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The Derelicts and Delinquents of Nuclear Nonproliferation

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UNIVERSITY OF MIAMI

THE DERELICTS AND DELINQUENTS OF NUCLEAR
NONPROLIFERATION

By

Justin Garvin

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

May 2017

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UNIVERSITY OF MIAMI

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THE DERELICTS AND DELINQUENTS OF NUCLEAR
NONPROLIFERATION

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The Derelicts and Delinquents of Nuclear
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Over 30 countries have embarked on a nuclear weapons program, but only five additional states have joined the original five members of the nuclear club. With adequate supply and demand for many states to conceivably obtain nuclear capability, it is still puzzling why the success rate is poor. This paper adds a different supply variable and argues successful proliferation depends on having the tacit or overt support of a Great Power where they cannot otherwise provide credible deterrence.

TABLE OF CONTENTS

CHAPTER 1: THE DERELICTS AND DELINQUENTS OF NUCLEAR NONPROLIFERATION

INTRODUCTION	1
HYPOTHESIS	6
BUILT ON THEORY	10
A LOOK AHEAD	18

CHAPTER 2: LITERATURE REVIEW

STARTING OFF: SUPPLY, DEMAND AND THEORY	21
DEMANDING SECURITY	23
LIBERAL VIEWS	26
NONPROLIFERATION NORMS AND NUCLEAR IDENTITIES	31
SUPPLYING SECURITY	34
SECRETS AND SPIES	39
WHERE TO GO	41

CHAPTER 3: METHODOLOGY

DESIGNING INQUIRY	45
CHAPTER STRUCTURE, VARIABLES, AND OPERATIONALIZATION	55
PROGRAM HISTORY	55
THEMATIC CONTENT ANALYSIS	56
DIPLOMATIC SUPPORT	59
SUMMARY, GOALS, AND EXPECTATIONS	65

CHAPTER 4: CASE STUDY ISRAEL

PROGRAM HISTORY	67
CONTENT ANALYSIS SUMMARY	69
CORRESPONDENTS	71
CONTENT ANALYSIS	72
OUTSIDE INFORMATION	93
DIPLOMATIC SUPPORT	94
CONCLUDING REMARKS	100

CHAPTER 5: CASE STUDY INDIA

PROGRAM HISTORY	101
CONTENT ANALYSIS SUMMARY	103

CORRESPONDENTS	104
CONTENT ANALYSIS	104
OUTSIDE INFORMATION	123
DIPLOMATIC SUPPORT	124
CONCLUDING REMARKS	127

CHAPTER 6: CASE STUDY SOUTH AFRICA

PROGRAM HISTORY	128
CONTENT ANALYSIS SUMMARY	130
CORRESPONDENTS	131
CONTENT ANALYSIS	132
OUTSIDE INFORMATION	152
DIPLOMATIC SUPPORT	152
CONCLUDING REMARKS	156

CHAPTER 7: CASE STUDY PAKISTAN

PROGRAM HISTORY	158
CONTENT ANALYSIS SUMMARY	164
CORRESPONDENTS	165
CONTENT ANALYSIS	165
OUTSIDE INFORMATION	178
DIPLOMATIC SUPPORT	179
CONCLUDING REMARKS	182

CHAPTER 8: CASE STUDY NORTH KOREA

PROGRAM HISTORY	183
CONTENT ANALYSIS SUMMARY	187
CORRESPONDENTS	188
CONTENT ANALYSIS	188
DIPLOMATIC SUPPORT	201
CONCLUDING REMARKS	203

CHAPTER 9: CONCLUSION

MAIN FINDINGS	205
THE STUDY OF SECRETS	209
GREAT POWER INFLUENCE	213
FINAL REMARKS	218

<u>REFERENCES</u>	222
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CHAPTER 1: THE DERELICTS AND DELINQUENTS OF NUCLEAR NONPROLIFERATION

INTRODUCTION

Nuclear weapons have been described as “useless” because no rational state actor bent on national survival would dare use them against another nuclear state or one covered by a nuclear umbrella (Dweyer, 2010). The logic of nuclear deterrence rests on presenting credible assurances to enemies that an attack would bring unacceptable amounts of retaliatory punishment while maintaining ambiguity of response to increase psychological angst of possible devastation (Strategic Advisory Group, 1995). Deterrence makes nuclear weapons militarily obsolete because their use would bring national destruction in return. They are only for political purposes and have no military value (Glaser, 2012). In a constructivist vein, Tannenwald (2007) argues a nuclear taboo has arisen based on moral considerations to explain why atomic weaponry hasn’t been used since WWII.

Yet despite these arguments of nuclear obsolescence as well as the existence of a nonproliferation treaty supported by a nuclear watchdog, we have seen many states embark on nuclear weapons programs with five additional successful cases beyond the original five nuclear powers. Four remain nuclear.

The Nuclear Nonproliferation Treaty (NPT) went into effect in 1970 and was supposed to keep a monopoly of nuclear weapons among the five original nuclear weapons states; U.S., USSR, UK, France and China. These are the victors of WWII and

the permanent members of the UN Security Council with veto power. It is understandable these Great Powers have mutual interests in keeping this monopoly to themselves, but why did this monopoly break the few times it has? According to the Institute for Science and International Security (2013), around 30 countries have had nuclear weapons programs before and after NPT came into force. Out of these 30, 10 succeeded with the five additions to the original nuclear club being Israel, India, South Africa, Pakistan, and North Korea.

Whether one includes the P-5 members or takes them out of the equation, the success rate in gaining a nuclear capability is not good. This leads to the question of what causes successful nuclear proliferation. More pointedly, it forces the question as to why these five countries were able to successfully gain access to the nuclear club while many others failed.

To answer this question, it becomes necessary to break it down into why do they want them and how do they get them. Essentially, this is the debate between demand-side and supply-side in the nonproliferation literature. The demand side says success hinges on security dilemmas, elites or societal pressures while the supply side contends success depends on technological advancement, integration into the global economy, or education. Typically, there is very little role assigned to external actors in effecting a state's ability to produce a nuclear bomb. This includes powerful regional actors that have the resources to potentially affect outcomes.

However, recently declassified or leaked documents, cables, and transcripts, confessions/admissions by former top officials through interviews, and new literature based on such information has shown ignoring external powers to be a mistake. The

1974 'peaceful' Indian test, Pakistan's 1998 test, North Korea's 2006 test, South Africa's 1993 admission to possessing nuclear weapons were all considered 'surprises,' but one must ask who did it surprise and how did it surprise them. The general public might be surprised by the capability, but not governments. The actual detonation might be a surprise for governments, but not the potential to test. Governments were aware of test preparations through satellite imagery and other intelligence sources while some go as far to say advance notice was given in some cases.

Great powers competing within the international system is nothing new, but a conceptual contribution of this work points out how this competition between Great Powers creates flexibility and a degree of autonomy to small states, which they use to their advantage despite the assumed primacy of the strongest. Other contributions include bringing realist theory back to reality and comparing it to practice while also providing a new methodology for using declassified documents as empirical evidence instead of fascinating historical footnotes. In an increasingly difficult environment to control, Great Powers find themselves having to balance larger geostrategic policy goals versus nonproliferation policy goals while also considering the interests and actions of other actors. Small states believing security lies in nuclear weapons pushes this policy competition within and among Great Powers, forcing them to consider what domestic and international costs they would be willing to pay to fulfil a policy as well as what to do if a policy cannot be implemented successfully.

Some small nuclear aspirant states occupy precarious positions in the international system that makes successful policy implementation difficult for Great Powers whether from lack of regional influence, lack of will to spend blood, treasure, and effort,

especially while competing with the interests of other Great Powers. This is exactly where the window opens a crack for small states to move freely to accomplish their own goals. A Great Power might find itself having to deal with an ally or friend of convenience trying to go nuclear, but dealing with that situation would actually create more costs while the benefits go to the competition. Great powers often find themselves having to decide between geostrategic concerns along with other foreign policy goals besides nonproliferation such as human rights and democracy. While this competition benefits small states, Great Powers must still deal with the domestic and international fallout of unsuccessful policy implementation.

The foreign policy goal of nonproliferation comes with true geostrategic consequences that could easily shake up global and regional balances of power. The difficulty level of the situation for Great Powers remains high as they have multiple issues and actors to consider including the proliferant with real security problems, interests of other Great Powers and regional actors, the amount of influence within a security complex as well as Congress and public opinion in democracies. Will to act or continue to act becomes an issue as enforcing nonproliferation policy against an ally helps Great Power rivals, while not enforcing policy inexpensively protects interests.

Building a nuclear bomb does not take forever, which makes stalling a plausible tactic, but nevertheless, the time consuming investigation process benefits the proliferants. When successful proliferation occurs with the production of a bomb, Great Powers worry about a nuclear domino theory and a rush for the nuclear club door by newly insecure states that just found themselves on the losing end in a power structure change within the system. Preventing this potential onslaught while promoting

nonproliferation after a successful case then become new issues Great Powers face courtesy of a small state.

Steve Walt (2010) asks if there is a renaissance in nuclear studies and names some good new work, arguing it is fueled by efforts to “restock” the field with new grants like Stanton. I agree with the renaissance, but attribute it to newly available data, which has smashed previously held assumptions. One of which is that all P-5 members hold a nonproliferation stance at all times because they signed the NPT.

By creating the NPT, the P-5 granted themselves the exclusive and permanent right to possess nuclear weapons while agreeing to stop any other state from joining. The exclusivity of membership created the metaphor of the nuclear club, which is a metaphor that begs extension. The P-5 built the nuclear club and are the owners, operators, as well as the self-appointed bouncers of the club. They openly gave themselves the duty to stop proliferation with agreement from the vast majority of the world affirming NPT violations as international crimes. How did five new states find a way into the club? Did they get help getting through the door or by skillfully working their way in while bouncers remain oblivious to their attempts? Once new states made it into the club, what did the bouncers do to remedy the situation? The documents provide a view of what knowledge Great Powers, particularly the U.S., had about nuclear delinquents and show when and more importantly, if the P-5 were simply ignorant of, complicit in, or derelicts for their roles, actions, and inactions during the program developments of the new five club members.

HYPOTHESIS

On July 10 1985, the Greenpeace ship Rainbow Warrior was harbored in New Zealand preparing to embark for the Pacific with the intention of sailing into a French nuclear testing zone in order to prevent a scheduled test. Late that night, two explosions ripped through the hull, killing a Portuguese photographer. Suspicions immediately became directed toward French actors, but France fervently denied any involvement. That is until two French secret service agents, posing as a honeymoon couple, were arrested for the attack. This led to a public admission of involvement, the defense minister's resignation, and later revelations that President Mitterrand actually sanctioned the attack. The United States and United Kingdom did not condemn the attacks (Brown, 2005; Ministry for Culture and History, 2012). The point is states secretly do 'bad' things for the sake of national interests and hide their activities from the public and other states.

Nuclear dealings must remain secretive and this lack of evidence has plagued researchers in many regards. For example, there is much debate as to assigning admission dates to the nuclear club for those that never publicly tested their weapons. The signing of the NPT, supported by all five permanent UN Security Council members forced any proliferation activity underground. It also created the inherent assumption that all P-5 members are committed to nonproliferation, resisting the temptation of geostrategic benefit. However, enough time has passed that documents are declassified and important figures have talked, which has created new insights into the dynamics of proliferation.

My hypothesis is the five additional nuclear states did not achieve their capability by security demand alone, but also with the tacit or overt technical or diplomatic support of a permanent Security Council member. Essentially, the guardians of nuclear weapons are the proliferators when it suits their needs. Their commitment to nonproliferation depends on the geopolitical and geostrategic benefits from proliferation in certain regional security complexes, especially where projecting power is internationally and domestically undesirable. Thus, proliferation benefits Great Powers when they have geopolitical and strategic interests in a regional security complex, but do not have the political, military, and economic strength or will to provide security assurances. In other words, they cannot provide deterrence to keep the global ambitions of rivals in check.

The dependent variable is nuclear proliferation defined as the ability to build a nuclear bomb. Dates can be provided when states could have assembled a nuclear bomb based on official government works looking at quantities of highly enriched uranium (HEU) and have actually been corroborated by declassified documents. Having a nuclear program and being widely speculated of possessing a nuclear bomb does not put security concerns of adversaries at ease. Lack of a test does not reduce the possibility the bomb will work. If state A drops a nuclear bomb on state B and it does not explode, is state A not a nuclear weapons state? State B would not worry about such distinctions, but rather when the next one will come.

The independent variables must look at both demand and supply. The demand variable is security. Although grave security concerns could be empirically shown for each case, demand is assumed for all states not only as a realist would assume this, but empirically thirty states saw security in nuclear weapons while only five succeeded.

The supply variable is different than the typical literature which looks at indigenous capability to produce a bomb, while the supply variable used here means the provision of overt or tacit technological or diplomatic support. This variable will be measured through content analysis of declassified and leaked documents, cables, and transcripts. It will be looking at who was talking who, when and what was said. The ‘what was said’ aspect will show what states actually knew as compared to official acknowledgements. Knowing about proliferation activities and not acting is an action in itself. The provision of diplomatic support will be viewed through Security Council votes, vetoes, and abstentions, while also checking if the issue ever made it to the agenda and if declassified documents show government knowledge of such activities. Other variables include the existence of military alliances/security assurances as well as sharing a border with a P-5 member and conducting an actual detonation.

The cases of Israel, India, South Africa, Pakistan, and North Korea were chosen because they are the only positive cases of successful proliferation outside of the five original nuclear powers. These five are firmly in the nuclear club without getting into messy definitions including technical capability and alliances. Interestingly, these five cases have not been systematically studied together except in history books. Typically, a couple of these positive cases are compared with a couple negative cases because the question is why so many have failed instead of why these five succeeded. This study comes from a U.S. standpoint since declassified documents have become more widely available especially compared to other P-5 members and the U.S. is the creator and de facto leader of the nonproliferation regime. By focusing on U.S. proliferation policy, it is possible to construct a record of an overall proliferation stance, specific stances in regards

to the countries studied through public declarations, records of what the U.S. privately knew and voting behavior in the Security Council. Some cases provide a sampling of official thoughts other Great Powers had during that time. Logic dictates the U.S. and other members should have a constant anti-proliferation stance, but is this necessarily true or just an illusion? Do words match actions?

Kroenig uses only positive cases to show states transfer sensitive nuclear technology, but only includes France to Israel and China to Pakistan. He succeeds in showing states do transfer the less lucrative sensitive technology, but his theory of strategic proliferation is strictly that, just theory. It is persuasive for the realist, but he does not provide any real evidence and his argument can be rebutted by claims of poor intelligence, lax enforcement, corruption or written off as a glorified conspiracy theory.

Kroenig also holds U.S. anti-proliferation stance constant since it is a power-projecting state and would not want its conventional capabilities undermined by the spread of nuclear weapons. However, this study greatly questions the assumption that the U.S. has always been against proliferation under all circumstances. As the inventor of nuclear weapons, the U.S. is a strange case in its views on proliferation yet settled on a nonproliferation stance, but did these views always hold steady or did the U.S. see geopolitical benefits of allowing a new nuclear club member? This study will show what the U.S. knew, when, and what it did or did not do to fulfill its nonproliferation commitment.

BUILT ON THEORY

The theoretical framework for this study lies firmly within the realist camp as proliferation and acquisition of nuclear weapons fundamentally alters the balance of power by dramatically shifting the distribution of capabilities in the international system. Differing and shifting growth rates of power leading to conflict remains a core dynamic in realist dogma ever since Thucydides wrote on the Peloponnesian War. Realism still emphasizes how states exhibit and prefer balancing behavior as opposed to bandwagoning, appeasement, or any other survival strategy (Waltz, 1979; Mearsheimer, 2001; Walt S. , 1987).

Nuclear weapons are interesting in that they drastically increase the power of a state, but supposedly prevent conflict by acting as a deterrent due to their devastating explosive yield. The fear of escalation from conventional warfare to nuclear warfare tempers state behavior and encourages keeping the status quo or finding diplomatic solutions. This is Ken Waltz' position in the Sagan-Waltz debate where he makes mention of the "crystal ball" effect and how it is clear that even minimal nuclear retaliation will have devastating consequences as compared to conventional retaliation besides also arguing preventing proliferation infringes on states' sovereign right to pursue security and survival through whatever method it sees fit. On the other side of the debate, Sagan foresees disaster through overzealous militaries, accidents, and unauthorized use (Sagan & Waltz, 2003).

However, the purpose of this study is not to engage in this debate, but I mention it now to show that neither scholar considers how external actors might promote or allow nuclearization to satisfy their own geostrategic concerns.

According to Waltz' (1979) assumptions about the balance of power in *Theory of International Politics*, states can strive for a range of goals from survival to global domination and achieve these goals by using available resources. To achieve these goals states may choose from a subset of options divided into two categories, "internal efforts (moves to increase economic capability, to increase military strength, to develop clever strategies) and external efforts (moves to strengthen and enlarge one's own alliance or to weaken and shrink an opposing one)" (Waltz, 1979, p. 118).

Although Waltz argues internal efforts are primarily utilized to maintain equilibrium, some developments potentially creating disequilibrium simply cannot be cured through internal efforts and ignoring these developments that are not of immediate national interest could prove detrimental in the future. Whereas Waltz is a defensive realist and believes a state can have enough power to remain secure and survive, Mearsheimer put forth offensive realism and argues Great Powers are always on the offensive to maximize their share of world power at the expense of rivals. He makes this argument because a state never knows how much power is enough power or how much security is enough security nor does it know how present changes to the balance of power will affect it in the future (Mearsheimer, 2001).

He argues "states pay close attention to how power is distributed among them, and they make a special effort to maximize their share of world power. Specifically, they look for opportunities to alter the balance of power by acquiring additional increments of

power at the expense of potential rivals...to shift the balance of power in their favor” (Mearsheimer, 2001, p. 34). The ultimate goal in these efforts is to achieve hegemony and dominate the system, which he contends “is virtually impossible” because of the stopping power of water and the best a state can hope for is regional hegemony (p. 41). He goes on to say regional hegemons have no interest in sharing this achievement with another Great Power in another region and “would go to considerable lengths to weaken and maybe even destroy its distant rival” (p.42).

Although Mearsheimer is talking about the importance of regionalism and the impact distance has on Great Powers’ ambitions, he still remains at the global level of analysis. Although this study plans to stay at the global level and examine the chess game that is Great Power politics and its effect on nuclear proliferation, it is important to bring in the contribution Buzan and Waever (2003) introduced to security studies; the regional security complex.

For simplicity’s sake, it is easy to explain the realist worldview in terms of the billiard ball model, but this is not an accurate picture of the real world. The playing field is not level for all the balls nor are they all equal in size, strength, and freedom to act. The same is true about the amount of influence a Great Power has in a particular region, tempered by factors such as distance and affecting the means Great Powers pursue interests and implement policies. “Security complexes may well be extensively penetrated by the global powers, but their regional dynamics nonetheless have a substantial degree of autonomy from the patterns set by the global powers” (Buzan & Waever, 2003, p. 4).

Therefore, Great Powers, as opposed to middle or lesser powers have larger, global interests as well as a reach and the means to secure their interests, but these vary depending upon the regional context in which they are placed. Although not a ground shaking statement, proximity matters as it relates to security and affects the freedom of movement a Great Power has in a particular regional security complex. The dynamics of a regional security complex and distance affects freedom of movement for Great Powers; it does not alter their behavior toward one another. Great Powers still carefully monitor the balance of power and act to prevent one from gaining an advantage. However, a rigid adherence to neorealist dogma becomes quite problematic and requires alterations that more accurately reflect the modern world as well as bringing back agency.

The creation of nuclear weapons has been problematic for Mearsheimer (2001) because they were not present during the multipolar systems he studied while present in the 1945-1990 period and says it is impossible “to determine the relative influence of bipolarity and nuclear weapons in producing this long period of stability” (p. 200). However, Israel, India, and South Africa already developed nuclear weapons before 1990 and Pakistan and North Korea were well advanced in their programs. A new nuclear weapons state is essentially a new pole, at least a regional one that other interested actors must now pay considerably more attention to. How important would North Korea be in international politics if it never developed a nuclear capability? Would it even still exist?

Creating an alliance remains one of the best options to maintain or restore the balance of power when unilateral self-help proves unfeasible. However, providing a credible deterrent to check another Great Power creates difficulties especially when trying to protect a state or maintain a regional balance of power incapable of adequately

protecting itself. Other difficulties arise when considering domestic political consequences of making such commitments, making the deterrent credible, and other potential fallout from backing a particular state or becoming more heavily involved in a particular region.

According to Walt (2009) “an alliance (or alignment) is a formal (or informal) commitment for security cooperation between two or more states, intended to augment each member’s power, security, and/or influence” (p. 86). Machiavelli advises the prince to eschew a posture of neutrality and openly take a stand for one side against another while advising weaker powers to refrain from allying with the more powerful except under conditions of absolute necessity (pp.61-63). Morgenthau takes this logic to show weaker nations may possess an asset of such value to the stronger that the status of the weaker does not reflect the actual distribution of material power, but the foundation must lie upon community of interests (pp.198-201). He goes on to say a one-sided alliance like this, with the ultimate goal of preserving “the territorial and political integrity of the receiving party...is indistinguishable from a treaty of guarantee” (p.200).

Under realism, states will forge an alliance with either a weak or powerful state if it serves the interests of national security and suppresses a threat. In the same line of thought, pure realism should have no problem with one state transferring nuclear weapons to another state in order to provide protection for territorial and political integrity without entangling itself in commitments of alliances or some other form of deterrence. However, the most powerful states in the system with a global reach should find this as a threat or future threat to its influence and act to prevent it, especially if this state is a neighbor. Simply using realist tenets of power and security produces

contradictory results where those that refrained from nuclear weapons felt the strength, either positively or negatively, of a Great Power while the successes fulfilled security issues. A strict use of realist theory cannot explain one Great Power allowing three brazenly nuclear states on its doorstep while the two highly secret nuclear programs have distance from the Great Powers. Realists must accept institutions play a role in international security issues and need incorporation in any analysis. An institution can balance relative gains to absolute gains, one of which being the nonproliferation of nuclear weapons and preventing any major structural change created with each new nuclear power.

The very creation of the Nuclear Nonproliferation Treaty, agreed to by all Security Council members, makes overtly supporting a nonnuclear state with nuclear weapons or technology off-limits. Hypothetically, it should also dictate which way a Security Council member must vote on nuclear sanctions as well as what they should do if they come upon evidence of illegal nuclear dealings.

In his own words, Mearsheimer (2001) says,

“balancing and buck-passing are the principle strategies that great powers use to prevent aggressors from upsetting the balance of power. With balancing, threatened states seriously commit themselves to containing their dangerous opponent. In other words, they are willing to shoulder the burden of deterring, or fighting if need be, the aggressor. With buck-passing, they try to get another great power to check the aggressor while they remain on the sidelines. Threatened states usually prefer buck-passing to balancing, mainly because the buck-passer avoids the costs of fighting the aggressor in the event of war” (p.139).

Quietly helping another state achieve a nuclear capability whether through directly providing goods and information or simply turning a blind eye to the

activity is like having the best of both worlds in balancing and buck-passing. By allowing another state to go nuclear, the regional security landscape drastically alters any potential aggressor's interests, ambitions, and strategy while keeping the proliferating state free from commitments and burdens of providing credible deterrence. With the NPT in effect, however, any knowledge or evidence of this activity must remain secretive and out of the public eye. I call this development an *arcane entente*; a secret informal alliance or understanding where only a few have official knowledge.

The argument presented here does not symbolize a world of conspiratorial governments, but rather epitomizes the cold calculating nature of realism in an anarchic world with the strongest actors trying to increase their power and check others. From the earliest studies on China and proliferation to current work, scholars continuously doubted Chinese commitment to the NPT and its private views on proliferation with Kroenig (2010) all but directly stating China is the reason for a nuclear Pakistan and North Korea. Avner Cohen, a well-respected and often published scholar of Israel wrote *The Worst Kept Secret* (2010) about Israel's nuclear weapons program and shows they undeniably have many and for quite some time even though the Israeli government has never made any public admissions. Cohen is not the only one saying this and it is far more accurate to say Israel has nuclear weapons instead of they probably do. Information corroborated by declassified documents that the U.S. had knowledge of Israel's nuclear capability in 1969 and was actually responsible for Israel accepting the line "not introduce" instead of "not possess" in their oft quoted line when asked about nuclear weapons (The White House, 1969; The White House, 1969).

Yet all these programs had to begin somewhere and many did with Eisenhower's Atoms for Peace plan. With the signing and ratification of the NPT by all P-5 members, they made themselves responsible for bringing charges against and punishments for proliferators as well as creating the IAEA to police such activities on top of their own domestic nuclear surveillance structures. Each case of successful proliferation is also a failure of the nonproliferation regime and more pointedly, the permanent Security Council members, which can be thought of as a balancing coalition against nuclear weapons. Like a balancing coalition, the members unite against a threat, but could still have major differences in other areas. Unlike a balancing coalition and going against realist tradition, nonproliferation is not just a signed international treaty and "international law," it is also domestic law, which makes political elites and public opinion a real factor to consider, particularly since moral and emotional considerations have grown attached to the issue.

