to Taiwan (which the PRC claimed was a legitimate part of greater China) resulted in the 1982 US-PRC Communiqué, which was directly related to the intensification of hostilities in the Taiwan Straits.<sup>505</sup> The Communiqué's compromise was that the PRC had to accept continued American arms sales to Taiwan, although the US had to agree to cap the amount and quality of weapons being transferred to Taiwan.<sup>506</sup> Even though there was a temporary dip in the number of arms transferred from the

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<sup>502</sup> For a more in-depth discussion of the changing nature of US-Taiwanese relations in the late 1970s and early 1980s, see Tucker (2001), chapters 5 and 6.

<sup>503</sup> Tucker (2001: 331-339)

<sup>504</sup> *ibid.*: 359-361.

<sup>505</sup> Tucker (2001: 365-368)

<sup>506</sup> Tucker (2001: 367)

US to Taiwan post-1982, the sales of military equipment did not cease, and were increasing by the early 1990s.<sup>507</sup>

Despite the continuation of the arms transfers to Taiwan from the US, Taipei continued to harbor reservations about the extent of the US's security commitments, especially in light of the changing nature of US-Sino relations. Taiwan was also worried by PRC's new full status in international organizations, such as the UN, and the ongoing periodic flare-up of hostilities in the Taiwan Straits. The lingering uncertainties about the security of the external environment coincided with domestic political and economic changes in Taiwan. The economic situation had been gradually improving since the late 1960s, and was on a great upswing in the early 1980s when Taiwan started to actively invest in and develop high-tech electronic industries.<sup>508</sup> In the early 1980s Taiwan also initiated a process of gradual democratization under the stewardship of President Chiang Ching-kuo.<sup>509</sup> Both trends were firmly in place *before* the restarting of Taiwan's nuclear program in 1987, which raises questions about Solingen's argument regarding the rationale for

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<sup>507</sup> See SIPRI database on arms imports to Taiwan, 1950-2006.

[http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php).

<sup>508</sup> Tucker (2001: 420)

<sup>509</sup> *ibid.*: 420-422. The American diplomats stationed in Taiwan at the time gave a lot of credit to Chiang Ching-kuo personally for initiating political reforms and thought of him as a fascinating, 'brilliant' and 'visionary' man. It is important to note that the political opposition in Taiwan blamed the US for 'turning away from Taiwan' and claimed that post PRC recognition Taiwan was weak and powerless. It is unclear how and if these sentiments played a role in the re-starting of the nuclear program, but it is not hard to imagine that a restart could have been viewed as a type of a hedge against the weakness of Taiwan's conventional defenses, especially in the face of increased American detachment from Taiwan.

the rollback of Taiwan's nuclear program.<sup>510</sup> In fact, the timing of the second round of the program (1987-88) is not explained by Solingen's account.

Despite the numerous assurances given by Taiwan to the US in the late 1970s of the peaceful intentions of the nuclear program and promises to terminate all reprocessing activities, Taiwan began the construction of a hot cell facility in 1987<sup>511</sup> in violation of the 1976 and 1977 US-Taiwan nuclear agreements.<sup>512</sup> The existence of the facility was apparently discovered only after the defection of a top Taiwanese scientist (INER's deputy director), who was able to point the American intelligence community in the right direction in 1988.<sup>513</sup> Although no plutonium had been separated at that point, the CIA estimated at the time that Taiwan was only one or two years away from developing a nuclear bomb.<sup>514</sup> President Chiang Ching-kuo, apparently a staunch supporter of nuclear weapons for Taiwan, commissioned the construction of the hot cell facility.<sup>515</sup> Chiang Ching-kuo died in January 1988, and the US dealt directly with his successor, President Lee Teng-hui, to resolve the nuclear issue.<sup>516</sup> President Reagan's aversion to nuclear weapons also must have

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<sup>510</sup> Solingen (2007). Solingen argued that it was the domestic Taiwanese coalitions who wished to stay in power and modernize the economy that put an end to Taiwan's nuclear program. However, the second round of the program (1987-88) took place under the leadership of the very same coalitions that Solingen credits with stopping the program, questioning the validity of her theoretical argument.

<sup>511</sup> Mitchell (2004: 308). There are no archival documents available at this time about the second round of Taiwan's nuclear program, so the following account relies exclusively of secondary source information.

<sup>512</sup> The restart of the program was also arguably in violation of the NPT, which Taiwan joined in 1968. In 1971, however, the PRC replaced Taiwan in NPT and IAEA and Taiwan could no longer be a formal member of these regimes. However, in 1971 Taiwan had signed a trilateral agreement with the US and IAEA that prohibited it from proliferating. In opposing Taiwan's second round of nuclearization in the 1980s, the US did not appear to be making any claims that it was opposing the program on the grounds of treaty violations.

<sup>513</sup> Mitchell (2004:300); Albright & Gay (1998: 59)

<sup>514</sup> Mitchell (2004:300)

<sup>515</sup> Albright & Gay (1998: 59)

<sup>516</sup> President Lee may have been more amenable to US pressure than his predecessor, suggesting, once again, that presidential preferences on the part of the proliferator matter.

played a role in the level of American willingness to pressure Taiwan. By the mid 1980s, Reagan and Soviet leader Gorbachev had both committed to the eventual abolition of nuclear weapons. However, Reagan refused to abandon his support for Strategic Defense Initiative,<sup>517</sup> or to stem some other budding nuclear programs, as we shall see in the last chapter.

Upon hearing the defector's information about the hot cell facility, the US wasted no time in confronting Taiwan and applying pressure to shut it down.<sup>518</sup> The US suspended all shipments of heavy water to Taiwan, insisted that Taiwan return its remaining heavy water to the US, and, once again, forced Taiwan to commit to banning all research that could be applied to weapons development.<sup>519</sup> Furthermore, Taipei provided the US with a written guarantee that Taiwan would end its nuclear weapons program.<sup>520</sup>

During Taiwan's second brief foray into nuclear weapons territory the US reacted quickly and decisively to the new intelligence information obtained from another high-level defector, and applied consistent pressure on Taiwan to dismantle the suspect research facility. While this episode was brief compared to the one in the mid and late 1970s, it still reinforced the point that Taiwan did not give up its nuclear ambitions easily or quickly. Taiwan's persistence was matched only by the US's determination to curb nuclear proliferation in Taiwan, a goal that served not

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<sup>517</sup> i.e., the Star Wars program, started in 1983. This was an anti-ballistic missile defense system meant to prevent attacks from other states, particularly the Soviet Union. Glenn Seaborg summarized the program as "never more than a science fiction fantasy in which much money was wasted." (Seaborg, 1998: 290).

<sup>518</sup> Mitchell (2004: 300-301)

<sup>519</sup> *ibid.*

<sup>520</sup> *ibid.*

only the American agenda of global non-proliferation, but also its interest in maintaining regional stability and normalizing relations with Communist China. The outcome of the second round could also have been influenced by the change of presidents in Taiwan. In 1988, the US faced a more willing recipient of US pressure than before.

## **Conclusion**

The intermediary stage of a nuclear program's development is usually a time of great activity on the part of the proliferator. Once an official decision regarding the military application of a program has been taken, states accelerate their efforts in order to reach the final goal of an assembled nuclear device. A state sinks increasing amounts of resources into its program, and an entire nuclear enterprise grows in scope and size. As a program progresses through this stage, it may become harder and harder to reverse it. As a result, the intermediary phase might be critical for nations like the US, which wish to influence the outcomes of nuclear weapons programs abroad. Armed with better intelligence than it was during a nascent stage, the US has increased opportunities to influence the nuclear choices of its allies. However, the foregoing analysis has demonstrated that the US often failed to convince its friends to abandon their nuclear weapons projects.

Some scholars, Kroenig (2010) in particular, might argue that the differences in outcomes in various cases of friendly proliferators had to do with the degree of

vulnerability of a proliferator to American pressure.<sup>521</sup> If vulnerability is measured purely as the dependence on the US to meet one's security needs, it might be hard to differentiate between the degrees of vulnerability of US allies.<sup>522</sup> I propose a more concrete measure of a state's sensitivity to American pressure in the form of American security levers, such as formal security guarantees and sales of conventional military equipment. These levers, of course, are not effective on their own without the political willingness to use them. My argument, then, has less to do with the degree of a state's vulnerability to the US and more with the consistency and intensity of the American willingness to engage with a proliferator on the nuclear question. A comparative examination of France, Israel and Taiwan illustrated this logic. The variation of approach between the nascent and intermediary stages had to do with the differing levels of American ability and willingness to pressure allies on the nuclear issue.

There were a number of similarities among all three cases, including the presence of a military alliance with the US (a formal one for France through NATO; an informal one for Israel; and a formal one for Taiwan through the Mutual Defense Treaty of 1954 and, later, an informal one through the Taiwan Relations Act); and they were all recipients of large amounts of American aid (primarily military, but

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<sup>521</sup> Kroenig, 2010: 106, for example. Kroenig argued that Taiwan was more vulnerable to US pressure than France and thus more likely not to participate in sensitive nuclear transactions, as per American wishes.

<sup>522</sup> Kroenig (2010) provides a rather vague definition of vulnerability. In particular, he argues that "states that depend on a superpower to meet their security needs are likely to judge that the potential costs of jeopardizing a relationship with a superpower patron outweigh the potential gains from providing sensitive nuclear assistance." (39). He then defines a country as 'super-power dependent' if it was in a defense pact with a superpower and lacked its own nuclear weapons. (Author's personal correspondence with M. Kroenig, April, 2011). This definition would not be able to differentiate, for example, between the degree of vulnerability to US pressure of France (pre-1960) and of Taiwan since both had defense pacts with the US but lacked their own nuclear weapons.

also economic in the case of Taiwan until the late 1960s). In addition, all these states faced a particular external threat (Israel from its Arab neighbors; France from the Soviet Union; and Taiwan from Communist China) and were all covered by the pledged extension of the American nuclear umbrella over their territories in case of a belligerent attack from without.

At the same time, there were important differences across these cases. France was of major geo-political importance to the US due to its size, NATO membership, conventional capabilities and a history of alliance with the US, particularly during World War II. The US-Israeli relationship was qualitatively different, especially during the 1950s when the relationship was cool and distant and Israel was perceived by the US as a liability rather than a strategic asset.<sup>523</sup> The decades of the 1960s and 1970s saw a marked improvement in the relationship and an increased closeness of cooperation to counter the threat posed by the Soviet influence in the Middle East.<sup>524</sup> Finally, the US-Taiwanese relationship in the 1960s and 1970s was hugely influenced by the changing nature of the American interaction with Communist China and by Nixon's agenda of forging closer ties with Beijing. Scholars have noted that, historically, the US has had different approaches to states situated in different regions of the world,<sup>525</sup> suggesting that not only are allies not homogeneous, but their relations with the US can be influenced by factors such as historical memory, race, or great power tradition.<sup>526</sup> The differences in the American approach to friendly nuclear programs during the intermediary stage lend

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<sup>523</sup> See Puschel, 1992.

<sup>524</sup> Ibid.

<sup>525</sup> Hemmer and Katzenstein, 2002.

<sup>526</sup> Ibid.

support for this proposition. Varying perceptions of national interests along with changing presidential preferences on proliferation guaranteed that the US approached different allies in a different manner. I will return to this point in the conclusion.

In the case of Taiwan, during the critical decade of the 1970s when the nuclear program was well into its intermediary stage, the US was not only able but also willing to pressure an ally on the nuclear question.<sup>527</sup> The US was prepared to make the nuclear problem one of the centerpieces of the US-Taiwanese relationship in the 1970s, shortly after the CIA concluded that Taipei had nuclear ambitions. Furthermore, the US was willing to couple the nuclear question with the transfer of American military assistance to Taiwan, as well as the provision of security guarantees and continuation of aid to Taiwan's civil nuclear energy program. The story was similar in another case of proliferation by an American ally in the 1970s, that of South Korea.<sup>528</sup> The US's consistent, prolonged and forceful approach with Seoul on the nuclear issue was credited with the eventual reversal of that program in the early 1980s.<sup>529</sup>

In contrast, in the case of Israel, the US never wanted to make the nuclear question *the* issue in the bilateral relationship,<sup>530</sup> and, as a consequence, gave Israel

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<sup>527</sup> The American willingness was, no doubt, influenced by the broader geo-political concerns of improving relations with Communist China, which was staunchly opposed to Taiwan acquiring nuclear weapons. That agenda could have been easily compromised if Taiwan went nuclear and, furthermore, if the US was linked, either directly or indirectly, to the Taiwanese program.

<sup>528</sup> See, for example, Hersman and Peters, 2006.

<sup>529</sup> Hersman and Peters, 2006 argued that "...Washington stated that if Taipei and Seoul developed nuclear weapons, then the US would revoke all its military, political, and economic aid." (8)

<sup>530</sup> As explained earlier in this chapter, the American presidential, congressional and public support for Israel started to grow from 1960 on. This support only strengthened following the Six Day War and Soviet

a lot of leeway to make progress with their program, often turning a blind eye to the developments at the Dimona reactor site and taking Israel's official assurances at face value until it was too late to force a program's reversal.<sup>531</sup> The case of France was even more explicit in terms of the American unwillingness to couple the nuclear question with other issues on the US-French agenda, as the US policymakers decided early on that the application of American pressure on General de Gaulle would only heighten the French determination to acquire an independent nuclear capability and exacerbate the existing problems in the bilateral relationship which would ultimately damage the cohesion and strength of the Western alliance against the common Soviet enemy.

The role of presidential preferences mattered as well. Both Kennedy and Johnson were opposed to proliferation by foes and allies alike, although Johnson gradually came to accept the reality that, unless the US wanted a serious showdown with Israel over nuclear weapons, it had to admit the limits of its ability to force the issue. This suggests that presidential preferences can change over time in response to political events and domestic politics. The 1967 War greatly shifted the tide of American support for Israel, which grew even stronger in the wake of that conflict.

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direct involvement in the Middle East in the early 1970s. (Puschel, 1992: 12-20) The US grew increasingly concerned with countering Soviet influence in the region, and viewed a strong Israel (especially an Israel armed with American weaponry) as a way of accomplishing that goal. The anti-Soviet agenda was more important to the US with respect to Israel than the non-proliferation agenda.

<sup>531</sup> Scholars have presented an additional argument that might possibly explain the different outcomes in the cases of Israel and Taiwan. John Mearsheimer and Stephen Walt (2006) have expounded on the role of the so-called Jewish Lobby in US foreign policy. For a further discussion and critique of the Mearsheimer/Walt argument, see the special issue of the *Journal of Palestine Studies*, vol. 35, no. 3, spring 2006. There are at least two problems with using the influence of the Israeli lobby as an explanation for American nuclear policy choices. First, there was no comparable 'French lobby' in the 1950s, yet the US failed to convince both France and Israel to reverse their nuclear programs. Second, even if the Israeli lobby has an influence on foreign policy matters, nuclear policy in particular is usually decided at the highest levels of government without much input from lobbyists and public opinion.

President Johnson's preferences on proliferation were partially a reflection of those developments. President Nixon formalized this sentiment in a 1969 compromise on Israel's nuclear opacity. Presidential preferences on the part of the proliferators mattered as well. In both France and Taiwan there were instrumental players who were pushing the nuclear program through. Once they left office (as with Chiang Ching-kuo, for example, in January 1988) the US had an easier time realizing its agenda.

An intermediary stage, then, can be a time of great opportunity for the US, especially if it is willing to work hard. If the US has various security levers at its disposal, it must be willing to consistently apply them. Hollow threats do not yield positive results. Of course, threats run the risk of damaging US relations with its friends. Furthermore, threats could undermine other American national security objectives besides non-proliferation, as was the case with France. Finally, threats may lack some credibility with allies, as we saw in the case of Israel. At no point during the intermediary stage did Israel appear to be seriously concerned by US's pressure from the US. As a result, it held steady in its refusal to directly answer any American questions about its nuclear activities.

While the intermediary stage should not be viewed as the last possible opportunity to influence a nuclear program, it becomes progressively harder to reverse the program as it matures. The next chapter will look at the American reaction to friendly nuclear programs after they have matured. More specifically, it will examine ways in which the US tried to rationalize its decisions to accept the

nuclear status of friends, even if such recognition was previously inconsistent with American national interests. The chapter will also continue to examine the logic and consequences of exceptionalism in the US's non-proliferation approach.

## Chapter 4 – Mature Stage

The previous chapters examined the history of the American response to ‘friendly’ nuclear programs from the time they were conceived until they reached ‘nuclear maturity’ with the first explosion of a nuclear device. My analysis illustrated how US policy-makers attempted to thwart the nuclear ambitions of its allies by applying various forms of security leverage and offered an explanation for why the US succeeded in some instances and failed in others. I will now turn to a discussion of the final phase in the American response to allies’ nuclear programs, the period after those programs reached maturity.<sup>532</sup>

Once a program matures, there might be little, if anything, that the US can do to reverse the course of a nuclear program. Complete nuclear reversals are extremely rare.<sup>533</sup> In fact, a true reversal has happened only once, in the case of South Africa.<sup>534</sup> In the early 1990s South Africa became the first state to voluntarily renounce and destroy its stockpile of nuclear weapons. The reasons for reversal had little, if anything, to do with the policies and pressures from the US. Scholars

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<sup>532</sup> While I consider the ‘mature’ stage (a period following the first explosion of an atomic device) the last phase of a program’s development, other scholars have proposed additional steps. Specifically, Gaurav Kampani articulated two additional stages in his own work on nuclear proliferation: the incorporation of nuclear weapons into the military planning and the operationalization of nuclear weapons into military forces. See Gaurav Kampani, “Understanding Three Decades of Lag in Indian Nuclear Decision-Making”, PhD thesis, Cornell University, forthcoming.

<sup>533</sup> More common are instances of nuclear reversal during nascent or intermediary stages of a nuclear program. For example, both South Korean and Taiwanese reversals occurred during the intermediary stage, while Yugoslavia and Australia reversed during the nascent stage.

<sup>534</sup> The nuclear reversals by the three former Soviet republics (Belarus, Kazakhstan and Ukraine) should not be considered true reversals since all three of these states were ‘born nuclear’ – i.e., they all inherited Soviet nuclear weapons that were stationed on their territories. Thus these states never went through a traditional cycle of weapons development. However, they all renounced their inherited arsenals shortly after the dissolution of the Soviet Union and have subsequently returned all nuclear weapons and materials to Russia. For more on the nuclear reversals in the former Soviet Union see Zaitseva, 2004; Reiss, 1995 (chapter 4); Paul, 2000 (chapter 7).

generally credit the changing security environment,<sup>535</sup> rapid domestic political changes, and the personal role played by the newly elected South African President de Klerk<sup>536</sup> for the reversal of the program. While it was true that at the time of the reversal de Klerk was seeking to establish closer ties with Western powers, including the US, and to lift sanctions imposed on the previous South African regimes by the international community, the US could take little credit for the nuclear reversal. If true reversals are so rare, what could the US possibly hope to accomplish with respect to the nuclear programs of allies once they mature?