As a realist working in a liberal paradigm that institutions matter and the P-5 can stop proliferation when united, one must wonder if these are really failures of the nonproliferation regime or rather allowances by P-5 member(s) to protect interests in a certain regional security complex. One must also wonder if this should be considered a realist working in a liberal paradigm or rather a realist working in a modern realist paradigm that recognizes the existence of institutions and rules, disregarding issues of utility and avoiding the biases of ontological foundations that immediately corrupt objectivity.

A LOOK AHEAD

An initial look at the cases show far more differences than similarities. The only real links are the successful development of nuclear weapons and security dilemmas. A natural test exists for this work as it is based on the assumption that if the P-5 work together, they can prevent and rollback nuclear proliferation. This is exactly the case with the Iranian nuclear deal, which makes this work easily falsifiable if the P-5 continue working together to prevent Iran from obtaining a bomb (as far as current knowledge goes), but fail in this endeavor despite timely agreement among the UNSC members. All UNSC members have an interest to prevent Iran from revising the regional balance of power and this incentive grows stronger since the American neoconservative hard Wilsonian experiment is over along with retrenchment from the surrounding countries of Iraq and Afghanistan while retaining the need to move freely in the Middle East to fight ISIS and other terrorist targets.

Data collection consists of many sources providing access to declassified documents, which include, but are not limited to The National Security Archives, Wilson Center Database, and George Washington University Nuclear History Project. The United Nations has a database of all Security Council voting records on resolutions and lists of vetoes and abstentions.

An initial look at the case studies shows Israel could have possibly produced a bomb by 1966, a year before the 1967 war. Multiple documents claim they already had two nuclear weapons on the eve of that war and the U.S. kept a close eye on the situation since construction began on the Dimona nuclear facility in the late 1950s. Confirmation

happened during a walk in the White House garden. (Cohen, 2010; The National Security Archive, 2008; Richelson, 2007).

India tested in 1974, after the regional security landscape changed and tensions were heightened by the earlier war with Pakistan, Sino-Soviet split and 1969 border conflict, as well as the friendship agreement signed with Russia while watching U.S.-China rapprochement. Documents show the U.S. knew about Indian nuclear capability as well as Soviets approving a detonation (The National Security Archive, 2011; Richelson, 2007).

South Africa could have built a bomb in 1977, a year after the Soviets and Cubans invaded Angola. Documents show South Africa was prepared to test in 1977 until the Soviets saw and told the U.S. For both the Israeli Dimona reactor and Y-plant in South Africa, the Soviets suggested attacking these sites, but the U.S. refused. Other evidence shows the U.S. knew of the test in advance and the Soviet press openly accused the U.S. of nuclear collusion with Israel and South Africa. Maybe not everything was propaganda (Richelson, 2007; Polakow-Suransky, 2010; McDonnell, 2013).

Pakistan could have built a bomb in 1986, when the Soviets were tearing through Afghanistan and not doing very well. The Pressler Amendment and its enforcement after Soviet collapse is a clear sign of nuclear organized hypocrisy. Some reports say Pakistan watched a nuclear detonation in China along with North Korean officials in 1992 (Richelson, 2007; The National Security Archive, 2004).

North Korea could have built a bomb in 1991, after the collapse of their Soviet ally. They went into overdrive processing plutonium from 1989-1991 according to IAEA and intelligence reports (Cha & Kang, 2003; Chang, 2006; Chinoy, 2009; Richelson,

2007). Starting with a plutonium program instead of a HEU program is a clear sign of outside assistance as that is equivalent to running before learning to walk.

In the game of Great Power politics, it makes sense for the USSR to support a nuclear India to confound China, U.S. to support Israel and South Africa to confound the Soviets as well as for China to support Pakistan confounding the U.S. and Russia while North Korea confounds the U.S. By choosing this route, a Great Power is able to provide deterrence, change the calculus of any other Great Power all while avoiding costly commitments. It also makes sense for the Great Powers to keep their support secret, especially after signing the NPT.

This is not an ideal world and we should not assume commitment to nuclear nonproliferation is the one universal altruistic pursuit all the Great Powers comply with, including the United States. The P-5 appointed themselves police, prosecution, and punisher in multiple security areas beyond proliferation like ballistic missile proliferation and chemical/biological weapons. Who is going to police the police or act as a whistleblower on what would be considered corruption at worst and dereliction of duty at best if one believes in the power of international law under a weak institutional framework considering the UN a form of world government. Only a study like this can act as a form of internal affairs for the international police as it is organized to view who privately knew what and when as well as what they thought about nuclear developments as compared to public knowledge and actual actions taken against the delinquent party. Were the new additions strictly failures of intelligence and /or institutions, did they receive direct or indirect assistance from Great Powers, or does the truth lie somewhere in the middle?

CHAPTER 2: LITERATURE REVIEW

STARTING OFF: SUPPLY, DEMAND, AND THEORY

With many directions to go for a literature review on nuclear proliferation, some exclusions must be made and organization takes a hit since not all studies fit comfortably within one paradigm nor is there a defined chronological path of research. Some exclusions include the Sagan-Waltz debate, which has become known as the pessimist-optimist debate and another is the utility of the Nonproliferation Treaty, where not just realists, but also liberals and constructivists argue against NPT effectiveness (Sagan, 2011; Jo & Gartzke, 2007; Solingen, 2007; Hymans, 2006).

This paper takes the position that any benchmark for success is arbitrary, a perfect success rate unrealistic, and that the NPT can and has been effective. There are 192 UN members, subtracting the original five nuclear members leaves 187 and the five nuclear additions makes for a 2.67% success rate at producing a bomb. Not perfect, but far from bad. If using President Kennedy's fear of up to 25 new nuclear states as a benchmark for failure, that would mean a 13.37% success rate. Over 50 years since he stated his nuclear fears, the NPT has done much better than he or any realist expected. Since South Africa dismantled and renounced nuclear weapons, leaving only four additions, this further drops the success rate to 2.14%.

One more aspect left out regards policy prescriptions to stop proliferation, but this is a futile endeavor until the causes and conditions of nuclear proliferation are carefully examined (Cortright & Vayrynen, 2010). This literature review focuses on the causes of

proliferation, broken down by supply and demand, highlight weaknesses and omissions, attempt to categorize the work in terms of IR paradigms as well as incorporate work based on declassified documents that have changed the way we think about nuclear history.

The article “Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate” shows that classical and neorealism most elegantly and logically explain proliferation through security considerations, but this logic should mean many more nuclear states. Realism leaves out domestic determinants, unlike neoliberalism that factor in economic, technical, and political conditions. Yet neoliberalism leaves out decision-making variables, which is better explained through belief systems and learning models, now contemporarily known as constructivism. The problem here is with measurement and the author calls for an eclectic approach with imaginative new methods (Ogilvie-White, 1996). She basically concedes that realism best explains proliferation, but it cannot explain why there are only five cases where states successfully built a bomb, which is the puzzle examined here.

Because of the distinct lack of work easily classified as liberal, Hymans breaks the camps into Carr’s realists and idealists in his state of the field review. He promotes the rise of the idealist camp since realists cannot explain the lack of proliferation, which points to further study needed on nonproliferation norms and how leaders conceptualize and shape their vision of national identity (Hymans, 2006, p. 163).

The reason President John Kennedy worried that a couple dozen additions to the nuclear club would occur is because of the escalating proliferation rate of nuclear technology, aided by Eisenhower’s Atoms for Peace plan. Until the beginning of the

1980s, the demand-side for nuclear weapons was taken as a given. States would face security dilemmas and pursue the ultimate form of self-help and national security with a nuclear weapon. Thus, reducing the supply seemed like the answer and the 1974 “peaceful” Indian test led to the creation of the Nuclear Suppliers Group to help control access to nuclear material (Nuclear Suppliers Group, N/A).

DEMANDING SECURITY

It was not until 1984 and the work of Stephen Meyer, that the literature truly turned its attention to the demand-side. He asks why states pursue nuclear weapons programs by calculating nuclear latency (ability to start indigenous weapons program) through a number of indicators such as uranium deposits, mining activity, engineers, etc. He finds a large number of states have the latent capability to start weapons programs, but very few succeeded and many renounced their programs. He therefore favors political and military considerations over technological aspects to determine whether a state will pursue nuclear weapons (Meyer, 1984).¹

Jo & Gartzke (2007) and Singh & Way (2004) both took the quantitative approach and closely replicated Meyer’s study with different indicators and coding. Even using sophisticated and rigorous methods, there remains a basic problem with defining proliferation, determining the nuclear threshold, and finding appropriate indicators. All three sets of authors used different starting dates for all nuclear countries,

¹ Meyer’s indicators have been ‘tweaked’ over the years by others like Jo & Gartzke (2007) who remove uranium deposits as a requisite condition. Some criticisms of this kind of work is three-year operation of a research reactor is coded as producing the needed nuclear scientists or manufacturing cars means having technical ability to build a weapon.

with larger differences outside the original five nuclear members. This problem of assigning dates plaguing research is one this work seeks to rectify.

Montgomery and Sagan (2009) look at recent quantitative work and point out coding and dating in these studies can be ambiguous and arbitrary (p.309). They also help to point out in these three very technical works that serious variable omissions exist and results can change drastically by running the models with simple variations (Montgomery & Sagan, 2009, pp. 310-313). They go on to say none of these quantitative models can incorporate nonmaterial variables like norms, social roles, or prestige and still predict far more successful cases than there actually are, but qualitative methods might shed more light on the dynamics (p.313).

Sagan (2011) says the problem with quantitative proliferation literature is the fact that authors use proxy variables “that are easily available, rather than collecting the data that reflect the substantive variables of real interests” (p. 230). The statistical supply-side literature has over-predicted how many states should be nuclear, based simply on their technological prowess, but does not translate into reality. Another problem he notes is the deliberate covert nature of nuclear weapons programs, which presents a significant hurdle to researchers attempting to calculate capability (p. 235). The use of declassified documents can help fix this, albeit from the perspective of U.S. knowledge, but it still gives a more accurate portrayal than the information that currently exists. It also shows vast room for expansion by sampling the official knowledge some other P-5 members had.

Secrecy in nuclear dealings and the need to hide such activities or face international scrutiny led to Benjamin Frankel’s 1991 edited book, *Opaque Nuclear*

Proliferation. He says that since the NPT went into effect, creating a “nonproliferation presumption,” new states embarking on weapons programs must take an opaque posture to achieve their goal. He asks contributing authors to consider aspects and ramifications, which include obvious methodological challenges and can create complacency in government officials, legislatures, and observers because the activity is not visible and not making it on the “public agenda” (Rydell, 1991, p. 126). Even though Israel and Pakistan are presented as the main examples of opaque proliferators, Frankel plainly states “Israel, India, South Africa, and Pakistan – have equipped themselves with nuclear weapons” in his 1991 introductory chapter (Frankel, 1991, p. 5).

By far, the demand-side literature is dominated by security considerations and this is particularly prevalent in case-specific research. For example, Cha & Kang (2003) both show material and nonmaterial aspects to argue that North Korea has a real security dilemma, but disagree on engagement strategies. This chapter will try to stay mostly with generalizable nonproliferation arguments instead of case-specific studies that basically have the debatable position development of nuclear weapons only occurs under unique, unrepeatable historical conditions. However, these case-specific studies are invaluable by delivering detailed history of nuclear programs as well as secrets surrounding them from the earliest declassified documents and interviews with more detail coming in their respective chapters.

Like Meyer, many others see room for a generalizable proliferation theory; for example Sagan who asks why states build nuclear weapons and compares three demand-side aspects; security, domestic politics, and norms. He finds the strongest support for the security model, but argues for multicausality because security considerations do not

explain the situation adequately enough alone (Sagan, 1996-1997). Since realism cannot explain the success of the nonproliferation regime, the topic has become fertile theoretical ground for researchers working from different paradigms.

LIBERAL VIEWS

Liberalism encompasses many different aspects such as economics, technology, and education and not all works fit comfortably in this paradigm. Based on A.Q. Khan revelations, investigative journalist William Langewiesche (2007) argues nuclear weapons have become a tool of the poor because of the ease of access to nuclear materials, which can be bought cheap and the little technical ability needed to build a weapon. The end of the Cold War, faltering security guarantees, and perceived discriminatory nature of NPT made states start developing nuclear weapons as well as help other states acquire them (Langewiesche, 2007).

Kincade (1995), of the U.S. Air Force Academy finds proliferation as a diminishing threat and focuses on the economics of a nuclear program and how the cost of producing and maintaining advanced weaponry and delivery systems are prohibitive. The Congressional Budget Office recently calculated it will cost roughly \$348B to maintain and upgrade U.S. nuclear forces over the next decade or about \$35B annually (Mehta, 2015). He considers internal and decision-making factors and says the most closed and authoritarian states (Iran, Iraq, Libya, and North Korea) are most likely to proliferate (Kincade, 1995, p. 31). Recent quantitative work finds that democracies are more likely to pursue and obtain nuclear weapons, which is explained through nationalist

pressures and other domestic political factors (Singh & Way, 2004; Jo & Gartzke, 2007; Fuhrmann M. , 2009; Kroenig, 2010).

There is a problem when considering the prohibitive costs of building and maintaining nuclear weapons as well as continuing research for different designs and delivery systems. Surrounded by oceans, having a long peace with nonnuclear northern and southern neighbors, and the nuclear arms build-up during the Cold War, the U.S. has a different understanding of nuclear security. Some countries (China, India, and Pakistan) find sufficiency in a minimal deterrent especially considering the long open borders between these nations where a car loaded with a nuclear bomb could easily be driven across undetected.

Simpler still in the argument against prohibitive cost is time-tested evidence that security trumps economics, the exact reason why Khan named his book *Eating Grass*, which is based on a 1965 quote by former president and prime minister Zulfikar Ali Bhutto that the Pakistani people would eat grass and leaves, or starve if they had to match an Indian atom bomb attempting to make one of their own (Khan, 2012, p. 7).

Although far from dominant in the literature and fitting uncomfortably in the liberal paradigm, some authors of single-case studies attempt to show the influence of domestic politics in deciding to develop a bomb. Some examples include how India's Indira Gandhi faced political pressure in 1974 as well as the hawkish Bharatiya Janata Party (BJP) in 1998, which used a detonation to strengthen a weak political position (Synnot, 1999, p. 19). Others argue the Pakistani military is filled with 'adventurists' that pushed for a program and how the loss of East Pakistan forever changed their perception of the Indian threat, but mutual learning has led to robust systems of escalation control

(Hoyt, 2005, p. 131; Ahmed, 2005, p. 138; Dittmer, 2005, p. 215). Although not portrayed as a reason for the nuclear program, North Korean detonations and missile launches are often seen as acts to appease military elites besides a cry for international attention and aid (Chang, 2006, p. 79).

Perkovich scolds realists for holding shut the black box of domestic politics and warns of surprises that might happen by ignoring what happens inside of states. He argues acquiring a bomb can boost public support, bring instant international prestige and power, scientific respect for conquering such a challenge, and security independence (Perkovich, 1998, pp. 16-17).² He looks at the 1998 Indian-Pakistani nuclear tests and says domestic politics must have caused it because they both secretly had nuclear weapons beforehand and may have had a deterring effect in the crises of 1987 and 1990 (Perkovich, 1998, p. 14). However, he does not mention how Pakistan still had its nuclear ambiguity by never conducting a test, which India may have wanted it to sacrifice so Indian officials knew what they were dealing with in case they were to take action to end hostilities in Kashmir.

In an edited book by Solingen (2012), she asks contributors to consider the effect of sanctions and positive inducements on domestic decision-making on complying with nonproliferation rules. She believes there is an overconcentration on what are simply assumed security imperatives and domestic politics have a major influence on the demand for nuclear weapons, especially when international carrots and sticks are thrown into the decision-making process (Solingen, 2012). Autocratic, inward looking leaders are most likely to ignore outside pressure and threats strengthen their resolve to achieve

² Perkovich says French security officials believe the core purpose of their nuclear force is to maintain a permanent seat on the Security Council and French nukes only defend against irrelevance (Perkovich, 1998, p. 16).

nuclear capability to prevent the trespassing of unwanted international influence (Kreps & Pasha, 2012, p. 178). Structure of political economy, type of investments, trade, threats of force or sanctions all influence leaders, policymakers and constituencies, which the authors seek to show makes the proliferation puzzle a little more complicated than just security issues (Solingen, 2012; Kreps & Pasha, 2012; Stein, 2012).

Even with domestic calls to develop nuclear weapons, these feelings of insecurity originated from a real security threat. A state must start with an external security dilemma before various domestic actors within develop a position on a weapons program. Furthermore, it often hits the newswires how some hardline Japanese and South Korea politicians argue their respective countries should develop nuclear weapons to counter threats and cannot be absolutely certain of U.S. security guarantees (Byong-Chul, 2011; Demetriou, 2009). Others argue that the U.S. should support the nuclearization of Asian allies like Japan, South Korea, and Australia to cut down on costs of conventional and nuclear extended deterrence while also guarding against Chinese provocation (Leah, 2014). These states are on the nuclear tipping point and have the capabilities to build nuclear weapons on short notice if changes in the international environment threaten security. No domestic argument fully tells the tale. National calls for nuclear weapons originated from a security threat and cannot be applied across all cases because different states have different internal structures with different groups and individuals with varying levels of influence and power. When considering causal priority, real security considerations prove far more compelling, but the domestic side shows interesting decision-making dynamics.

Still, a demand-side author, Solingen uses the purest form of liberalism to explain why many countries decide to forgo nuclear weapons programs. Her 1994 article is much like her 2007 book in that both argue governments pursuing neoliberal economic policies are more likely to reject developing nuclear weapons. She calls it an “integration” model and argues states that depend on integration into the world economy are more likely to reject nuclear weapons (Solingen, 2007; Solingen, 1994). However, she classifies North Korea as an anomaly, which is an argument I disagree with.

Pushing the envelope for the liberal paradigm and as a variable, some authors look at developing a nuclear program as a bargaining chip. Benson & Wen (2011) argue that states do arm when they feel threatened, but will still arm if benefits of acquisition outweigh development costs, and ambiguous development has much utility in extracting concessions from counter-proliferators (Benson & Wen, 2011, p. 129). Similarly, North Korea is seen as a global extortionist that uses its program for concessions and then reneges on the deal, but it was willing to sacrifice its leverage with a nuclear test (Chang, 2006). Never mentioned as a bargaining chip, Purkitt & Burgess (2005) say South Africa would use their bomb defensively as ‘nuclear blackmail’ since they had biological and chemical programs of a more offensive nature (Purkitt & Burgess, 2005, p. 215). Developing nuclear weapons may certainly bring concessions and inducements from counter-proliferators, but this is only a side effect with the real reason to start a program laying in security considerations. Interestingly, this section has the title of liberal views, but despite the reoccurring mention of nonproliferation regime, there remains a distinct absence of looking at institutions, which had supposedly been created to police and prosecute such activity.

NONPROLIFERATION NORMS AND NUCLEAR IDENTITIES

Jacques Hymans has recently brought constructivism into the nuclear proliferation foray. His argument is quite interesting in that it flips the typical logic of realism. The realist says leaders would love to have nuclear weapons for security, but Hymans argues that most leaders do not want these weapons because of the many uncertainties involved, which might actually decrease national security (Hymans, 2006).

Indeed, the beginning of a nuclear program is the most dangerous, but this has not stopped states from trying to develop them. He uses speech acts to determine if a leader has the nationalistic identity to pursue the bomb, but this is problematic because official government statements are often for the domestic realm or strategically misrepresented for other audiences (Sagan, 2011). He also cannot explain why some leaders failed at achieving their psychologically-driven nuclear goals.

Abraham (2006) takes a different constructivist approach and argues that understanding political and historical contexts are indispensable to proliferation studies, which has far too much focus on attempting to predict if nuclear programs are peaceful or not. Developing a nuclear program invites scrutiny and as for its ultimate purpose, a leader might have a genuine “nuclear ambivalence” where they have not made such a large political decision that also comes with scientific, technical, and economic considerations (Abraham, 2006). This concept is similar to a historical examination of the Israeli nuclear program that says successive leaders continued the program not specifically to produce a bomb, but to keep the option open for future leaders should the need arise (Shalom, 2005).

Lavoy (1993, 2006) looks at why (neo)realism has trouble explaining the timing of decisions to start a weapons program or detonate a bomb and looks at internal dynamics. He contends domestic arguments about security issues involve nuclear myths and mythmakers who hyperbolize the security landscape to get what they want (Lavoy, 1993; Lavoy, 2006). Security considerations matter to the point nuclear mythmakers will create myths based on their beliefs on how best to approach national security.

Since many states have the ability to build nuclear weapons, yet abstain, Frey (2006) argues that nuclear weapons act as international symbols to the world reflecting the power and prestige leaders want to reflect globally. Since many determined states have built nuclear weapons, looking at the supply-side and attempting to limit the spread of nuclear technology and materials is a fruitless endeavor. Instead, policymakers must look at the demand-side in proliferating states and do what they can to remove or diminish their motivations for a bomb (Frey, 2006, pp. 16-18). Much of this logic is based on the constructivist work of Tannenwald (2007) who asks why nuclear weapons have not been used since WWII. She argues that a 'nuclear taboo' has been established about the use of these weapons, which is based on moral restraint instead of the conventional deterrence logic of nonuse. Frey takes this logic and applies it to nonproliferation by arguing nuclear bombs have a symbolic meaning, mostly negative, and staying away from their production shows a more civilized and modern society (Frey, 2006, pp. 3-5).

Exploring five cases of restraint, Rublee (2009) argues the NPT and subsequent nuclear history shapes how a state values nuclear weapons and proliferation can only be understood in the context of both security environment and social environment, which

influence domestic politics and policy outcomes. She finds realist measures such as intervention, diplomatic pressure, export controls and security guarantees do work, but the influence of international norms from the NPT and domestic antinuclear activists can persuade elites to reject nuclear weapons (Ruble, 2009, pp. 221-222).

In the thickest vein of constructivism on the subject, if not postmodern, is a study on India and Pakistan. This book argues that small groups of elites in each country (nukespeakers) dominate the conversation, develop their own nuclear dialogue, and portray “the other” as worse than they actually are based on official exchanges (Nizamani, 2000). The basic argument seems to be that each developed weapons because of the repetition of unkind exchanges while downplaying the existing political and security circumstances as well as the threat India perceived from China.

The inherent problem of working within this paradigm involves measurement and falsifiability such as with concepts like ‘ambivalence.’ These types of works do show there are nonmaterial aspects of proliferation decisions, but concede the importance of security considerations. Another problem with constructivist proliferation analysis is the secrecy surrounding these dealing and actors involved can be influenced in their psychologies whether coercive, persuasive, bought or other. There is another problem in using speech acts as forms of analysis because people lie, omit important information, and public views might not be the same as private views. The influence of outside powers receives very little attention in this type of work.

SUPPLYING SECURITY

Meyer switched the focus from supply to demand in 1984, but the supply-side has been receiving more attention in recent years. The problem of focusing on demand automatically asks why states want these weapons and is fairly easy to argue security considerations provide incentives while economics and norms act largely as disincentives. When asking how do states get them, demand-side arguments struggle to answer the failures when security threats and a real demand do exist.

The condition of being at such an advanced technical state that a bomb could be produced within days is known as the nuclear ‘tipping point’ and makes the case even more curious because so many states have reached this ‘point,’ yet there is a distinct lack of success. Sagan (2010) calls the tipping point ‘nuclear latency’ and looks at different works estimating capability to produce a deliverable weapon. He says creating indicators to judge the progress of a foreign program produces varied results that differ from reality and run on unlikely assumptions like continual supply and feeding of yellowcake uranium into a reactor (Sagan, 2010, pp. 93-94). He argues political factors can explain the varied rates of progress found in reality. One example shows Egypt’s Nassir had a slow-moving, underfunded nuclear weapons program he partly kept that way because the program leader was an ally of his main political rival (Sagan, 2010, p. 97). Many states have this ‘latent capacity’ and security issues, but still forgo producing nuclear weapons, which is why he calls for more focus on political factors (Sagan, 2010). These states can essentially supply their own form of ultimate security, but still refrain.

This concept is explored in more detail in Campbell, Einhorn, and Reiss (2004) edited volume exploring cases where nuclear proliferation did not occur with Campbell arguing the end of the Cold War forced states to reconsider their own security since they were no longer under the protection of a rival bloc (p. 21). Concluding remarks view U.S. support for nonproliferation and leadership as the main factor in curbing nuclear proliferation, but a regional security threat may be the greatest risk for a state to start the pursuit of nuclear weapons (Campbell, 2004, p. 29; Campbell & Einhorn, 2004, p. 320). These authors are only looking at unsuccessful cases and make one question if this same U.S. support and leadership was present for successful cases and if success really just is a failure of U.S. nonproliferation policy.

Supply-side is typically considered by examining variables involved with indigenous capability of building a bomb and access to nuclear materials, which has led to answers of export controls and verification efforts. The newest form of supply-side examination considers the strategic costs and benefits of proliferation to outside interested actors and the inducements they use in counter-proliferation efforts.

Erickson and Way (2011) find those that join the NPT enjoy about 45% larger transfers of major conventional arms from superpowers as well as other side-payments and inducements than nonmembers to make up for their security concerns (Erickson & Way, 2011, p. 51). They also make sure to note many of these inducements are informal and say “concerns of key states need not be addressed in formal provision if those concerns can be assuaged informally” (Erickson & Way, 2011, p. 51).

Bleek & Lorber (2014) examine how security guarantees affect decisions to proliferate and find the conventional wisdom correct that they are a powerful tool in

stemming proliferation. Yet U.S. policymakers can make moves that can strengthen or weaken the credibility of a security guarantee, which can lead to fear of abandonment and a heightened possibility of proliferation (Bleek & Lorber, 2014, p. 447). Actions that undermine the credibility of a guarantee can be mended with joint training, planning, and deployment of patron state troops (Bleek & Lorber, 2014, p. 447). This work fixed the security guarantee coding used in previous studies (Jo & Gartzke, 2007; Singh & Way, 2004; Kroenig, 2010) that had Pakistan and Iran under a nuclear umbrella until 2000 (Bleek & Lorber, 2014, pp. 441-442). It is also the reason why Sagan said security guarantees are not well-captured by the quantitative work and calls for more innovative methods (Sagan, 2011, p. 233).

Monteiro & Debs (2014) expand the study of nonproliferation by looking at both demand side through the examination of state's security environment and also supply side by including external strategic actors working to prevent nuclear acquisition. Since pursuing a nuclear weapon has high costs, inherent danger, and draws attention from enemies and allies alike, they conclude "only two types of states acquire the bomb: powerful, but highly threatened states; and weaker states whose territory is protected by an ally they deem unlikely to remain present in the long-term or unwilling to ensure its other core security goals" (Monteiro & Debs, 2014, p. 50). Although it seems the five original nuclear powers should be classified as the former and the next five the latter, the authors only include the U.S. and USSR as 'powerful, but highly threatened states.' The strategic logic they look at involves global circumstances and settings, not strategic costs and benefits to external actors. They argue there have been so few successful programs because the strategic conditions conducive to proliferation are a rarity and reliable U.S.

security guarantees can continue preventing proliferation (Monteiro & Debs, 2014, p. 51).

As his dissertation, Gerzhoy (2014) argues a state seeking nuclear weapons will comply with foreign pressure based on two variables; security environment that determines demand of the proliferator and the level of coercive leverage of the nonproliferator with both variables affected by type of relationship between the two actors, which boils down to a cost-benefit analysis. For alliances, nonproliferators can offer security guarantees and instill fear of abandonment while coercive tactics for adversaries include military threats and sanctions, which will fuel insecurity and strengthen resolve for acquisition (Gerzhoy, 2014, pp. 269-270). He goes on to suggest the NPT is not just some liberal construct, but a reflection of the preferences of the most powerful state in the system and the future of the NPT depends on continued U.S. commitment to nonproliferation and the capability to enforce it (Gerzhoy, 2014, p. 283).

Fuhrmann (2009) argues that any nuclear assistance, whether civilian or sensitive increases the chances of proliferation. Even if a state has no nuclear weapons intentions when it receives civilian assistance, the dual-use nature of this technology still enhances prospects for a successful program if the decision ever changes (Fuhrmann M. , 2009). Another Fuhrmann article finds strong support for strategic motivations compelling civilian nuclear commerce with states owning poor proliferation records more than any adherence to NPT commitment (Fuhrmann M. , 2009, p. 183).

One of the works coming closest to the argument of this project, Matthew Kroenig (2010) presents his 'strategic theory of nuclear proliferation' which pays great attention to systemic structural considerations in *Exporting the Bomb: Technology*

Transfer and the Spread of Nuclear Weapons. He differentiates between two types of states; power-projecting and non-power-projecting (ability to occupy and control territory). He argues that power-projecting states (U.S.) will be against proliferation because nukes undermine conventional armaments and leave less room to maneuver. He holds U.S. anti-proliferation stance constant. On the other hand, non-power-projecting states promote proliferation since it fulfills multiple goals such as to,

“prevent a powerful rival from intervening militarily in an area of strategic importance to the supplier state; reduce a rival’s ability to use coercion as a tool of diplomacy; drag a powerful enemy into regional nuclear crises; pry allies away from a force-projecting rival; and reorient a rival’s strategic attention (pp.37-38).”

He undercuts liberal arguments that money is the main motivator in proliferation by distinguishing between civilian and sensitive nuclear information. Sensitive nuclear information is used for weapons programs while civilian are for energy purposes. He shows that transfers of civilian information and materials are far more lucrative and profitable than transferring sensitive material. The idea of strategic transfers comes from his 2007 dissertation as well as subsequent works examining the trade of sensitive nuclear materials (Kroenig, 2009; Kroenig, 2010; Gartzke & Kroenig, 2009).³

³ Again, there is a problem with coding as determining the ultimate purposes of certain nuclear technologies is ambiguous because of the dual-use nature. Also, dividing the groupings into sensitive vs civilian materials and technologies at the beginning of the study automatically corrupts the reader into thinking sensitive material is going for a weapons program when it can be an unprofitable purchase that advances peaceful research intended to payoff later.

SECRETS AND SPIES

Yet why hold U.S. proliferation stance constant? It may seem like the truth based on official policy and speech acts, but may not be a reality and has never been systematically examined. Simply assuming U.S. commitment to nonproliferation is an aspect shared by all the works. Interestingly, the only works doubting U.S. nonproliferation commitment are Marxist in nature and show the hypocrisy of nuclear haves and have nots as well as the unequal enforcement of the NPT (Doyle, 2013; Biswas, 2014). Works based on declassified documents show we know and understand less about nuclear history than we think we do (Gavin, 2012; Cohen, 2010; Richelson, 2007; Polakow-Suransky, 2010; Trachtenberg, *History & Strategy*, 1991).

Gavin (2012) starts off by saying nuclear history is much different than what we think based on his examination of declassified documents. He says the U.S. was willing to accept a lot of costs involved with extending the nuclear umbrella over so many other states to prevent them from going nuclear and while practically all presidents accepted the costs, Nixon and Kissinger showed great skepticism to arms control measures and nonproliferation took a blow during that administration (Gavin, 2012, p. 108). Based on his readings of the documents, he says "... the United States has often hoped to restrict the spread of nuclear weapons by foe and friend alike, not because of any enlightened notions of world peace, but because a state with nuclear weapons can cancel out every other form of U.S. power" (Gavin, 2012, p. 27).

Richelson (2007) shows how the U.S. was well aware of all the different nuclear programs from the original Soviet program to the current Iranian program in his book

about U.S. nuclear espionage based on declassified documents, official transcripts, and other intelligence resources. He says he cannot explain determinants of intelligence success or failure, but I disagree with his classifications of failures such as the 1974 Indian test where his own research shows Kissinger received reports India could build a bomb on short notice, would label a detonation ‘peaceful,’ with assessments as to the chances of a detonation being even (Richelson, 2007, pp. 231-234). I do not see why it needs an exact date when intelligence says India can easily build a bomb and poses no immediate national security threat. A follow-up assessment of intelligence community performance cited “inadequate priority,” but this so-called lack of attention can also be a political decision (intentional negligence) instead of just an intelligence failure (Richelson, 2007, p. 234)

Stillman and Reed (2009) are former nuclear weapons designers that spent year touring foreign nuclear facilities and provide a detailed historical account of most cases of proliferation and simplify complex nuclear physics for the everyman. For many reasons ranging from espionage to brain drain, particularly espionage, they show there has never been an indigenous bomb and argue the ‘nuclear express’ will keep rolling down the tracks, bringing more and more members into the nuclear club because of the abundance of nuclear material, technology, and continuing scientific progress (Reed & Stillman, 2009).

Although Trachtenberg is not looking at causes of proliferation, his historical analysis shows different aspects of U.S. strategic thought in the nuclear age. One highlight includes U.S. strategic thought on NATO allies and nuclear sharing, which Eisenhower promoted with the hope Europe would build its own nuclear force, provide

for its own security, and thus allowing American troops to be brought home (Trachtenberg, 1991, pp. 185-189). This nuclear sharing happened before the NPT, but far more is known to have occurred since then such as the A.Q. Khan Network and secret Israel-South Africa security agreement.

As for the Israel-South Africa study based on declassified documents, the author details the evolution of nuclear cooperation between these two states revolving around the 1975 signing of SECMENT, which is a security and secrecy agreement that denies its own existence by saying “it is hereby expressly agreed that the very existence of this Agreement...shall be secret and shall not be disclosed by either party” (Polakow-Suransky, 2010, p. 83). Cohen (2010) describes Israel’s policy of *amimut* (ambiguity) and the 1969 ‘bargain’ made between Nixon and Meir in the White House garden where she admitted to having nuclear weapons with the most important aspect to the U.S. being the ‘nonintroduction’ of nukes to the Middle East (Cohen, 2010, pp. 26-28; p. 248).

WHERE TO GO

What we have seen is there is a problem for those looking at the supply and/or demand-side. The supply-side shows there is more than enough technology around that many states could build nuclear weapons, while the demand-side shows there are still many states with a security demand for nuclear weapons. The problem still remains that there is a lot of supply and demand, but only five successful additions to the original nuclear club, which still begs the question; why?

The preceding paragraphs showed the multitude of methods and variables to study the cause of proliferation, but none adequately explain why these five were successful. Realism and security considerations seem like the most compelling argument for proliferation, but one would expect many more programs. Because of the distinct lack of success, liberals and constructivists cry out the poverty of (neo)realism and add variables of their own. Also, since many states abandoned their nuclear aspirations, thus becoming a new form of data, the question of what causes proliferation gets turned around into what makes a state refrain.

Liberals have looked at integration into the global economy, the costs of a program, domestic politics, and availability of technology while constructivists consider the identity and psychology of leaders, norms created by the NPT, and the perception of devastation that nuclear weapons leave in the psyche. However, these types of variables do not apply across all cases, especially the successful ones, and there is also a problem with measurement.

The newest form of supply-side analysis looks at external actors and their interest in the situation. The most recent works employing this type of analysis stresses the impact of security guarantees and other inducements, especially from the U.S. It also considers the strategic costs and benefits to powerful external actors proliferating sensitive technologies and materials. Yet all of the works discussed never consider the benefits the U.S. or other Great Powers might receive from allowing proliferation under certain circumstances when historical works using declassified documents and other intelligence sources tell us otherwise. I agree with Kroenig that the power-projecting U.S. would not want its conventional capabilities undermined by proliferation, but it

might have limited options depending on the situation. Domestically, internationally, and with a Cold War backdrop, the U.S. could not openly support apartheid South Africa or what has been considered apartheid Israel nor could it effectively project security to these regions during its acquisition phase even if it wanted to. Even if nonproliferation is a major U.S. policy goal, maintaining a balance of power and checking Soviet expansion was always more important than ideology during the Cold War (Avey, 2012, p. 188).

JFK said his fears of a dramatically increased number of nuclear states twice. Once was in 1960 and the other 1963. In 1960, only the U.S., USSR, and UK had nuclear weapons and in 1963 France joined the club while national intelligence was saying China was not far behind. One must ask if President Kennedy was really a champion of nonproliferation or rather a champion of maintaining U.S. world power and reach. Is there such a thing as nuclear nonproliferation norms that states have bought into or was their nonproliferation compliance literally bought with security guarantees, conventional armaments, and other inducements and preferential treatment? If the latter holds true, the nonproliferation regime sits precariously on continued U.S. commitment to pay for compliance.

By standing on the backs of those that wrote detailed nuclear histories, those that showed a more accurate history through declassified documents and the newest wave of these documents, it becomes possible to really examine why only five additional states outside of the NPT were able to acquire nuclear weapons. This study is ultimately a supply-side story, but a different type of supply variable that has not been examined. Diplomatic assistance and support from a Great Power can protect the nuclear program of a weaker ally, save them from international scrutiny and sanctions as well as be used as a

bargaining chip with other Great Powers. Since we have seen high levels of security demand and material supply but little success, it makes sense to examine the interests and actions of the most powerful actors (P-5) in the system instead of assuming their commitment to the NPT, especially the U.S. The authors mentioned above have called for more attention to politics and this is a look at nuclear Great Power politics.

CHAPTER 3: METHODOLOGY

DESIGNING INQUIRY

The causes and consequences of nuclear proliferation have been examined in many ways and at many levels since the dawn of atomic weapons. At first, the consequences of proliferation and their potential to dramatically alter both global and regional power balances garnered the most attention. State instinct to survive would automatically lead others to develop nuclear weapons to fulfill security demand. The focus became limiting the supply of nuclear technology and materials until studies showed many states could still build nuclear weapons yet refrained. This led to a plethora of new variables attempting to explain nuclear forbearance, but none of them can explain success.

Outside the permanent five Security Council members, only Israel, India, South Africa, Pakistan, and North Korea have successfully constructed nuclear weapons out of the many that initiated the effort to develop them. On first glance, these five countries seem to have far more differences than similarities. Besides conducting successful nuclear programs, they all had to deal with the United Nations P-5 as a whole as well as with them as individual nations, especially with the U.S. spearheading global nonproliferation.

The selection of these five cases avoids messy definition problems since all five definitively possess(ed) nuclear weapons with Israel portraying an international open secret. There remain many countries at the nuclear tipping point with security concerns

such as Japan and South Korea worrying about continued U.S. support. Even Australia is at this tipping point and could contemplate the cross if China decided to exert more power in the South Pacific and Indian Oceans. Other countries with insecurities that could make a move for the nuclear club door include Saudi Arabia and Turkey if they do not feel allies could protect them. Since an attack on one is an attack on all, does this mean all NATO members are actually nuclear states? Any major change in the international landscape could create more nuclear aspirants. By only including the positive cases, the study becomes more challenging as well as revealing by avoiding the creation and annihilation of a strawman constructed of negative cases with well-known alliances, security agreements, and preferential treatment. A closer look at negative cases would most likely show more low-key positive inducements that go beyond satisfying security concerns. How the five that actually succeeded and the impact of external powers currently remains unexplained.

The research question is why were these five completely different states successful at building nuclear weapons, when the Great Powers, defined as the P-5, are united against nuclear proliferation under the NPT, which is policed by the nuclear watchdog IAEA, led by the superpower U.S. since its inception by successive administrations, and could potentially face some serious punishment either economically or militarily by any state(s) looking to stop it.

My proposition is these five states were able to successfully build nuclear weapons not by sheer indigenous ingenuity motivated by security alone, but rather, with the diplomatic support of one or more P-5 members shielding a proliferator from potential repercussions. The Great Powers did not allow inclusions to the nuclear club

out of genuine security concern for others, but by supplying diplomatic support for particular nuclear programs protects their own power, promotes their own interests, and confounds adversaries in particular regional security complexes without committing to provide deterrence.

The five cases studied here have never been explored systematically, even though they are the only other states besides the major five with successful nuclear weapons programs. Previous studies have relentlessly explored the internal characteristics leading to nuclear proliferation, but only recently have external actors and conditions begun to receive attention. Having to deal with larger, more powerful states seeking to stop proliferation, whether singularly or in unison, is the only real similarity that these five cases share besides security demand.

Diplomatic support for a nuclear program has never been studied as a variable. It could never be studied as a variable when researchers casually accept nonproliferation as not only a goal of the P-5, but as an unshakable bedrock policy of the U.S. However, it is difficult to do anything but stand on that assumption based on public statements of all P-5 members and the fact they signed the NPT. This study is going to test that assumption and the merit of holding U.S. proliferation policy constant by looking at the multilateral actions of the P-5, U.S. unilateral actions, and comparing it to the knowledge we now know U.S. policymakers possessed about the respective cases through declassified documents, interviews, and historical narratives based on such information. Other external variables under examination include the presence of a security guarantee, shared border with a Great Power, conducting a nuclear detonation, and the partisan sway of the U.S. President in office when the nuclear threshold was crossed.

This study will directly confront two fundamental problems that have consistently plagued nonproliferation research. The first problem concerns the covert nature of any nuclear program that has arisen since the signing on the NPT. However, enough time has passed since the five newcomers crossed the threshold that documents have been declassified and important figures spoken, which has provided a much clearer view of the role of the U.S. in proliferation matters.

These documents and candid interviews show the necessity of distinguishing between public statements concerning proliferation and private views on the matter. For example, as will be discussed in the next chapter, the U.S. would and has never publicly admitted that Israel has nuclear weapons, but privately, the U.S. knew of Israel's nuclear pursuit since the birth of the state, which culminated in 1969 with Prime Minister Golda Meir telling Nixon in the White House garden they are indeed a nuclear weapons state. To this day the U.S. has never publicly lambasted Israel's nuclear position while accusing others like Iran (previously Syria and Iraq) of pursuing a bomb and attempting to upset the Middle East balance of power. Israel has also never faced UN Security Council sanctions or scrutiny over their nuclear program, and definitely not U.S. unilateral sanctions. Ignorance of the program could explain and even exonerate the lack of action, but we now know that the U.S. knew of the program and even protected it.

The other fundamental problem in carrying out this study is assigning dates of admission to the nuclear club. There is still no consensus on when a state should be considered a nuclear weapon state. Does it depend on having enough nuclear material and technology to build a bomb? Does it depend on the actual assembly of a nuclear bomb? Does it depend on a detonation of a bomb and does this detonation have to be

successful? These are all issues considered by previous researchers, which lead to different admission dates as well as those even classified as nuclear states. At the very least, this study will attempt to remedy this problem and provide future researchers with more solid footing as to when a particular state achieved its nuclear capability.

Competing Nuclear Acquisition Dates ⁴			
State	Jo & Gartzke	Singh & Way	Gartzke & Kroenig
Israel	1966	1972	1967
India ⁵	1988	1974 & 1988	1988
South Africa	1979-1991	1979-1993	1982-1990
Pakistan	1987	1990	1990
North Korea ⁶	N/A	N/A	Never

These are only three works with differing interpretations of acquisition dates by big names in the field, but even more variation exists. India and Pakistan could be considered as joining the nuclear club in 1998, since that is when they both first tested deliverable bombs with India claiming itself a nuclear weapons state unlike 1974. Israel could be excluded altogether by this logic. Gartzke & Kroening (2009) exclude North Korea since their first test was largely considered a failure, but concede it could be coded as 1994 when they had enough plutonium for a bomb or 2006 (subsequent tests in 2009 & 2013) when they first tested a nuclear device (pp.153-154).

One hope of this project is to establish more reliable dates of acquiring nuclear status. For each case, the time period examined will be between the earliest and latest dates assigned to these states in previous works and summarized in the following table.

⁴ Table compiled using (Jo & Gartzke, 2007; Singh & Way, 2004; Gartzke & Kroening, 2009) with former two works assessed in (Montgomery & Sagan, 2009).

⁵ India is coded as 1988 since that's when they assembled two dozen weapons and also 1974 (peaceful detonation) by Singh & Way who test both dates.

⁶ Jo & Gartzke's study ends in 2002 and Singh & Way in 2000. North Korea's first test was in 2006.

State	Time Period
Israel	1966-1972
India	1974-1998
South Africa	1977-1982
Pakistan	1987-1998
North Korea	1994-2006

It essentially comes down to a matter of knowledge and these documents are matters of national intelligence showing the top brass received this information and also what they think of it. Calculating the amount of fissile material a nuclear reactor can produce in a year along with the technical expertise necessary to produce a bomb makes for a neat scientific approach to find acquisition dates, but also finds itself drifting away from reality. The information received by U.S. Presidents and cabinet members serves as unshakable empirical evidence of what the nonproliferation leader both knew at the time of proliferation for each case and the considerations of global repercussions as it affects national security.

Previous studies that utilize declassified documents serve an important purpose, but are basically glorified historical narratives that chronologically follow the documents, fill in historical blanks with other works, and reveal secrets and political intricacies that show a different nuclear history under the veil of process-tracing. These works are quite interesting, but a different approach could show how important this new information really is and may lead to better policy choices.

This study comes from a U.S. perspective, since the U.S created and leads the nonproliferation regime along with having the most enforcing power to do so and also has the most data available. By examining Washington's knowledge, opinions, and

actions regarding now known proliferators, it becomes possible to assess if the new nuclear additions were nonproliferation regime failures or strategic allowances of one Great Power or another to protect their own global interests and hinder the aspirations of others.

For the most part, the substance of this argument rests in establishing knowledge on the part of the U.S. that proliferating states had produced or could produce a nuclear weapon. The best way to do this and avoid storytelling is by using a thematic content analysis approach to review the substance of declassified documents. This approach shows who was talking to whom, when and a short description of the communication including the knowledge and opinions held within.

Simply having knowledge of capabilities does not prove anything alone but does act as a constant baseline as well as evidence. Another constant is U.S. nonproliferation policy which creates the expectation of some sort of repercussions for proliferating states, whether they signed the NPT or not. The first part of each chapter establishes what the U.S. knew and thought about a particular nuclear program while the second part reviews what they actually did to combat said program multilaterally or unilaterally and then view if their actions match expectations created by their longstanding nonproliferation goals.

Since all P-5 members signed the NPT and based on their public statements, it is a fair assumption they are against proliferation since it diminishes their relative power in comparison and tightens room to maneuver in a respective region. Mearsheimer has called institutions tools for managing power and “arenas for acting out power politics” where cooperation occurs when relative gains are equal (Mearsheimer, 1995, pp. 13-14). One would expect the P-5 members to first bring proliferators to the attention of the

Security Council and then vote in favor of some sort of punishment if the violator refuses to stop because preventing a new nuclear power is an absolute gain for all since it protects their share of world power.

The P-5 can be considered a tool for policing nuclear proliferation and have the option of imposing multilateral sanctions or even the authorization to use force through resolutions. They also have the option to torpedo any potential agreements with a veto or invoke what has come to be called the “hidden veto,” which is a form of agenda-setting in the Security Council and happens when another P-5 member knows a particular issue is a nonstarter or threaten a veto in closed-door meetings (Nahory, 2004). Whether one believes in the utility of institutions is irrelevant because the reality of the matter is they do exist and are the first line of defense for protecting the integrity of the nonproliferation agreement.

Despite the outcome of taking the institutional path, individual nations could impose unilateral sanctions and either threaten or use force to stop a proliferating state. That is the stick option, but the carrot option involves offering a security guarantee along with other inducements and incentives to achieve policy goals. Accepting a security guarantee from a Great Power should assuage security concerns and prevent a state from going nuclear, which leads to the expectation that no security guarantee exists between any of the states studied and any of the Great Powers.

Accepting a security guarantee depends on the credibility that the guarantor will actually come to the rescue should trouble arise. The closer a state is in proximity to its protector provides a much more reliable guarantee. This is also a two-way street and theoretically the closer a nuclear aspirant is to a Great Power, the more the Great Power

should work to prevent success. Sharing a border with an original nuclear weapons state limits the movement of smaller neighbors and creates the expectation that the Great Power neighbor would not allow a new nuclear power at its doorstep.

Nuclear opacity has been the method of every state to embark on a nuclear program outside of the P-5 since unrevealed secrets cannot be punished and are harder to stop. It makes sense that the closer a nuclear aspirant is to a Great Power, the quieter it would be about its activities and perhaps more brazen with more distance. With the exception of India, each new nuclear state either waited to test or never openly tested their devices. Related to sharing a Great Power border, one would expect the states further away from a Great Power to be more willing to test their weapon with a detonation since it poses less of a threat. The detonation of a nuclear weapon could signal a lot of things, but ultimately it is the entry fee to claim nuclear weapon state status and one would expect this behavior by states further away from and on the fringes of Great Power spheres of influence and not by border-sharing neighbors.

The geographic location of the U.S. leaves it thousands of miles away from successful cases of the development of nuclear weapons, but it is an integral player in the nonproliferation effort. The U.S. is always studied as a whole when it comes to nonproliferation, but one aspect does change and that is the chief diplomat. A presidential election either retains or removes one of the two parties from executive office. Even though we have seen U.S. nonproliferation policy remain uninterrupted through successive administrations, it is possible that realizing nuclear goals might be more likely with one or the other political parties in power implementing policy. From

this perspective domestic U.S. partisan politics might affect the international by creating a friendlier environment for proliferation.

The exogenous factors examined here use the systemic level of analysis and stress the importance of structure in the system. The format used to examine these factors brings back the actual agents involved as well as domestic dynamics affecting how a state pursues goals. It is true that each state in the system has sovereignty and a right to control their internal affairs, but history shows that larger, more powerful states will step in to thwart their goals and ambitions if it clashes with their own and threatens their interests. Nuclear proliferation poses a threat to each of the Great Powers and they all have reason to prevent it and protect their own power and influence. With multiple means to monitor nuclear activity across the globe, the U.S. is particularly well-equipped to police the matter or at minimum, detect and report the activities to the UN. However, five states were still able to slip by under their watch.