The American response to friendly programs after their maturity has historically been a time of important rationalization for and justification of accepting an ally's nuclear *fait accompli*. This was a significant departure from the attitude and policy choices pursued during an intermediary stage. After overcoming the initial frustration of the failed efforts to thwart a program abroad, the US gradually lost any willingness to pursue a nuclear issue (i.e., the effort to reverse the program) in the bilateral relationship. Instead, the US re-directed its energies to incorporating the nuclear status of an ally into its broader non-proliferation policy. While the basic premise of this policy has remained the same, the US opposes nuclear proliferation, it has, over time, acquired some notable adjustments, which this chapter will detail. The end result of dealing with a mature program was usually a legitimatization (at least in the eyes of the US) of making an exception for an ally and of bending non-proliferation rules to accommodate the nuclear reality. During

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<sup>535</sup> Paul, 2000: 115-117

<sup>536</sup> Reiss, 1995: 17-24

this stage the US increasingly used a democratic identity argument to support its position.<sup>537</sup> In short, it justified accepting (or even aiding) a nuclear program of an ally because the state in question was a democracy and therefore a responsible steward of nuclear technology.<sup>538</sup>

In the following pages I will illustrate how this process played out in practice, particularly in the cases of France and Israel. I will show that even after the American policy-makers failed to achieve their ultimate goal of nuclear reversal, they attempted to extract certain benefits from the bilateral nuclear arrangement. These benefits carried (and continue to carry) certain costs that ultimately impede the American global non-proliferation efforts vis-à-vis friends and adversaries alike. Below is a summary of the key variables during the mature stage:

**Table 4 – Mature stage**

	<b>Amount of Leverage (Ability)</b>	<b>Willingness to Use Leverage</b>	<b>American Policy</b>
<b>France</b>	Med→High	Med→Low	Explicit recognition of nuclear status/cooperation
<b>Israel</b>	High	Med→Low	Implicit recognition of nuclear status

<sup>537</sup> Some of the recent academic literature has utilized this argument as well. For example, in examining the differences in the American response to nuclear programs in Iran and India, Hayes (2009) has argued that the US accepted, and even embraced, the later due to India’s democratic identity (which was essential in ensuring that the US did not ‘securitize’ India’s program).

<sup>538</sup> This is not to say that the US was or is supportive of nuclear ambitions of *any* democratic state. The historical record supports this claim. Aside from its initial strong opposition to both the French and the Israeli programs, the US opposed the second round of the Taiwanese nuclearization during the 1980s when Taiwan was undergoing a process of democratization. Similarly, the US was opposed to nuclear endeavors of various democratic allies, such as Sweden and Switzerland, as well as Australia, to name a few.

I will first consider the case of France where the previously antagonistic bilateral nuclear relationship eventually blossomed into a nuclear partnership.

### **France (1961 -- )**

Long before the French nuclear program reached the point of maturity<sup>539</sup>, the US had decided that attempts to reverse the French nuclear course were futile. Instead, during the late 1940s and throughout the 1950s, the US tried to slow down the pace and scope of the French program by withholding some crucial American assistance that the French were seeking. In addition, increasingly, the US was linking issues of American security provision to French nuclear developments. The US, however, never categorically denied France's right to manufacture nuclear weapons or to pursue a national nuclear deterrent.

Other scholars (most notably Wilfrid Kohl in his 1971 study on French nuclear diplomacy)<sup>540</sup> have furnished detailed accounts of the first decade of the mature stage of France's nuclear program in the 1960s. Some recently declassified document confirm the validity of Kohl's findings.<sup>541</sup> The purpose of the following section is not to repeat what has already been said elsewhere. Instead, it will focus on some key elements of the French-US nuclear relationship since the early 1960s.

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<sup>539</sup> Technically, France reached a point of maturity when it first exploded a nuclear device in February 1960. However, as the previous chapter detailed, many American policy-makers did not consider the French program mature until at least 1963 (and, perhaps, not until a couple of years later). President John F. Kennedy's administration, however, which took office in January 1961, proceeded in its dealings with France with an assumption that the French program was mature.

<sup>540</sup> However, there are no detailed English language accounts of the French program beyond the late 1960s. Ullman's work from 1989 only partially fills that gap.

<sup>541</sup> See the documents in the 'France-US Nuclear History' section of the Cold War International History Project [http://www.wilsoncenter.org/index.cfm?topic\\_id=1409&fuseaction=va2.browse&sort=Collection&item=~France/US%20Nuclear%20Relations](http://www.wilsoncenter.org/index.cfm?topic_id=1409&fuseaction=va2.browse&sort=Collection&item=~France/US%20Nuclear%20Relations).

In particular, I will examine how the US went beyond simply accepting France's nuclear status and initiated a clandestine nuclear cooperation with Paris in the early 1970s which was formalized in the mid 1980s. This cooperation resulted in a bargain between the two sides that laid the foundation for making future exceptions for select American allies.

When John F. Kennedy took office in January 1961, US-French relations were tense at best, largely as a result of disagreements about the French nuclear program. The French were growing increasingly frustrated with Washington over its refusal to recognize that France had made 'substantial progress' in the development of nuclear weapons.<sup>542</sup> Lack of such progress officially precluded the US from providing explicit weapons assistance to France. However, their February 1960 atomic test only emboldened France, and it was now willing to make their nuclear program *the* issue in US-French relations, explicitly stating that "...the failure of the US to help France with her nuclear military program was poisoning France-American relations and would wreck NATO."<sup>543</sup>

It was also becoming apparent that the American refusal to concede that France qualified for assistance under the provisions of the Atomic Energy Act was a political, rather than a technical, issue. In a memorandum to the White House, the

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<sup>542</sup> See the previous chapter on the American definition of 'substantial progress', which could qualify a state for a closer nuclear cooperation with the US through an amendment to the 1954 US Atomic Energy Act. In the late 1950s, when the US Congress was considering amending the 1954 Act, it determined that only the UK had met the 'substantial progress' criterion and thus qualified for closer nuclear cooperation with the US. However, US policy-makers at the time were aware that they would have to face France's qualification for similar treatment sooner or later. (Simpson, 1986: 137) However, they postponed that particular debate for another several years.

<sup>543</sup> Memorandum of Conversation, "Nuclear Weapons Cooperation", March 31, 1961. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

State Department's Special Secretary for Energy acknowledged that the 1958 debate over AEA's amendment "...was quite explicit in expressing suspicion of the French."<sup>544</sup> Members of the influential Joint Committee on Atomic Energy (JCAE), a staunch opponent of cooperation with France, articulated their reservations "...regarding French security, the reliability of the French as an ally, and the stability of the French Government. Thus there would be a disposition to find that the criterion of 'substantial progress' had not been met."<sup>545</sup>

Tensions over nuclear assistance grew more palpable in the early 1960s. President Kennedy and his advisors continued to refuse to offer France any forms of classified cooperation. As G. Seaborg recounted in his memoir, when the French approached the US in 1961 with a request for plutonium for their fast breeder reactor, "Kennedy's offhand reaction was that it would be better to allow the British to supply the plutonium."<sup>546</sup> Seaborg, who was the Chairman of AEC at the time, felt that "it was difficult in the extreme to have to deal so sternly with an ally. That we did so is a testimony to the responsibility we felt as a nuclear power to try to prevent the diffusion of nuclear weapons."<sup>547</sup>

At the same time, recognizing that the American hard stance only solidified the French position President Kennedy tried a strategy of engagement. Specifically, the US offered de Gaulle the possibility of joint consultation on the uses of nuclear

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<sup>544</sup> Memorandum from Philip Farley (State/AE) to Henry Owen (the White House), "French Qualification for Nuclear Weapons Cooperation", April 12, 1961. USNA, RG 59, Special Assistant to the Secretary for Energy and Outer Space, 1944-63, Box 408.

<sup>545</sup> Ibid.

<sup>546</sup> Seaborg, 1981: 110.

<sup>547</sup> Ibid.: 111.

weapons<sup>548</sup> and re-affirmed France's *right* to have nuclear weapons. However, the US maintained that the French nuclear arsenal should be tied to NATO and that the US did not wish to recognize independent nuclear programs. Shortly before Kennedy's first meeting with de Gaulle in 1961, the US National Security Advisor McGeorge Bundy reminded the President that "...Eisenhower never really engaged de Gaulle [on the nuclear issue], and it seems doubtful that anyone short of an American President can really do so."<sup>549</sup> From the American perspective, the goals of the Western alliance had to take priority over France's national defense considerations, which, the US argued, could be fully met by NATO. As a result, Bundy argued that "...if [JFK] could persuade de Gaulle that NATO represents our surrender of independence for interdependence, you just might convert him on all counts."<sup>550</sup> Unfortunately, the first presidential meeting between Kennedy and de Gaulle was not successful. While Kennedy tried in vain to convince de Gaulle to commit his nuclear arsenal to NATO, the French leader argued that France had to have a national defense system and could not fully rely on the US (or NATO) to meet all of its defense requirements.<sup>551</sup> Despite attempts on both sides to foster some goodwill and to underscore the desire for cooperation, the first meeting ended with no visible improvements in the ongoing US-French nuclear dispute.

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<sup>548</sup> Position Paper, "Control of Nuclear Weapons", in preparation for President Kennedy's visit to de Gaulle, May 23, 1961. JFKL, Papers of President Kennedy, President's Office Files, Box 116a.

<sup>549</sup> Memorandum for the President from McGeorge Bundy, May 30, 1961. JFKL, Papers of President Kennedy, President's Office Files, Box 116a.

<sup>550</sup> Ibid.

<sup>551</sup> Memorandum of Conversation between President Kennedy and General de Gaulle, Paris, June 1, 1961. JFKL, Papers of President Kennedy, President's Office Files, Box 116a.

The only significant step forward in the aftermath of the Kennedy-de Gaulle summer 1961 meeting was the signing of the US-French Military Atomic Cooperation Agreement, which, among other things, provided for the training of French troops in Germany in the use of nuclear weapons.<sup>552</sup> The agreement was similar to those that the US already had with a number of its European allies,<sup>553</sup> and thus did little to assuage France's desire for preferential treatment by the US, similar to that received by the UK.<sup>554</sup>

Further discussions regarding the extent and nature of American assistance to France for her nuclear energy program did not subside in the wake of the 1961 Military Cooperation Agreement. Some proposals investigated areas of cooperation, such as nuclear-propelled submarines and the sale of enriched uranium already discussed during the intermediary stage of the French program, while others explored possible new ventures, such as help with aircraft and missile technology.<sup>555</sup> Interdepartmental divisions, which became apparent during the 1950s, remained. The influential JCAE continued to strongly oppose any form of

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<sup>552</sup> The Agreement remained in effect until 1966, at which time it was suspended due to France's departure from the unified NATO military command.

<sup>553</sup> See Memorandum for the President, "Suggested Letter to the Congress Transmitting Authoritative Copies of a Military Atomic Cooperation Agreement with France", August 3, 1961. JFKL, Papers of President Kennedy, NSC Files, Regional Security, Box 225a. The Agreement was approved despite the objections of the JCAE.

<sup>554</sup> The US expanded the scope of its nuclear cooperation with the UK in 1958 when the two sides signed an Anglo-American Bilateral Agreement for Military Cooperation. There had been some (limited) cooperation in this field prior to the 1958 agreement, but the new Agreement vastly expanded the scope of permissible information and technology exchanges between the two sides. The American rationale for allowing such cooperation was that, by 1958, the UK had *independently* achieved a nuclear weapons capability and thus qualified under the 'substantial progress' clause of the US Atomic Energy Act (which was amended in 1958 to accommodate the new arrangement with the British). For a more detailed discussion of the US-British nuclear cooperation, see Simpson, 1986 (especially chapter 6).

<sup>555</sup> On aircraft technology, see memorandum from Henry Owen to McGeorge Bundy, May 29, 1961. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 225a.

military cooperation with France.<sup>556</sup> The American Embassy in Paris, on the other hand, emerged as a strong supporter of US-French nuclear collaboration and argued passionately in favor of decoupling issues of American aid provision from those of France's behavior towards NATO.<sup>557</sup> The American ambassador's proposals, however, were not well received in Washington, and it was argued that extensive cooperation with France would only "...undermine, if not destroy, a sense of common interest and purpose in NATO, by forcing other countries, particularly Germany, to look to their own independent national interests in this respect."<sup>558</sup>

The issue of military cooperation (beyond the scope of the 1961 Agreement) was revisited again in 1962. After extensive internal government debate<sup>559</sup> the American policy of not directly assisting the French nuclear weapons effort was reaffirmed.<sup>560</sup> In particular, US policy-makers determined that any additional aid, whether with missile technology, sales of enriched uranium, aircraft technology, or others, would be detrimental to NATO and US interests. Furthermore, it would

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<sup>556</sup> See, for example, letter from to the Chairman of JCAE to President Kennedy, September 14, 1961. JFKL, Papers of President Kennedy, NSC Files, Regional Security, Box 226. This particular letter was in reference to the negotiated US-French Military Atomic Energy Cooperation Agreement.

<sup>557</sup> See Telegram from US Embassy in Paris to the Department of State, May 12, 1961. USNA, RG 59, Politico-Military Numeric Files, 1953-66, Box 7.

<sup>558</sup> Memorandum to the Secretary from Foy Kehler (EUR), "General Norstad's Views on Providing Enriched Uranium to France", November 20, 1961. USNA, RG 59, Politico- Military Numeric Files, 1953-62, Box 7.

<sup>559</sup> See, for example, a Memorandum from Paul Nitze to McGeorge Bundy, "The French Nuclear Problem", February 27, 1962, which highlighted the pros and cons of cooperation in light of NATO interests. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 225a; see also a Memorandum "Nuclear Aid to France", March 9, 1962. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 225a. It is important to note that consideration of provision of nuclear aid to France were explicitly tied to (i) France's support of the American-proposed Multilateral Nuclear Force (MLF), (ii) France's commitment of its nuclear arsenal to NATO; (iii) storage rights for American nukes in France, and (iv) France's commitment of not assisting any other state with their nuclear programs.

<sup>560</sup> This became known as NSAM 148. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 226.

encourage other states (Germany in particular) to seek national programs, signify a serious change in American policy, and improve France's leadership position in Europe, all negative outcomes, as far as the US was concerned.<sup>561</sup>

These American fears were not new. What was new in these arguments was an increasing awareness on the part of the US that its security leverage was not effective. Even if the US cooperated with France on its nuclear program, the program would not have been reversed (just the opposite), and de Gaulle would not have been encouraged to cooperate more fully with NATO. In fact, US officials argued that "...not only would US help fail to get us any real control [over the program]; it would increase the size and effectiveness, and thus prolong the life, of French national nuclear forces we could not control."<sup>562</sup> The significance of this realization was that, by the early 1960s, the perception of American security leverage was sharply declining.<sup>563</sup> The US was now moving closer to accepting France as a nuclear state.

An additional factor in the 1962 American debates about assistance to France was the consideration of a possibly adverse effect of American aid on the broader non-proliferation agenda, which was quickly taking shape under President Kennedy. The role of Kennedy's personal convictions and his worldview were instrumental to this argument. In explaining JFK's decision to stick to the US's policy of not

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<sup>561</sup> For a summary of the 1962 debates on this issue, see Memorandum for the President from McGeorge Bundy, "Action of Nuclear Assistance to France", May 7, 1962. JFKL, Papers of President Kennedy, President's Office Files, Box 116a.

<sup>562</sup> See Memorandum for the President from Under Secretary of State, "Answer to Eight Questions", June 17, 1962. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 226.

<sup>563</sup> This is despite the US still being the top supplier of conventional arms to France through the 1960s (see [http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php)).

furnishing France with additional aid, National Security Advisor McGeorge Bundy wrote that

...his [JFK's] personal responsibility for the nuclear posture of the West was never far from his mind, and he had an almost instinctive doubt that he could ease this burden by sharing it. The path of nuclear diffusion seemed to lead away from the limitation of the atomic arms race on which he never gave up hope. He respected de Gaulle, but on many great issues de Gaulle and he were in clear disagreement, and de Gaulle would not change his policy in return for nuclear weapons.<sup>564</sup>

De Gaulle, in fact, was increasingly insistent that France never even asked for American help with its nuclear weapons effort in the first place,<sup>565</sup> a claim that he would maintain until he left office in April 1969. De Gaulle's posture hardened even more as a result of the December 1962 meeting in Nassau, Bahamas between the US and UK, where the US essentially re-affirmed its pledge to continue a 'special' nuclear relationship with the British.<sup>566</sup> Nonetheless, the US decided at the Bahamas meeting that it would offer France Polaris missiles on the same terms as to the British.<sup>567</sup> This is something that the US policy-makers deliberated about throughout 1962, but eventually agreed upon, despite JCAE's strong opposition. The

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<sup>564</sup> Memorandum for the President from Under Secretary of State, "Answer to Eight Questions", June 17, 1962. JFKL, Papers of President Kennedy, National Security Files, Regional Security, Box 226: 6.

<sup>565</sup> See letter from General de Gaulle to President Kennedy, January 11, 1962. JFKL, Papers of President Kennedy, President's Office Files, Box 116a. In particular, de Gaulle wrote that "...France is not asking the United States to do so [help France build nuclear weapons]. I consider it natural, indeed, that a power which, like yours, has such resources should not want to share its secrets with a foreign State, even though it is its ally."

<sup>566</sup> See NSAM 218 on the implementation of the Nassau Agreements. JFKL, Papers of President Kennedy, National Security Files, Meetings and Memoranda Series, accessed online at <http://www.jfklibrary.org/>. NSAM 218 does not explicitly talk about the 'special nuclear relationship' with the UK. On that subject, see Kohl, 1971: 230. The main purpose of the Bahamas meeting was the discussion of the proposed MLF (Multilateral Nuclear Force) in Europe and British participation in it. It was envisioned as a NATO nuclear force (with the participation of the British and the French nuclear forces under the unified NATO command), a formula that the French rejected (de Gaulle was opposed to the American domination of the project, and the fact that the US wasn't willing to commit all of its nuclear forces to it). The project itself was eventually abolished at the beginning of President Johnson's tenure.

<sup>567</sup> I.e., assigned to NATO. Kohl, 1971: 231-233.