The phenomenon is typically considered as why so many states decided against nuclear weapons, but the phenomenon really is why so few succeeded. There are both international and individual infrastructures dedicated to detecting proliferation with powerful states willing to provide the muscle to stop it by force if necessary. Were the states studied here masters of deception and secrecy or did they weather the storm from outside pressures and succeed anyway? Or did they have someone protecting them?

Although this study is from a U.S. perspective, all Great Powers publicly extol the virtues of nonproliferation while execrating the evils of nuclear weapons, but do their actions match their words? If a Great Power knew of a program, but did nothing in accordance to the NPT or even casts a vote against sanctions, does that mean they are

against nonproliferation or against benefiting another Great Power by helping to stop the program? The most powerful actors in the system have mutual interests to maintain the structure and prevent any state from challenging their power, but this is exactly what happens with each additional nuclear weapons state. The most powerful actors in the system also want to prevent their contemporaries from altering the structure to the benefit of one and detriment of another, which may only be prevented by making allowances to the nuclear club as even the most powerful states cannot project power everywhere for extended periods of time, which is especially true in a democracy answerable to the people.

CHAPTER STRUCTURE, VARIABLES, AND OPERATIONALIZATION

Dependent Variable: A successful nuclear weapons program. We already know these five states successfully built nuclear weapons, but the question of how and even when is still a matter of debate. Dates provided in the documents and books could establish a reliable date of possession for each state.

PROGRAM HISTORY

Each chapter begins with a brief history of each program much like an encyclopedia entry. George and Bennett (2005) point out that “classified accounts of the process of policymaking cannot be properly evaluated by scholars unless the public

context in which policymakers operate is taken into account” (p. 97). Since each case studied had successful nuclear weapons programs, it is fair to assume the demand variable, but it is important to elaborate upon the security threat they faced because Great Powers also have related interests affected by the outcome. They go on to say that sometimes researchers “become intimately familiar with hard-to-get primary source materials of a case but who have only a vague sense of the wider context because they have not taken the relatively easy step of reading newspapers and journals from the period,” which makes it important to show what the public knew about these programs during the time of proliferation (George & Bennett, 2005, p. 97).

THEMATIC CONTENT ANALYSIS

The entire point of this section is to establish knowledge on the part of the U.S. and the opinions it held regarding each case. Even though this paper comes from a neorealist position, emphasizing the importance of structure and the interests of the most powerful actors in the system, this approach opens the black box of domestic politics and shows “both the process of policymaking and the strategic interaction between states that leads to foreign policy outcomes” (George & Bennett, 2005, p. 269). This method is slightly adapted as there are no set ‘ideas, phrases, or sentences’ to look for (Manheim, Rich, Willnat, & Brians, 2008, p. 183). There is also no importance to counting documents or a need for interpretation since the government documents are straightforward in simply presenting information without frills (Manheim, Rich, Willnat, & Brians, 2008, pp. 180-186).

The data for this endeavor come from multiple sources, but there are two main databases. George Washington University has an electronic National Security Archive called The Nuclear Vault, which is composed of resources from the Archive's Nuclear Documentation Project (George Washington University, 2015). The other main source comes from the Wilson Center's Digital Archive created by the Nuclear Proliferation International History Project (Wilson Center, 2015).

To avoid including every obscure CIA memo or embassy telegraph message, this analysis will stick to the various communiques between cabinet level officials or their direct underlings where there can be a reasonable expectation the information will make it to the President. This section will also utilize previous case specific work where the researcher already did the work with travel, interviews, and archival research, which can be considered as a whole. Examples include a paper based on released telegrams to and from the Hungarian embassy in India to both the Soviet and Hungarian Foreign Ministries detailing how a nuclear India could help balance against the other nuclear powers and expressing gratitude for not condemning the nuclear test among other things (Szalontai, 2011, pp. iii, 28). Another is a book on the 1967 Six-Day War, which flips around history using declassified documents and argues that the Soviets worked with the Arabs to coax Israel into a preemptive strike, making it the aggressor and planned on attacking the Dimona reactor once the Soviets learned that Israel was at or crossed the nuclear threshold, which was only thwarted by Israel's dramatically successful response (Ginor & Remez, 2007). These types of case specific work should not be left out for the sake of standardization and serve as parts to a whole in terms of evidence. Also, more recently released documents could update and complete gaps in the record.

This approach shows the private knowledge and views of top U.S. government officials, as well as a sample of the roles and views of other Great Powers where information is available. The hope is to find consistent knowledge of a successful nuclear program on the part of top U.S. officials and corroborating documents and accounts of this information. These documents show who was talking to whom, when, and the content, which will receive a brief summary, but also varies source to source. Some sources are simply a paragraph, while others are pages long with both having the potential to have heavy sanitation, making one wonder what government secrets still lie under that black marker. The section will begin with a brief summary of the patterns, knowledge, and opinions expressed across all the documents, followed by the actual thematic content analysis of the documents. The following figure is the structure for the thematic content analysis, which runs in chronological order from the GWU and Wilson Center sources. It will conclude with a bit of outside information by researchers doing case-specific work and using different sources. Before the section begins, a list of the main players sending and receiving information will appear. These players may be high-level individual actors or organizations as a whole.

Date	Sender	Receiver	Notes
Content			
10/7/69	Kissinger	Nixon	i
Brief memo on Israeli questions of nuclear status, strategic missiles, and signing NPT. "you emphasized that our primary concern was that the Israelis make no visible introduction of nuclear weapons or undertake a test program"			

DIPLOMATIC SUPPORT

Perhaps ‘diplomatic support’ is a poor term and something along the lines of ‘strategic inaction’ more suitable, but the basic point is to either remove or act as an international hurdle for a proliferating state. This variable shows the actual actions of the U.S., as it relates to each case, which can be compared to its private knowledge as well as the public knowledge. The variable of diplomatic support comes in three related parts as there are three main punitive actions a state can employ against a proliferator.

IV1a *UN Security Council Actions*

Assessing the actions of the UN Security Council and the intricacies of decision-making is quite problematic for researchers since these meetings happen behind closed doors without minutes kept for a record. The absolute certainties left to work with are UNSC voting records as seen through both resolutions, vetoes, and punitive sanctions. There is also the possibility of an abstention, which is a signal of dissent as defined by the Model UN glossary (UNAUSA, 2013). The voting record shows what the P-5 agreed on and disagreed on along with the dissenting party(s) in the event of veto or abstention.

The UN has separate databases for both resolutions and vetoes available online. These sources also list what the resolution was about or the party(s) issuing a veto (UNSC, 2015; UN, 2015). It is also important to note nuclear issues that never made it to the agenda. SIPRI maintains a similar database of UN resolutions focusing on arms embargoes, which is better organized and divides resolutions into mandatory and non-mandatory UN embargoes (SIPRI, 2015).

UN Security Council Resolutions

Date	Resolution (Res.#)	Issue	Vote

UN Vetoes

Date	Veto ID	Issue	P-5 Member

SIPRI

(Non)Mandatory	Target State	Entry into Force	Lifted	Establishing Doc

IV1b***Unilateral U.S. Sanctions***

Whether the multilateral path brings consensus or not, nothing stops an individual state from imposing sanctions of its own. “Sanctions” is a broad term and could mean anything from pulling ambassadors to stopping aid, cutting trade, arms embargoes or even a full blockade intended to alter behavior of the target. Identifying the mere presence of sanctions for nuclear activities is not enough, especially with additional information available including the outcome, duration, and impact to target.

This data comes from Morgan, Bapat, Krustev, & Kobayashi (2013) who created a detailed dataset of threats and the imposition of sanctions (TIES). The dataset, data user’s manual, and codebook are available for online download. This is supplemented using the dataset showing cases of economic sanctions from Hufbauer, Schott, Elliott, & Oegg (2009), which is maintained electronically (PIIE, 2015). Both of these datasets were utilized by Miller (2014), who creates his own dataset to argue that sanctions can have success against proliferation if properly employed and under the right

circumstances. All of these works include an assessment of success or failure with the first two offering impact to target state.

TIES Sanction Data

CID	I	TS	SI	SSD	SID	ST	TEC	FINAL

Ties Data Coding Guide

Case ID (CID)

Case code used in dataset. The constant sender state of sanctions or threat of sanctions is the U.S., unless otherwise denoted in a footnote.

Issue (I)

Numbers 6 and 9 are related to nuclear proliferation.

- (1). Contain Political Influence
- (2). Contain Military Behavior
- (3). Destabilize Regime
- (4). Release Citizens, Property, or Material
- (5). Solve Territorial Dispute
- (6). Deny Strategic Materials
- (7). Retaliate for Alliance or Alignment Choice
- (8). Improve Human Rights
- (9). End Weapons/Materials Proliferation
- (10). Terminate Support of Non-State Actors
- (11). Deter or Punish Drug Trafficking Practices
- (12). Improve Environmental Policies
- (13). Trade Practices
- (14). Implement Economic Reform
- (15). Other

Threat of Sanction (TS)

1 = Yes 0 = No

Sanction Imposition (SI)

1 = Yes 0 = No

Sanction Start Date (SSD)

//**

Sanction Identity (SID)

Body issuing sanction or threat of sanction.

- (1). Bureaucratic
- (2). Legislative
- (3). Judicial
- (4). Executive (including staff)
- (5). Government (unified position)
- (6). International Institution

Sanction Type (ST)

This only applies when Issue 6 and/or 9 motivate sanctions or threat of sanctions.

- (1). Total Economic Embargo
- (2). Partial Economic Embargo
- (3). Import Restrictions
- (4). Export Restrictions
- (5). Blockade
- (6). Asset Freeze
- (7). Termination of Foreign Aid
- (8). Travel Ban
- (9). Suspension of Economic Agreement
- (10). Other

Target Economic Costs (TEC)

- (1). Minor
- (2). Major
- (3). Severe

Final Outcome (FINAL)

- (1). Partial Acquiescence by Target to Threat
- (2). Complete Acquiescence by Target to Threat
- (3). Capitulation by Sender in Threat Stage
- (4). Stalemate in Threat Stage
- (5). Negotiated Settlement
- (6). Partial Acquiescence by Target after Sanctions
- (7). Total Acquiescence by Target after Sanctions
- (8). Capitulation by Sender after Imposition
- (9). Stalemate after Sanctions Imposition
- (10). Negotiated Settlement after Imposition

PIEE

Years	Policy Goal	Success Score	Cost to Target GNP%

The authors created a “success score” for their sanction database, which is calculated by multiplying the qualitative judgements of both the policy result and

sanctions contribution. Both the result and contribution are judged 1-4, where it ranges from (1) Failed Outcome to (4) Success for Sender as a policy result. The contribution of sanctions range from (1) Net Negative Contribution to the Outcome to (4) Decisive Contribution to the Outcome. Multiplying these numbers give the success score where a total of (9) or higher is viewed as a successful outcome. A total score of (16) means all goals were virtually achieved by the sender with a decisive contribution of sanctions while a score of (0) shows clear failure to achieve goals and sanctions may have even been counterproductive to fulfilling

*Miller*⁷

Type	Years	Outcome

Type is classified as Threat or Imposition of sanctions and Outcome is either Success or Failure.

IV1c
Force

If the multilateral or unilateral diplomatic approach proves fruitless in stopping a proliferator, the next step is the threat of or use of force. Attacking another state to stop a nuclear weapons program is certainly not without precedent from the second Iraq war to Israel's attacking both Iraqi facilities or Iraq and Iran attacking each other's nuclear sites. Determining the use of force or the threat of force is a simple yes or no observation, but case specific work reveal some threats only discussed in private.

⁷ Dataset starts 1975.

IV2
Security Guarantee

Providing a credible security guarantee to an insecure state should assuage its fears and make it forgo producing weapons, as often noted about the forbearance of Japan, South Korea, and many others. The expectation for the five cases here is that none to have them to have a security guarantee from any of the Great Powers. Again, this is a yes or no, but case specific work also shows whether a state asked for a security guarantee from a Great Power while U.S. government declassified documents show an internal debate of providing a security guarantee versus the national security impact not providing a guarantee and living with another nuclear state.

IV3
Great Power Shared Border

Theoretically, a Great Power should be fervently opposed to the admission of a new nuclear weapons state, especially one with which it shares a border. That is, unless one or more of the Great Powers has a different view of proliferation than they agreed to in the NPT. One would assume that the further a state is located from a Great Power, the more freedom it has to pursue nuclear weapons. Adding geographic proximity to the examination shows how it might have affected the course of a particular program or how it affects the calculations and assessments of the Great Powers.

IV4
Detonation

This is one place where theory and practice diverge. Scholars were reluctant to call North Korea a nuclear state because the 2006 explosion was considered a failure

from its small yield. It is hard to believe that South Koreans and American troops stationed there would find much comfort just a small atomic blast could take place. Why consider a detonation an independent variable? Success at state survival is a continuous task and these programs could conceivably be taken away somehow or another such as the case of South Africa that shocked the world with its announcement of nuclear possession and dismantlement in one fell swoop. Whether a state detonates or not, the logic is still that of deterrence, either directly or indirectly. Either causing fear through the known or the unknown. This variable might also have a relationship with sharing a border with a Great Power in the decision to detonate.

IV5

Presidential Party

U.S. nonproliferation policy has been a constant since the inception of the NPT and championed by every president to come to office. It seems that U.S. nonproliferation policy has broken down partisan barriers, but this variable may show whether proliferation is more likely under one party than the other. Perhaps with different priorities in reasoning, both Democrats and Republicans have reason to be against proliferation. After determining the year of acquisition for each state, it will be compared to the party in power to see if one side of the aisle or the other is more or less likely to enforce proliferation policy.

SUMMARY, GOALS, AND EXPECTATIONS

If the Great Powers truly hold nuclear nonproliferation as one of their main foreign policy goals, especially the U.S., we should expect them to use all means at their

disposal to prevent a new nuclear power and maintain the balance of power. If they do not meet this expectation and made half-hearted or counterproductive efforts, this needs explanation. Five new nuclear states popped up under their watch, which calls attention to their punitive actions both in unison and individually.

First, we should expect the matter to go to the Security Council if suspicious nuclear activity is detected followed by resolutions to impose hefty sanctions if the behavior continues. Individual nations could then be expected to impose their own unilateral sanctions. If economic, diplomatic, and political punishment does not work, the military option comes next. However, if one or more of the Great Powers consistently blocks punitive action, this is a sign of diplomatic support for the program.

Claiming faulty intelligence has long been a scapegoat for government blunders, but the declassified documents and various accounts shows exactly what knowledge top U.S. officials had during the period of proliferation. By examining multilateral and unilateral sanctions and private government knowledge as compared to the P-5's joint nonproliferation effort presented to the public, we can see if their actions match their words on this issue. Did the most powerful actors that set the nuclear rules work to help the nonproliferation effort or work to help themselves?

CHAPTER 4: ISRAEL

PROGRAM HISTORY

Officially, Israel is not recognized as a nuclear-weapons state and has long stood by its oft repeated phrase that it will not be the first country to introduce nuclear weapons in the Middle East. However, the abundance of evidence that Israel moved quickly to advance its nuclear program along with regional security concerns aroused suspicion in many as to the true motivation of the program.

The program began with the strings-free sale of a French reactor to Israel in 1957, which began construction in 1958 and would become known as Dimona. The U.S. intensely scrutinized the “peaceful intentions” of the program and it became public knowledge in 1960 with both a live announcement on a December 18 episode of *Meet the Press* and December 19 *NYT* article that Israel had secretly been constructing a nuclear reactor with French assistance (Kroenig, 2010, p. 76; Richelson, 2007, pp. 239-240). On a lesser known level of history after the discovery of Dimona, the French cut nuclear assistance and eventually the supply of conventional arms while President Kennedy obtained Israeli agreement to nuclear facility “inspections,” otherwise known as “visits” within Israel (Hersh, 1991, p. 97; Shalom, 2005, p. 135).

As far as news articles and programs go, very little ever came out about Israel that was not immediately denied and labeled as dangerous fearmongering rhetoric. The 1979 “Vela Incident” was a double-flash of light over the Indian Ocean caught by satellite imagery, which corresponds to an atmospheric nuclear explosion as seen by

previous Vela satellite photographs. This event and its validity will be discussed further in the South Africa chapter as it intimately involves both countries. Expectedly, Israel has denied any involvement in this incident and questions the possibility the satellite even saw a nuclear explosion.

In 1986, Mordechai Vanunu brought the most worldwide public scrutiny to the Israeli nuclear program when the *London Sunday Times* printed his story, secretly taken photographs, and drawings of Dimona facilities, unreachable by satellite cameras. Vanunu briefly worked at Dimona, but was dismissed due to his openly sympathetic leanings towards Palestine. After Dimona, he traveled around the world and met a journalist who persuaded him to sell his story, eventually attracting the *Times*. The paper brought in top physicists to grill him on the validity of his story, which he passed with flying colors and led scientists to conclude Israel had the capability to produce ten plutonium bombs a year that were lighter and more advanced than those produced by the original five nuclear powers (Richelson, 2007, pp. 364-365; Knightley, 2010; Karpin, 2006, pp. 344-345).

After the October 5th article, Vanunu found himself back in Israel facing charges of treason after he fell into a honey-trap by leaving England to follow a woman who invited him to her place in Rome. Awaiting Vanunu at the residence were three Mossad agents who drugged him and shipped him as inspection-free diplomatic cargo back to Israel where he served 18 years in prison, 11 in solitary confinement, and released in 2004 under serious restrictions (Richelson, 2007, pp. 361-366; Karpin, 2006, pp. 344-345; Knightley, 2010).

Even though the nuclear situation of Israel truly depicts Cohen's *Worst Kept Secret*, there is not much readily available and reported to the public on Israel's nuclear arms. Basically every year, the UN General Assembly approves resolutions and proposes measures for Israel to admit and renounce their nuclear weapons, join the NPT, allow IAEA inspections, and work to create a nuclear weapons free zone in the Middle East. All of which consistently received negative votes from the U.S. and Israel, based on some "unrealistic and unworkable" situation happening in the region (JVL, 2015). Although not much made its way to the American public, plenty of discussion on the Israeli nuclear program occurred between top American policymakers.

Israel had the most limited freedom of movement as the first nuclear aspirant and it began its program well before the NPT went into effect and before the creation of the IAEA. However, Israel found flexibility to act not only with well-placed international connections, but also the lack of a structured organization geared to preventing, policing, and prosecuting proliferants, as it was not even considered an international "crime" at the time. Located far away in a turbulent hotbed of newly decolonized states under a Cold War backdrop competing for new followers limited the ability for either superpower, or any Great power, to act decisively without risking the spark of WWII or at the very least, get dragged into a fight without real national security consequences.

CONTENT ANALYSIS SUMMARY

Looking between the years 1966-1972 leaves a lot out on the evolution of U.S. Foreign Policy on the Israeli nuclear program. In brief, Kennedy was by the far the

harshest and most scrutinizing U.S. President to deal with the Israelis and the reason for “inspections.” However, these “inspections” were not much of inspections at all as shown by declassified documents and case-specific work on Israel. U.S. inspectors were not allowed to see any additional sites and were instructed by their bosses not to pry too hard during what they considered to be guided tours rather than inspections (Shalom, 2005; Richelson, 2007; Reed & Stillman, 2009; Hersh, 1991).

The declassified documents show an evolution of U.S. foreign policy regarding Israel. Earliest estimates remained unsure if Israel could produce a bomb, but undoubtedly understood they wanted to and the fact there was a lack of trust from Suez was not lost on American policymakers. By 1966, U.S. intelligence estimates found Israel capable and with sufficient nuclear material to construct one bomb, if it had not already done so.

The main goals of the U.S. were consistently asking for three things. First, full agreement from Israel that it would not produce nuclear weapons. Secondly, putting this agreement into writing by signing the NPT. Thirdly, the U.S. wanted Israel to stop production on the Jericho missile, but would settle for non-deployment because they recognized how much money Israel already put into the project. The U.S. also considered cutting deliveries of F-4s as a bargaining chip since it did not enjoy becoming the new leading weapons supplier to Israel. Some wanted to push Israel hard while others saw this as a fruitless endeavor, leaving limited options.

On the Israeli side, they stood resolutely to their position they would not be the first to introduce nuclear weapons into the region and was noncommittal on a number of related issues. In the end, Israel did not give up much ground to American demands.

Although discussions about Israeli nuclear intentions occurred at top levels of government, it eventually had to be resolved with a face-to-face talk between the two state leaders. After this meeting the documents and chatter over the program practically disappeared. Even to this day, it remains unclear what Nixon told Kissinger about the garden meeting, but definitely directed him to call off pressure. Before this meeting, Kissinger suspected the Israelis might already have nukes.

Even the very title of document NSSM40 was a secret until it was revealed only a few years ago to be “Israeli Nuclear Weapons Program”. The documents show U.S. recognition of Israeli nuclear capabilities and candidly shows the recognition of looking complicit and causing the perception of being in a nuclear conspiracy with Israel.

CORRESPONDENTS

President: Lyndon Johnson, Richard Nixon

Secretary of State: William Rogers, Henry Kissinger

Undersecretary of State: Elliot Richardson

Deputy Secretary of State: John Irwin, Kenneth Rush

Secretary of Defense: Melvin Laird

Assistant Secretary of Defense: Paul Warnke

Deputy Secretary of Defense: David Packard, Kenneth Rush

ISA Assistant Secretary of Defense: Warren Nutter

JCS Chairman: Earle Wheeler

CIA Director: Richard Helms, James Schlesinger, William Colby

National Security Advisor: Henry Kissinger

Deputy National Security Advisor: Richard Allen, Alexander Haig

CONTENT ANALYSIS

1/20/66	Dep. Dir. Of CIA	Johnson	ii
Report that Israel has enough weapons-grade material stockpiled for a few weapons, but doubted Israel actually assembled any. Casts doubt on ability of U.S. to stop progress if Israel feels enough of a threat from Arab countries.			
12/21/67	State Dept.	Johnson	Briefing Paper ⁱⁱⁱ
Dimona visits do not show a nuclear weapons program, but could be happening somewhere in country. Everyone closed-mouthed on that issue and missiles. Israel will only say they will not be the first to introduce nukes.			
10/15/68	Hart	Rusk	iv
Memo about connecting negotiations for F-4 sale to peace settlements, nuclear, and missile program. Judgement is they cannot be connected to peace settlement.			
11/4/68	Warnke	Rabin	v
Conversation how U.S. becoming principle arms supplier to Israel with Europe opting out and this increases risk of confrontation with USSR. Asking to sign NPT and assurances it will not develop, test or deploy nukes or missiles.			
11/4/68	Warnke	Rabin	vi
Warnke says agreement to sell planes was difficult and changes U.S. calculus. U.S. is concerned about Israeli security and specifically sought not to become the main arms supplier to reduce chance of a U.S.-USSR conflict, but with other western countries (French and Mirage planes) refusing to supply Israel, U.S. has to pick up the slack which involves them more intimately in Israeli security affairs and affecting the security of both			

<p>countries. He also mentions in light of indications “Israel is on the verge of nuclear weapons and missiles capability” (a point the document finds important to note Rabin did not dispute U.S. information) (p.81). Because of these new circumstances the U.S. is now asking for assurances, which is the reason the line “under unusual and compelling circumstances,” which Warnke says would include Israel acquiring nuclear weapons and strategic missiles. Rabin disagrees things have changed that dramatically and reminds U.S. of Israeli intelligence that there has been a large build-up of Soviet aircraft in Egypt and Syria, far exceeding 1967 intelligence projections on the rate of Soviet arms deliveries to Arabs.</p>			
11/5/68	Warnke	Rabin	vii
<p>Rabin states his interpretation of conditions for sale of Phantoms, which US prefers to call understandings. Rabin prefers the word conditions and states them as 1. Israel would not test or deploy strategic missiles 2. Will not acquire strategic missiles or nuclear weapons. 3 Sign the NPT 4. Agree to more inspections of nuclear facilities. Rabin disagrees with the conditions and understood there would not be such extreme conditions for the sale of 50 phantoms. Warnke said U.S. was looking for assurances as this sale would change U.S. to the main military supplier of Israel, which brings up new national security concerns for both countries.</p>			
11/8/68	Warnke	Rabin	viii
<p>Rabin objecting to Warnke for any possibility of canceling/delaying F-4 sale. Rabin promised the planes would not carry nukes and they would not be the first to introduce nukes into the Middle East.</p>			
11/8/68	Warnke	Rabin	ix

<p>Israel finds U.S. requests and conditions for F-4 sale unacceptable and reiterated the commitment not to equip U.S. warplanes with nuclear weapons or be the first to introduce nuclear weapons into the Middle East. Argues the U.S. is infringing on Israeli sovereignty while the U.S. says what Israel does with missiles and nukes affect its national security as well. Both sides agree Israeli strategic missiles are ones capable of hitting Arab capitals.</p>			
11/12/68	Warnke	Rabin	x
<p>Debate and disagreement on “introduction.” Rabin believes “an unadvertised, untested nuclear device in not a weapon” (4). Warnke says U.S. sees it as mere possession.</p>			
11/12/68	Warnke	Rabin	xi
<p>U.S. stuck on Israeli interpretation of introduction as that and agreeing not to equip U.S. aircraft with nuclear weapons are just reaffirmations of a 1965 agreement. U.S. does not believe Israel will accept contract preconditions about missiles and nukes, which it uses as a justification for inserting “unusual and compelling circumstances” into the contract. A debate ensues on the definition of ‘introduction’ and a ‘nuclear weapon’ where Israel argues a weapon cannot be introduced as a weapon until it is tested and publicly acknowledged for deterrence. The U.S. argues unassembled components in separate rooms constitute the physical presence of a nuclear weapon and the physical presence of a weapon constitutes introduction. Meeting ends with call for more discussions as the term “introduction” does not have clarity and agreement.</p>			
11/22/68	Rabin	Warnke	Israeli Embassy Letter ^{xii}
<p>Request for 50 phantoms and related materials while reaffirming U.S. aircraft will not</p>			

carry nukes and Israel will not be the first to introduce nukes. Acknowledges right of U.S. to cancel and agrees to secrecy until U.S. wishes to make it public.			
11/22/68	Warnke	Rabin	xiii
<p>Argument between Israel and U.S. on language in contract of sale. Rabin read a passage “it is understood by the Government of Israel that action contrary to any of the understandings specified in paragraph II of this memorandum shall constitute ‘unusual and compelling circumstances’ and shall permit the United States to recover any aircraft already delivered under this agreement” (p.94). Said it was without precedent and makes Israel look like the bad guy.</p> <p>Warnke defended the passage as U.S. looking out for its own interests and makes sure Israel stays compelled to stick to the agreement provisions. Israel still refuses to accept U.S. definition of introduction.</p>			
11/26/68	Warnke	Rabin	xiv
<p>Rabin has no problem with F-4 conditions except U.S. interpretation of introduction. Rabin said he did not think U.S. would put a definition with it and Warnke replied this was under informal circumstances and would officially need an agreed upon interpretation.</p>			
11/27/68	Warke	Rabin	Letter ^{xv}
<p>Response to November 22th request to buy phantom aircraft and Warnke agreeing to the sale and makes clear mere physical control and possession of nukes constitutes “introduction” to the U.S.</p>			
11/27/68	Warnke	Rabin	xvi
<p>U.S. agrees to sell F-4s to Israel and accepts their assurances, but reminds Rabin the U.S.</p>			

still views introduction as possession.			
11/29/68	Warnke	Rabin	xvii
Discussions bring up three issues. First, Israel does not accept U.S. definition of introduction and will get back with its own definition. Second, Israel wants to announce the deal publicly and the U.S. does not want to until negotiations are complete. Third, Israel wants early deliveries of the aircraft.			
12/21/68	Warnke	Rabin	xviii
Israelis asking for early deliveries and U.S. noncommittal saying final decision rests with President.			
1/4/69	Warnke	Rabin	xix
U.S. confirms it will begin Phantom delivery in September, but request no more publicity than in the previously issued December 27, 1968 official press statement.			
1/15/69	Rabin	Warnke	Israeli Embassy Letter ^{xx}
Thank you letter for confirmation U.S. will have Phantoms available in September 1969.			
2/5/69	Nixon	NSC	Directive Memo ^{xxi}
Note saying the President decided to move forward ratifying NPT and directs to use no pressure on other states to sign, but reflect optimism they will. Also make clear to them the NPT does not create new or expanded commitments.			
2/7/69	Owen	Rogers	xxii
Disapproved proposal to stop or slow down Israeli program. First, propose to Soviets mutual restraint on conventional arms shipments to Arab countries where they would not have to announce partnership with U.S. and present to Israel a Soviet willingness to			

<p>moderate the conventional threat they face and also find ways to make the concerns public so Israel knows the U.S. is serious (3).</p>			
2/15/69	Warnke	Laird	xxiii
<p>Ambassador Rabin would not deny Israel engaged in nuclear weapon development. Sanctions and stopping military deliveries would not work and aggravate the situation. Issue needs high level participation to show purpose and could expect a request for a formal U.S. security guarantee as “quid pro quo” (2).</p>			
2/15/69	Warnke	Laird	xxiv
<p>All intelligence show Israeli can produce a bomb in three to six months and at no point did Rabin ever deny Israel engaged in nuclear development. This is not in U.S. interest and would be impossible to reverse course with sanctions and eventual public knowledge would make things much more difficult. Recommends highest level officials for discussions to show U.S. takes the issue seriously as previous lower-level demarches failed to achieve Israeli assurances to U.S. nuclear and missile requests. Expect a U.S. security guarantee in exchange where we could not control any situations that might arise.</p>			
2/17/69	Kissinger	Rogers	Phone Transcript ^{xxv}
<p>Conversation acknowledging Israel not just foreign policy problem, but political with treaty going to Congress and they ask about Israel NPT position.</p>			
2/21/69	Earle	Laird	xxvi
<p>The issue should not go through NSC machinery and the situation will become more difficult if the public found out since “these facts have remained in the category of vague, unsubstantiated, and not fully accepted rumors; but we are primarily depending on luck”</p>			

(2).			
2/23/69	Warnke	Laird	xxvii
Both recommendations are approved with the first being that the NSC is too large a bureaucratic machine to handle the issue of Israel acquiring nuclear weapons and second, can only be addressed at the highest levels of government. Calls for meeting with Sec. Rogers, Kissinger, and Helms.			
2/27/69	Laird	Rogers	xxviii
Need to meet with President to decide how to proceed with Israeli nuclear program, which could potentially produce a bomb in in three to six months. There are extremely limited options and if this development becomes public knowledge, which has primarily been avoided through luck, the administration will find itself in a difficult position.			
3/14/69	Packard	Laird	xxix
Recommendation not to release CDC 6400 computers that are instrumental in developing nuclear weapons. Two had already been shipped.			
3/17/69	Laird	Rogers	xxx
Request for meeting with President on what is a rapidly advancing Israel on nukes and missiles, which is not in U.S. interest.			
3/17/69	Laird	Rogers	xxxi
Request for a meeting to discuss Israeli nuclear program, which he does not believe to be in U.S. interest and has seen evidence that would enhance their ability to make nukes.			
3/20-21/69	Nixon	Meir	Letter Correspondence ^{xxxii}
Nixon explains U.S. calls for assurances as it affects security of both countries, makes			

<p>U.S. principal arms supplier in light of significant progress Israeli has made to acquire strategic missiles and nuclear weapons, which he warns against based on U.S. experience of having nukes.</p> <p>Meir response reiterates Israeli positions it “will not be the first to introduce strategic missiles or nuclear weapons into the area, and that we will not develop, test, manufacture, or otherwise acquire strategic missiles or nuclear weapons with prior consultation with the United States...As you know, my government has today sign and will ratify the Nuclear Non-Proliferation Treaty” (p.79).</p>			
3/26/69	Joint Chiefs of Staff	Laird	xxxiii
<p>Israel in possession of new missile, JERICHO, and though sanitized, implies Israeli would tip it with nuclear warhead and goes into uranium supplies. Brings up previous discussion with Israel where their interpretation of introduction is “announced and tested capability” (2). Israel would ask for a security guarantee, but if they announce a nonnuclear status, it might make the appearance U.S. responsible for their security. Best option is quid pro quo without making security guarantee and staying out of public exposure (4-5).</p>			
3/28/69	Rogers	Laird	xxxiv
<p>Response doubting the computers would significantly influence time span for Israelis to make a nuke. Need interagency meeting for further discussion.</p>			
3/28/69	Rogers	Laird	xxxv
<p>Expresses doubt the sale of a computer (CDC 6400) would alter Israeli capability to produce a bomb, but requires more study as to what additional computers could do for the program.</p>			

3/29/69	Warnke	Laird	xxxvi
<p>Begins with a sanitized sentence stating “all available evidence suggests...blank” (p.68). Three other big indicators is that Rabin has never denied...blank, acquiring strategic computers, and unwilling to sign the NPT (p.68). Israel was put on notice U.S. knows of its nuclear and missile activities, but seem unwilling to respond to sanctions and would require a “nearly unlimited U.S. guarantee of its security before abandoning its nuclear and missile programs” (p.70). Recommends Nixon speak with Rabin and gain private assurances Israel will not develop nukes, gain private assurances it will not develop strategic missiles as their mere presence would be assumed to have nuclear capability, and gain public assurance with signature of NPT (p.72).</p>			
3/29/69	Warnke	Laird	Ralph Earle’s Copy ^{xxxvii}
<p>Stopping Israel from going nuclear is key objective in Middle East. However, no hard specific technical evidence of weapons. Clear they continue to develop strategic missiles and nukes despite risk of sanctions. Recommend to ask for private assurances of both missiles and nukes, and public assurance by signing NPT (5). Attached is correspondence memo between Nixon and Meir with him making those requests and her replying Israel will not be first to introduce missiles or nukes nor develop them without prior U.S. consultation (12). Meir says “as you know, my government has today signed and will soon ratify the Nuclear Non-Proliferation Treaty” (p.12).</p>			
4/3/69	Sisco	Rogers	xxxviii
<p>Not sure about political decision to make a bomb, but greenlight was given to develop the capabilities to build one on short notice with different definitions of ‘introduction’ (p.1).</p>			

<p>Could have far reaching negative repercussions for U.S. interests and only defused by peace settlement or fundamentally alter relationship by threatening arms supplies and going public on issue as half-way measures would not work (pp.3-4). Soviet cooperation on Arab arms control a remote possibility until Israel withdraws from occupied territory.</p>			
4/4/69	Saunders	Kissinger	xxxix
<p>Cover page for NSSM-40 with note saying it will help to organize needs and is directly responsive to concerns.</p>			
4/11/69	Kissinger	Rogers	xl
<p>Directions for conducting the Presidential call for a policy study on the Israeli nuclear weapons program. Requests intelligence estimate on current state and future prospects of program. Should discuss implications for U.S. objectives in Middle East and nonproliferation by Israeli nukes. Look at full range of actions for most likely situations, such as “a. in the present situation. b. in a situation where Israel is known by us but not the Arabs to have completed a nuclear device, and c. in a situation where Israel is known by us and the Arabs...” (p.1).</p>			
4/11/69	Kissinger	Rogers	xli
<p>Note the President has called for a policy study on state of and prospects for the Israeli nuclear program discussing implications for U.S. interests, policy alternatives and a range of actions for likely situations and possible scenarios such as Arab (non)knowledge of a completed device.</p>			
4/19	Richardson	Laird	xlii
<p>Joseph J. Sisco named chairman of group to prepare policy study on Israeli nuclear weapons program. Also, requests each Department head to send him the name of their</p>			

representative to the group.			
5/30/69	Walsh	Kissinger	xliii
<p>Interagency study on Israeli nuclear program where both State and Defense agree goal is to get Israel to sign NPT. Defense wants more pressure and State shows more leniency such as no more pressure on strategic missiles. Arab reaction would be profound in political and psychological reaction. Perhaps withdraw from NPT, but developing their own difficult not because of money, but technical expertise and obtaining fissionable material. This would end settlement prospects and may push Arabs closer to USSR. Soviet reaction: Soviets aware of program, but have not made it an issue, which means they find it a U.S. problem or not sure yet how to proceed (11). Would be forced to respond to Arab demands ranging from turning over nukes to general assurances of support. Most likely announce targeting of Israel by their own nukes for retaliation, make general assurances, and liberalize arms policy, leading to surge of first-rate arms to Arab states for cheap (13).</p> <p>U.S. implications: Not an area where vital security interests at stake, but nukes would slowly draw each power in to protect client, making the danger of confrontation between superpowers more likely. DoS finagles semantics in NPT to get Israel to sign NPT, agree not to manufacture a nuclear explosive, but preserve the technical option to do so (pp.23-24).</p>			
5/30/69	Ad Hoc Group	Kissinger	xliv
<p>Since Israel does not see producing a nuke to be the same as “introduction” and believes it needs testing and evidence shows it is deploying nuclear capable surface-to-surface missiles, acquired fissionable material and unconfirmed reports it has begun to construct</p>			

bombs. In considering the nuclear issue and delivery of F-4s there is disagreement on how bringing the matter back up now might affect achieving a peace settlement, confronting Israel on signing the NPT, get assurances on both stopping nuclear weapons and missile programs. A nuclear Israel adversely affects U.S. security and interests by aggravating the Arabs and Soviets, while potentially causing many more difficult issues down the road. The only feasible courses are to persuade Israel the U.S. can supply it with enough conventional arms to forgo nukes or coerce it by threatening aircraft delivery, which has a contradiction that it might scare the Israelis to move faster on producing missiles and nukes. The only real way to stop Israel is through an unlikely peace settlement or an untenable U.S. security guarantee Israel might not trust anyway.

6/5/69

Davis

Richardson

xlv

Issue being discussed is “what steps, if any, the U.S. should take to stop Israel’s strategic missile and nuclear weapons programs” (p.38). General agreement is Israeli nuclear weapons program most vital issue affecting interests in Middle East and national security, Israel is making rapid progress in both programs, nuclear weapons would not be a real deterrent, the USSR would become more involved with the Arabs to counteract Israel, a major effort to stop nuclear weapons production is justified and can only be achieved via a major effort. Disagreements between Departments of State and Defense include belief in the possibility Israel already has a nuclear device, ability to stop missile production, linking peace settlements to nuclear and missile programs, and how to approach Israel. Recommends early high level meeting with Rabin demanding signature of NPT and private assurances it will stop further development of nukes and missiles or this might jeopardize U.S. ability to supply arms as preferred approach for President.

6/18/69	Rabin	Laird	Israeli Embassy Letter ^{xlvi}
Israel will accept the Phantoms as they come off the production line and accepts full responsibility for maintenance and related issues.			
6/18/69	Unsigned	Packard	^{xlvii}
Talking points about interagency study which agreed Israel has advancing programs, the Soviets would get pulled in, U.S. interests adversely affected, and a major U.S. effort needed to stop Israeli programs. Also, both governments still disagree on meaning of “introduction.” Urges for high level meeting and demand signing NPT and private assurances it will stop nuclear and missile programs or it could affect relationship and delivery of military aircraft (F-4 phantoms).			
6/27/69	Packard	Schwartz	^{xlvi}
In response to early F-4 deliveries, U.S. informed by factory they could be available in August, but since Israel is behind schedule in maintenance training and Warnke’s clause of “unforeseen developments,” he recommends to delay, but going beyond October will start trouble.			
6/30/69	Davis	Austin	^{xlvi}
Substantial agreement on what to ask of Israel, but divided on how much pressure. Goals are sign NPT and; “seek private, bilateral assurances that Israel would not deploy or test nuclear explosive devices; we should seek to create circumstances in which Israel would not “announce” a nuclear capability and would maintain secrecy on its research and development activity” (2). Include asking Israel not to develop nukes as it would force them to keep the program hidden and also avoid collusion accusations.			

N.D. Early July 1969	Nixon	NSC	i
<p>Issues, approaches, and recommendations that need decisions. Israeli nukes are worth pursuing a major effort and risks U.S. security. Goals are to get Israel to sign NPT with unstated objective to stop publicity of an assembled nuke, which may be the only thing possible to stop with the stated working internal goal to stop Israel from completing an assembled bomb (2). Define possession as assembly of completed device and leave Israel to their own definition so U.S. can distance itself if those weapons threaten to pull U.S. into a confrontation (3). Make clear conventional weapon supply may be affected by not getting these bilateral assurances.</p>			
7/4/69	Kissinger	Nixon	li
<p>Request for meeting of restricted group of NSC on July 16 to discuss the Israeli nuclear program.</p>			
7/12/69	Rogers	Davis	lii
<p>U.S. objectives include getting Israel to sign and ratify NPT early to build international confidence in their intentions and this should be number one goal. Also, seek written assurances not being first to “introduce” nuclear weapons means possession of nuclear devices, but internally tolerate “activity short of a completed nuclear explosive device” (p. 44). Another goal is stop missile production and deployment, but could settle for non-deployment and secret production if they agree on nuclear issue (p. 45). The meetings should happen in Washington for control and try to get Rabin to agree to “possession” meaning “introduction” with unresponsiveness leading to bringing up the possibility U.S. might not be able to meet arms requests. Continued unresponsiveness will be addressed</p>			

with Meir's visit and discussion with President where he must stress how this impacts U.S. security and interests. The U.S. has no interest in making this public and must develop options if Israel shows signs of taking issue of possibly cancelling F-4 sale to Congress.			
7/14/69	Packard	Nutter	liii
Recommendation to agree to a memo regarding the Israeli nuclear program, which will be discussed in meeting with President, Rogers, Kissinger and Helms July 16.			
7/14/69	Schwartz	Packard	liv
Talking points and strategy for meeting with Israelis on programs. At a minimum, U.S. goal is to get Israel to sign NPT (6). Laird's position is that the choice for Nixon is to lean on Israelis or not and not to lean would, "involve us in a conspiracy with Israel which would leave matters dangerous to our security in their hands" (4).			
7/16/69	Richardson	Packard	lv
Note to tell Nixon about recommended scenarios and going ahead with a threat, while Richardson does not think it should be explicitly stated.			
7/16/69	Kissinger	Richardson	Phone Conversation ^{lvi}
Nixon does not want to cut off F-4s			
7/19/69	Packard	Laird	lvii
There are still issues to be discussed before meeting with President. Option is to lean or not lean on the Israelis, but in his opinion not to lean on them would "involve us in a conspiracy with Israel which would leave matters dangerous to our security in their hands" (p 51).			
7/19/69	Kissinger	Nixon	lviii

Israel getting nukes would make Middle East more dangerous and this development is not in U.S. interest. Phantom planes contingent on not being first to introduce nuclear weapons, but clear they interpreted they could “possess nuclear weapons as long as they did not test, deploy, or make them public” (1). Number one goal is get Israel to sign NPT. Must recognize 1. “Israel’s secret possession of nuclear weapons would increase the potential danger in the Middle East, and we do not desire complicity in it” (2).

2. “In this case, public knowledge is almost as dangerous as possession itself. This is what might spark a Soviet guarantee for the Arabs, tighten the Soviet hold on the Arabs and increase the danger of our involvement. Indeed, the Soviets might have an incentive not to know” (2).

“What this means is that, while we might ideally like to halt actual Israeli possession, what we really want at a minimum may be just to keep Israeli possession from becoming an established international fact” (2).

Dilemma is withholding Phantom deliveries could let Israel make it known in U.S., causing backlash and making them explain their “indefensible position” unless they publicly explain “we will be the ones to make Israel’s possession of nuclear weapons public with all the international consequences this entails” (3). Recommends testing waters by bringing up issue, but not specifically linking jets. Sanitized sentence in section about charge of U.S. complicity “There could be an argument for acting in pretended ignorance...sanitized” (11).

Not able to stop Israeli programs and might already have nukes, so best option is persuade them to keep it secret although indefensible if becomes public and should still work to freeze and rollback programs (16-17).

<p>“We may want to agree to ourselves that it will be sufficient if the Israelis live up to their own definition—not test and not make public—but in talking to them and for the record we should stick to our own definition—“introduce” means “possess.” It is not in our interest that they possess nuclear weapons, but we do have to take into account the practical limits of what we can achieve and enforce” (23).</p>			
7/28/69	Sisco	Rogers	lix
<p>Talking points for Rabin meeting with goals being they sign NPT and give assurance they will not be first to introduce with that meaning possession of nukes and stop production and deployment of Jericho missile.</p>			
7/31/69	State Department	Tel Aviv	Department Cable ^{lx}
<p>Delivery of F-4s scheduled for September despite Israeli hopes they could be delivered in August.</p>			
7/31/69	U.S. Israeli Embassy	State Department	U.S. Embassy Cable ^{lxi}
<p>U.S. cable complaining visits to Dimona had become too routine and rushed, thus losing the whole purpose of the inspections. Meir also refuses to reschedule visits to alleviate U.S. concerns.</p>			
8/1/69	Richardson	Nixon	lxii
<p>Notes on a meeting with Rabin. Would still only take position they would not be the first to introduce, with that meaning undeclared and untested. Would not say if they had or did not have capability to build a bomb. Expressed to him how serious U.S. takes this issue as a small state like Israel going nuclear could be pivotal for nonproliferation and greatly increase a U.S.-USSR confrontation.</p>			

8/12/69	Nixon	Chancellor Kiesinger	In NSSM-40 File ^{lxiii}
Nixon confirms previous understandings and knowledge on the use of nuclear weapons made under Johnson administration remains in effect under his and knowledge is exclusively limited to these two governments and there must be agreement in case a public statement becomes necessary.			
8/12/69	Kissinger	Rogers	In NSSM-40 File ^{lxiv}
Copy of Presidential letter to Chancellor that the arrangement under Johnson still valid regarding consultations on the use of nuclear weapons. Reminds this subject is of utmost sensitivity.			
8/13/69	Dimona Inspectors	Rogers	lxv
Memo on Dimona inspection team thoughts on the inspection. Firstly, it was made clear to them it was a visit and not an inspection where they had been “cautioned to avoid controversy” (p.1.). With that in mind, the team did not make issue of hurrying past key points and facilities on the Israeli designed tour.			
8/27/69	Davies	Richardson	lxvi
Note that Israel has not replied to NPT question, “introduction” question, and deployment of Jericho missiles. President gave go ahead for Phantom deliveries, but do not expect an answer to these questions from Israel by then, but bring issues back up with Rabin.			
8/28/69	Richardson	Nixon	lxvii
Rabin had no answers to primary U.S. questions and said it will be put on PM Meir’s agenda during her visit.			
8/28/69	Richardson	Nixon	lxviii

Note on discussions with Rabin that Israel's nuclear intention is an issue to be discussed when PM Meir arrives.			
9/8/69	Helms	Nixon	lxxix
Envelope only on NSSM40 where document has since disappeared. Also says to be opened by President only.			
9/18/69	Rogers	Nixon	lxxx
Note to Nixon on position to take with Meir. Reminds him Israel just ordered more aircraft, which could be used as leverage, but warns not to threaten Israeli security. Recommends he should bring back the missile and nuclear issues, which intelligence does not believe will increase Israel's security, but also not make Israel abandon the program if future circumstances demand it (pp.7-8).			
9/19/69	Eliot	Kissinger	lxxxi
Background on Israeli nuclear and missile program. No doubt Israel could produce a nuclear weapon, with many arguing they have already done it. Israelis have stonewalled on all related questions except at the head of government level. If Israel's nuclear capability becomes a known fact, the U.S. will be accused as collaborators and this could deeply hurt NPT with other small and mid-size countries watching. Israel still has not answered any of the three important questions and may have concluded the U.S. will accept a nuclear Israel since no threats were ever followed up on. For Israel to change course, it must be "substantial material pressure" in an area sensitive to their needs (p.8).			
10/7/69	Kissinger	Nixon	lxxxii
Memo to Nixon with Rabin's answers from July 29 that they will not become a nuclear power, no missile deployment until at least 1972, and NPT is an issue for the new			

<p>government. Begins memo that after Nixon's private visit with Meir, he emphasized "that our primary concern was that the Israelis make no visible introduction of nuclear weapons or undertake a nuclear test program.</p>			
10/8/69	Kissinger	Nixon	lxxiii
<p>Memo to Nixon on how to reply to Rabin when he asked of the acceptability of Israel's answers to those questions. The U.S. will let them define "introduce" "possess" "not become a nuclear power," but still push for a declaration they will remain a non-nuclear weapons state although Kissinger believes "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" (p.4). Missile deployment until 1972 is fine and will come back up later and urge Israel to sign NPT as it would not jeopardize security with its "loopholes and escape clause" (p.7).</p>			
10/15/69	Rabin	Atherton	lxxiv
<p>Rabin answers three questions from July 29, 1969. 1. No decision on NPT until elections and new government is formed. 2. "Introduction means the transformation from non-nuclear weapon country into a nuclear weapon country" (2). 3. Missiles will not be deployed for at least three years because of French embargo and other factors.</p>			
10/17/69	Richardson	Nixon	lxxv
<p>Tells President of Rabin's responses that NPT not decided until after elections, their definition of "introduction" not exactly assurance U.S. requested and needs more examination, and Israel will not deploy missiles for at least three years, but will ultimately deploy the missiles.</p>			
10/19/69	Haig	Saunders	lxxvi

Copy of U.S. questions asked of Israel and the answers Rabin gave directly to Kissinger not committing to anything.			
11/6/69	Kissinger	Nixon	lxxvii
Memo telling Nixon there will be no NPT discussions until after Israeli elections, the Jericho will not be deployed for at least three years, but will eventually be deployed, and Israel finally gives a definition to introduction that is acceptable to U.S. and relates them as being adherent to the NPT. He quotes Rabin as saying “introduction means the transformation from a non-nuclear weapon country into a nuclear weapon country” (p.1). This position allows U.S. to be on record that they have Israeli assurance they will remain a NPT defined non-nuclear state and the U.S. can stop pressing Israel on the issue (p.2).			
12/8/69	Saunders	Kissinger	lxxviii
Requests from U.S. top brass to see minutes of Nixon meeting with Meir. Nixon did not want these minutes circulated or their existence known except for a select few, but the document never made it to them (p.2). Remains missing to this day.			
1/26/70	NSC	Nixon	Meeting Minutes ^{lxxix}
Minutes of group review of Israeli issues. No reason to withhold or threaten to withhold aid for political conditions unless Arabs made first move for serious peace negotiations. U.S. needs to keep pressing for Israel to sign NPT, but difficult to tie it to aid. Calls for a paper looking at how U.S. aid could be linked to Israeli concessions and what issues it should be on.			
2/23/69	Kissinger	Rabin	lxxx
Memo of Rabin telling Kissinger Israel will not be signing NPT in light of private conversation between Meir and Nixon. Rabin also wanted to make sure there would be			

no linkages between arms sales and NPT signature.			
6/12/70	Munn	Sisco	lxxxii
Discusses need to schedule a visit to Dimona since it had been a year since the last visit and others involved with Dimona and inspections had inquired about a follow-up on the issue.			
8/23/74	Special National Intelligence Estimate		lxxxii
Provides a CIA estimate that Israel already produced and stockpiled nuclear weapons. Leaked and reprinted by <i>The New York Times</i> on January 26, 1978.			