US saw the offer as something that could persuade de Gaulle to adjust his NATO policy. The effort failed, as de Gaulle categorically rejected the American proposal in January 1963.<sup>568</sup>

The last time the US attempted to use positive inducements with de Gaulle was in 1963, when the US offered France assistance with her testing program in exchange for France signing the Limited Test Ban Treaty (LTBT), which banned all but underground nuclear testing.<sup>569</sup> France's testing program was growing rapidly in the early 1960s. As a result, it had repeatedly refused to sign the LTBT. Some American policy makers realized that offering France help with underground testing would not be a sufficient incentive to convince de Gaulle to forego all other types of testing.<sup>570</sup> Furthermore, it was believed that even if France renounced all but underground testing, she would do it on her own terms, since signing the LTBT "...would limit their [French] future flexibility and because they continue to regard the test ban agreement as a somewhat unsavory pact among the 'haves' directed against those like themselves who aspire to be 'haves'."<sup>571</sup> De Gaulle rejected the American testing offer, just as he rejected the one concerning the Polaris missiles.<sup>572</sup> Furthermore, as the French continued to test nuclear devices, American knowledge about these tests greatly decreased, as evidenced, for example, by a dispatch from the State Department to the various US embassies in the South Pacific from late

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<sup>568</sup> Ibid.

<sup>569</sup> The LTBT was signed in August 1963 and entered into force in October 1963.

<sup>570</sup> Memorandum on Assistance to French Testing Program, November 12, 1963. USNA, RG 59, Subject Files of the Special Assistant for Atomic Energy and Aerospace, 1950-66, Box 7.

<sup>571</sup> Ibid. Note that this particular document still characterizes France as a nuclear 'have-not' almost three years after the first atomic explosion by the French.

<sup>572</sup> Kohl, 1971: 246.

1963 requesting them to collect any and all possible information on “...French intentions, plans, and preparations for testing.”<sup>573</sup>

Despite showing signs of willingness to offer France various inducements with respect to her nuclear program, American efforts in the early 1960s were ineffective. De Gaulle was determined to continue to develop France’s national nuclear deterrent at all costs, especially after the program reached a point of maturity.<sup>574</sup> Beyond withholding certain aid, such as for testing or missile technology, the US was not willing to push the issue any further with the French, who saw the nuclear question as the defining one in US-French relations.<sup>575</sup> The US was cognizant that using all the available security levers at its disposal in order to pressure France would only worsen the already tenuous US-French relationship and would weaken NATO.

Even before the French-NATO relationship hit rock bottom in 1966 when General de Gaulle decided to withdraw his troops from the unified NATO military command, JFK’s successor, President Lyndon B. Johnson (LBJ) re-affirmed the official US policy on nuclear aid to France. In the spring of 1964, shortly after LBJ

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<sup>573</sup> Outgoing Airgram from the Department of State to US Embassies in Algiers, Canberra, Paris, Suva, and Wellington, “French Nuclear Testing”, December 4, 1963. USNA, RG 59, Subject Files of the Special Assistant for Atomic Energy and Aerospace, 1950-66. Box 7

<sup>574</sup> After the 1963 offer of testing aid in exchange for LTBT signature, the US continued, on occasion, to contemplate issue linkages. In the fall of 1964, for example, there was an incident involving a French aircraft en route to the Pacific testing site that flew over US airspace. The US refused to grant over-flight rights to the aircraft, citing the US’s obligations under the LTBT, and suggested that the French should find another route to their testing sites in the Pacific. See Memorandum of Conversation, “US-French military relations and French over-flights of US en route to Pacific test center”, October 7, 1964. USNA, RG 59, Subject Files of the Special Assistant for Atomic Energy and Aerospace, 1950-66. Box 7.

<sup>575</sup> See, for example, Talking Points for President Kennedy’s meeting with French Foreign Minister Couve, October 7, 1963. JFKL, Papers of President Kennedy, President’s Office Files, Box 116a. Kohl (1971) argues that disagreement between the US and France was not simply about nuclear weapons and their control, but that the nuclear issue tended to amplify the already existing differences in policy and approach between France and her Western allies.

took office, the government issued a secret NSAM 294 called “US Nuclear and Strategic Delivery System Assistance to France”, which became the basis of the American policy toward military assistance to France until Nixon reversed it in 1970.<sup>576</sup> The NSAM explicitly prohibited “...exchanges of information and technology between the governments, sales of equipment, joint research and development activities, and exchanges between industrial and commercial organizations” which could aid the French nuclear warhead capability and their delivery capacity.<sup>577</sup>

At the time NSAM 294 was issued, it was still not clear whether the US had officially accepted the nuclear identity of France or not. The documents from the mid 1960s gave conflicting accounts, some described France as a ‘nuclear power,’<sup>578</sup> while others premised their analysis on the assumption that the ‘French might have a nuclear capability relatively soon, but do not have it quite yet.’<sup>579</sup> Some subsequent US documents identified 1963 as the year in which the US publicly recognized France as a nuclear state.<sup>580</sup> At the time, however, such recognition was far from evident.

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<sup>576</sup> See Memorandum for the President, “Follow-up Actions on Military Cooperation with the French”, Henry A. Kissinger, March 10, 1970. CWIHP, France/US Nuclear Relations, Document # 16a.

<sup>577</sup> NSAM 294, April 20, 1964. USNA, Nixon Files, NSC, Country Files, Box 676.

<sup>578</sup> See, for example, p. 13 of a report on “Nuclear Export Controls of Other Countries”, 1964 (exact date unclear). USNA, RG 59, Subject Files of the Special Assistant for Atomic Energy and Aerospace, 1950-66. Box 5

<sup>579</sup> See Memorandum from Mr. Weiss (G/PM) to Mr. Kitchen (G/PM), “French Policy”, March 30, 1964. USNA, RG 59, Deputy Assistant Secretary for Politico-Military Affairs, Combined Policy Office, Subject Files, 1961-66. Box 1

<sup>580</sup> See draft of NSSM 100 “Military Cooperation with France”, January 15, 1971, p. 14. USNA, Nixon Papers, NSC, NSSM, Box H-173.

In 1966 US-French relations suffered a serious setback as a result of de Gaulle's decision to withdraw all French forces from under NATO military command. While not officially leaving the alliance, France sent a powerful message about its intentions to pursue an independent defense policy, including a nuclear deterrent, and reminded the US yet once more of Washington's inability to change, or even significantly influence, the French position. As a result of the withdrawal, the US suspended the 1961 US-French Agreement on Military Energy Cooperation, rescinded the availability of US nuclear warheads that were in support of the French nuclear delivery systems in Europe,<sup>581</sup> and reiterated the already established policy of forbidding any explicit American assistance to the French nuclear program.<sup>582</sup> In addition, the provision of American conventional weaponry to France declined significantly in 1966 compared to previous years.<sup>583</sup> While de Gaulle's decision was a serious blow to the US and to the alliance in general, the US did not lose its focus on its broader foreign policy objectives. Under LBJ, these goals increasingly involved reaching détente with the East,<sup>584</sup> and focusing in particular on the disarmament agenda, particularly the NPT, which was concluded in 1968.

The French position on the NPT had evolved gradually since the mid 1960s. As early as 1964, for example, American officials were discussing France's ambiguity on the issue. On the one hand, the French welcomed an opportunity to be

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<sup>581</sup> See Telegram to the Department of State from US Embassy in Paris, "US Warheads for French Nuclear Delivery Systems", March 11, 1963. USNA, RG 59, Central Files of the Department of State, 1964-66, Defense, Box 1626.

<sup>582</sup> Note that NSAM 294 preceded the French withdrawal from NATO by almost two years.

<sup>583</sup> See [http://armstrade.sipri.org/arms\\_trade/values.php](http://armstrade.sipri.org/arms_trade/values.php). The US's conventional weapons supply to France did not increase significantly until the mid 1980s.

<sup>584</sup> See Kohl, 1971: 259-260

recognized as one of the five nuclear-weapons states.<sup>585</sup> On the other hand, the US speculated that “...general French opposition to arms control resolutions and agreements might lead them to abstain from a non-proliferation agreement; their position is not clear.”<sup>586</sup> By 1967, the US was cognizant that the French did not intend to sign the Treaty, although they seemed to support it in principle.<sup>587</sup> Almost a year after the Treaty was opened for signature (in the summer of 1968), US government documents acknowledged that France had given “...no indication that it intend[ed] to sign the NPT, and [the US did] not expect it to do so as long as de Gaulle remain[ed] in power.”<sup>588</sup> In fact, France did not accede to the Treaty until several decades later, in the summer of 1992.<sup>589</sup> Back in the late 1960s, the US clearly understood its limitations in terms of its ability to influence the French position on signing the NPT, arguing that

...there is little that the US can do at the present time to influence France regarding the NPT. What persuasion we can bring to bear would best be utilized in seeking French cooperation in those areas where it is currently highly important, such as the relationship between EURATOM and IAEA, and in assuring that France maintains its positive stance toward the principle of non-proliferation.<sup>590</sup>

The US had long expected that de Gaulle’s departure from office would bring a change in US-French relations, especially in the nuclear realm. Yet even before de Gaulle retired in April 1969, the American policy underwent a transformation when

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<sup>585</sup> The other states were the US, the UK, the Soviet Union, and China, the later of which tested its first nuclear device in 1964.

<sup>586</sup> Background Paper on National Attitudes Towards Adherence to a Comprehensive Test Ban Treaty and to a Non-Proliferation Agreement, 1964 (exact date unclear). USNA, RG 59, Subject Files of the Special Assistant for Atomic Energy and Aerospace, 1950-66, Box 5.

<sup>587</sup> See Memorandum for the Secretary, “French Attitude on the Non-Proliferation Treaty”, February 11, 1967. USNA, RG 59, Central Files of the State Department, 1967-69, Defense, Box 1543.

<sup>588</sup> Study Requested by NSSM 13, March 1, 1969. USNA, Nixon Papers, NSC, Subject Files, Box 366.

<sup>589</sup> See <http://www.fas.org/nuke/control/npt/>

<sup>590</sup> Study Requested by NSSM 13, March 1, 1969. USNA, Nixon Papers, NSC, Subject Files, Box 366.

President Richard Nixon entered the White House in January 1969. The new administration not only embraced the reality of France as a nuclear power, but also paved the way for the initiation of active American cooperation with the French in the nuclear field, which, up until the late 1960s, was explicitly forbidden by US laws and opposed by the Executive branch.

Shortly after President Nixon took office, he commissioned a series of secret studies on the possibility of bilateral military cooperation with France,<sup>591</sup> including “options in the area of nuclear weapons cooperation,”<sup>592</sup> and studies of possible US policies toward a post-de Gaulle France.<sup>593</sup> Military cooperation was particularly seen as a sensitive area, but also one that required serious attention.<sup>594</sup> The previously held American approach of cooperation denial was now seen as unproductive and unpromising.<sup>595</sup>

During his first few years in office, Nixon’s national security team produced several studies on the pros and cons of military cooperation and assistance to France, some of which appeared to be a direct result of Nixon ‘s meeting with France’s new President Georges Pompidou in early 1970. In particular, the American analysis finally acknowledged that France had made ‘substantial progress’

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<sup>591</sup> See Memorandum for the President from Henry Kissinger, “Guidance to State and Defense Departments on our Attitude Toward Military Cooperation with the French”, April 15, 1969. USNA, Nixon Papers, NSC, Country Files, Box 674.

<sup>592</sup> NSSM 47, “Military Relations with France”, April 29, 1969. USNA, Nixon Papers, NSC, NSSM, Box H-147

<sup>593</sup> Memorandum for the President, “US Policy Toward Post-de Gaulle France (NSSM 55)”, May 27, 1969. USNA, Nixon Papers, NSC, NSSM, Box H-154. NSSM 55 advised a policy of ‘watchful waiting’ toward France in the post-de Gaulle era.

<sup>594</sup> NSC Paper of France, October 29, 1969. USNA, Nixon Papers, NSC, NSSM, Box H-153.

<sup>595</sup> Ibid.

in the development of atomic weapons.<sup>596</sup> As a result, France could now qualify for American assistance in this area, although the 1961 Agreement on Military Cooperation with the French had been suspended in 1966, and there was still very strong Congressional opposition to US-French nuclear cooperation, unless the French stance on NATO changed drastically. In addition, the studies distinguished between direct and indirect assistance, the latter of which, presumably, did not necessitate Congressional approval.

It is interesting to note that in the course of the American deliberations on the feasibility of initiating military cooperation with France, a previously issued directive from 1964 that prohibited American nuclear aid to the French (NSAM 294) was conveniently “set aside for review by the [Nixon] Administration early in 1969”.<sup>597</sup> In 1970, there were explicit calls for rescinding NSAM 294 in favor of a more flexible approach that would allow some forms of military cooperation.<sup>598</sup> Not wishing to go through a formal rescinding process, the Nixon Administration chose to simply set aside NSAM 294.<sup>599</sup> Contrary to Ullman’s original account, which placed the US authorization for clandestine cooperation with France in 1973,<sup>600</sup> newly declassified archival documents reveal that the decision was taken as early as

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<sup>596</sup> NSSM 60 “United States Policy Toward post de Gaulle France”, Issues Paper, January 16, 1970 (p. 25). USNA, Nixon Papers, NSC, NSSM, Box H-153,

<sup>597</sup> Ibid.

<sup>598</sup> See Memorandum for Henry Kissinger from Helmut Sonnenfeldt (the White House), “Follow-Up on Military Matters Discussed by Presidents Nixon and Pompidou), February 26, 1970. USNA, Nixon Papers, NSC, Country Files, Box 676.

<sup>599</sup> Memorandum for the President from Henry Kissinger, “Follow-Up Actions on Military Cooperation with the French”, March 10, 1970. USNA, Nixon Papers, NSC, Country Files, Box 676. In particular, Kissinger wrote that NSAM 294 formal revocation “at this time is likely to provoke a bureaucratic battle, ... and Congressional (Joint Committee) opposition. This matter can be handled later.”

<sup>600</sup> Ullman, 1989: 9.

the spring of 1970.<sup>601</sup> As a result, talks with the French about military cooperation (of the non-nuclear kind at first) had begun later that year.<sup>602</sup> NSSM 100 from fall of 1970 delineated areas in which military cooperation with the French was now permitted. These areas included sales of advanced computers, assistance in the ballistic missile field, and aid with nuclear safety.<sup>603</sup> Nixon was clearly pleased with these developments and wished to see the scope of cooperation widen even further as evidenced by his hand-written note on the summary of NSSM recommendations which said: "I favor moving more openly as Vietnam winds down."<sup>604</sup>

Ullman provides a fascinating account of how, over the course of more than a decade, the Americans employed a strategy of so-called *negative guidance* with France, whereby the French nuclear specialists would ask their American counterparts a series of questions, and the US would answer whether they were on the right track or not.<sup>605</sup> In this way, the Americans were *technically* not transmitting any restricted data to the French, which was still forbidden by existing US laws, but were simply providing general guidance to French experts. This form of collaboration, not surprisingly, was deemed extremely sensitive by the US policy-makers who were aware of it.<sup>606</sup> Even high-ranking officials, such as the US

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<sup>601</sup> See Memorandum for the President, "Follow-up Actions on Military Cooperation with the French", by Henry A. Kissinger, March 10, 1970. CWIHP, France/US Nuclear Relations, document # 16a.

<sup>602</sup> Ibid.

<sup>603</sup> Memorandum for the President from Henry Kissinger, "Military Cooperation with France", March 25, 1971. USNA, Nixon Papers, NSC, Country Files, Box 677. For the reactions of the various departments to NSSM 100, see Memorandum for Mr. Kissinger from Helmut Sonnenfeldt, "Agency Positions on NSSM 100", March 3, 1971. USNA, Nixon Papers, NSC, NSSM, Box H-174.

<sup>604</sup> Memorandum for the President from Henry Kissinger, "Military Cooperation with France", March 25, 1971. USNA, Nixon Papers, NSC, Country Files, Box 677.

<sup>605</sup> Ullman, 1989: 9-10.

<sup>606</sup> Ullman, 1989: 11-12. The scope of cooperation was known primarily at the Presidential level (including some NSC staff). Very few people in the Department of Defense were aware of it.

Ambassador to France, were kept in the dark. Kissinger, for example, refused to communicate in writing with the American ambassador concerning any US-French talks on employment of tactical nuclear weapons. Instead, he wished to brief him on the “state of relations with French...orally at some early opportunity.”<sup>607</sup>

A fascinating aspect of the American rationale for approving (some) clandestine cooperation with France is revealed in the newly declassified documents from this period. In particular, Kissinger saw any such cooperation as a “quid pro quo” and was not in favor of giving the French too much too soon.<sup>608</sup> In a conversation with the Secretary of Defense and the Deputy Assistant to the President for National Security Affairs in September 1973, Kissinger explained that he wanted

...to keep Europe from developing their unity as a bloc against [the US]. If we keep the French hoping they can get ahead of the British [in the nuclear realm], this would accomplish our objective. If we gave the British MIRV while the French were so far behind, it would be bad. If we could give the British the dispensing mechanism and hold open the MIRV for the French a few years, we could keep them even.<sup>609</sup>

Those privy to the details of the cooperation knew full well that, if revealed, the arrangement would cause a great scandal, especially since some agencies, including JCAE, continued to strongly oppose any form of military nuclear cooperation with France. The revelation of clandestine cooperation would also have greatly complicated US relations with the Soviet Union, as well as with their

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<sup>607</sup> Memorandum for Mr. Kissinger from Helmut Sonnefeldt, “Ambassador Irwin Inquires About US-French Military Talks”, September 14, 1973. USNA, Nixon Papers, NSC, HAK Office Files, Box 56.

<sup>608</sup> See Memorandum of Conversation, Kissinger, Schlesinger and Scowcroft, September 5, 1973. CWIHP, France/US Nuclear Relations, document # 47.

<sup>609</sup> Ibid.

European allies. The President's position, however, was unambiguous on the matter. In a rather revealing remark to the newly appointed US Ambassador to France, the President commented: "I want France and the British to build all they want. I am for nuclear cooperation."<sup>610</sup> Not only was Nixon not trying to retard the French nuclear effort, but he was, in effect, actively supporting it. Overt support in the 1970s was not possible politically for Nixon and, later, Ford and Carter. As Kissinger explained to the French President Giscard d'Estaing in the summer of 1975, "right now the entire bureaucracy is against it [US transfer of sophisticated computers for the French nuclear program] and it would create massive problems for the President if he overrules them."<sup>611</sup> Nonetheless, the American willingness to reverse the French program was at an all time low by the early 1970s. In addition, France had finally attained a similar status with respect to nuclear cooperation to that accorded to the British by the US for over a decade at that point. The US and France finally became nuclear allies.

According to Ullman, successive US administrations consistently followed the policy initiated under President Nixon of covert American nuclear assistance to the French. The US came to view its aid to France as a way to help her cut costs in the nuclear area and re-direct those resources toward building up her conventional capabilities.<sup>612</sup> This cost-saving rationale was raised back in the early 1960s but was

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<sup>610</sup> Memorandum of Conversation, March 9, 1973. USNA, Nixon Papers, NSC, Presidential/HAK Mem Cons, Box 1026.