OUTSIDE INFORMATION

The real bombshell in Israeli nuclear research comes from Avner Cohen who gives a detailed history of Israel's policy of *amimut*, which is one of invisibility and non-acknowledgment (Cohen, 2010). Based on his early access to classified documents and influential Israeli figures, he says Golda Meir admitted to Richard Nixon in the White House Garden that Israel did indeed possess nuclear weapons (Cohen, 2010, pp. 25-26; Gavin, 2012, p. 117). Other accounts claim Israel had a couple devices already assembled on the eve of the Six-Day War, but this remains widely reported yet still unsubstantiated (Shalom, 2005; Richelson, 2007; Kroenig, 2010; Reed & Stillman, 2009).

The two leaders reached an understanding where Israel again confirmed its pledge not introduce nuclear weapons (no test, publicity, or declaration) and the U.S. would not

exert any more pressure on the program or signing the NPT, which remains a secret understanding passed on to each succeeding U.S. President on their first day in office (Cohen, 2010, pp. 24-33; Cohen, 1998; Hersh, 1991; Shalom, 2005). Hersh and Shalom go further in their accusations of complicity on the part of the U.S since the Johnson administration, even arguing sympathetic American officials purposely failed to deliver sensitive information about the program.

Although the meeting has neither official transcript nor way to actually confirm it occurred, Cohen remains at the top of the field on Israeli nuclear policy and relations and this finding is reported by every subsequent work involving Israel and nuclear weapons. Indeed, shortly after that meeting the U.S. stopped sending inspection teams to Israel although intelligence agencies continued to try and solve the puzzle, but started running on the assumption that Israel had or could produce a nuclear weapon on short notice in 1970 intelligence estimates (Richelson, 2007, pp. 264-265).

DIPLOMATIC SUPPORT

UN Security Council Actions

UN Security Council Resolutions

Date	Resolution (Res.#)	Issue	Vote
11/25/66	228	Condemn action against Jordan ⁸	New Zealand Abstention
6/6/67	233	Condemn Hostilities ⁹	Unanimous
6/7/69	234	Condemn Hostilities	Unanimous
6/9/67	235	Condemn Hostilities	Unanimous

⁸ Samu Incident

⁹ Six-Day War. Res.233-237

6/11/67	236	Condemn Hostilities	Unanimous
6/14/67	237	Condemn Hostilities	Unanimous
10/25/67	240	Condemn Continued Hostilities	Unanimous
11/22/67	242	Condemn Continued Hostilities	Unanimous
3/24/68	248	Condemn Aggression	Unanimous
4/27/68	250	Condemn Holding Military Parade	Unanimous
5/2/68	251	Condemn Holding Military Parade	Unanimous
5/21/68	252	Jerusalem	U.S. Abstention
8/16/68	256	Condemn Hostilities	Unanimous
9/18/68	258	Call to Keep Ceasefire	Algeria Abstention
9/27/68	259	Concern for Arabs in Israeli Occupied Land	U.S. Abstention
12/31/68	262	Condemn Attack on Beirut Airport	Unanimous
4/1/69	265	Condemn Hostilities	U.S. & UK Abstentions
7/3/69	267	Jerusalem Status	Unanimous
8/26/69	270	Condemn Hostilities	Unanimous
9/15/69	271	Burning of Mosque	U.S. Abstention
5/12/70	279	Call for Israel to leave Lebanese Lands	Unanimous
5/19/70	280	Condemn Israel	U.S. Abstention

9/5/70	285	Call for Immediate withdrawal from Lebanon	U.S. Abstention
9/25/71	298	Concern for Lack of Jerusalem Progress	Syria
2/28/72	313	Demand No Further Military Action Against Lebanon	Unanimous
6/26/72	316	Condemn Hostilities	U.S. Abstention
7/21/72	317	Condemn Hostilities	U.S. Abstention

UN Vetoes

Date	Veto ID	Issue	P-5 Member
9/10/72	S/10784	Complaint Against Israel by Lebanon/Syria/Palestine	U.S.

SIPRI

(Non)Mandatory	Target State	Entry into Force	Lifted	Establishing Doc
None				

Unilateral U.S. Sanctions

TIES Sanction Data

CID	I	TS	SI	SSD	SID	ST	TEC	FINAL
1970051201 ¹⁰	2	1	0	N/A	N/A	N/A	N/A	2

¹⁰ UN issued threat

PIEE

Years	Policy Goal	Success Score	Cost to Target GNP%
None ¹¹			

Miller¹²

Type	Years	Outcome
N/A		

Force or Threat of Force

Israel has never been subject to an attack on their nuclear facilities, but has attacked others and has certainly shown fear of an attack on Dimona. Israel saw its neighboring Arab countries as enemies and threats, but saw the nuclear armed Soviet Union as the main threat since they were the main supplier of conventional weapons to neighboring enemies and could potentially provide a nuclear umbrella. When asked about the Israeli program by the Soviets and others, the U.S. portrayed a benign situation, met with skepticism by the Soviets and allies alike (Shalom, 2005, pp. 135-136).

According to Vanunu, many security precautions were taken such as constantly raking the grounds so footsteps would show, patrolling the grounds with infantry and aircraft, installing heavy anti-aircraft artillery with orders to shoot anything coming into the airspace, and even false walls hiding a service elevator leading six stories underground (Richelson, 2007, p. 364).

¹¹ PIEE only has 1956 Suez incident leading to sanctions for Israel, but the same sanctions applied to UK and France also.

¹² Dataset starts 1975.

In the most damning recollection of events based on classified documents and interviews, Ginor and Remez come to the controversial findings that not only did the Soviets have plans to attack Dimona with Arab states under the guise of nonproliferation, but essentially engineered the Six-Day War by provoking a first strike by Israel thus justifying their entrance into the conflict. What the Soviets did not expect was the overwhelming success of the Israeli first strike. In the event the first strike was not successful, the Israeli contingency plan was to attack the USS Liberty and spark the scrambling of the U.S. Sixth Fleet aircraft carrier (Ginor & Remez, 2007, p. 181). The attack on the reconnaissance and communications ship, USS Liberty, by Israel is a little reported event that killed 34, wounded over a hundred and caused irreparable damage to the ship. Although nothing close to all the details were given, a former Soviet official did reveal sorties flew over Dimona in 1967 (Horovitz, 2007).

The attack on the USS Liberty occurred June 8 and the Six-Day War lasted June 5-10, which makes the argument plausible. At the very least, Israel saw the Soviet Union as a threat to use force against the nuclear facility or the country as a whole and this fear was heightened when U.S. intelligence shared news of the addition of four Israeli cities, including Tel Aviv, to the 1967 Soviet nuclear targeting list (Hersh, 1991, p. 177; Kroenig, 2010, p. 91).

Security Guarantee

None, yet the documents and books show the U.S. considered offering a security guarantee, but quickly dismissed the idea as the U.S. could not realistically fulfill such a

guarantee without putting its own national security in grave danger and could not control Israeli actions, which might draw it into an unwanted war or confrontation with the Soviets.

Great Power Shared Border

None

Detonation

None, yet the status remains questionable. Discussed further in Chapter Six, the Vela Incident placed suspicion directly at Israel secretly and jointly testing an advanced nuclear weapon with South Africa. No matter if the Vela Incident was truly a nuclear explosion or not, Israel either had nothing to do with it or took extra steps to keep the advancement of their nuclear arsenal a secret.

Presidential Party

This variable depends on the definition of proliferation. If one believes a state must test, this category is not applicable. If one determines the threshold as having enough fissionable material and technology to build a nuclear weapon, the onus falls on President Johnson and the Democrats, but viewing successful proliferation as U.S. knowledge of completed devices or missile capability for delivery, Nixon and Republicans had the helm. In reality, neither President called for pressing Israel harder than the other.

CONCLUDING REMARKS

The general public receives very little information on Israeli nuclear weapons, but privately, the U.S. government was well aware of nuclear activities and gained knowledge of possession of a bomb in 1969. This date should be used as the latest date for Israeli nuclear acquisition. In comparison to the different measures of diplomatic support, the U.S. often voted in favor of resolutions condemning hostilities and simply abstained from others. However, a measure with real substance and teeth has never been passed by the Security Council nor has the Security Council ever discussed the Israeli nuclear program. Israel never faced any sanctions or arms embargoes from the U.S. related to its nuclear program although the U.S., as well as the Soviets, and British were well aware of what was happening in reality. Hirsh goes into great detail how Israel had the hardest time finding how KGB agents infiltrated the defense and intelligence establishments and were able to transmit back to Moscow within twelve hours (Hersh, 1991, p. 219).

CHAPTER 5: INDIA

PROGRAM HISTORY

India publicly showed the world its nuclear capability on May 18, 1974 at 8:05am when it detonated an atomic explosive in the desert of Pokhran, informing the public of the success via All-India radio at 9:00am. The blast was described as a peaceful nuclear explosion (PNE), strictly for scientific purposes and a right allowed under the NPT. As for the actual decision-making process leading to the development of nuclear weapons and the decision to test, very little is actually known as Indira Gandhi played this very close to the chest without even informing her closest military advisors (Perkovich, 1999; Reed & Stillman, 2009; Richelson, 2007).

The secret project taking the world by surprise had the code name 'Smiling Buddha' and brought mixed reactions from the international community. Within India, this instantly boosted the sagging popularity of Gandhi and brought about a new feeling of nationalistic morale. The non-aligned movement along with France applauded the scientific achievement and expressed pleasure that it was for peaceful purposes. Surprisingly, China expressed no reaction and was quiet about the event, merely reporting on its occurrence without comment and later suggested the test had no military significance. Russia gave virtually no response except a small statement of concern without condemning the test or even criticizing it. The U.S. maintains a policy of viewing peaceful nuclear explosions as indistinguishable from those for military purposes despite the PNE clause in the NPT and thus criticized the test, but did not take forceful

action, instead sending Henry Kissinger to meet Gandhi, who left after the first day of a scheduled four days. As expected, the test made Pakistan livid and Pakistani leaders promised to respond in kind, since this provided India with the ability to threaten nuclear blackmail. India faced export restrictions from some countries after the test, but what the event really did was strengthen the nonproliferation regime by leading to the creation of the Nuclear Suppliers Group along with new IAEA safeguard protocols (Perkovich, 1999, pp. 183-187; Richelson, 2007, pp. 231-234; Sarkar, 2013).

Publicly, the nuclear issue seemed to go away as India made no further international moves until 1998. On May 11th of that year, India once again surprised the world when it conducted three nuclear tests followed by two more on May 13th with the claims some of them were thermonuclear with a fusion trigger (Synnot, 1999). The Clinton administration and intelligence community were strongly criticized for the failure to detect the tests, but to be fair, in 1996 *The New York Times* and *Washington Post* heard from defense sources that India might be preparing for a test and it turned out a satellite image of the 1998 test site was sitting on a shelf waiting for analysis (Richelson, 2007, pp. 431-446). Pakistan responded shortly after with six nuclear detonations of its own and both countries became subject to international sanctions, lifted after 9/11 with the need for cooperation for the War on Terror.

India initially began its nuclear quest at the birth of the NPT, but still benefitted from the lack of rules and organizations to curb proliferation activity. At least from the U.S., India had a great deal of flexibility being located half a world away, posing no immediate national security threat and having two other Great Powers as neighbors, with one on the border. Any problem caused by India would most likely affect Russia and

China the most. The Sino-Soviet split as well as U.S.-China rapprochement gave India far more room to maneuver with such international developments and changing interests.

CONTENT ANALYSIS SUMMARY

Starting the study in 1974 with the PNE really brings information in from the tail end of interest from top U.S. officials with multiple documents beforehand informing U.S. intelligence the capability was there and is only a political decision away, which might come at any time. Plenty of room for expansion exists here as many earlier declassified documents remain in the GWU and Wilson Center nuclear archives as well as Indian nuclear relations with France and the USSR. Looking in at 1974, the policy discussion goes immediately to why there was a failure of detecting the tests, subsequently the same discussion had after 1998. Intelligence agencies went on the defensive claiming they knew of the ability and the likelihood, but did not giftwrap it with a date especially because of the low priority put on surveillance of that region, subsequently again, the same discussion after 1998. Another similarity of U.S. thoughts during each test is that India does not immediately threaten national security, but rather fears a nuclear arms race in South Asia and the impact to the nonproliferation effort. Indeed, from the U.S. standpoint of documents, it really only showed interest in India after each test while the bulk of the documents in between the tests are from the Hungarian embassy.

The Hungarian embassy papers show that the Soviet Union wanted India to comply with the NPT, but did not particularly see it as an urgent matter, even pondering

how such a development might provide geopolitical benefits. It also shows recognition of how sensitive India would be to any nuclear development in Pakistan as well as how the relationship between the two countries slowly deteriorated throughout the years.

CORRESPONDENTS

U.S. State Department
 U.S. Defense Department
 U.S. Arms Control Agency
 U.S. Embassies/Consulates
 CIA Director/CIA Staff
 National Security Agency (NSA)
 Defense Intelligence Agency (DIA)
 Bureau of Intelligence (Weapons Research)
 Indian Leadership 1974-1998
 Hungarian Foreign Ministry
 Hungarian Embassy in India
 Nuclear Laboratory (i.e. Los Alamos)

CONTENT ANALYSIS

5/18/74	U.S. Embassy	State Department	lxxxiii
Embassy cable answering why India would test now and does not have any other answer except to increase sagging national morale. There had been no military pressure for a test and the issue had been fairly quiet among the public.			
5/18/74	State Department	U.S. Consulate	lxxxiv
Cable stating the plutonium for the nuclear device almost certainly came from the Canadian supplied CIRUS reactor. The U.S. has made clear it views any nuclear			

explosive as a weapon, no matter its declared intention, which India continually denies as a condition for technology and nuclear material. Delivery systems would be rudimentary with bombers only reaching 1,000 miles and at least a decade before hitting major Chinese targets (p. 3).			
5/20/74	CIA	Bulletin	lxxxv
Bulletin on Indian detonation briefing multiple details that Indian officials claim the bomb and plutonium were produced locally and there is no intention to develop a military capacity. Estimates gave India the capability for some years, but the decision to go ahead and test was based on domestic problems and international prestige issues. Pakistan was defiant and refused intimidation while China has not made an official comment and the Soviets said India's detonation was just "striving to keep up with world technology in the peaceful uses of nuclear explosions" (p.3).			
5/23/74	Hungarian Embassy	Foreign Ministry	lxxxvi
Hungarian embassy cable saying Indian foreign policy experts believe the nuclear explosion will draw India closer to the USSR and the Soviets are the only ones expected to support the test.			
5/23/74	Hungarian Embassy	Foreign Ministry	lxxxvii
Hungarian embassy cable reporting Indian appreciation that the socialist countries did not confront India over the test even though they signed the NPT. Socialist ambassadors consulted each other and expressed their trust in the official Indian position.			
5/23/74	NSA	NSSM 202	lxxxviii
NSSM 202 reevaluates U.S. proliferation policy in light of the Indian nuclear test. Because of the spread of technology and the "movements toward a multipolar world and			

the decreasing credibility that many nations have concerning security guarantees,” dissuading proliferation is becoming a more difficult goal, but cost effective policies can still be pursued (p.2). Obtaining nuclear materials is still difficult and controlled by nations that support nonproliferation. To prevent further proliferation, the U.S. must intensify its nonproliferation efforts.

First, the U.S. must coordinate with other nuclear industrial nations to restrict nuclear exports to sensitive regions and ensure safeguards are placed on all transfers. Second, the U.S. and other NPT supporters must intensify efforts to achieve early ratification. Third, special attention must be paid that the Indian test does not spark proliferation in Pakistan and elsewhere by getting India to agree to IAEA safeguards, dissuading further tests, and minimizing the implication that India’s world status has been enhanced because of the test (pp. 18-22).

5/24/74	Graham	DIA Director	lxxxix
Memo designating personnel positions for performance review on predicting an Indian test both politically and technically.			
5/29/74	Nuclear Laboratory	State Department	xc
Technical analysis that the detonation was 10-15 kilotons at a depth of 100 meters based on the assumption it was hard, dry rock. This type of test is consistent with technology for chemical mining, being a main argument to include peaceful explosions into the NTP.			
5/31/74	Hungarian Embassy	Foreign Ministry	xc
Hungarian embassy cable saying India wants to become more independent from the Soviet Union, but not become “dangerously close” to the USA (p.1). India plans to firmly deal with their current chaotic internal situation, which poses the biggest problem			

right now.			
6/5/74	State Department	Report	xcii
<p>Assessment that the decision to test was probably based on domestic considerations and developing more than rudimentary weapons and delivery would be quite costly. The biggest impact is on Pakistan while China has made no comment and the Soviets stressed the peaceful nature of the test in state news reports. There is no information the Soviets knew of the test beforehand or had a hand in directly assisting in the test.</p>			
6/13/74	Bureau of Intelligence	State Department	xciii
<p>Not certain what exactly India will do with their new capability, this report looks at recent national developments within India. The blast was applauded by all major political parties and condemned by only one newspaper. Elites found themselves on the defensive with widespread poverty and food shortages along with widespread skepticism of the peaceful intentions and certainty of military members of the inevitable development of weapons. Even if the intentions are peaceful, India would find itself worse off because Pakistan will seek a weapons capability and have the advantage if they succeed.</p>			
July 1974	Interagency Panel	Intelligence Agencies	xciv
<p>Defensive report on the intelligence community performance that begins by bringing up a 1965 report that said India would detonate a device “in the next few years,” it would be tested underground and ordered secretly (p.6) The two biggest problems are identifying an incredibly difficult target and lack of communication. However, intelligence fell off</p>			

sharply 20 months before the test as focus from the intelligence community switched to higher priority problems (p.17). A scant amount of other reports said India might “already have a nuclear device on the shelf,” but doubted India would test because of the costs (pp.10-11).			
July 1974	Intelligence Staff	CIA Director	xcv
Report the “intelligence community had long known India was capable of producing and testing a nuclear device,” but failed to detect and warn decision makers that a test was being planned (p.4). Two factors led to this failure which are 1. Inadequate priority; 2. Lack of adequate communications between intelligence elements.			
7/18/74	Daniel Graham	CIA Director	xcvi
Memo to emphasize the need for higher priority for nuclear proliferation to avoid another intelligence failure like India in an upcoming meeting.			
8/14/74	Hungarian UN Mission	Foreign Ministry	xcvii
Hungarian cable stating “a Soviet UN official in charge of disarmament issues said that India had informed the Soviet Union in advance that it intended to explode a nuclear device. The Soviet Union applied strong pressure to prevent that” (p.2). However, Gandhi’s position was weakening and her fall would have caused more serious harm than the dangers of nuclear proliferation. The test does not change the balance in Asia and does nothing to relieve the burden of facing China. The two positive effects are that it lessens Chinese influence on regional states and other developing states while also changing the situation and orientation of Pakistan (p.2).			
8/23/74	CIA Staff	CIA Director	xcviii

Updated intelligence estimate of further proliferation sparked by the Indian test. Still unclear if an official decision was made, but India will most likely start covertly producing weapons, yet the U.S. or USSR could still dissuade them. It is believed Israel has a nuclear arsenal, while West Germany, Sweden, Canada, Italy, and Japan could easily produce them, but only fundamental changes like the end of alliances and drastic increases in world tension would push them to exercise their capability (pp.9-10). The next potential wave includes Taiwan, Argentina, and South Africa, which depends on perceived military threat and a feeling of isolation and helplessness (p.11). The document then goes into a detailed analysis of Indian capabilities of producing plutonium and obtaining nuclear technology. To be of real use to the Indian military, they must greatly upgrade delivery systems with only the USSR capable of supplying the nuclear equipped bombers needed to reach large Chinese cities, but remains unclear how the Soviets might respond to this request (p.27).

September 1974	CIA Staff	CIA Director	xcix
This is four pages of sanitized material with only a few paragraphs remaining that say the date of the test and the plutonium was indigenously produced in the CIRUS reactor supplied by Canada under conditions it would only be for peaceful purposes. India does not believe it violated the agreement.			
10/1/1974	Nuclear Laboratory	Intelligence Agencies	c
Technical memo saying the blast was probably 10 kilotons based on the information it was conducted in shale containing a particular moisture content while 15 kilotons would have produced far different results.			