<sup>611</sup> Memorandum of Conversation, Ford, Giscard d'Estaing, Sauvagnargues Pierre-Brossolette, Kissinger, and Scowcroft, August 1, 1975. CWIHP, France/US Nuclear Relations, Document # 54.

<sup>612</sup> Ullman, 1989: 20.

abandoned at the time in favor of broader non-proliferation goals, which included fears of other states following the French example.

Having made this significant departure from past American policy, the US nonetheless did not completely abandon a desire to receive something in return for its nuclear aid. In addition to using US nuclear aid to manipulate the situation regarding European unity, the US also wanted an improvement in France's relations with NATO following de Gaulle's decision to withdraw the French troops from under NATO's military command in 1966. As the decade of the 1970s progressed, the France-NATO relationship improved steadily. Bolstered by the wishes of the French military and the successive French administrations, particularly that of President Mitterand's beginning in the early 1980s,<sup>613</sup> France and NATO expanded their cooperation and made sure that the French forces would be able to participate effectively in the defense of the West in times of war and emergencies.<sup>614</sup> According to Ullman (1989), "by the mid 1980s,...the French military relationship with NATO and with the United States was much closer than it had been since the 1950s."<sup>615</sup> Nuclear cooperation led to an eventual improvement in US-French relations and France's role and participation in NATO.<sup>616</sup>

It is not surprising, therefore, that in 1985 the US finally decided to legalize the nuclear cooperation arrangement with France, which had been going on for

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<sup>613</sup> Mitterand's own preferences were to align more closely with the US. I thank Matt Evangelista for pointing this out to me.

<sup>614</sup> See Ullman, 1989: 21-22.

<sup>615</sup> Ibid: 23.

<sup>616</sup> France finally made the decision to reintegrate its forces into NATO in 2009, with strong support from French President Nicolas Sarkozy. See, for example, Michael Moran, "French Military Strategy and NATO Reintegration", March 12, 2009. Backgrounder published by the Council on Foreign Relations. <http://www.cfr.org/france/french-military-strategy-nato-reintegration/p16619>

more than a decade at that point, and amended the 1961 US-French Agreement on Military Cooperation to permit the US to lawfully transmit restricted data concerning warhead designs to the French.<sup>617</sup> The 1985 Agreement closed the final chapter in the history of the American response to the French nuclear program, an effort that had lasted for more than four decades, spanned more than half a dozen US administrations, and vacillated between numerous policy options and approaches, depending upon the balance of available American security leverage, the willingness by American policy-makers to use this leverage, and the perceived effectiveness of leverage application.

France acceded to the NPT in August 1992 as a formally recognized nuclear weapons state. Its nuclear status was neither questioned nor challenged by American policy-makers. France had achieved exactly what it set out to do shortly after WWII, the status of a nuclear power on par with a select few other global powers. The history of the decades of American response to the French program illustrated the limitations of the American approach to the nuclear ambitions of its allies, especially when this approach rested almost exclusively on positive inducements and lacked any serious threat of negative repercussions. As an eventual recipient of direct military aid to its nuclear program, France stands as a rather unique case of American 'nuclear friendship'. However, some aspects of the American response to a mature French program were not unique to this specific case as I will illustrate in the following section that details the American response to a mature Israeli program.

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<sup>617</sup> Ullman, 1989: 15.

## Israel (1969 -- )

In the aftermath of a historic meeting between President Nixon and Prime Minister Golda Meir in the fall of 1969, the US President (and a small circle of his advisors) knew that Israel had crossed the nuclear threshold. As a result, the US started to gradually shift its focus away from hopes of persuading Israel not to go nuclear and to sign the NPT to defending the American position of upholding Israel's non-declared nuclear status (i.e., the status of nuclear opacity).<sup>618</sup> The US promised to stop insisting in private that Israel sign the NPT, although it reserved the right to continue making public declarations about the US's desire to bring Israel into the NPT framework as a non-nuclear weapon state. Furthermore, it now lent its public support for Israel's intentionally opaque position on the nuclear issue and agreed to stop pressuring Israel (either in public or private) to declare its nuclear status. Finally, the US promised not to couple the nuclear question with any other issue in the US-Israeli relationship. Israel, for its part, promised not to publicly disclose its nuclear status and not to test a nuclear device. This unwritten bargain between the two sides remained intact through the rest of the Cold War and continues to function to this day.

The American response to a mature Israeli program entailed a justification and a rationalization of the American decision to implicitly let a new member into the nuclear club. The US was especially preoccupied with absolving itself of any connection to the Israeli nuclear program, and in building a public record that

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<sup>618</sup> This is Cohen's formulation (Cohen, 1998b).

supported the American goals of non-proliferation (especially through NPT), while at the same time defending Israel's official position on the nuclear issue. The American rationalization involved some additional factors, such as Israel's status as a democracy.

Just as in the case of France, there was a time lag between the maturation of the Israeli program and US acceptance of that reality. The exact date when the US became certain that Israel had (or was about to have) a nuclear bomb is still not agreed upon by researchers. Cohen argued that some members of the US government knew that Israel's nuclear status was a *fait accompli* in the mid 1960s.<sup>619</sup> A series of articles in the American press starting in late 1970s argued that a few high-ranking American officials *assumed* that Israel had a nuclear bomb since 1968.<sup>620</sup> As detailed in the previous chapter, there is some reason to believe that Prime Minister Meir confirmed the speculation about Israel's bomb to President Nixon once and for all in September 1969.<sup>621</sup> However, the perceptible shift in American thinking about Israel's nuclear status, however, did not take place until early 1970, suggesting that there was a lag of as little as several months to as much as several years between when the Israeli program reached maturity and when the US began the process of accepting Israel's new status.

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<sup>619</sup> Cohen, 1998b: 214-215.

<sup>620</sup> Fialka, John. "Helms Says He Can't Recall LBJ Talk on Israeli A-Bomb", *The Washington Star*, March 2, 1978. Downloaded from CREST database at the USNA, accessed 10/16/06. See also "Ex-CIA Aide Says Johnson Quashed Israel A-Bomb Data", *The Washington Post*, March 2, 1978. Downloaded from CREST database at the USNA, accessed 10/16/06.

<sup>621</sup> Cohen & Burr, 2006: 7.

The process of American acceptance included a conscious attempt on the part of the Nixon Administration to absolve itself of any possible involvement in the Israeli nuclear program. Once the US was bound by the unwritten bargain struck between Nixon and Meir at the end of 1969, the US wanted to make sure that it could not be accused of being an accomplice to Israel's original decision to go nuclear, and that the US could claim that it in no way assisted the Israeli program to reach maturity. A revelation of the Israeli nuclear status would be bad enough, but an accusation of direct American involvement could set off an unprecedented backlash. National Security Advisor Henry Kissinger raised some of these issues directly with President Nixon shortly after Nixon's meeting with Prime Minister Meir in Washington in 1969. In explaining to Nixon the lost American battle over the US's favored definition of weapons 'introduction',<sup>622</sup> Kissinger wrote that

...we tried to put ourselves in a position where we could act as if we assumed that Israelis do not have completed weapons while leaving to the Israelis' conscience the stage short of completion where they would stop.<sup>623</sup>

About a month later, Kissinger explained Israel's modified formulation of 'introduction' to Nixon, writing that "the advantage of their new formulation is that it should put us in a position for the record of being able to say we assume we have Israel's assurances that it will remain a non-nuclear state as defined in the NPT."<sup>624</sup> As Kissinger explained, the NPT negotiations were "deliberately vague on what

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<sup>622</sup> See the section on Israel in the previous chapter and the discussion of the different definitions by Israel and the US of 'introduction' of nuclear weapons.

<sup>623</sup> Memorandum for the President from H. Kissinger, "Rabin's Proposed Assurances on Israeli Nuclear Policy", October 8, 1969. USNA, Nixon files, NSC, Box 605.

<sup>624</sup> Memorandum for the President from H. Kissinger, "Israel's Nuclear Program", November 6, 1969. USNA, Nixon files, NSC, Box 605.

precise step would transform a state into a nuclear-weapon state after the January 1, 1967 cut-off date”, and that the negotiations “implicitly left that up to the conscience of the governments involved.”<sup>625</sup> Article II of the NPT, however, is quite clear that a non-nuclear weapon state

undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.<sup>626</sup>

Kissinger was well aware, however, that the NPT did not define what constituted ‘manufacture’ or ‘acquisition’ of nuclear weapons, which allowed the nuanced Israeli definition of ‘non-introduction’ not to contradict the language of the NPT.

The American concern with creating a certain public record was not surprising. Creating a consistent and agreed-upon historical account of when and what the US knew, and what types of assurances it got from Israel, was undeniably important. In the years following 1969, the US perfected the art of fielding various suspicions from other states about the extent of the US’s knowledge of and involvement in the program. In the summer of 1971, for example, in a conversation with a State Department representative, an official from the Spanish Embassy in Washington directly confronted the US on the question of whether Israel had nuclear weapons. In response, the State Department official replied that

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<sup>625</sup> Ibid.

<sup>626</sup> For a text of the NPT, see <http://www.fas.org/nuke/control/npt/text/npt2.htm>.

...we [the US] accepted Israel's statement that it would not be the first one to introduce nuclear weapons into the area at face value....[Furthermore, the US] was on record in opposition to proliferation of such weapons, and tried to live up to this policy in all our relationships. There had been speculation last year that Israel might have a weapon, but we [the US] had no comment to add to the public assurance, mentioned above, that Israel had made.<sup>627</sup>

In answer to an additional question about whether the US was secretly aiding Israel's program, the State Department official "repeated it was our [American] policy to oppose any proliferation."<sup>628</sup> This particular exchange shows how the US had learned to avoid a direct answering of these basic questions and, instead, to shift the focus to the non-proliferation agenda, while denying any concrete knowledge or involvement in the Israeli program.

Keeping in line with its non-proliferation agenda, the US continued to publicly insist on the need for universal adherence to the NPT, including Israel. Without this public position the US would undoubtedly have had a much harder job of convincing other states to join the Treaty. While there was some evidence that certain American policy-makers continued to harbor expectations that Israel would actually sign the agreement,<sup>629</sup> the US phased out its private insistence on Israel's joining the NPT by the early 1970s. In its relations with other states, however, the US continued to stress its desire to have Israel sign the treaty. For example, the

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<sup>627</sup> Memorandum of Conversation, C. Miranda (Spanish Embassy) and R. Munn (NEA/IAI), "Does Israel Have Nuclear Bombs?", June 23, 1971. USNA; RG 59; SN 1970-73, Def 12-5, Box 1748.

<sup>628</sup> Ibid.

<sup>629</sup> Memorandum for the President from H. Kissinger, "Rabin's Proposed Assurances on Israeli Nuclear Policy", October 8, 1969. USNA, Nixon files, NSC, Box 605. Kissinger argued that "it seems to me that signature of the NPT with its loopholes and escape clause would not jeopardize Israel's potential nuclear capability or diminish Arab recognition of its conventional military superiority." In his recommendations to the President, Kissinger still urged Nixon to pressure Meir and her cabinet to sign the agreement. This was not in line with what was apparently worked out between Meir and Nixon in their September 1969 meeting. Eventually, the US stopped insisting in private to Israel that it should sign the agreement.

talking points for negotiations with the Soviets on the Middle East peace settlement in 1970, prepared by the US Arms Control and Disarmament Agency, suggested that the US should point out to the Soviets that the two superpowers had a common interest in trying to prevent the advancement of the Israeli nuclear program.<sup>630</sup> Furthermore, while “one cannot guarantee that the Israelis would agree to adhere to the NPT as part of a peace settlement...we [the US and the Soviet Union] both can make the maximum effort to see that they do.”<sup>631</sup> However, we know that by the early 1970s, the US had already halted any earnest effort to convince Israel to sign the NPT as part of the US-Israeli nuclear bargain.

The same can be said of American attempts at coupling the nuclear issue with any other issues, such as the sale of American military equipment to Israel, for example. Although some voices in the American government in the early 1970s continued to insist on such coupling,<sup>632</sup> the degree of non-conditional American

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<sup>630</sup> Talking Paper, “The Israelis Nuclear Question and Efforts for a Middle East Settlement”, prepared by the US Arms Control and Disarmament Agency, October 27, 1970. USNA; Nixon files, NSC, Box 608.

<sup>631</sup> Ibid. The paper started off by declaring that “the Israelis are moving forward with a nuclear weapons program. We know it and the Soviets know it. When the Israelis have a demonstrable nuclear weapon capability and a missile delivery capability, the situation will be substantially more dangerous than at present.” The above wording refuses to confirm the extent of the American knowledge about the Israeli program at the end of 1970. Of course, another possibility is that the agency preparing the Talking Points was in fact not privy to the classified information about the extent of the Israeli program. This scenario is doubtful, however, especially since the public revelation about the Israeli program (which, of course, was denied by Israel) appeared in the *New York Times* several months earlier. See Smith, Hedrick. “US Assumes the Israelis Have A-Bomb or Its Parts”, *New York Times*, July 18, 1970. Downloaded from CREST database at USNA, accessed 10/16/06.

<sup>632</sup> Letter from Secretary of State W. Rogers to Senator J.W. Fulbright, April 2, 1970. USNA; RG 59; SN files 1970-73, Def 12-5, Box 1748. Senator Fulbright held the view that the US should not sell any more F-4 Phantom fighter jets to Israel unless Israel signed the NPT. Secretary Rogers confirmed that the additional deliveries of F-4s were indeed under consideration and that Nixon was contemplating the issue. The Israelis were angered by Nixon’s deliberations, as evident in Meir’s personal letter to Nixon dated March 8, 1970. Letter from PM Meir to President Nixon, March 8, 1970. USNA; Nixon files, NSC, Box 612. The additional sales were eventually approved.

military assistance to Israel only intensified after 1969.<sup>633</sup> The increase in military aid and transfers to Israel was formalized through an amendment to the 1961 Foreign Assistance Act. The justification for the amendment, signed off by President Nixon in 1974, reiterated the understanding of American national interests as they related to arming Israel.<sup>634</sup> In particular, the presidential justification read that assisting Israel “will strengthen the security of the United States and promote world peace” and that the granting of certain sophisticated weapons systems (including missile systems and jet aircraft)<sup>635</sup> “[was] important to the national security of the United States.”<sup>636</sup> Furthermore, part of the presidential finding, which authorized a release of more than \$3 million worth of defense articles in any given year, argued that “the increased ability of [Israel] to defend itself is important to the security of the United States.”<sup>637</sup> These justifications point to the American logic that a strong and self-sufficient Israel was good for American national interests.<sup>638</sup>

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<sup>633</sup> There is some disagreement in the literature about why the US had provided Israel high levels of military aid over the years. Organiski (1990), for example, argues that the US’s decisions were based purely on strategic considerations, while Mearsheimer and Walt (2006) argue that the level of American support should be attributed to the influence of the so-called ‘Israel lobby’ in the US. For a different view, see former US ambassador to Israel Samuel W. Lewis (1999) who described the decades of the US-Israeli relations as a “periodically troubled Catholic marriage, from which there is no divorce” (Lewis, 1999: 378). Lewis argued that the relationship greatly depended on the personalities of leaders in office, that the so-called ‘strategic alliance’ was not formed until the 1980s, and that given the American strategic interests in the region as well as US domestic politics, it would be close to impossible for the US to disengage from its role as a peacemaker in the Arab-Israeli conflict.

<sup>634</sup> Memorandum for the President from the Deputy Secretary of State, “Finding and Determinations under Sections 503, 504, and 505 of the Foreign Assistance Act of 1961, as amended, with respect to the Grant of Defense Articles and Defense Services to Israel”, January 8, 1974. USNA; Nixon files, NSC, Box 611.

<sup>635</sup> In contrast to the 1960s, when there might have been deliberations over whether the provision of such sophisticated weaponry could be utilized in the Israeli nuclear program, there was no longer any mention of the nuclear problem by the mid 1970s.

<sup>636</sup> Memorandum for the President from the Deputy Secretary of State, “Finding and Determinations under Sections 503, 504, and 505 of the Foreign Assistance Act of 1961, as amended, with respect to the Grant of Defense Articles and Defense Services to Israel”, January 8, 1974. USNA; Nixon files, NSC, Box 611.

<sup>637</sup> Ibid.

<sup>638</sup> The US, of course, had always been interested in sustaining a militarily powerful and conventionally superior Israel. To that end, it had assisted Israel with conventional arms and technology throughout the

The justification of the American decision to accept Israel's nuclear status had another element in the post-1969 period. The US used the fact that Israel was a democracy to its advantage. As a friendly state with whom the US shared not only economic and military bonds, but also political, cultural, and social ties (due, in part, to a large Jewish presence in the US),<sup>639</sup> Israel could be trusted to be responsible with its nuclear technology, whether civilian or military. Furthermore, as a close democratic ally, it would not be likely to renege on its obligations under the unwritten nuclear bargain struck with the US. It is worth noting that the arguments with respect to Israel being a friendly democracy did not affect American policy choices up until this point. However, once the Israeli program matured, such arguments became more prominent, and they continued to figure notably in scholarly analyses about the lack of American opposition to Israel's nuclear status.<sup>640</sup>

Congressional voices in support of Israel in the late 1960s characterized her as "the one bastion of freedom in the Middle East",<sup>641</sup> and therefore worthy of American support and defense against her Arab neighbors. For President Nixon, such a straightforward regime-type argument was supplemented by strategic

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Cold War period and beyond. However, during the 1960s, the US had consistently argued that a nuclear-armed Israel was actually detrimental to American security. By 1974, the US already knew that Israel had the bomb (which effectively gave it both conventional and unconventional superiority over the Arab states). The US was now advocating the position that a strong Israel (which was armed with nuclear weapons) was good for US national security.

<sup>639</sup> For a controversial view on the influence of the 'Jewish lobby' on American foreign policy, see Mearsheimer and Walt, 2006. See also an extensive debate about the 'Jewish lobby' argument in "The War over Israel's Influence", *Foreign Policy*, 2006, no. 155:56-66 and a review of the Mearsheimer/Walt book by Walter Russell Mead in *Foreign Affairs*, 2007, vol. 86, no. 6: 160-168.

<sup>640</sup> For example, Feldman, 1997

<sup>641</sup> Congressional Record, Remarks by Senator R. Ottinger (NY) in the House of Representatives, December 17, 1969. Downloaded from CREST database at USNA, accessed 10/16/06.

considerations. For example, in a spring 1970 memo to National Security Advisor Henry Kissinger, Nixon argued that the Israelis

...must recognize that our interests are basically pro-freedom and not just pro-Israel because of the Jewish vote. We are for Israel because Israel in our view is the only state in the Mideast which is pro freedom and an effective opponent to Soviet expansion. ... We admire them [the Israelis] for their character and their strength and because we see in Israel the only state in that part of the world which will not become an abject tool of Soviet policy the moment the Soviet begins to flex its missiles.<sup>642</sup>

Nixon's formulation, in fact, combined elements of strategic considerations, regime type, and identity, and argued that the US was not treating Israel as a 'special case', but rather as an important and trustworthy strategic friend. The same memo revealed some additional factors in Nixon's thinking about Israel. Nixon claimed that, on the one hand, he was fully committed to supporting Israel and making sure that it always 'ha[d] an edge.'<sup>643</sup> On the other hand, he explained that he had to

...carry with him not just the Jewish constituency in New York and Pennsylvania and California and possibly Illinois which voted 95 percent against him, but he must carry with his the 60 percent of the American people who are in what is called the silent majority, and who must be depended upon in the event that we have to take a strong stand against Soviet expansionism in the Mideast. Only when the Israeli leaders realize this fact are they going to have any kind of security which will be reliable...<sup>644</sup>

Domestic electoral politics have become a prominent factor in American decision-making with respect to Israel in the nuclear realm. Nixon was aware and concerned about the effects of his decisions, such as a brief refusal to authorize the delivery of Phantom jets in 1970, on the public perceptions about him as President and on

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<sup>642</sup> Memorandum from the President to H. Kissinger, March 17, 1970. USNA; Nixon files, NSC, Box 612.

<sup>643</sup> Nixon, 1978: 596.

<sup>644</sup> Nixon, 1978: 596.

future electoral outcomes.<sup>645</sup> Prime Minister Meir undoubtedly was aware of some of the American popular sentiments when she called the United States Israel's "best friend" and Nixon a personal friend of Israel in the White House when she appealed for a speedy delivery of the Phantom jets in the spring of 1970.<sup>646</sup>

Over time, arguments about democracy and the identity of a state possessing nuclear weapons found their way into the official American intelligence thinking and reporting, signifying an adjustment to the American non-proliferation agenda. This new philosophy rationalized an American acceptance of the nuclear status of states like Israel. The National Security Study Memorandum 202 (NSSM 202), prepared in late 1974 for President Ford's administration, was a perfect illustration of that point. On the whole, NSSM 202 argued in favor of continuing American nuclear non-proliferation policy, but with a notable amendment. The Memorandum specified that

...the identity and character of potential additional new nuclear states have important and different implications for the US. Whether a 7<sup>th</sup> or 8<sup>th</sup> nuclear nation were a friend or adversary and whether it would present a credible global threat, or largely a regional one (as in the case of India), would be important in terms of its direct effect on world stability and American interests, apart from its effect in increasing the risk of still further proliferation.<sup>647</sup>

This shift in thinking is significant. The tone of JFK's non-proliferation agenda, when nuclear proliferation by friends and foes alike was categorically opposed, was

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<sup>645</sup> See Nixon, 1978: 595-596.

<sup>646</sup> Letter from PM Meir to President Nixon, March 8, 1970. USNA; Nixon files, NSC, Box 612.

<sup>647</sup> NSSM 202, "US Nuclear Non-Proliferation Policy", prepared and distributed to the President, along with the Deputy Secretary of Defense, the Assistant to the President for National Security Affairs, the Director of the CIA, the Chairman of the Joint Chiefs of Staff, the Chairman of the Atomic Energy Commission, the Director of the Arms Control and Disarmament Agency, and the Director of the USIA, December 4, 1974. Downloaded from CREST database at USNA, accessed 10/16/06.

amended.<sup>648</sup> While the US continued to promote global non-proliferation, the approach gradually became country-specific rather than absolute.<sup>649</sup> Such an approach allowed the US to justify its decision to implicitly grant nuclear status to Israel without abandoning the principles of global nuclear non-proliferation which the US still promotes aggressively to this day.<sup>650</sup> It also paved the way for justifying additional exceptions such as in the case of India, as we shall see in the next chapter.

The US-Israeli nuclear deal, reached in the fall of 1969, has endured through decades of regional and global political transformations. Israel has remained true to its word that it would not publicly reveal its nuclear status,<sup>651</sup> and the US stopped pressuring Israel to sign the NPT as a non-nuclear weapons state and to shed its nuclear opacity.<sup>652</sup> Some scholars have recently argued that the US-Israeli bargain might have outlived its usefulness and have proposed that “it is in Israel’s interests to be recognized for what it is, a nuclear-weapon state.”<sup>653</sup> Cohen (2010) argues that

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<sup>648</sup> This is not to argue that since 1969 US allowed democracies to acquire nuclear weapons. However, the US’s ability to justify the rare and exceptional cases in which a democratic ally went nuclear improved.

<sup>649</sup> See Feldman, 1997, for example. In writing about the American non-proliferation policy in the post Cold War period, Feldman argues that under Clinton, the non-proliferation approach became much more regime-centric and that the particular US-Israeli nuclear arrangement is, in fact, beneficial to both sides. As long as both states uphold their ends of the unwritten nuclear bargain, it is a win-win situation.

<sup>650</sup> Some recent non-proliferation scholarship clearly acknowledges the American country-specific approach to proliferation influenced by regime type of a state in question. For example, Hayes (2009) argues that the variance in the American approach to the Indian versus Iranian nuclear programs could be explained by the fact that Indian program was never securitized by American policy-makers (as a result of India’s democratic identity), whereas the Iranian program was.

<sup>651</sup> In 2006, while on a trip to Germany, the Israeli PM Ehud Olmert made a seemingly unfortunate slip-up when he equated Israel’s nuclear status with that of France, America and Russia. Israel was quick to assert that Mr. Olmert’s remarks did not amount to admission of nuclear weapons possession. See, for example, [http://www.timesonline.co.uk/tol/news/world/middle\\_east/article752059.ece](http://www.timesonline.co.uk/tol/news/world/middle_east/article752059.ece) as well as <http://www.abc.net.au/am/content/2006/s1809421.htm>.

<sup>652</sup> Its nuclear status, however, had gradually become an open nuclear secret. While not directly admitting the weapons’ existence, the US does not deny it either. For example, Cohen (2010) provides an illustrative quote from 2004 from US Secretary of Defense Donald Rumsfeld who was asked during a conference by a Palestinian official about America’s double standard regarding Israel’s nuclear status. Rumsfeld answered “You know the answer before I give it, I’m sure. The world knows the answer.” (p. 242)

<sup>653</sup> See Cohen, 2010: 245.

a public revelation regarding Israel's status would bolster the transparency and accountability that are required of all states, especially those with nuclear weapons.<sup>654</sup> It would also, according to Cohen, serve Israel's own interests, which would better be served if Israel were not treated as a nuclear 'untouchable' that operates outside the nuclear regime.<sup>655</sup>

What Cohen does not consider closely, however, is that a public revelation about Israel's nuclear weapons (and thus the termination of the 1969 US-Israeli nuclear bargain) would force Israel to open its nuclear sites and facilities to international inspections and put them under IAEA safeguards. Furthermore, it would compel Israel to consider committing to various arms control and nuclear testing agreements, something that Israel has been allowed to avoid due to its nuclear opacity status. In short, a revelation about its nuclear bombs would effectively end Israel's completely autonomous decision-making with respect to those weapons and make them subject to international scrutiny. Other repercussions might follow, such as a negative reaction from Israel's neighbors who might threaten to abandon the non-proliferation regime as a result of the announcement. It would also fan the fires of 'double standard' accusations that many states have levied against the US over the years with respect to tolerating Israel's secret nuclear program, but not the programs of others.

The recent American decision to explicitly recognize India's nuclear status (and even to reward that status with the signing of the US-Indian nuclear

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<sup>654</sup> Ibid. : 246.

<sup>655</sup> Ibid. : 247.

cooperation deal)<sup>656</sup> may serve as an important precedent to the non-proliferation regime.<sup>657</sup> The Indian case illustrated how a previously sanctioned nuclear pariah can transform itself into a 'nuclear darling' in the eyes of the US. It confirmed that, in special circumstances, the US could make exceptions for its friends and allies, even when they operate outside the realm of international non-proliferation regimes, such as the NPT. According to Cohen, Israel would want a treatment similar to India, albeit tailored to specific needs and circumstances of Israel.<sup>658</sup> Israel's undeclared status stands in the way of any possible deal similar to that granted to India. Israel has exhibited no interest in publicly revealing that status. Cohen's more recent writings (2011) contend that Israel's status of nuclear opacity hinges closely on the nuclear challenge posed by Iran and its eventual resolution.<sup>659</sup> The problem of Iran, according to Cohen, actually encourages Israel to maintain its opacity and it is also a position that the US currently supports.<sup>660</sup> As a result, the US-Israeli nuclear bargain is likely to endure for some time to come.

## **Conclusion**

By the time American allies crossed a nuclear threshold, the US had initiated a strategy for accepting a new nuclear reality and started to rationalize making exceptions to its proclaimed universal non-proliferation policy. At least in the cases of two prominent allies who aspired, and eventually went on, to become nuclear

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<sup>656</sup> The deal is also known as the 123 Agreement. The US Congress approved the deal in the fall of 2008. It was also approved by IAEA and the Nuclear Supplier's Group, paving the way for India to take advantage of the international nuclear markers which were previously off limits to it due to sanctions for its nuclear tests.

<sup>657</sup> Cohen, 2010: 249-252.

<sup>658</sup> Ibid.: 251.

<sup>659</sup> Cohen, 2011.

<sup>660</sup> Cohen, 2011: 197.

powers, the American response could be characterized as muted resignation after the point at which their nuclear programs matured. The US did not rush to embrace the new nuclear status of its friends. In fact, in the case of France, it took the US several years to admit that its ally had made “substantial progress” with respect to its program, even after France exploded its first nuclear device. Israel, which never openly tested a nuclear weapon, had to directly inform the US that it had, in fact, become a nuclear power sometime prior to the fall of 1969. Given that the Nixon-Meir meeting was highly classified and very few people knew its content or outcome, some American policy-makers continued to mistakenly think of Israel as a non-nuclear weapons state that might eventually join the NPT.

Despite American reluctance to readily accept the nuclear status of allies that crossed a nuclear threshold, Washington’s willingness to continue to pursue the nuclear question in bilateral relations gradually subsided, and eventually faded altogether. Even if the US possessed various types of security levers, such as formal and informal security guarantees, conventional military equipment and technology, and expertise, it was not willing to use them on allies who were *de facto* nuclear powers. In the case of France, the grudging American acceptance eventually led to classified nuclear cooperation, on par with the arrangements that the US had with its closest European ally, the United Kingdom. The cooperation was legalized only in the mid 1980s, but it was preceded by a strategy of *negative guidance* that allowed American experts to avoid breaking the laws on the books that prohibited exchanges of classified nuclear materials and information. In the case of Israel,

where classified nuclear cooperation was out of the question,<sup>661</sup> the US settled for an unwritten understanding with its ally to keep the program undeclared, away from the spotlight but also free from American pressure.

These bilateral understandings are an example of the tacit *quid pro quo* that the US tries to get from its allies in exchange for American acceptance of their nuclear status. In a sense, the acceptance comes with a price. In the case of France, the US hoped to achieve a closer French cooperation with NATO and the eventual re-integration of the French forces into the NATO structure. Kissinger also saw the American nuclear aid as a way to play France and the UK off of one another in their quest for nuclear progress. The NATO objective was not fully reached until recently when France re-integrated into the NATO command structure. However, the US-French relations did improve markedly following American recognition that France had made 'substantial progress' in the nuclear field. France's relations with NATO had improved as well. In the case of Israel, the unwritten nuclear bargain ensured that not only would the nuclear question not prevent bilateral relations from going forward, but it reaffirmed the informal strategic alliance between the two states.

This thesis has presented a theoretical framework for understanding the variation in the American reaction and response to aspiring nuclear powers that happen to be American allies. I argued that the nature of the response depended on the American ability and willingness to influence its allies to reverse their nuclear choices. I have traced the evolution of the American response over the course of

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<sup>661</sup> As I explained earlier in this chapter, the US was particularly concerned with creating a specific public record that would let the US deny any involvement whatsoever in the Israeli nuclear program.

different stages of nuclear program development abroad and illustrated how the various combinations of security leverage and willingness to apply it have led to different policy choices and outcomes. I have focused in-depth on three cases of early proliferators, France, Israel, and Taiwan, although Taiwan never crossed the nuclear threshold, in large part because of the threats and pressures exerted by the US.

In the next chapter I will apply my theoretical argument to two additional cases of proliferators, India and Pakistan, to test if the logic still holds for later proliferators or for those states that were not technically American allies. India, of course, is the latest example of the American acceptance of a nuclear status abroad. Not only has it developed its nuclear arsenal outside of the NPT regime, but it also secured the approval for this strategy from the US as well as from the international nuclear regulatory agencies. Pakistan's nuclear path, in turn, was significantly influenced by India's nuclear choices. The consideration of these two additional cases will help me further illustrate the American strategy of making occasional exceptions to its overall non-proliferation policy and exempting some of its friends from the same treatment and scrutiny that it affords everyone else in the nuclear domain. I will conclude with a summary of some of the main findings from the thesis, including theoretical implication of my work and its policy relevance to future cases of proliferation.

## Chapter 5 - Conclusion

The previous chapters of this thesis presented a theoretical framework for understanding the history of the American response to aspiring nuclear proliferators who happened to be friends of the US. This thesis argued that the differences in the American approach could be explained by variation in the levels of ability and willingness to pressure allies on the nuclear question. I have argued that only at times when both of those indicators were strong did the US have any significant chances of reversing a nuclear program abroad. Furthermore, the leverage was most effective before a program reached maturity. After an ally had crossed the nuclear threshold, the US almost always abandoned hopes of convincing a friend to give up its nuclear aspirations, and instead focused on identifying ways to incorporate the new nuclear reality into the broader American non-proliferation framework. This task invariably involved a justification for making a special amendment or exception to the proclaimed principle of universal non-proliferation.

I have applied my theoretical framework to the three specific cases of the so-called early proliferators: states that had initiated their programs before the end of the 1950s.<sup>662</sup> I have traced the evolution of the American response during the three distinct stages of a nuclear program's development: nascent, intermediary, and mature.<sup>663</sup> I have discovered that, historically, while the US often believed itself capable of influencing the direction of certain policies of its allies, it nonetheless

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<sup>662</sup> Taiwan's program did not start until the 1960s. The universe of cases that have initiated a military program but abandoned it before the point of maturity is not vast. Taiwan is one of the 'earliest' in that category. As a result, I have considered this case with those of Israel and France, both of which started their military programs in the 1940s and 50s.

<sup>663</sup> See footnote # 532 about two additional stages of a nuclear program that G. Kampani had developed.

usually failed to achieve the proclaimed goal of universal non-proliferation, even when it dealt with its closest friends. I have argued that such an outcome was attributable not only to the sheer determination of an aspiring proliferator to achieve independent nuclear capability, but also to the lack of either the US's ability or willingness (or both) to consistently pursue the nuclear question in a bilateral relationship and to successfully couple it with other issues relating to security and armaments provision.

Before I summarize some of the main findings of this thesis, it is important to cast the empirical net a bit wider and ask whether or not my theoretical framework is applicable to cases beyond the three that I have chosen to study in-depth in this work. Does my framework still hold for those states that started to proliferate later? What about states whose relationship with the US changed over time? While I cannot examine every aspiring proliferator that, at one point, might have been considered an American ally,<sup>664</sup> this study would be incomplete without consideration, however brief, of two additional cases, India and Pakistan. It is useful to consider these cases side by side, since their nuclear histories are closely intertwined.<sup>665</sup> Furthermore, India is the latest example of American rule bending as the two sides concluded an historic nuclear energy cooperation agreement in 2005, only seven years after India incurred punitive sanctions from Washington for its first open explosion of a nuclear device.<sup>666</sup> The US, despite a history of close

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<sup>664</sup> Refer to Table 1 in chapter 1 for a full list of nuclear proliferators and the accompanying footnotes on their 'closeness' to the US.

<sup>665</sup> This is especially true of the Pakistani program that, in many respects, was a reaction to the Indian program.

<sup>666</sup> India conducted an earlier nuclear explosion in 1974, which, it insisted, was a 'peaceful' one.

alignment with Pakistan during the decades of the Cold War, did not offer a similar deal to Islamabad. In the wake of the recent revelation that the most notorious international terrorist, Osama bin Laden, was for years hiding out in the heart of Pakistan, the prospects for such a deal have all but vanished. The following section will offer a brief overview of American responses to the Indian and Pakistani programs since their inception and will illustrate that my theoretical framework also holds for a wide variety of cases. The brief summary of the key variables is as follows:

**Table 5 – India and Pakistan**

**India**

	<b>Amount of Leverage (Ability)</b>	<b>Willingness to Use Leverage</b>	<b>American Policy</b>
<b>Nascent Stage</b>	Low	Low	Passive opposition
<b>Intermediary Stage</b>	Low	Low→Med	Opposition, but no overt pressure
<b>Mature Stage</b>	Med	Med→Low	Opposition→endorsement of status

**Pakistan**

	<b>Amount of Leverage (Ability)</b>	<b>Willingness to Use Leverage</b>	<b>American Policy</b>
<b>Nascent Stage</b>	High→Med	Low→Med	Passive opposition
<b>Intermediary Stage</b>	Med→High	High→Low	Opposition→knowledge denial
<b>Mature Stage</b>	Med	Med	Opposition→tacit recognition of status

## India and Pakistan

### *Nascent stage (India 1954-1964; Pakistan 1954-1972)*

The history of both the Indian and Pakistani nuclear programs is rich and well documented.<sup>667</sup> The point of this section is to highlight the changes in the American approach to these two separate programs since their inception shortly after both states became independent from the United Kingdom in 1947.

As with so many other cases, including the ones examined in this thesis, the early stages of both the Indian and Pakistani programs focused on the development of civilian nuclear energy, spurred on particularly by the Atoms for Peace program under President Eisenhower. Both states purchased nuclear reactors from abroad and sent their nuclear scientists to train overseas.<sup>668</sup> While the Indian civilian program was vibrant and extensive by the mid 1960s, India had consistently professed its aversion to nuclear weapons. Jawaharlal Nehru, Indian Prime Minister from 1947 to 1964, was personally opposed to them, although he gave his chief nuclear scientist, Homi Bhaba, free rein to establish and develop the Indian nuclear program.<sup>669</sup> Pakistan's program lagged behind that of India, and some scholars have

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<sup>667</sup> The seminal overview of the Indian program can be found in Perkovich, 1999. For more on the history of the Indian program see Ganguly, 1999; Reiss, 1995, Chapter 5; Paul, 2000, Chapter 8, among others. See also Cornell University Department of Government doctoral thesis by Karthika Sasikumar (2006) "Regimes At Work: the Non-proliferation Order and Indian Nuclear Policy" on the impact of NPT on Indian nuclear policy. See also the doctoral thesis of Gaurav Kampani, "Understanding Three Decades of Lag in Indian Nuclear Decision-Making", Cornell University, Department of Government, forthcoming. On the Pakistani program, see Kapur, 1987; Rehman, 1999; Chakma, 2002, among others.