10/31/1974	Foreign Ministry	Hungarian Embassies	ci
Hungarian memo looking at Indian policy and explaining why socialist states did not condemn the test. The nuclear program represents the threat from China and Indian big power aspiration. The Indian test posed a difficult problem for socialist countries as it did not want to condemn India nor protect it and go against their own nonproliferation stance. Socialist states do not differentiate between military and peaceful nuclear explosives, but depends on the possessor, which is why they refused to express an opinion and were duly thanked by India for their “expressive silence” (pp.2-3).			
1/15/1975	Intelligence Staff	Unknown	cii
Note the review group spurred action on getting real changes for the intelligence community and the proliferation warning problem based on the group’s recommendations with a matrix attached of group recommendations and actions. ¹³			
9/29/1975	CIA Staff	CIA Director	ciii
Sanitized checklist only leaving how India had good weather for its 1974 test and would be reluctant to test again since it wants resumed nuclear assistance with Canada.			
7/6/1976	Hungarian Embassy	Foreign Ministry	civ
Hungarian embassy report describing the positive feel in India for Gandhi’s visit to the USSR to further political, scientific, and economic development. As for proliferation, India supports the system, but only if the entirety of Asia participated, which China calls a “Soviet conspiracy” (p.5). It applauds the increased and continued cooperation in all			

¹³ The actions include more conferences between officials, more updating of country briefs and creating interagency news bulletins designed for different levels of security classification.

fields since the U.S. and China proceed to shower Pakistan with conventional arms (p.6).			
5/17/1978	Hungarian Embassy	Foreign Ministry	cv
Hungarian embassy cable describing meeting with Dr. Sethna who said India could no longer expect nuclear fuel deliveries from the US, even though they continue delivery to West Germany, Israel, and South Africa (p.2). There is an opening for Hungarian-Indian cooperation in the field, but says Hungary must take the initiative.			
7/31/1978	Indian PM Desai	Testimony	cvi
PM Desai's testimony that India will no longer conduct peaceful nuclear explosions since it causes much misunderstanding with other nations and carrying it out in secret was the wrong choice (p.4). All needed scientific evidence has already been gained.			
8/17/1978	Indian PM Desai	Speech	cvi
PM Desai's speech explaining the decision not to sign NPT is based on its "patently discriminatory" nature and India has no plans to manufacture nuclear weapons (p.2). The Treaty gives a monopoly on commercial nuclear technology allowing them to exploit the non-nuclear countries and dictate the pursuits of others.			
12/21/1978	Indian PM Desai	Parliament Q&A	cvi
Q&A transcript between PM and Rajya Sabha that asked is Pokhran atomic explosion was for peaceful purposes and received the answer it was an experiment for peaceful purposes.			
3/21/1979	Hungarian Embassy	Foreign Ministry	cix
Hungarian embassy cable on Soviet Premier Kosygin's visit to India saying it went well with long-term economic, cultural, and health agreements being made with the Soviets also agreeing to fulfill the request for new arms and military equipment			

5/17/1979	Hungarian Embassy	Foreign Ministry	cx
Hungarian Embassy reporting that “Pakistan already possesses both the material and intellectual capabilities to carry out nuclear explosions, and thus a device can be manufactured within no more than one year and a half” (p.2). The program is being supported by Saudi Arabia and Libya and the Soviets must find a way to prevent its successful completion while being “extremely cautious in this question because of the ‘India factor’” (p.2).			
2/13/1980	Hungarian Embassy	Foreign Ministry	cx
Hungarian embassy cable on diplomatic meeting between Pakistan and India in light of the Soviet invasion of Afghanistan where Pakistan refused the proposal for them to decline U.S. military aid in exchange for Indian commitments to not purchase military planes.			
2/16/1980	Hungarian Embassy	Foreign Ministry	cxii
Hungarian embassy cable that India does not agree with Soviet troops in Afghanistan because it might invite American or Chinese intervention.			
4/30/1980	Hungarian Embassy	Foreign Ministry	cxiii
Hungarian embassy cable noting meetings and issues to be discussed between Ambassadors of Pakistan, China, and North Korea. Pakistan refuses to negotiate until all Soviet troops are out of Afghanistan and Pakistan is likely to request a treaty of friendship with China along with further cooperation in the nuclear field. Since conditions are not right for carrying out an atomic explosion, Pakistan is pressing for a joint explosion to be carried out at a Chinese test site (p.2).			
September 1981	CIA Staff	CIA Director	cxiv

<p>Heavily sanitized document looking at nuclear policy in the 1980s and says China, not Pakistan, is the major long-term threat to India and cause for NPT rejection (p.4). It mentions “developments in Pakistan” and says India has to seriously consider its options with the “prospect of two nuclear-armed neighbors,” which has led to accelerated weapons research (p.5). India will be driven by Pakistani actions, but still wants to develop a nuclear market in the third world and could probably rely on a Soviet supply with looser safeguards if cut off by the West and would also be willing to accept the associated punishment as in 1974 (p.7).</p>			
11/17/1981	Weapons Designers	CIA Director	cxv
<p>This incredibly sanitized technical document only has a couple paragraphs remaining that describe recent scientific papers published by Indian physicists living and working in India as being of interest to nuclear weapons designers and the “work is likely part of the Indian nuclear explosives program” (p.7).</p>			
1/19/1982	Hungarian Embassy	Foreign Ministry	cxvi
<p>Hungarian embassy cable stressing confidentiality about Indian designs toward preventing a Pakistani atomic bomb and seems to be preparing for war. Pakistan coming closer to China and the U.S. in recent years has greatly worried India and views the U.S. as trying to gain control in the region via Pakistan. The military wants to bomb the nuclear facility, but this is opposed by the foreign ministry (p.2). “India has made certain that Pakistan is working on the development of the atomic bomb at a rapid pace. Conditions for this are provided by the United States, but China also gives assistance” (p.3).</p>			
1/26/1982	Hungary IOs	Foreign Ministry	cxvii

	Mission		
<p>Hungarian report on conversation with Indian Ambassador Dalal where India agrees joining the NPT would provide short-term protection against Pakistan, but China is the main threat and previous aggression has not been forgotten. Joining the NPT from the Indian perspective only comes if they are on “the same side of the treaty where China is”... “and where the other Great Powers are” (p.2).</p>			
July 1982	CIA Staff	CIA Director	cxviii
<p>Heavily sanitized CIA intelligence assessment begins looking at Indian nuclear technological progress and how strategies for fuel will have to change since the U.S. will no longer provide any unless India were to provide evidence it was not developing nuclear weapons and submitted to every nuclear safeguard.</p>			
7/22/1982	CIA Staff	CIA Director	cxix
<p>Memo that Prime Minister Gandhi will avoid confrontation during her visit since India still wants fuel for their Tarapur reactor, but ultimately want no dependence on the U.S. Under U.S. law, non-nuclear weapons states must accept nuclear safeguards, which India rejects and views as a U.S. attempt to force its will. Finding enough fuel is currently the biggest problem for India, which gives the U.S. leverage on Tarapur. In conclusion, India wants an orderly termination of its nuclear agreement and no safeguards. India will likely continue accepting current international safeguards in return for U.S. acceptance of refueling reactors with Indian-produced fuel (p.5).</p>			
October 1982	NSA	N/A	cxx
<p>India is facing a heavy water shortage due to the decision to independently produce fuel and this could work to constrain the nuclear program. It then reviews the different Indian</p>			

heavy water reactors and their production capabilities along with a heavily sanitized look at how India might find a heavy water supply.			
10/1/1982	Hungarian Embassy	Foreign Ministry	cxxi
Hungarian telegram comparing PM Gandhi's visit to the USSR and USA. While both trips considered successful, the Soviet trip was more important and India is still considering accepting a high-capacity Soviet nuclear power plant.			
December 1982	CIA Staff	CIA Director	cxxii
<p>CIA report on Indian strategy to procure nuclear materials, which has become decidedly more difficult with an expanded civilian nuclear program for energy as well as military purposes. India attempting to procure nuclear materials presents problems for the U.S. in a number of ways including general efforts at global nonproliferation, U.S. relations with other nuclear-exporting countries, and U.S.-India bilateral relations. India has been able to continue its nuclear weapons program and hurt relations with the U.S. by mainly using the "international gray market" and evading government-to-government agreements to avoid safeguards (p.5). It remains unclear if tightening the gray market would increase the pace of India's weapons program in response to Pakistan's weapons pursuit and if the USSR would be willing to supply heavy water while never pressuring India enough to sign the NPT. In the early 1960s, India embarked on a plan of indigenization to fully and independently control the fuel cycle, but the 1974 test made obtaining materials difficult and also led to the establishment of the Nuclear Suppliers Group where only the Soviet Union has failed to make restrictions (p.10). By using private foreign vendors making deals with private Indian companies on piecemeal nuclear parts, India successfully created a gray market heavily reliant on Japanese and West German companies, yet the</p>			

<p>pain this would bring to India's already tortured domestic energy situation would lead them to accuse the U.S. of holding back developing countries and may force them to turn to the Soviet Union for new reactors as it has always accepted being the supplier of last resort for India (pp.17-19).</p>			
8/13/1985	Hungarian Embassy	Foreign Ministry	cxxiii
<p>Hungarian Embassy telegram noting that Indian Vice President Venkataraman believes Pakistan's claim to have manufactured an atomic bomb to be a bluff, but rather a ploy to become more of a player in world nuclear affairs, which requires some nuclear capability. Another source says Pakistan is preparing to manufacture a nuclear bomb while India plans on manufacturing one once a "suitable political situation or pretext" presents itself (p.2).</p>			
8/13/1985	Hungarian Embassy	Foreign Ministry	cxxiv
<p>Hungarian Embassy telegram believing India has serious considerations to manufacture and test a bomb, but has not made a final decision. Based on recent statements and developments, "they have started to make the domestic and international public opinion psychologically prepared for the possibility of exploding an Indian atomic bomb," which would put the USSR in a precarious situation as it supports the NPT, while also creating a brand new strategic environment in South Asia (p.2).</p>			
10/23/1985	Hungarian Embassy	Foreign Ministry	cxxv
<p>Hungarian Embassy telegram noting more Indian academics support nuclear armament. The main argument being armament did not hurt China, but quite oppositely, it became a Security Council member and has basically "achieved the status of the third superpower," that both the USA and USSR are trying to reach agreements with (p.2).</p>			

4/25/1986	Hungarian Embassy	Foreign Ministry	cxxxvi
<p>Hungarian Embassy report on a number of issues effecting relations between the Soviet Union and India beginning with the recognition that factors hampering cooperation have begun to surface due to Indian power aspirations and the improvement in both American-Indian and Sino-Soviet relations. The first item discussed involved Indian Premier Rajiv Gandhi's visits to Moscow where he "sought to gain the tacit support of the Soviet leadership for the development of India's nuclear armament on the grounds that Pakistan's nuclear program posed a threat to India's security. India did not get such Soviet support" (p.2). India has also been vocal in criticizing the NPT and believes it has the right to nuclear technology for both civilian and military purposes to which both the U.S. and USSR both disagree. The supply of Soviet reactors has also been postponed because of Indian refusal of inspections and Soviet proposals about disarmament and Asian security have been roundly rejected (pp.3-4).</p>			
11/12/1986	Hungarian Embassy	Foreign Ministry	cxxxvii
<p>Hungarian Embassy telegram stating "it is nearly inevitable that India will become a nuclear power in the near future, Soviet efforts notwithstanding" (p.2). This leads to three conclusions that first, NPT will collapse and "many pro-Western countries – including Pakistan, Israel, and South Africa – will openly take the path of nuclear armament" increasing the chance of nuclear conflict (p.2). Second, an anti-Soviet campaign will start based on the belief Soviet support allowed India to become nuclear. All of this leads to the third point that nuclear disarmament will become more difficult.</p>			
11/21/1986	U.S. Attaché Office	Defense Department	cxxxviii
<p>U.S. letter that in wake of reports Pakistan is developing nuclear weapons, India declared</p>			

<p>it does not want to develop nuclear weapons, but will reconsider if Pakistan has them.</p> <p>The Soviets have offered two reactors, which India has declined since its inability to produce enough fuel would end up making it reliant on the Soviets for fuel.</p>			
5/24/1987	Hungarian Embassy	Foreign Ministry	cxxxix
<p>Hungarian Embassy telegram noting the leading Soviet figures are already considering what position the Soviet Union should take as India going nuclear remains a realistic contingency to plan for. While this development would definitely have negative effects, it could potentially strengthen the strategic Soviet position and remove some military burden of having to counter up to four nuclear powers.</p>			
August 1987	Foreign Ministry	Hungarian Embassies	cxxx
<p>Hungarian Foreign Ministry memo stating Indian elite strive for a regional dominance and more sway in world politics. The conclusion is India sees a strong army and independent nuclear force as the means to achieve that power. India has disagreed with every step of progress for nonproliferation and the intensity of domestic calls to manufacture nuclear weapons has increased (p.2). India claims not to possess nuclear weapons, but is just a political decision away from doing so. Alarming for India, Pakistan has been developing nuclear weapons with Chinese assistance and failure of the U.S. to curb such activity (p.2).</p>			
July 1988	CIA Staff	CIA Director	cxxxix
<p>Almost completely sanitized report on India's ability to build a nuclear force and looks at materials, delivery systems, and policies in its contents page. It looks at detailed technical aspects of what India could produce based on the known facilities in operation.</p>			

7/21/1988	Hungarian Embassy	Foreign Ministry	cxxxii
<p>Hungarian Embassy telegram on Indian President Venkataraman's Moscow visit where he requested advanced military arms and the purchase of three additional nuclear submarines in light of the Pakistani nuclear weapons program while confirming commitment to Afghan leadership. No agreement could be reached on the NPT, which India wants replaced by an updated version in 1995 and the Soviets reject.</p>			
11/25/1988	Hungarian Embassy	Foreign Ministry	cxxxiii
<p>Hungarian Embassy telegram reporting on Soviet-Indian relations and how India worries about the new direction the Soviets seem to be taking. Concerning to India is the Soviet Union normalizing relations with China, fears Soviet withdrawal from Afghanistan would lead to a pro-Pakistani regime, "sacrificing" Vietnam and opening the door to Chinese influence, and differences on the NPT (p.2).</p>			
2/13/1989	Hungarian Embassy	Foreign Ministry	cxxxiv
<p>Hungarian Embassy telegram reporting Indian concerns on a successful missile test and even though Benazir Bhutto claims the missile and nuclear programs to be for peaceful purposes, Indian leadership does not believe she has been yet truly informed by the Pakistani military of the real undertakings. India also knows of the intense nuclear cooperation with China, but does not believe a report that Pakistan will test a weapon on a Chinese site because China would not have interest in a South Asia nuclear arms race (p.2). Another noted issue is a Pakistani request for technology, which could be used in the nuclear program and needs to be considered delicately in light of intensifying U.S. pressure.</p>			
11/28/1989	Hungarian Embassy	Foreign Ministry	cxxxv

Hungarian Embassy telegram reporting India had a low-key response to news China is selling a reactor to Pakistan and are aware France will also most likely sell a reactor. India notes these developments and “it will be ready for a nuclear arms race on the subcontinent” (p.2).			
6/27/1994	Defense Intelligence	N/A	cxxxvi
Note that if India uses spent fuel originating from U.S.-supplied enriched uranium, the U.S. would be required to withhold loans and technology by law.			
12/10/1995	State Department	US Embassy	cxxxvii
U.S. State Department telegram instructing the arrangement of an urgent and secret meeting between U.S. and Indian officials to discuss US intelligence indications that India may be preparing a nuclear test.			
12/11/1995	State Department	US Embassy	cxxxviii
U.S. talking points for meeting with Japanese officials to urge them to express concern and opposition to India of a nuclear test and mentions the U.S. will hold its own private conversations with India as it would be especially counterproductive if the U.S. were to make it public knowledge (p.3).			
12/11/1995	Robert S. Rochlin	Arms Control Agency	cxxxix
Memo on implications of an Indian nuclear test that would have negative effects for South Asia as well as U.S. relations with Pakistan responding in turn and potentially leading to escalation and perhaps another war. Other states in the region might question NPT adherence and U.S. goals to reduce Chinese nuclear arms will diminish. It will require a concerted effort by all major states to divert this course as U.S. leverage alone			

will prove insufficient.			
12/15/1995	State Department	US Embassy	exl
State Department draft telegram on talking points with China and Pakistan on a potential Indian test that urges both to show restraint. Particularly, China is requested to urge Pakistani restraint as its most useful contribution.			
12/15/1995	South Asia Dept.	State Department	exli
State Department talking points to deter India and recruit other governments in this pursuit especially to prove nonproliferation is not just an American concern. The U.S. has urged India not to test as well as the serious ramifications that would have a significant impact on India's economy. Besides other international repercussions, U.S. sanctions would cut American bank loans and access to banks, force opposition to any Indian application for an international loan, end defense contracts and sales, and terminate most economic assistance (p.2). Pakistan and China have been encouraged to exercise restraint, while also reiterating U.S. concerns of Pakistani resumed uranium enrichment. However, even the prospect of an Indian nuclear test will make engaging the Pakistanis difficult, but must be made clear that they will hurt more from responding with a test because of "India's far greater self-sufficiency" (p.4).			
1/24/1996	State Department	N/A	exlii
State Department telegram disseminating the assessment that Indian PM Rao will probably not authorize a nuclear test despite evidence of preparations. The international sanctions India would face would seriously jeopardize the progress in economic liberalization and even though most citizens support a test, it is the last item on the list of important issues facing the country (p.4). Even though a test might improve Rao's			

<p>election chances, it remains unclear how much and his electoral prospects are beginning to improve with allegations that his opponents have been involved in corruption (p.4). It would also “be vintage Rao, however, to answer building pressure from the nuclear ‘hawks’ in his scientific community by allowing them to proceed with preparations for a test, while not authorizing them to conduct one” (p.4).</p>			
8/12/1996	U.S. Embassy	State Department	cxliii
<p>U.S. Embassy telegram reporting on a meeting between Ambassador Wisner and BJP opposition leader Vajpayee where the U.S. could not get commitment to sign the Comprehensive Test Ban Treaty and his short responses and body language indicated he would favor an Indian nuclear test. After arguments stating why India should support CTBT, Vajpayee asked “what if we start underground test,” which received a response of it being both a dangerous and expensive path (p.4).</p>			
11/1/1996	Caroline Russell	Arms Control Agency	cxliv
<p>U.S. Arms Control Agency email on statement from Indian official in the Times of India that there was no need to test nuclear capability as India already has it. The statement could encourage India to sign CTBT and might keep an ambiguous position on true capability.</p>			
4/13/1998	South Asia Office	CIA Director	cxlv
<p>Detailed analysis on issues facing BJP and how it could potentially cause real problems for the West on the nuclear issue.</p>			
5/29/1998	South Asia Office	CIA Director	cxlvi
<p>Detailed report on how BJP demonstrating strength with nuclear tests, but unclear how</p>			

far the party is prepared to go. The tests were done for domestic reasons and the section titled “Who Knew” before the test is sanitized (p.5).			
June 1998	CIA	CIA Director	exlvii
Recommendations for better intelligence collecting that includes serious high-level discussions on requirements even if it might mean allocating resources to a different agency.			
November 1998	Nuclear Laboratory	Energy Department	exlviii
A heavily sanitized Department of Energy report on Indian nuclear tests and the graduation to more advanced nuclear weapons. The remaining text in the document show conflicting reports from different officials of what type of bombs were tested, but left no doubt India has moved from “the fission club to the fusion club” (p.27).			

OUTSIDE INFORMATION

Perkovich, (1999) responding to those calling both tests an intelligence failure, asks what the U.S. could really do in either case even if were inclined to act. Evidence does exist the U.S. was informed of a likely test a year before by a U.S. Atomic Energy Commission representative based in Bombay became extremely suspicious of India nuclear officials as they refused to meet with him and also shut him out of the facilities, fearing he was spying for the U.S. (Krishnaswamy, 2013).

Szalontai (2011) takes a large group of declassified documents to compose “The Elephant in the Room” to look at the Soviet Union and the Indian nuclear program from 1967-1989. The point of the title and use of documents as evidence shows that the

Soviets knew about the Indian nuclear weapons program, did not particularly like it, but did nothing to actually stop it from becoming a reality. Szalontai continually says a bilateral security agreement was signed August 9, 1971 and offered by the Soviets as early as 1969. Everything else agrees with the dates, but calls it the Treaty of Peace, Friendship and Cooperation, coming shortly after the July 15 Sino-American breakthrough and July 17 phone call Kissinger to the Indian ambassador informing him the U.S. would be unable to help in the event of Chinese involvement in a war between India and Pakistan (Perkovich, 1999, p. 163).

Sarkar (2013) takes declassified documents looking at the Indo-French connection, as it was a major supplier of nuclear goods to India. After the 1974 detonation, a French ambassador reports the “Indians are particularly pleased because France has abstained from all unfriendly judgment and they believe that France is herself well-placed to understand the Indian position in this domain” (Sarkar, 2013, p. 15). France also continued conducting nuclear-related business with India after the tests despite heavy protests from the U.S.

Years after the historic 1974 event, the creator of the bomb, Dr. Raj Ramanna admitted “the Pokhran test *was* a bomb...not all that peaceful” with June 7, 1972 the supposed date Gandhi authorized developing and assembling a nuclear weapon (Reed & Stillman, 2009, pp. 237-239).

DIPLOMATIC SUPPORT

UN Security Council Actions

UN Security Council Resolutions 1974-1998

Date	Resolution (Res.#)	Issue	Vote
June 6, 1998	S/Res/1172	Condemn Tests,	Unanimous

		Call for Calm, and Remind others of NPT	
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UN Vetoes

Date	Veto ID	Issue	P-5 Member
None ¹⁴			

SIPRI

None

Unilateral U.S. Sanctions***TIES Sanction Data***

CID	I	TS	SI	SSD	SID	ST	TEC	FINAL
1974051801	6	1	1	5/22/74-1976	4 &1	5,4,8	1	9
1978020701	6	1	1	2/7/78-1982	4 &1	5,4,8	1	10
1989052001	13	1	0	N/A	N/A	N/A	N/A	3
1991032003	13	1	0	N/A	6	N/A	N/A	7
1992039901	7	1	1	5/92	5	N/A	1	9
1992089901	8	1	0	N/A	N/A	N/A	N/A	2
1993021701	13	1	1	2/17/93	5	N/A	1	N/A
1996032701	12	1	1	3/27/96-1998	5	7,4,7	1	8
1998051001	9 & 6	1	1	5/13/98-2001	5	N/A	1	10
1998060402	13	1	0	N/A	N/A	N/A	N/A	3

PIEE

Years	Policy Goal	Success Score	Cost to Target GNP%
1978-1982	Nuclear Policy	4	.01%
1998-2001	Nuclear Proliferation	2	.2%

Miller

Type	Years	Outcome
N/A		

¹⁴ The Soviet Union cast 2 Vetoes Dec. 4 & 5, 1971 calling for an India-Pakistan ceasefire and end of hostilities.

Force or Threat of Force

None. In terms of insecurity however, India still felt humiliated by its devastating loss to China years earlier along with having a hostile neighbor in Pakistan where the U.S. sent the Seventh Fleet to the Bay of Bengal to deter Indian intervention in December 1971 (Sarkar, 2013, p. 19). India also viewed the Sino-American rapprochement with great concern.

Security Guarantee

None. Treaty of Peace, Friendship, and Cooperation signed August 9, 1971 with the Soviet Union.

Great Power Shared Border

China.

Detonation

Yes. It remains the only state to invoke the NPT right to conduct a “peaceful nuclear test” in 1974 and then a series of tests in 1998 declaring itself a nuclear weapons state.

Presidential Party

Republican in 1974 while Nixon was deeply embroiled in the Watergate scandal and Democratic in 1998 while Clinton found himself enmeshed in a scandal of his own.

CONCLUDING REMARKS

India presents itself as the closest case of complete indigenous successful construction of a nuclear explosive. The program itself was a closely held secret and remains so to this day with many questions left unanswered of how India got to the point it could build a nuclear weapon let alone the decision to test. The 1974 caused an international ripple, but global reaction was not nearly as bad as what it could have been. Out of the five permanent Security Council members, the U.S. was the biggest critic, not even saying that much while neighbors that should be even more concerned giving little response without condemnation and France lauding the accomplishment.

India never faced real sanctions for 1974 except export restrictions, but it did strengthen the nonproliferation regime. Also, the U.S. knew of the capability beforehand, but could not place a date on it and could have potentially stopped tests in 1996 if those really were the Indian plans. The 1998 tests brought sanctions that were quickly removed and then signed a 2005 nuclear agreement with the U.S., which “makes India the only country ever to receive officially sanctioned nuclear assistance despite having developed nuclear weapons and refusing to sign the NPT” (Cortright & Vayrynen, 2010, p. 106). The nuclear relationship between India and Russia at that time is an area in desperate need of further study, but evidence remains fairly scarce when considering the growing links between these two states with a changing shape of the regional geopolitical landscape.

CHAPTER 6: SOUTH AFRICA

PROGRAM HISTORY

South Africa shocked the world when it revealed it had covertly developed, produced, and then dismantled nuclear weapons. Despite many past denials amid whispers of suspicions, this marks the first time that South Africa publicly disclosed to the world it had an operational nuclear weapons program. In 1993, President de Klerk spoke to parliament, disclosing many aspects of the program including number and cost, the six of which had been completely dismantled by September 1991 and nuclear weapons complex closed in 1989 (Reed & Stillman, 2009, p. 183).

South Africa had long been an interest of industrializing states working on nuclear physics as the land is naturally rich in uranium and the country has the capital to mine and export the radioactive commodity. Besides the admission that it had built nuclear weapons during the Cold War, very little besides rumors came to the public eye (the Soviet press openly accused the U.S. of collusion) except for one particular event still debated to this day.

The Vela Incident gets its name from reconnaissance satellite Vela 6911 equipped with a bangmeter to detect atmospheric nuclear explosions, which discovered the tell-tale signature of an explosion after a routine information reading from Florida's Patrick Airforce Base September 21, 1979 (Richelson, 2007, p. 285). However, this information did not become public until October 25 when it was leaked to ABC News' John Scali, who reported it on the evening news (Richelson, 2007, p. 291).

The U.S. State Department issued a statement that same evening acknowledging the possibility of a nuclear explosion, but noting there is no corroborating evidence and the next day, Secretary of State Vance nothing is clear a nuclear event happened in South Africa (p.291). South Africa was shocked and unaware of the event when confronted with the news and denied any involvement.

Over the following months, and years, the event was continually analyzed by different scientific organizations and services, both public and private. The thing that makes this event so strange and debated is the satellite definitely picked up a signal corresponding with a nuclear explosion; however, there was no radioactive fallout present, which should have been there. There is still no official conclusion on the Vela incident, but besides an explosion, many theories have passed around. Most popularly, it being hit by a meteor, detecting lightning, an equipment malfunction, or some kind of other natural phenomenon like passing space debris. July 15, 1966, both the *New York Times* and *Washington Post* had stories on a Defense Intelligence Agency (DIA) report that despite the many uncertainties, the signal detected by Vela came from a nuclear explosion in the South Atlantic (Richelson, 2007, p. 305).

Being located at the most southern tip of the world where civilization ends, it would not seem South Africa would have much need for nuclear weapons and could pose little threat except to immediate neighbors. Yet the Soviets and Cubans invading Angola along with being deplored by the rest of Africa, if not the world, created a deep sense of insecurity. Any interested outside actor would find home base to be a world away, which greatly leveled the playing field for South African activities to continue freely. The Soviets may have dipped their toes in southern seas, but this option could not be less

tantalizing to the U.S., especially considering its current and lingering domestic issues not to mention all the other international situations in need of attention. However, South Africa pitted U.S. geostrategic concerns with nonproliferation concerns as it was the only U.S. ally in all of Africa, a major uranium supplier, anti-communist, and under threat of suffering the same fate as Rhodesia.

CONTENT ANALYSIS SUMMARY

Starting in 1977, the documents begin interestingly enough with the Soviets informing the U.S. and other governments about the suspected nuclear test site. The Soviets, clearly angry about this development tossed private accusations of collusion in their domestic press. The U.S. confronts South Africa and publicly assures the world South Africa has no nuclear weapons or intentions to build them despite having knowledge of Israeli cooperation.

South Africa responds to any accusations with scorn and says that it is all Soviet propaganda while citing the discrimination it faces as the reason it refuses to sign the NPT, but consistently promises not to build a nuclear bomb. The test was canceled and a mandatory arms embargo went into effect with a UN report it is not being implemented well.