<sup>668</sup> India established its first nuclear research institute in 1954, whereas Pakistan set one up in 1963. Both states purchased Canadian research reactors.

<sup>669</sup> See Ganguly, 1999: 151.

noted that Pakistan pursued an India-reactive nuclear policy from the very start.<sup>670</sup> Nonetheless, much as in the case of India, Pakistan, in the late 1950s and throughout the 1960s, professed that it was exclusively devoted to the development of peaceful applications of nuclear energy.<sup>671</sup>

The American position was to passively oppose both programs during the nascent stage. Strategically, the US was much closer to Pakistan than it was to India. Pakistan and the US were allied through CENTO<sup>672</sup> and SEATO.<sup>673</sup> Furthermore, the US was a major supplier of conventional weapons to Pakistan until the mid 1960s, at which point China assumed that role.<sup>674</sup> India, on the other hand, was a non-aligned state, although it received the bulk of its arms from the Soviet Union (followed by the UK) during the nascent stage of its nuclear program.<sup>675</sup> In terms of available leverage, the US was therefore in a much better position to try to influence Pakistan than India.<sup>676</sup>

US willingness to pressure any nascent program, however, was still low. The possibility of India wanting to develop its own nuclear capability was low on the

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<sup>670</sup> Chakma, 2002: 871.

<sup>671</sup> Ibid.: 878.

<sup>672</sup> Central Treaty Organization, which lasted from 1955 to 1979. It was comprised of Iran, Iraq, Pakistan, Turkey, UK and the US. The US joined in 1958. The alliance served the purpose of containing Soviet expansionism.

<sup>673</sup> Southeast Asia Treaty Organization, formed in 1954 as a regional alliance aimed at preventing the spread of communism. Pakistan left the alliance in September 1972, partly as a result of being disillusioned with the alliance members who did not come to its defense during its numerous disputes with India or during the 1971 war that led to the break off of Bangladesh from Pakistan.

<sup>674</sup> See SIPRI arms transfer database for arms exports to Pakistan, 1950-2010 (<http://www.sipri.org/databases/armstransfers>). The US imposed an arms embargo on Pakistan following its 1965 war with India (sanctions were lifted in 1975). In the 1965-75 period, China served as the major arms supplier to Pakistan, followed by France.

<sup>675</sup> See SIPRI arms transfer database for arms exports to India, 1950-2010 (<http://www.sipri.org/databases/armstransfers>).

<sup>676</sup> Refer to Table 5.1 for a summary of ability/willingness balance at each stage of the Indian and Pakistani programs.

American intelligence radar in the late 1950s. Even as President Kennedy, and then Johnson, paid increasing attention to the 'Nth country' problem there was not enough evidence to suggest that either state could develop a nuclear weapons capability. The National Intelligence Estimates (NIEs) from 1957 and 1958, for example, barely mentioned India in their discussions.<sup>677</sup> The NIEs from the early 1960s provided some brief rough estimates of an Indian program,<sup>678</sup> but it was not until 1964 that the US decided that such a program was 'probable', mainly as a result of the Chinese nuclear test earlier that year.<sup>679</sup> The US believed that India would need massive external help to start its program and the NIE did not specify at this stage any concrete steps that the US could (or should) take to dissuade it from going down the nuclear path. The attention paid to the prospect of a Pakistani program was even less. The very first mention of a possible Pakistani program in an American NIE was not until 1966, two years after the Chinese test (and the subsequent commencement of an Indian military program).<sup>680</sup> Worries about such a program were low, and Washington did not waste much energy on figuring out what could be done to avert the possibility of Pakistan acquiring nuclear weapons. The

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<sup>677</sup> See NIE number 100-6-57, "Nuclear Weapons Production in Fourth Countries: Likelihood and Consequences", June 18, 1957. NSA archives, Document # 2, "National Intelligence Estimates". This NIE speculated that countries like India could obtain nuclear weapons "only by extraordinary efforts and by assigning the highest priority to a weapons program."

<sup>678</sup> See, for, example, NIE number 100-4-60, September 20, 1960 (NSA archives, Documents # 5, "National Intelligence Estimates") or NIE number 4-3-61, September 21, 1961 (NSA archives, Document # 6B, "National Intelligence Estimates").

<sup>679</sup> See Memorandum "Nuclear Weapons Programs Around the World", December 3, 1964 (NSA archives, Document # 10, "National Intelligence Estimates"). The memo speculated that "there [was] a good chance that India will embark on a weapons program during the next few years, although shortly after the Chinese test, the Indian government reaffirmed its intention not to develop these weapons. We think pressure by political and military leaders is likely to eventually force a reversal of this decision". (p. 9)

<sup>680</sup> See NIE number 4-66, January 20, 1966 (NSA Archives, Document # 12, "National Intelligence Estimates"). The NIE argued that a country like Pakistan "would need substantial aid in virtually all phases of a nuclear program and we believe none of the present nuclear powers is likely to give such help." China, of course, went on to be instrumental in the provision of such aid.

American interest in the regional nuclear developments started to grow as first India, and then Pakistan, veered in the military direction with their nuclear programs following the 1964 Chinese nuclear explosion.

*Intermediary stage (India 1964-1974 or 1990; Pakistan 1972-1990)*

In the aftermath of the 1964 Chinese nuclear test, as well as a 1962 border dispute with China, India reconsidered its proclaimed position that it would not acquire nuclear weapons.<sup>681</sup> While publicly denying any intention to develop atomic weapons, India took a series of steps that, in 1974, led it to its first atomic explosion.<sup>682</sup> India was quick to describe the explosion as ‘peaceful’ (PNE), assigning it to a different category than a regular atomic test.<sup>683</sup> It was not perceived as such by some other states, particularly Pakistan.<sup>684</sup> In the late 1960s India also refused to sign the NPT, claiming that its terms were discriminatory and that the Indian position was not seriously considered.<sup>685</sup> India spent the decades of the 1970s and

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<sup>681</sup> The decision ‘to go nuclear’ was not as explicit in the Indian case as in some of the others discussed in this project. India wavered with respect to a final determination on nuclear weapons well into the 1980s, but has opted to keep the nuclear option open since 1964, when PM Shastri authorized his senior nuclear scientist Bhaba to figure out a timeline for developing a nuclear explosive. (see Ganguly, 1999: 154-55 or Perkovich, 1999: 83-84.)

<sup>682</sup> The 1974 PNE can be considered a break point between the intermediary and mature stages of the Indian nuclear program. In fact, some experts on the program would argue that India crossed the threshold in 1974, then retreated, and then crossed it again in 1998, when it conducted an open atomic test. (Author’s correspondence with Karthika Saskimur, spring 2011). Classification of the separate stages of Indian program is therefore harder than for any of the other cases discussed in this project. I argue that the period between 1974 and 1990 is a gray zone, a period between the intermediary and mature stages. It was dominated by protracted internal government debates about the program, changes in policy and nuclear doctrines, but an underlying desire to keep the nuclear option open despite public claims to the contrary. Perkovich’s (1999) analysis provides an excellent chronology of this debate.

<sup>683</sup> For more on the 1974 PNE, see Perkovich, 1999: 170-187.

<sup>684</sup> Glenn Seaborg recounts in his memoirs that “India’s nuclear explosion...[has] produced great alarm that the ‘genie’ may be ‘out of the bottle’, greatly increasing the number of places and circumstances from which a world-engulfing conflagration could emanate.” (Seaborg, 1981: 291).

<sup>685</sup> As Perkovich, 1999, put it, “India was not making a security case for its acquisition of nuclear weapons but rather a political and moral case against those states that had nuclear weapons and refused to disarm.”

1980s wavering in its position on its military nuclear program, how far it wanted to take it, and how it should present it to the world at large.

The American response to Indian nuclear developments from the mid 1960s to the early 1990s can be characterized as tacit opposition, with only occasional efforts to reverse the course of the program, most of which ultimately failed. In the aftermath of the 1964 Chinese test, when American policy makers became more aware of the possibility of India going nuclear, there were a number of US government (especially State Department) proposals considered regarding how the US might convince India to abandon its efforts. They included nuclear weapons sharing;<sup>686</sup> provision of security guarantees to India;<sup>687</sup> extension of cooperation with India in the civilian energy field<sup>688</sup> or, alternately, cutting off American aid to the Indian civilian program;<sup>689</sup> and India's signing of the NPT as a non-nuclear weapon state (NNWS).

The NPT signature in particular (much as in the case of Israel) was seen by President Johnson as a way of persuading India to give up its nuclear desires. However, during the negotiations leading up to the signing of the Treaty (in which

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(p. 143). India also saw the NPT as being primarily driven by the US and the UK, a global hegemon and a former colonial power.

<sup>686</sup> The plan involved an arrangement for some US-friendly states (including India and Taiwan) to receive and militarily deliver low-yield nuclear weapons from the US in case of Chinese aggression (Perkovich, 1999: 91-92). The plan was rejected as unfeasible and as contradicting the recommendations of the Gilpatric report (ibid.), which was commissioned by President Johnson and which made recommendations on the American non-proliferation strategy in the mid 1960s. For more on the Gilpatric report, see Gavin, 2004.

<sup>687</sup> India was seeking such guarantees not only from the US, but from other major powers as well in the wake of the Chinese test. The US did not end up providing such guarantees. For more on the discussions about the US security guarantees, see the NSA electronic briefing book "India and Pakistan – on the Nuclear Threshold", documents # 5, 6 and 7.

<sup>688</sup> See NSA electronic briefing book "India and Pakistan – on the Nuclear Threshold", document # 3.

<sup>689</sup> Perkovich, 1999: 116.

India was initially an active participant), the US already harbored suspicions that India would refuse to sign. A State Department study in the spring of 1969 concluded that India was “not expected to sign the NPT” and that the only likely source of leverage on India on this issue could be Soviet influence, particularly through its conventional military aid program.<sup>690</sup> The US recognized that its ability to influence India was low. When Nixon came into office, the general orientation of US policy in the region was “to avoid adding another complication to [the] agenda.”<sup>691</sup> US policy makers speculated that tactics such as aid denial to Indian civilian programs “would probably have little or no effect on India’s decision not to adhere” to NPT, and that any overt American pressure on India could “cause a negative reaction.”<sup>692</sup> Furthermore, the US understood that Pakistan’s signing the NPT was contingent on India doing the same. In fact, the State Department study acknowledged that “..our influence on Pakistan regarding NPT adherence is extremely limited in the absence of Indian signature.”<sup>693</sup>

Having lost the NPT battle with India, as well as with Pakistan, the US continued to follow the ‘minimum pressure’ approach, even after India’s 1974 PNE. The US tried to engage India in a dialogue, even proposing some areas of cooperation.<sup>694</sup> However, two years after the PNE, American Congressional pressure

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<sup>690</sup> The Soviet Union continued to be the major arms supplier to India throughout the intermediary stage of its program development. See SIPRI arms transfer database for arms exports to India, 1950-2010 (<http://www.sipri.org/databases/armstransfers>). Furthermore, India and the Soviet Union concluded a military alliance agreement in 1971 that remained in effect until the Soviet Union’s breakup in 1991.

<sup>691</sup> Kissinger, 1979: 848.

<sup>692</sup> See Study Requested by NSSM 13, March 1, 1969. USNA, Nixon papers, NSC, Subject Files, Box 366.

<sup>693</sup> Ibid.

<sup>694</sup> Perkovich, 1999: 185-194. Secretary of State Kissinger went to India shortly after the PNE, but his goal was not to put any pressure on India not to conduct any additional tests (ibid.)

led the US to impose sanctions on India and to cut off all nuclear aid, a move that was replicated by Canada.<sup>695</sup> The newly formed Nuclear Suppliers Group (NSG) further tightened nuclear export controls in the wake of India's PNE.<sup>696</sup> By the 1980s, the US was again in a weak position to influence the course of India's nuclear program, even though its desire to do so had increased since the early years of Indian nuclear development. The available evidence of the program was substantial, and neither Ford nor Carter wished to see an escalation of the arms race in the region. The story was rather different with Pakistan, as the next section will demonstrate.

Pakistan took a definitive step in the direction of a military nuclear program in early 1972 when President Bhutto came to power. India's 1974 PNE only strengthened Pakistan's resolve to acquire nuclear weapons. Just like India, Pakistan was looking for nuclear security guarantees from major powers in case of a (Indian) nuclear attack.<sup>697</sup> It was turned down by virtually everyone, including the US and its partners in CENTO and SEATO.<sup>698</sup> Disillusioned, Pakistan pressed on with its program. American ability to influence that program was much stronger than in the case of India. Not only was the US a significant source of conventional

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<sup>695</sup> Perkovich, 1999: 197-98.

<sup>696</sup> NSG was formed in 1974 as a direct response to India's PNE. The group's main purpose is to regulate the transfers of sensitive nuclear materials and technology and to try to prevent the misuse of civilian nuclear energy for military purposes.

<sup>697</sup> Chakma, 2002: 890.

<sup>698</sup> Ibid. Chakma explains that the explicit security guarantees were not provided by the great powers because "the situation, they viewed, did not warrant such guarantees in the absence of India's explicit building of nuclear weapons." (890) CENTO turned Pakistan down because, it argued, "this defense organization was primarily meant to fight against communist expansion." (ibid.)

armaments for Pakistan,<sup>699</sup> it also had a considerable amount of persuasive power, as exemplified by the failed sale of a French reprocessing plant to Pakistan in the late 1970s. When the US learned about an agreement for the plant, it put considerable pressure on both sides to suspend the sale.<sup>700</sup> In 1979, France unilaterally backed out of it.<sup>701</sup> Furthermore, Pakistan faced tighter nuclear import restrictions that were put into place in the wake of India's PNE. In addition, the US suspended aid to Pakistan on two separate occasions, in 1977 and 1979, invoking American laws that prohibited aid to states that were engaged in nuclear weapons development.<sup>702</sup> By the late 1970s, the US was on the cusp of having both a great ability and the political determination to reverse Pakistan's nuclear program.

This confluence of ability and willingness changed drastically at the end of 1979 when the Soviet Union invaded Afghanistan, and Pakistan acquired significant strategic importance for the US, seemingly overnight. The Soviet military escapades in Afghanistan should be considered the greatest gift for Pakistan's nuclear program. American sanctions on Islamabad were lifted, and American military aid flowed freely and generously for the next decade.<sup>703</sup> As a result, Pakistan's nuclear program was given an opportunity to flourish. The goal of nuclear non-proliferation took a back seat to the American strategic imperative of preventing Soviet

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<sup>699</sup> In 1975, the US lifted sanctions that it imposed on Pakistan in 1965 in the aftermath of an India-Pakistan war. However, it refused to provide the types of sophisticated weapons that Pakistan wanted (Chakma, 2002: 891). China filled that role (since the mid 1960s). See SIPRI database on arms transfers.

<sup>700</sup> Chakma, 2002: 891-892.

<sup>701</sup> It is noteworthy, of course, that US-French relations, especially in the nuclear field, were greatly improving at this point, as detailed in the previous chapter. The US was already engaged in clandestine nuclear cooperation with France and was conducting a strategy of 'negative guidance' with its French counterparts. France's decision to back out of the sale is thus not surprising.

<sup>702</sup> The US employed the Glenn-Symington Amendment in both cases in an effort to thwart the Pakistani program. (Chakma, 2002: 893).

<sup>703</sup> Chakma, 2002: 894; Perkovich, 1999: 221-22; see also SIPRI database for conventional arms transfers.

expansionism in the region. Even though the US “had unambiguous evidence that Pakistan [was] actively pursuing a nuclear weapons development program” as early as 1983,<sup>704</sup> it did virtually nothing to oppose it. President Reagan and his administration throughout the 1980s looked the other way while they provided yearly certifications that Pakistan was not engaged in nuclear weapons development, thus insuring that American aid could continue to flow uninterrupted into Pakistan.<sup>705</sup> Despite championing the goal of eventual nuclear disarmament, President Reagan knowingly allowed the Pakistani program to flourish. National security interests in the region overrode proliferation concerns.

*Mature Stage (India and Pakistan 1990 -- present)*

By the time India and Pakistan definitively crossed the nuclear threshold in 1990,<sup>706</sup> the world was undergoing great geopolitical transformations. The Soviet Union pulled out of Afghanistan and broke apart shortly thereafter. The American favoritism for Pakistan vanished as quickly as it arose back in 1979. The new American non-proliferation approach, especially under President Clinton, focused on diffusing the escalating nuclear tensions in the region and acknowledged the presence of nuclear weapons in the hands of both India and Pakistan, although the open tests of their devices did not come until 1998.

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<sup>704</sup> See State Department Briefing Paper: “The Pakistani Nuclear Program”, June 23, 1983. NSA archives, electronic briefing book “India and Pakistan-on the Nuclear Threshold”, document # 22.

<sup>705</sup> The US did not employ either the Pressler or the Solarx Amendments which would have blocked some American aid to Pakistan. (Chakma, 2002: 895). In fact, Chakma argued that “without the USSR’s providing such a geopolitical catalyst, the West would have put more pressure on Islamabad to abandon its nuclear weapons program and would have executed firmer export control of nuclear materials and technology to Pakistan.” (Ibid.)

<sup>706</sup> As noted in footnote # 21, the exact date of India’s crossing the threshold is debatable. Some could consider 1974 as the break point, while others take the early 1990s as the start of a ‘mature’ phase of the program.

The crisis over Kashmir between India and Pakistan in May 1990 was, arguably, the first in the long series of Indo-Pakistani disputes that had a nuclear dimension. Although neither side publicly acknowledged that it possessed nuclear weapons at the time of the crisis,<sup>707</sup> some scholars believed that nuclear deterrence played a role in the resolution of the standoff and that the perception of India and Pakistan as nuclear states changed thereafter.<sup>708</sup>

Once the Cold War came to an end, the American ability to influence Pakistan diminished. In 1990 the US, for first time, did not certify that Pakistan was not developing nuclear weapons, leading to a massive cutoff of American aid. The American strategic retreat from Pakistan under President George H.W. Bush pushed Islamabad even closer to China, which continued to provide it with aid for its nuclear program. In the early 1990s, the US was still trying to put some pressure on Pakistan to reverse its program, and it even attempted to couple the sale of F-16 American jets to Pakistan with the nuclear question.<sup>709</sup> Pakistan was not deterred and ultimately rejected the sale. The approach to India in the 1990s was also cognizant of the limitations of the American ability to influence the course of their program. Even though the formal alliance between India and the Soviet Union ended in 1991, military aid from Russia continued to flow to India through the 1990s.<sup>710</sup>

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<sup>707</sup> Pakistan started hinting in public that it possessed nuclear weapons in the early 1990s. It was confirmed by Prime Minister Sharif at a public meeting in August 1994. (Chakma, 2002: 906-907).

<sup>708</sup> Perkovich, 1999: 311-12. Perkovich states that some scholars have come to the conclusion that nuclear deterrence played a role in this crisis not escalating to war. However, he says that there is “no evidence, especially on the Indian side, that leaders wanted anything but to avoid war.” Post 1990 crisis, however, the perception of India and Pakistan armed with nuclear weapons took hold, according to Perkovich, and began influencing political and strategic decisions.

<sup>709</sup> Chakma, 2002: 907.

<sup>710</sup> See SIPRI arms transfer database

American policy makers, faced with a mature stage of weapons development in both India and Pakistan, started the process of determining how to incorporate this nuclear reality into its broader non-proliferation strategy.<sup>711</sup> It took almost a decade for this strategy to take shape.

The almost simultaneous May 1998 nuclear tests by India and Pakistan confirmed what had already been known for almost a decade, that India and Pakistan had crossed the nuclear threshold and possessed nuclear weapons. President Clinton quickly imposed sanctions on both sides in the aftermath of the tests.<sup>712</sup> However, those sanctions were partially lifted by the end of 1998<sup>713</sup> and fully removed three years later as another major geopolitical shock altered the course of American non-proliferation approach, the terrorist attacks of September 11, 2001.

In the aftermath of the 9/11 attacks and the subsequent US-led invasion of Afghanistan, Pakistan was once again seen as a strategic ally for Washington. Furthermore, the US sought to cultivate closer ties with India, whose rapidly growing economy and strategic importance in the region were seen as valuable assets for the US.<sup>714</sup> In the next several years, the American attitude and policies

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<sup>711</sup> According to Perkovich (1999), “Washington’s new line represented an emerging genuine acceptance among key government officials and nongovernment experts that nuclear weapons capabilities would remain part of South Asian reality for the foreseeable future.” (p. 335)

<sup>712</sup> Clinton was angered by the tests, called India’s actions ‘dangerous’ and called India ‘an emerging nuclear threat to the territory of the United States.’ (Indurthy, 2002: 3). While Congress supported an imposition of sanctions on both India and Pakistan in the immediate aftermath of their tests, some members of Congress were sympathetic to India and criticized Clinton for double standards toward ‘totalitarian China’ and ‘democratic India’. (Indurthy, 2002: 5).

<sup>713</sup> See Indurthy, 2002: 6.

<sup>714</sup> Closer ties with India were sought under President Clinton as well, even though some analysts have claimed that Clinton started his tenure in the White House with a ‘Pakistan tilt.’ (Indurthy, 2002: 14-15.)

toward the two nuclear programs diverged significantly.<sup>715</sup> In 2005, India and the US negotiated an historic nuclear cooperation deal, which made it possible for India to tap into the international markets in nuclear technology and equipment and gave a *de facto* recognition to its nuclear status.<sup>716</sup> Pakistan received absolutely no deal, despite its apparent desire for similar treatment from the US.<sup>717</sup>

Some scholars have attributed the divergent American approaches to Indian and Pakistani nuclear programs after the 1998 tests to the differences between India and Pakistan as ‘responsible’ versus ‘irresponsible and revisionist’ nuclear powers, respectively.<sup>718</sup> While both states proliferated outside of the NPT, Pakistan did not exercise stringent export controls and allowed widespread leaks of sensitive nuclear materials and equipment through the infamous A.Q. Khan network.<sup>719</sup> Furthermore, experts have argued that there were a number of economic, as well as strategic, incentives for the US to offer India a lucrative nuclear deal.<sup>720</sup> They included tapping into India’s rapidly growing energy market and improving strained

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<sup>715</sup> Indurthy, 2002, argued that US and India were *not* likely to forge a strategic partnership. Of course, the two sides did exactly the opposite in the mid 2000s.

<sup>716</sup> For the background and analysis of the US-India deal see, for example, Sasikumar, 2007; Paul, 2007; Perkovich, 2010, among others.

<sup>717</sup> See, for example, “Pakistan seeks equal access to civil nuclear technology”, April 12, 2010 in worlddawn.com (<http://archives.dawn.com/archives/101435>)

<sup>718</sup> See, for example, Paul, 2007, who wrote that “in the sphere of proliferation, there is a distinction between a responsible rising power and a revisionist regional power.” (p. 855). See also Hayes, 2009, who attributed the variance in the American approach to Indian and Iranian programs to the role of democratic identity (India) which helped to prevent the securitization of the threat posed by Indian nuclear weapons.

<sup>719</sup> For more on the A.Q. Khan network, see, for example, Braun and Chyba, 2004. The image of India as being squeaky clean on proliferation might not be as accurate, however, as the US makes it out to be. I thank Chris Way for raising this point for me.

<sup>720</sup> For a sampling of these incentives, see Paul, 2007. See also Perkovich, 2010 for a critique of the deal and for a list of negative implications that it may have on the non-proliferation regime.

political relations between India and the US in order to form a tight strategic bond between the two sides.<sup>721</sup>

The rationale that the US employed most extensively, however, was the one that was similar to that utilized in the case of Israel after it crossed the nuclear threshold. India was a democracy, and, as Perkovich (2010) pointed out, the US placed India's democratic character "above specific behaviors such as nuclear policy."<sup>722</sup> By the mid-2000s, the US officials were articulating an approach that clearly distinguished between states like India, on the one hand, and states like Iran and North Korea, on the other hand.<sup>723</sup> When it came to justifying the American decision to make yet another exception to the policy of universal non-proliferation, the US employed the democratic regime argument to its advantage. This argument was not new and its origins can be traced back to the mid 1970s, as the previous chapter had demonstrated.

By the mid-2000s, having abandoned any desire to reverse Indian and Pakistani nuclear programs, the US followed a policy of 'de-hyphening' India from Pakistan by treating their programs as qualitatively different from one another. President George W. Bush who saw controlled proliferation by some key states not detrimental to US interests and security (much like Nixon did in the early 1970s) decided to explicitly recognize (and even reward) the nuclear status of the state

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<sup>721</sup> The strategic incentives were numerous. India was one of the first states to support President Bush's proposed missile defense system; it argued that it was a 'natural' American ally in the fight against terrorism; it could also be part of the American grand strategy of containing China (although this rationale is questionable). See Sasikumar, 2007.

<sup>722</sup> Perkovich, 2010: 23.

<sup>723</sup> See a quote from Under Secretary for Political Affairs William Burns from 2006 who admitted that "...we treat India, a democratic, peaceful friend, differently than we treat Iran and North Korea and we're happy to say that." (quoted in Sasikumar, 2007: 834-35).

whose strategic importance to the US was greater; whose regime type was close to that of the US; and whose nuclear arsenal presented little or no danger to the US and its allies.<sup>724</sup> While the US did not deny the reality of Pakistan having nuclear weapons, it never suggested that Islamabad could hope for a deal similar to India's. In the aftermath of the deal, there was speculation that Pakistan could seek a comparable arrangement with China. However, Chinese policy makers might not be willing to compromise their common interests with the US by forging even closer nuclear links with Pakistan than those already in place.<sup>725</sup> Furthermore, the May 2011 killing of Osama bin Laden by American forces just outside Pakistan's capital has raised some troubling questions about the possible role of Pakistan's government or intelligence services in not divulging information about the whereabouts of the most notorious terrorist for more than five years. The revelations about bin Laden's location also put into question the utility of the massive American aid to Pakistan following the 9/11 attacks, and virtually eliminated any possibility of reaching a nuclear deal similar to the US-Indian nuclear agreement, if such a possibility ever existed.

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<sup>724</sup> It is interesting to note that only several years prior, in the aftermath of India's nuclear tests, some US officials stated that "we do not, and will not concede even by implication, that India and Pakistan have established themselves as nuclear weapons states under NPT. Unless and until they disavow nuclear weapons and accept safeguards on all their nuclear activity, they will continue to forfeit the full recognition and benefits that accrue to members of good standing of the NPT." (remarks made by Deputy Secretary of State Strobe Talbott in November 1998, as quoted in Indurthy, 2002: 6).

<sup>725</sup> See Sasikumar, 2007: 837-38.

## Conclusions

The US-India nuclear deal is the latest example of the American policy of making special exemptions for select friends<sup>726</sup> in the non-proliferation domain. Since the deal was first announced in 2005, experts have speculated about its effects, both negative and positive, on the nonproliferation regime.<sup>727</sup> Supporters of the deal have argued that it could actually strengthen the cause of non-proliferation by bringing in the 'responsible' nuclear power 'as a stakeholder' of the regime.<sup>728</sup> The deal, however, does not formally bring India into the NPT, even though it obligates it to behave as if it were a member. Critics of the agreement have pointed out the numerous drawbacks of the accord, ranging from the introduction of further glaring unfairness and rule bending within the NPT framework, to freeing up excess fissile material that India could use for its military program, to the unlikelihood of India signing on to either the CTBT<sup>729</sup> or the fissile cutoff treaty, to the possible escalation of the nuclear arms race in the region as Pakistan could be forced to play a 'catch up' game. In addition, the deal arguably weakens the very legitimacy of the non-proliferation regime embodied in the NPT and makes enforcement of rules with its violators, such as Iran and North Korea, even more difficult.

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<sup>726</sup> The definition of who qualifies as a 'friend' and a 'foe' under the NPT is subjective, as I pointed out in the beginning of this thesis. Perkovich (2006) also made a similar point when he wrote that "...the picking-favorites strategy sabotages international cooperation because not everyone agrees on who is good and who is bad." (p. 3) India fits the 'friend' category for the US, although other NPT members could object to this characterization.

<sup>727</sup> See Paul, 2007; Sasikumar, 2007; Perkovich, 2010, among others.

<sup>728</sup> Paul, 2007.

<sup>729</sup> Comprehensive Test Ban Treaty. Both India and Pakistan refused to sign it in the mid 1990s. Without their signature (or that of China), the Treaty can't enter into force. India and Pakistan, however, appear to want to reserve the right to conduct more tests, especially of thermonuclear devices. (Perkovich, 2010: 25).

The US-India deal comes at a time when the US became more stringent in its interpretations of the NPT. Not only did President G.W. Bush justify the US invasion of Iraq on non-proliferation grounds (which proved false), but he also launched the Proliferation Security Initiative (PSI),<sup>730</sup> which contravenes the Law of the Sea,<sup>731</sup> but was agreed to by many members of the UN and the NPT. Furthermore, President Obama's nuclear doctrine, announced in the spring of 2010, pledges that the US would not be the first to use nuclear weapons against NNWS who are party to NPT and "in compliance with their nuclear non-proliferation obligations" (as interpreted by the US).<sup>732</sup> While the bar on compliance with the NPT had recently been raised, the US did not shy away from making an exception for India. Moreover, President Obama further reinforced an American double standard on non-proliferation and disarmament when he asked Congress in May 2010 to approve an \$80 billion package for the modernization of US's nuclear arsenal over the next ten years.<sup>733</sup> This request came just over a year after Obama famously proclaimed his vision of a world free of nuclear weapons.<sup>734</sup> A pledge at eventual nuclear disarmament and a

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<sup>730</sup> The Initiative allows US naval forces to board foreign ships and to search for WMD suspected components. For more on PSI, see <http://www.armscontrol.org/factsheets/PSI>. The US has argued that PSI is consistent with international laws. The UN Security Council passed resolution 1540 in April 2004, which required all states to "criminalize proliferation, enact strict export controls and secure all sensitive materials within their borders." The resolution did not mention PSI or interdiction of suspected materials at sea specifically. (see <http://www.fas.org/sgp/crs/nuke/RS21881.pdf>).

<sup>731</sup> I thank Matt Evangelista for pointing this out to me.

<sup>732</sup> See [http://www.cbsnews.com/8301-503544\\_162-20001879-503544.html](http://www.cbsnews.com/8301-503544_162-20001879-503544.html).

<sup>733</sup> The request was tied to an attempt to ensure the Congressional ratification of the new START treaty with Russia, which was approved by the Senate in December 2010. See, for example, <http://www.nytimes.com/2010/05/14/us/politics/14treaty.html>.

<sup>734</sup> See President Obama's speech in Prague in April 2009.

massive upgrade of the existing stockpile are contradictory at best.<sup>735</sup> This leads to some broader observations about American non-proliferation policy.

As many experts have rightly highlighted,<sup>736</sup> the US-India deal conveniently bends rules for a particular ally. However, the deal is not an anomaly given the history of the American non-proliferation approach over the last sixty years.<sup>737</sup> Contrary to what Perkovich called a ‘new strategy’ of rule bending for friends started under George W. Bush,<sup>738</sup> this behavior dates back as far as the 1960s, as this dissertation has illustrated. France and Israel preceded India. One day India might be succeeded by some other proliferator deemed ‘exceptional’ enough to justify tweaking the rules.<sup>739</sup> This was also not the first time that the US had justified the idea of a ‘democratic bomb’, or nuclear weapons in the hands of a democracy that was believed to have the appropriate civilian checks and balances in place to oversee its nuclear activities. However, as Perkovich convincingly argued in 2006, the idea of pursuing the goals of non-proliferation by highlighting differences between states based on regime type, and by advocating regime change are not very effective strategies. In fact, they lead to less international cooperation, more

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<sup>735</sup> The contradiction between American quest for eventual disarmament, on the one hand, and the prominence of nuclear weapons in American strategic thinking, on the other, is further discussed by Evangelista, 2011.

<sup>736</sup> See, for example, Perkovich, 2010; a NYT editorial, “A Bad India Deal”, September 29, 2008, among others.

<sup>737</sup> Maddock, 2011, for example, provides a detailed account of the history of what he calls inconsistent, self-centered, arrogant, and shortsighted approach to non-proliferation by American policymakers since the early Atomic Age.

<sup>738</sup> Perkovich, 2006: 1.

<sup>739</sup> While there are currently no such contenders, one could speculate about the possibility of Japan or South Korea, for example, going down the nuclear path and securing American approval. The possibility is remote, but not entirely out of the question. On Japan, see Hughes, 2007. On South Korea, see Hersman and Peters, 2006.

resentment from regime participants, further reinforcement of double standards, and the erosion of rules-based order.<sup>740</sup>

It should be noted that all of the cases for which the US had made exceptions so far had proliferated outside of the NPT. The US might not be as receptive to the idea of a strategically important friendly proliferator who developed nuclear capacity as a result of violating the Treaty. If Japan or South Korea, in response to increasingly threatening North Korean nuclear posturing, develop nuclear weapons and officially leave the NPT (or, more likely, do it secretly), the US is unlikely to tolerate or condone their behavior.<sup>741</sup> It would have to impose punitive sanctions on the violating parties and, perhaps, distance itself from its old and close allies as part of security leverage application. This leaves the question of Pakistan unresolved. Pakistan is the only other state that proliferated without violating the NPT. So far, the US has refused to accord Pakistan similar treatment as India. In fact, since 2005, the US had been increasingly eager to treat Indian and Pakistani nuclear weapons differently. It is premature, however, to claim that Pakistan will never get the recognition and acceptance of its nuclear status the same way that India has.

Will the NPT disintegrate under the strains of the US-India deal? The short answer is that it seems unlikely, at least in the near future. As Paul (2007) has pointed out, “side deals and payoffs have been part of the NPT structure from the

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<sup>740</sup> Perkovich, 2006.

<sup>741</sup> It is interesting to note that Maddock (2011) claims in his book that Kissinger, much like Nixon, was not opposed to selective proliferation and thought that “Israel and Japan would be better off with nuclear weapons.” (Maddock, 2011: 283). Japan went on to adapt a legislature in 1971 which endorsed the principles of strict opposition to nuclear weapons.

beginning.”<sup>742</sup> The regime had survived for more than four decades, during which none of the major nuclear powers came close to adhering to their obligations to start a process of disarmament,<sup>743</sup> non-nuclear member states cheated,<sup>744</sup> and significant players refused to participate.<sup>745</sup> Furthermore, the US-initiated policy of nuclear sharing in NATO has been, according to critics, in violation of Articles I and II of the NPT. The US has always denied this accusation and argued that in wartime the NPT would lose its legally binding status, which would make the use of American nuclear weapons by NNWS acceptable.<sup>746</sup>

The American approach of making exceptions, however rare, has been detrimental to the regime and the cause of non-proliferation in general. The idealism of universal non-proliferation, articulated under President John Kennedy, has gradually been replaced by a policy of strategic favoritism. While the basic framework has remained the same, the US opposes proliferation, exceptions gradually became part of the accepted practice. As a result, the message that a nascent proliferator might take away from the history of the American approach is that if and when a friendly state is strategically important to the US and when that state’s nuclear program had matured, the US might turn a blind eye on the program

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<sup>742</sup> Paul, 2007: 849.

<sup>743</sup> While the US, especially under President Obama, had made a verbal commitment to ‘eventually’ disarm, that reality might be light years away.

<sup>744</sup> E.g., Iran and North Korea

<sup>745</sup> Israel, India and Pakistan never joined the Treaty.

<sup>746</sup> Some NPT members have expressed their opposition to the nuclear sharing practice and have argued that at the time the NPT was negotiated, the practice of nuclear sharing was not revealed by the US. See, for example, <http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/nato-nuclear-policies/index.htm>.

and not actively oppose it or, alternatively, even reward it with acceptance and cooperation.

In effect, over the past several decades, the US had been creating a parallel regime to the NPT, one that identifies the ‘good guys’ and the ‘bad guys’ and that, at times, rewards the ‘good guys’ for their nuclear behavior. This parallel regime has rules that can change to reflect the geopolitical realities of the day, and being on the good side of the US is highly advantageous. Being a democracy is an added bonus. Over time, this parallel regime may become incompatible with the one embodied in the NPT, especially if another instance of rule bending occurs to accommodate an American ally. In this respect, a formal recognition of Israel’s nuclear status could be the tipping point, although Israel’s nuclear weapons are, as Cohen (2010) put it, the world’s “worst kept secret”. While Israel is not currently interested in publicly revealing its nuclear status,<sup>747</sup> a formal accommodation of its nuclear reality, on par with the deal accorded to India, might put even more strain on the non-proliferation regime and erode the US’s role in it. Even though the regime might not dissolve altogether, member states may choose to leave it as their perception of American unfairness and double standards grows. The erosion of the US role in the regime will also make it more difficult to punish regime offenders, such as North Korea and Iran, as the achievement of international consensus on the most effective ways of combating proliferation will be harder to achieve.

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<sup>747</sup> Refer back to Chapter 4 and the discussion of the US-Israeli nuclear bargain, which had been in effect since 1969.

In addition to the observations regarding the effects of US policy on the non-proliferation regime, there are broader theoretical contributions offered by this thesis. I have argued that the historical variation in the American approach to the nuclear programs of its allies can be explained by differences in the ability and willingness of the US to exercise leverage over particular allies. I have presented a contextual analysis of the history of the American approach to several nuclear programs, and have argued that time, place, political environment, and ideological beliefs all matter when it comes to understanding the process of policy formation and implementation.

It may be noted that my main explanatory variables, ability and willingness, are similar to those utilized by scholars seeking to explain the causes of nuclear proliferation through large-N quantitative studies, who put an emphasis on generalizing rather than contextualizing their analyses and findings.<sup>748</sup> On closer inspection, however, it is clear that my definition and operationalization of those variables, especially willingness, differ in important ways from the large N literature.<sup>749</sup> My work, as well as that of Jo and Gartzke (2007), employs straightforward measurements of ability;<sup>750</sup> however, our indicators of willingness are different. They rely on variables that are easily quantifiable and universally applicable: conventional military threats; nuclear threats; nuclear defense pacts; diplomatic isolation; domestic unrest; democracy; NPT membership; major power

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<sup>748</sup> Jo and Gartzke, 2007, for example.

<sup>749</sup> I should note that Jo and Gartzke seek to answer a question different from the one posed by this thesis. They try to understand why states proliferate in the first place, while I seek to uncover what causes the variation in the American response to various nuclear programs over time and over cases.

<sup>750</sup> I use the type of alliance coupled with conventional arms sales; Jo and Gartzke use a measure for economic capacity coupled with diffusion of nuclear technology and knowledge.

status; and regional power status.<sup>751</sup> My thesis, on the other hand, uses perceived national interests and presidential preferences as the main indicators of American willingness to pressure allies on the nuclear question. Below I will review some of the challenges of using my particular operationalization of willingness, but will then identify some of the advantages of my approach over that of Jo and Gartzke.

One of the main problems with my measurement of willingness is that its indicators defy easy quantification and are highly contextual. Consider presidential preferences. As I have noted in the beginning of this thesis, classification of presidential preferences regarding nuclear proliferation is not easy, especially *ex ante*. Scholars who work with presidential preferences or beliefs have suggested that it might be possible to construct presidential typologies of beliefs as they relate to particular issues.<sup>752</sup> While I have proposed that there is a spectrum of so-called proliferation tolerance among US presidents, with Kennedy and Nixon at the opposite ends of the spectrum and everyone else falling somewhere in between, construction of a neat typology (“absolute non-proliferator” vs. “occasional proliferator”) may not be possible. Early in the Atomic Age, it would have been easier to be an absolute non-proliferator, as the nuclear technology and know-how were concentrated in a few states. However, once the precedent of making exceptions was established, it became harder to argue from the absolute non-proliferation perspective. President Ford, for example, would have had a very difficult time reneging on the US-Israeli implicit nuclear agreement reached under

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<sup>751</sup> Jo and Gartzke, 2007: 173-175.

<sup>752</sup> Saunders, 2009, constructs a dual typology of American presidents as it relates to military intervention, and suggests mechanisms through which presidents’ causal beliefs influence policy formation.

President Nixon, not least because of the strong public and political support for Israel in the United States in the 1970s. Additionally, it would be hard to determine how to classify someone like President Reagan, for example, who was averse to nuclear weapons in principle and focused on reaching arms reduction agreements with the Soviet Union, but who was also complicit in Pakistan's proliferation as explained earlier in this chapter. Finally, Saunders does not find that presidential beliefs change through learning.<sup>753</sup> The issue of change in presidential preferences in the context of this thesis is not particularly about learning, but rather the adherence to previously instituted policies and approaches. President Obama might have a different level of tolerance to proliferation than his predecessor, yet he faithfully supported the conclusion of the US-India nuclear deal, which originated under President G.W. Bush.

In short, political leadership and presidential preferences are highly dynamic. Presidential preferences on proliferation, as well as perceptions of interest, are not static, and can change in response to different situations and triggers. Presidents make policy choices based on a wide array of factors, including domestic electoral politics (as was the case, for example, with President Nixon and the sale of F-16 bombers to Israel in response to electoral pressure); perceptions of national interests (the understanding that Taiwan's acquired nuclear capability would have greatly damaged the American agenda of normalizing relations with Communist China); influence of special interest lobbies (including the arms industry that was highly invested in the continuation of American conventional arms support

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<sup>753</sup> Saunders, 2009: 131.

to various allies worldwide); and even personal relationships between presidents and their counterparts in the proliferating state (the warm President Nixon -Prime Minister Meir relations when the US-Israel deal was reached, or the straight-forward President Ford -President Giscard d'Estaing relations in the mid 1970s when the US was upfront with France about restricting the scope of clandestine nuclear cooperation and assistance).

None of the above factors can possibly be captured by the quantitative literature on proliferation. They are too messy; their measurement is problematic; and the evidence needed to uncover their values requires extensive archival and primary material research. The advantage of conducting small N contextual research of the type offered by this thesis is that it allows for the introduction of complex variables such as presidential preferences or perceptions of national interest. This approach is better able to capture the complexity and nuances of political decision-making that large N quantitative studies often are forced to forego in favor of universal indicators and generalizable results.

Generalizability might be a necessary sacrifice for the type of contextual analysis that this thesis presents. I have restricted the scope of my cases to US-friendly states, or countries over which the US should, theoretically, have had a high degree of leverage with which to influence nuclear policy. Yet even among the few allies that I examined closely in the previous chapters, it was clear that context mattered. Israel is an excellent example. In the late 1940s and throughout 1950s, bilateral relations were cool and distant, and Israel was seen more as a liability than

as a trusted ally in the region. The tide started to shift in the early 1960s as electoral politics and the so-called Jewish lobby started to play a more prominent role in American politics. The shift was even more apparent in the wake of the 1967 war, after which the US became highly sympathetic to Israel, and there was strong public and Congressional support for arming Israel and offering it security guarantees, all of which undoubtedly influenced presidential preferences and perceptions of US national interests in the Middle East. A consideration of these changes in the bilateral relationship and domestic attitudes toward Israel over time, not just during the stages of nuclear program development, afforded an opportunity to examine how Israel came to possess such an impressive “power of the weak”<sup>754</sup> over the US.

I expanded my analysis to the cases of India and Pakistan and found that my basic theoretical framework worked in those instances as well. At the same time, these additional cases confirmed that a complete picture of the process of American policy formation could not be formed without understanding the context. For example, the Soviet invasion of Afghanistan in 1979 had a profound effect on the course of the Pakistani nuclear program, and President Regan’s fixation with anti-Communism aided the Pakistani efforts significantly. Application of my framework beyond the cases of American allies may be possible, but serious amendments would need to be made to it. The tools available to the US with respect to its adversaries differ from those that could be used with allies. Most importantly, military action can be threatened and used against enemies. At the same time, the US does not have the same leverage in terms of arms sales or security guarantees

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<sup>754</sup> Keohane, 1971.

that it has with its friends. In addition, presidential attitudes to proliferation by hostile states may differ from those to proliferation by allies. The same president might be tolerant of proliferation in India, but not in North Korea or Iran. I have also suggested that the US might have had different proliferation attitudes toward friends situated in different world regions (Europe vs. Asia, for example). While further analysis of this point should be addressed by future studies, it lends additional support to the proposition that broad generalizations from contextual analysis and its findings may be hard to make.

Generalization should not be the goal of contextual analysis in the same way that it is a goal of quantitative studies. Scholars need to recognize this limitation, but also realize that such an approach affords an opportunity to delve into the context to understand the process of policy formation, how it changes over time and under what conditions. This is reflected in the types of evidence and data that are primarily used in my analysis versus those used in the large N quantitative studies. The latter rely almost exclusively on existing and often widely used data sets that aggregate all countries of the world over long periods of time. My analysis, on the other hand, relied heavily on archival documents, memoirs and autobiographies, and secondary sources, most of which employed qualitative studies of proliferation.

The archival data that I worked with barely mentioned any of the factors that serve as proxies for willingness in quantitative analyses. What came through repeatedly in memos, records of conversations, policy and position papers, intelligence estimates, and briefing notes were policy-makers' perceptions and

interpretations of American interests and the possible effects of global proliferation on those interests. Furthermore, while discerning presidential preferences was more challenging than understanding perceived national interests, the archival and other primary materials conveyed an impression that particular ideologies and world understandings of individual policy-makers made a difference in terms of which courses of action the US chose to pursue with proliferators. With the caveat that the empirical questions that large N proliferation literature addresses differ from the one posed in this thesis, based on the archival evidence I have presented, the indicators that the quantitative literature uses to measure willingness are probably invalid. My work strongly argues in favor of taking actors' conceptual maps and world understandings seriously, while large N quantitative analyses dismiss them as either peripheral or not valid.

In addition, quantitative data sets are not often revised, although scholars constantly try to improve them. They are also not universally accepted. For example, as Montgomery and Sagan (2009) point out, scholars often do not even agree on the start date of various nuclear programs or on when those programs crossed the nuclear threshold.<sup>755</sup> Furthermore, one of my main cases, Taiwan, is always coded as 'exploring' but not 'pursuing' nuclear weapons in quantitative data sets.<sup>756</sup> However, my analysis clearly puts it in the 'pursue' category, making it similar to the case of South Korea. In their quest to achieve as much generalizability as possible, scholars doing non-contextual analysis can miss or even misinterpret important

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<sup>755</sup> Montgomery and Sagan, 2009: 309.

<sup>756</sup> This is the coding from the Singh and Way 2004 data set, which is widely used in the literature.

data points. Contextual analysis ends up sacrificing some generalizability in favor of understanding the complexity of social political interactions. Variables needed for this endeavor are not always neat or easily measurable, as demonstrated by presidential preferences, for example. Yet if social science shies away from these variables just because they do not have good measures, or the data are hard to assemble and subjective, then it will not capture the richness of political interactions and processes.

Uncovering broad patterns of behavior based on heroic assumptions, as is so often the goal with large N quantitative studies, is certainly valuable and should not be discounted. However, there is a certain bias in the current international relations literature toward doing research on nuclear proliferation in a particular way.<sup>757</sup> In their illuminating critique of the large N quantitative approach, Montgomery and Sagan (2009) point out some of the shortcomings and problems of this type of analysis, which include the difficulty of coding dependent and independent variables; the need for tight coupling between data sets and methodologies; the triviality of some of the findings; and the occasional omission of individual data points.<sup>758</sup> What could be added to that list is the inability (or unwillingness) to consider such variables as the difficulty of dealing with leaders in proliferating states (as was the case with President de Gaulle); the role of regionalism;<sup>759</sup> or even

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<sup>757</sup> For example, a 2009 special issue of the *Journal of Conflict Resolution*, which was devoted to the problem of nuclear proliferation, carried exclusively studies that relied, either completely or partially, on quantitative analysis. See an important critique of those studies by Montgomery and Sagan in the same issue. (*Journal of Conflict Resolution*, 2009, 53, 2).

<sup>758</sup> Montgomery and Sagan, 2009.

<sup>759</sup> This is different from what Jo and Gartzke (2007) code as 'regional power status' and much closer to the regionalism as explained by Hemmer and Katzenstein (2002) with respect to American attitudes toward

electoral politics (such as the effects of special interest lobbies on presidential thinking and decisions about proliferation).

Contextual, small N analysis of the type offered by this thesis could help scholars incorporate and analyze factors that may not have been seriously considered in previous studies due to the difficulty of measurement and operationalization. Theory development might be harder to achieve with this approach, yet it recognizes that the reality in which politicians operate is complex, defying tidy patterns and often not allowing for broad generalizations.

Having said that, there are nonetheless some broad implications that can be inferred from the foregoing analysis. This thesis traced not only the variation of the American approach across time, but also across different cases that were situated in different regions of the world and faced diverse external threats, domestic politics, and rationales for wanting to go nuclear in the first place. The history of the American response raises the possibility of the US having different reaction functions to different proliferators. Scholars have already highlighted the point about the variation of the American approach to allies situated in different world regions.<sup>760</sup> It appears that the argument can be applied to the nuclear proliferation domain as well. It was not a stretch for the US to imagine the UK or France armed with nuclear weapons, but a lot harder to envision Taiwan or South Korea with the same capability. While this thesis did not explicitly develop a regionalism argument

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how to approach allies situated in the different regions. Regions would be understood as a socially constructed concept, not purely geographic ones (which is how Jo and Gartzke see them).

<sup>760</sup> Hemmer and Katzenstein, 2002. The authors argue that the different approaches to institution building in Europe (multilateralism) and Asia (bilateralism) following WWII are explained by an eclectic host of factors, ranging from great power tradition, historical memory, race, and collective identity.

(or one based on history, race, memory or collective identity), it recognized the dynamics of a bilateral relationship and the closeness of political traditions as factors that, at various points in time, influence the course of American approach to proliferators. A more focused approach on the role of regionalism in the politics of nuclear response could be a fruitful venue for future research.

Furthermore, since this study deals with only one 'responder,' the US, it is likely that there is something unique about it due to its size, power status, and role in proliferation history. It follows, then, that not all nuclear responders or suppliers are the same, just as target proliferators are far from being homogeneous. The US may play a particularly distinctive role, although the thesis has highlighted the limitations of the American ability to project its influence over various allies in the nuclear domain. Potential and usable power are not the same, as the US learned over the course of its response to the French and Israeli programs in particular. Response functions are also influenced by the maturity of the programs. The tools available and the desire to use them differ depending on how far a program has progressed. While exerting pressure in the early stages has some obvious advantages, the knowledge about a program is the worst at that point and there might not be enough usable evidence for the US to act upon.

Finally, there are several conclusions that might be relevant for contemporary and future cases of proliferation. This thesis has dealt with a historical account of how US non-proliferation policy had been formed and amended through the decades. The world today is undoubtedly a much different place from

the one that President Eisenhower saw and experienced as he made his Atoms for Peace speech at the UN in December 1953. Yet the basic premise of the American policy is still intact: oppose proliferation by Nth countries and, more recently, by terrorists. Despite believing itself capable of influencing nuclear choices abroad, the US has not always been in a position to do so. Only in instances when both the ability and the resolve to influence the course of the program were high did the US have any hope of reversing a friendly program. Of course, this is not to say that the US was always weak with respect to non-proliferation. In fact, the US's role often figured prominently in a state's decision to either pursue nuclear weapons or to abandon the effort.<sup>761</sup>

The lesson that American policy makers can take away from this historical analysis is that the US should not overestimate its potential influence in nuclear matters, especially if that effort is pursued unilaterally. What the US ought to focus on instead is finding ways to reach multilateral consensus on proliferation and ways to combat it. Furthermore, the most productive period during which the US, along with others, should put pressure on an aspiring proliferator is during the intermediary stage of a nuclear program's development. By the time a state assembles a nuclear device and tests it, it has invested significant resources in the enterprise and might be a lot less willing to consider a reversal than when the program is still in the research and development stage. This conclusion might be

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<sup>761</sup> This thesis was not about the nuclear choices of US-friendly states, but it is nonetheless possible to conclude that considerations of the loss of American patronage or significant aid cutoffs played an important role in decisions about nuclear weapons. In the case of Taiwan, as explained in Chapter 3, the ruling coalitions finally came to the conclusion that their interests would best be served if they terminated their nuclear program as per the wishes of the US, although it took more than a decade to reach that understanding.

rather obvious, but the US has not always been skeptical or probing enough with its allies when the program was still not mature, as the case of Israel illustrated.

Furthermore, there are some possible lessons that an aspiring proliferator could take away from the foregoing analysis. States that might be contemplating an acquisition of nuclear weapons (either now or at some point in the future) might be closely watching American conduct with respect to proliferation, embodied most recently in the US-India nuclear pact. The take away lessons would include: (1) start and develop a thriving civilian nuclear program, which has always been a prerequisite for a military nuclear enterprise; (2) conceal as much evidence about the program from outside experts as possible until nuclear weapons become a *fait accompli*; and (3) get on the good side of the US by providing a strategically important impetus for the US to value you as an ally. These crude lessons for a proliferator are, of course, not an effective recipe for a nuclear program, and far from guarantee that a nuclear undertaking will succeed. However, the role of American 'strategic favoritism' as one of the determining factors in the decision of a state to go nuclear may deserve some additional scholarly attention.

The vast majority of the current scholarly and policy attention is on the so-called 'bad proliferators' such as North Korea and Iran. However, some of the future nuclear aspirants might be American allies. Both Saudi Arabia and Egypt have expressed great interest in developing nuclear energy.<sup>762</sup> While both states claim that such enterprise would be purely for peaceful purposes, it may not be

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<sup>762</sup> See, for example, <http://www.carnegieendowment.org/2010/07/20/saudi-arabia-s-nuclear-ambitions/58v> on Saudi Arabia and [http://www.huffingtonpost.com/joe-cirincione/egypts-nuclear-dimension\\_b\\_822588.html](http://www.huffingtonpost.com/joe-cirincione/egypts-nuclear-dimension_b_822588.html) on Egypt (accessed July 20, 2011).

inconceivable that one day they will redirect their programs on a military track, especially since the political situation in the Middle East continues to be highly volatile. Furthermore, neither South Korea nor Japan currently has nuclear weapons program, yet both states have thriving nuclear energy sectors. Even though Japan was reminded in March 2011 of the devastating effects of nuclear accidents as a result of natural disasters,<sup>763</sup> both Seoul and Tokyo might one day revive their aborted nuclear military programs in response to North Korean nuclear posturing. Currently, the likelihood of such development is low, but both states are technologically capable of pursuing a weapons program. As a result, proliferation by friendly states should not be discounted either as a subject of theoretical inquiry or a focus of policy.

Finally, as already mentioned above, the American strategy of rule-bending for certain allies and conducting non-proliferation on a case-by-case basis has, over time, created additional work and challenges for American non-proliferation practitioners and political leaders. If the US wants to convince other states (whether friends or foes) not to proliferate in the future, it will need international support from other states. Rule-bending, especially of the unilateral kind, does not encourage consensus-building among international players. While the US might still be in a position where it can shrug off accusations of being unfair and of propagating double standards, it might not always be able to do so. Even though it cannot reverse past policies and erase previous decisions, the US may need to rethink its

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<sup>763</sup> Japan suffered a massive nuclear accident at the Fukushima nuclear plant as a result of an earthquake and a tsunami.

non-proliferation approach of selectivist acceptance and accommodation. If it hopes to prevent further nuclear proliferation, it should learn from its own past conduct.

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