The Vela incident received a lot of attention and still has examiners to this day. There are many possibilities brought up that could have made the answer *not* a nuclear explosion, but in all likelihood, it was. According to nuclear weapons expert Danny Stillman when he was called to CIA headquarters in Langley to meet with Nuclear Energy Division Chief Jack Ingley, the conversation went as follows, “ ‘What caused this

curve?’ Ingley asked. ‘Bhangmeter trace of an atmospheric nuclear burst. Unmistakable.’ ‘Unacceptable,’ Ingley said. That’s not an acceptable answer. Think of something else that caused this signal,’ and Stillman was unable” (Reed & Stillman, 2009, p. 180). The documents also show the US knew of the signal, but tried to keep it secret until the information leaked, yet the findings remain strange without radioactive debris detected.

Once Reagan came to office, relations took a change and he removes a lot of the restrictions placed by the Carter administration. The South African correspondence shows they are aware continued support as long as they maintain an anti-communist stance. The Senate and House overrode his veto of the Comprehensive Anti-Apartheid Act in 1986, which helps one believe he might not be too enthusiastic in enforcing this legislation.

CORRESPONDENTS

President Carter
President Reagan
U.S. Secretary of State Vance
U.S. Deputy Secretary of State Christopher
CIA Director
CIA Staff
National Security Agency
Nuclear Laboratory
U.S. Embassies/Consulates
South African Officials
South African Foreign Ministry
UK
Israel

CONTENT ANALYSIS

2/11/77	SA Ambassador	Foreign Ministry	cxlix
<p>Letter concerned about the reorganization of committees in the U.S. Congress set to visit South Africa, which are now taking a harder stance in regards to its decolonization progress, human rights, and actions that threaten security with terminating cooperation in nuclear technology as one of the many potential repercussions stated.</p>			
6/2/77	SA Ambassador	Foreign Ministry	cl
<p>Letter outlining President Carter's new policy to limit nuclear and conventional arms proliferation, which should not retroactively affect previous weapons contracts, but South Africa could expect the U.S. to renege on a few agreements.</p>			
August 1977	CIA Science Office	CIA Director	cli
<p>Assessment of South Africa's nuclear technology progress and the construction of new reactors, which could greatly increase the value of its natural uranium deposits through enrichment. Even though it would not be able to continuously produce nuclear weapons grade fuel, it could do so by recycling uranium in smaller batches and have enough for several devices a year or more if operating at peak performance.</p>			
8/10/77	Warren Christopher	William Hyland	clii
<p>Draft response to Soviet Union communication that they have evidence South Africa is completing a nuclear weapon and preparing to test it (p.3). The U.S. is gravely concerned about proliferation, but has no evidence South Africa is either developing or preparing to test a nuclear weapon. It requests geographic coordinates of the suspected site in the Kalahari Desert, will bring the issue up with South Africa and urge them to</p>			

<p>adhere to the NPT while also reminding the Soviet Union that the U.S. has avoided public comment on sensitive issues as this information was presented at a Moscow press release (p. 4).</p>			
8/15/77	CIA Science Office	CIA Director	cliii
<p>Heavily sanitized document that does say evidence shows South Africa is using an enrichment process similar to West Germany.</p>			
8/18/77	Interagency Report	CIA Director	cliv
<p>Assessment that South Africa will proceed with a nuclear weapons program including the eventual testing of a weapon without any rush. Foreign pressure would only strengthen their resolve and they may refuse debt repayment to the West for sanctions. Domestic considerations may push more heavily for a test than international reasons, but South Africa will keep its flexibility by keeping the capability to test (p.7).</p>			
8/18/77	U.S. Amb. Boulder	Foreign Minister	clv
<p>U.S. message to South Africa that it has substantial evidence to doubt its nuclear program is for peaceful purposes. President Carter has instructed to make it clear detonating or continuing to develop a nuclear explosive would have devastating consequences for South Africa such as ending cooperation with any Western power in any field and the possibility the issue could go to the Security Council on “short notice with unforeseeable results” (p.2). Recommends to put these concerns to rest with a publicly persuasive showing that Kalahari is not a test site and the enrichment plant is not for nuclear weapons.</p>			
8/19/77	Sec. of State Vance	Foreign Minister	clvi
<p>Letter explaining U.S. evidence that Kalahari is believed to be a nuclear test site and has</p>			

<p>photographs to prove this evidence. Requests a visit by a U.S. technical team to inspect the site by August 21, 1977 to erase doubts and prevent the issue from becoming political fodder.</p>			
8/22/77	N/A	N/A	UK Memo ^{clvii}
<p>UK memo that Brezhnev has contacted governments of U.S., UK, France, and West Germany that South Africa is producing nuclear weapons and preparing a test. The U.S. response implies there is some credence to this allegation and uses quotes from the letter Secretary of State Vance sent to Foreign Minister Botha. South Africa vehemently denies the allegations and the UK position is for South Africa to accede to the NPT and provide convincing proof.</p>			
8/23/77	SA Embassy	Foreign Ministry	clviii
<p>South African message about Carter's press conference where he declared South Africa informed and committed to the US that South Africa has no intention to develop a nuclear explosive and there never was going to be a test in the Kalahari Desert. It then goes into an analysis of how the world powers are dealing with nuclear proliferation in a cohesive fashion. Peaceful nuclear explosions are off the table and the prospect of a new nuclear power is receiving far more attention than when India detonated in 1974 (p.4). South Africa was leaned on hard by world powers and as hoc as it was; this proves an international effort can curb nuclear weapons development (pp.4-5).</p>			
8/24/77	SA Prime Minister		clix ^{Speech}
<p>Speech on Soviet allegations that South Africa has developed nuclear weapons with a defense saying South Africa has long had advanced nuclear technology, but was long ignored by the world and since it just recently discovered a new enrichment process, it is</p>			

<p>being wrongly singled out and faces a gross double standard as the USSR just tested a weapon. This point is continued on how South Africa was removed as a member from the IAEA Board of Governors and replaced by Egypt, which is one of the 13 out of 34 Board members that have not yet acceded to or signed the NPT (p.4). A defense is then taken that South Africa will not sign the NPT because other signatories have not fulfilled their obligations of supplying materials and technology, but despite not signing still place IAEA safeguards on nuclear exports.</p>			
8/24/77	SA NY Mission	Foreign Ministry	clx
<p><i>New York Times</i> editorial mentioning the assuring news President Carter gave that South Africa is not producing nuclear weapons, which is not surprising since the costs would be great for little benefit in return. It has no real military enemies to fight with nuclear weapons and nuclear cooperation should continue as long as peaceful assurances are given.</p>			
8/26/77	Foreign Ministry	All SA Missions	clxi
<p>Cable to all missions that since the Soviet Union alleged South Africa is about to test a nuclear weapon, it has received a lot of press in the West as well as pressure from the West. Respective Western Ambassadors have been informed it does not have or intend to develop a nuke, Kalahari is not a test site, and there will be no tests of nuclear explosives in South Africa.</p>			
8/30/77	SA Embassy	Foreign Ministry	clxii
<p>Telegram of statements made before congress that South Africa does not have intentions of building a nuclear bomb, but resents outside powers trying to determine its own destiny and reserves the right to “use its nuclear potential for other than peaceful</p>			

purposes should the need arise” (p.3).			
8/31/77	SA Embassy	Foreign Ministry	^{clxiii}
Washington based embassy cable informing South Africa the <i>Washington Post</i> is reporting South Africa has manufactured an untested nuclear bomb, becoming the seventh nuclear power, though unrecognized (p.2). A major implication is that South Africa could expect UN sanctions and the situations will be exploited to the fullest by all adversaries. Showing the facility is not a test site would be one way to fix the situation.			
September 1977	N/A	N/A	UK Draft Letter ^{clxiv}
Draft letter of conversation with Joseph Nye that although UK wants to know what the Kalahari site is for, the American prefer to drop it and press South Africa to adhere to the NPT. Nye said U.S. intelligence examinations show the site could be for nothing other than a nuclear test. The State Department assessment is South Africa wants to produce enough HEU, complete the test site, but reserve a test in the event their security situation deteriorated to the point it decided to show it has a nuclear capability on short notice (pp. 2-3).			
September 1977	Nuclear Lab		Report ^{clxv}
Report on South African motivations and capabilities for nuclear proliferation that in this unique situation there is ample evidence for defense motivations though gaps in evidence to conclude a complete weapons capability (p.9). Such motivations include a poor economy and inability to fight a long conventional war while confronting an enemy backed by Soviet weapons and Cuban forces with a sense of isolation that allies would not help to prevent its destruction (p.10). In the event of confrontation with USSR and Cuba, the U.S. and Europe would be forced to step in as a restraining force if the threat of			

<p>nuclear war enters the picture (p.19). It is possible South Africa wanted Kalahari to be discovered as a means to get the U.S. to promise assistance as well create an ambiguous psychological edge (p.23). Pressure is already being applied with limited affect to the program and the benefits outweigh the costs to continue. Quelling the South African sense of threat is the only way to avoid this development. After a long technical assessment of all aspects of the program, the report goes into a discussion of how Israeli-South African relations have grown closer in recent years as well as international similarities such as a feeling of isolation and softening of U.S. support, which makes it feasible the two would cooperate to develop a nuclear weapons capability (pp.92-93). A little less than half of this section is sanitized (pp.91-94). The U.S. faces a problem that by pressuring proliferants, they will start to work together to develop a nuclear capability and find deceptive ways to avoid international safeguards and detection, yet the U.S. will not be able to continue providing extensive guarantees to stop proliferation if more countries go the nuclear route (p.96).</p>			
9/8/77			UK Letter ^{clxvi}
<p>Letter on conversation with NSC's David Aaron that the South African facility in the Kalahari does not need explaining from the American standpoint, not at least while Rhodesia is an issue and pressing for NPT accession is more of a concern. Kalahari remains a mystery, but South Africa gave the same assurances as they did the U.S. that it does not have or intend to develop (peaceful) nuclear explosives and there will be no nuclear testing in South Africa.</p>			
9/13/77			UK Memo ^{clxvii}
<p>Memo on points to discuss with U.S. Secretary of State that the UK agrees to press for</p>			

<p>NPT accession and inspections, but they must look internationally credible otherwise black Africans could accuse collusion aided by the Russians as they initially brought up the nuclear allegations (p. 4). The UK also promotes the approach of lobbying Nigeria not to exclude South Africa completely from the IAEA, but do not believe in lobbying for reinstatement to the Board of Governors as Nigeria would never agree. The Americans should point out to the Russians that South African IAEA expulsion will strengthen their nuclear resolve and hurt efforts to achieve NPT adherence. Even though the US has said Kalahari need not be a concern now, we should still try to establish its purpose and the Americans are best suited to conduct a thorough review (p.4).</p>			
9/19/77	SA Embassy	Foreign Ministry	clxviii
<p>Telegram informs of an article in the afternoon <i>Washington Star</i> that even though South Africa gave Carter assurances, none of the facilities at Kalahari have been dismantled and officials have declined to comment on most recent satellite reconnaissance photos. The Carter administration has sought to keep the issue low-key as not to antagonize the South African government as it attempts to lobby for NPT accession and keep the white minority leadership from pursuing nuclear means as a last desperate attempt to keep power. Russian news statements claim “some western state incorporated into NATO as well as....Israel’ contributed to South Africa’s military strength,” though U.S. officials have concluded Israel did not contribute directly to a South African nuclear bomb (p. 4).</p>			
9/21/77			UK Letter ^{clxix}
<p>Letter on conversation with Joseph Nye at NSG meeting that the U.S. had no plans to further question South Africa about the Kalahari facility and it probably would not produce results. U.S. intelligence believes the site to have the attributes only needed for a</p>			

<p>proper nuclear test site and that South Africa wants to be on the brink of nuclear capability to moderate western pressures, which is why inspecting enrichment plant Valindaba remains the American focus to curb this plan.</p>			
9/22/77			UK Letter ^{clxx}
<p>Reply to Mallaby with an opinion different from Nye and Washington that the site to alleviate Western pressures, but rather a last means of defense as South Africa feels increasingly threatened and wants to have an effective nuclear capability on short notice should the need arise.</p>			
9/29/77			UK Telegram ^{clxxi}
<p>Telegram with brief description of a passage in the South African statement to the IAEA that frequent spurious allegations have been made that South Africa has developed or was developing a nuclear bomb and the allegations come from suspect sources with political motivations, such was the case of the Soviet Union accusing South Africa to be on the brink of test while it was testing its own nuclear weapons.</p>			
9/30/77	SA Foreign Minister	Sec. of State Vance	Draft Letter ^{clxxii}
<p>South African draft letter reply to U.S. concerned how U.S. officials continue making public statements questioning its integrity and reinforcing Soviet propaganda despite persistent assurances South Africa is not developing a nuclear explosive, Kalahari is not a test site, and there will be no tests in South Africa (pp.3-4). It argues as a major uranium producer, it only makes sense to takes steps to increase profit and ensure access by enriching uranium. Also, South Africa has abided by IAEA supply safeguards and is willing to discuss NPT accession, but discriminatory actions must come to a resolution first.</p>			

October 1977	PM Vorster	President Carter	Letter ^{clxxiii}
<p>Letter to Carter stating South Africa has repeatedly denied anything to do with nuclear explosives, but still faces discriminatory steps such as nuclear powers not fulfilling commitments to supply nuclear technology, material, and information. It has been removed from the Board of Governors and blocked from other nuclear related meetings while India faced no such scrutiny even after detonating a bomb and the U.S. still supplies enriched uranium (p.3). It seems the U.S. position is solely focused on attaining an NPT signature before any discussion can be had on other issues, which is not practical (p.4).</p>			
10/6/77			UK Telegram ^{clxxiv}
<p>UK message on official position to deliver to South Africa that it hopes it will agree to safeguards quickly and are concerned to hear there might be “one or more non-nuclear test explosions next month (November) at the Kalahari site,” which they believe would have multiple negative domestic and international consequences (p.3).</p>			
10/17/77			UK Letter ^{clxxv}
<p>UK letter describing trip to South Africa where official informally said “we might hear of two or three explosions taking place soon at the testing ground in the Kalahari Desert” (p.1). The implication is non-nuclear, trying to convince the world the site was never intended for nuclear use. Believing this is another story, but it was also mentioned Kalahari was too close to population centers to be a safe underground nuclear test site.</p>			
10/24/77			UK Letter ^{clxxvi}
<p>UK directions calling for further assessment of two questions. First, if the continued Kalahari activity can show something new and second, is the evidence compatible with</p>			

claims of non-nuclear explosive purposes.			
10/24/77	SA Embassy	Foreign Ministry	^{clxxvii}
Telegram reporting of U.S. State Department official comment on article in <i>Washington Post</i> that South Africa will not make a non-nuclear pledge, met with the statement the U.S. asked for three assurances that no nuclear explosives of any sort were being developed, Kalahari is not a nuclear test site, and there will be no nuclear explosive testing in South Africa and the U.S. received these assurances the next day (pp.3-4).			
10/25/77			UK Telegram ^{clxxviii}
Telegram of President Vorster's ABC TV interview that South Africa is only interested in peaceful use of nuclear facilities and should not be pressured to sign the NPT when 13 of 34 Board members have not signed. "We've made our position very clear to the Americans. We want certain guarantees before we sign that Treaty and until such time as we those guarantees, then the status quo will remain" (p. 3).			
10/28/77	UK	South Africa	Draft Letter ^{clxxix}
UK draft letter to South Africa on concerning informal report of non-nuclear tests at Kalahari and that it be presented that Vorster should not allow the explosions as any statements that they were non-nuclear would be dismissed by the world at-large.			
10/31/77			UK Teleletter ^{clxxx}
UK Moscow embassy reporting on Soviet press jumping on nuclear issue and pointing to U.S. insincerity as well as linking it to nuclear developments in Israel.			
11/17/77	South Africa	Israel	Telegram ^{clxxxii}
South African embassy in Israel reporting back on a potential UN arms embargo against South Africa with public statements Israel voted for resolutions condemning South			

<p>Africa, will act accordingly to any UN resolution, and has “no hidden under-the-table relations with the South African government” (p.2). It goes on to report it has not received official Israeli indications yet, but “it seems obvious however, that they will try to employ as much subterfuge and circumvention as will be possible to evade the embargo,” which will require “tight security” by both sides (p.2). Much depends on the U.S., which is the “joker in the pack” and “how seriously the U.S.A. wishes it to be enforced...then the supply of armaments between Israel and South Africa may well be allowed to continue clandestinely” (p.3).</p>			
12/12/77	SA Embassy	Foreign Ministry	clxxxii
<p>Cable reporting the U.S. will comply with the UN arms embargo and go beyond the requirements by placing an embargo on all items destined to police and no arms manufacturing licenses will be issued.</p>			
3/14/78	SA Foreign Ministry		Memo ^{clxxxiii}
<p>Memo on discussions with Washington and Lockheed officials to “sit tight” regarding the transfer of a particular batch of munitions, not to make an official representation, and appeals to the State Department are being made (p.2).</p>			
June 1978	Nuclear Lab		clxxxiv
<p>Lawrence Livermore detailed technical report on Kalahari that also shows the need for a new means of detecting HE emissions after a blast as seismic data alone cannot give exact yield or even pick-up an underground test in some cases.</p>			
July 1978	Interagency Memo	CIA Director	clxxxv
<p>Intelligence memo beginning with disclaimer foreign cooperation may have played a role, but is unexamined and could potentially change conclusions “to the extent that it</p>			

were engaged in strategic nuclear exchanges with Israel, Taiwan, or other countries”

(p.5). Key findings believe South Africa is deliberately pursuing a program to have the option to nukes by keeping a reserve of HEU, continuing to design and develop weapons, without meaning to test them and this would continue even if they acceded to the NPT

(p.7). Adherence to the NPT would cost the U.S. greatly with broad commitments to supply nuclear research and materials along with political support and security considerations. The size, scope, and secrecy surrounding South African facilities make a persuasive case it had always planned to keep an open nuclear option even it never intended to use it (pp. 11-12). Conclusions say South Africa intended to test at Kalahari, but suspended the project and will continue its nuclear weapons option, but might sign the NPT and agree to safeguards once it accumulated a large enough weapon-grade stockpile of uranium then would likely pursue covert nuclear weapons program from separate unsafeguarded facilities and despite an NPT signature (pp.30-31).

8/11/78

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NSA

clxxxvi

Memo on review of book *The Nuclear Axis* that says South Africa has nuclear weapons with essential support from Israel, the U.S. and others from varied sources including documents stolen from an embassy in West Germany. It successfully demonstrates South Africa has the capability to produce a bomb, but nothing else and offers no new insights into nuclear weapons capability.

September 1978

UN Report^{clxxxvii}

1978 UN report that Western powers have virtually ignored the voluntary UN arms embargo of 1963 with the U.S. supplying or allowing much of the transactions and this has increased since the 1970's began (p.3). Despite the mandatory embargo established

<p>in 1977, systematic violations of the voluntary embargo shows major Western powers have “relied increasingly, albeit quietly, upon South Africa to ‘stabilize’ the whole south African region, and to do so by the use of force” (p.4). Along with detailed evidence of sales during this period, the paper goes on to show South Africa was able to build a large and varied conventional weapons inventory from the Western bloc, despite repeated guarantees from U.S. officials that it would adhere to the embargo. This issue of embargo violations has caught the attention of the U.S. Congress, with administration officials going on the defensive.</p>			
4/30/79	CIA Science Office	CIA Director	clxxxviii
<p>Heavily sanitized document that only says the movement of troops to Pelindaba indicates the beginning of weapon-grade uranium production.</p>			
8/20/79	UK	South Africa	clxxxix
<p>UK message to South Africa that the Ambassador will return sooner than expected to discuss the nuclear program and warns of possible consequences if it were to produce or test a nuclear explosive with possible Security Council action along with the strong advice to immediate NPT accession.</p>			
10/22/79	NSC	Sec. of State	cxc
<p>Intelligence memo opening with the “high confidence, after intense technical scrutiny of satellite data, that a low yield atmospheric nuclear explosion occurred in the early morning hours of September 22 somewhere in an area comprising the southern portions of the Indian and Atlantic Oceans” (p.2). This information has yet to become public, but radioactive debris was not present, but could have been missed in the collection effort and sensors are poor in that region. The discussion then goes into the international outcry</p>			

and immediate of assumption of South Africa as a culprit on how this could affect U.S. nonproliferation policy. "Public disclosure" of a nuclear explosion and the affects become a prominent feature of how other African states would react, negotiations on Namibia and Rhodesia, and perceptions of global nonproliferation (p.3). When dealing with Congress, only a few in Select Intelligence Committees should be informed and also of how divulging this sensitive information would hurt U.S. interests, while being prepared to defend test verification capabilities to the public (p.4). UK, France, Canada, Australia, and West Germany have been informed of the intelligence with requests to examine their own information (p.4). After discussion whether or not to even approach South Africa on the issue, the course is to bring the issue up with the Prime Minister with as few other officials knowing of the meeting as possible as much of the top brass may not be aware of the event (p.6). With U.S. credibility low, France and UK should also be brought in as nuclear states and as both have interests while France remains South Africa's most important nuclear supplier and "it probably would not be lost on the SAG that the three parties concerned are the three Western members of the Security Council" (pp.6-7). Unfortunately, the evidence to directly accuse South Africa is not there, which weakens U.S. negotiating position and informing the Soviets should wait after consulting with allies in case they use it as political capital. If the information becomes public, others will demand sanction and the evidence along with lack of nuclear cooperation, it becomes difficult to credibly argue against sanctions though "the Western powers can exercise some control through the prospect of vetoing an unacceptable resolution" (p.8). It then goes into a discussion topic list for the Prime Minister included what says if asked such question as will the U.S. make it public, answers no, and does U.S. plan to make

<p>additional demands, answered not directly, but that the U.S. will stick to previous arrangements, but things could change if the information leaks and “we are taking every possible step to prevent this from happening, and should it leak we will vigorously support whatever agreement we reach” (p.12).</p>			
November 1979	CIA Science Office	CIA Director	exci
<p>Technical analysis on South Africa’s nuclear program and how it had relied primarily on the West, but had to find new enrichment services, which it could possibly meet using its current facilities, but especially if it finds a means of foreign assistance.</p>			
November 1979	Nuclear Lab		excii
<p>Technical brief describing how nuclear tests can be detected by a “bhangmeter,” which “detects and records extremely bright and characteristic flash of light from an atmospheric explosion” with each being unique (p.1).</p>			
11/26/79	Nuclear Lab		exciii
<p>Los Alamos technical study with most of the opening summary and conclusions sanitized except the location occurred somewhere in the southern most parts of the ocean extending into Antarctica (p.5). The first two pages on the discussion of a covert nuclear weapons program is sanitized and then says a state looking to hide its activities would want to use a lower yield to hide detection from the US (pp.11-14).</p>			
December 1979	Interagency Memo	CIA Director	exciv
<p>Interagency intelligence memo on Vela that cannot determine with certainty the nature and origin, but runs on the assumption there was a nuclear explosion (p. 6). Even after 1977, South Africa never officially closed the door to a nuclear option; especially with the belief the West would not support South Africa against growing external threats, but</p>			

no imminent need to test (p.12). The paper briefly considers India and Pakistan as culprits, then the first two paragraphs of the conclusion are sanitized, it concludes South Africa does have enough fissile material for several weapons; no conclusive statement can be made on the Vela incident (p.17).			
January 1980	CIA Office	CIA Director	excv
Both technical and analytical sanitized report on South African defense plans, which concludes it will continue a clandestine nuclear weapons operation unless its security situation severely deteriorates, but may be willing to sign the NPT once it has an assured weapons capability (p.5).			
1/7/1980	NSC	Sec. of State	excvi
Discussion points for Vela with the first consideration being options for U.S. public position since an October 25 leak of satellite intelligence, which the U.S. has so far maintained a position of “agnosticism,” but could confirm a test, but not nation; confirm a test and that South Africa may have been responsible; or emphasize the event cannot be determined nuclear or nonnuclear in nature (p. 2). Another point is what position the U.S. should take regarding UN sanctions, while mentioning the UK, France, and West Germany worry nuclear sanctions could lead to cutoffs in uranium as retaliation while “the French have also told us that they would regard nuclear sanctions against South Africa as directed against themselves, inasmuch as France currently is South Africa’s only nuclear supplier (p.4).			
1/21/1980	Interagency Memo	NSC	excvii
Interagency memo on the Vela incident with key findings sanitized and the discussion beginning beside the first nuclear five, “there are five other states that have in the 1970s			

designed devices suitable for nuclear testing. Of these, we believe that only Israel, India, and South Africa have recently had the fissile material as well as the other components needed to fabricate nuclear explosive devices. In contrast, Pakistan and Taiwan have probably lacked sufficient fissile material” (p.8). The opening analysis first looks at a secret test by South Africa, though much is sanitized, it says a nuclear test at sea in international waters could be conducted by only a few ships with a dozen crew members and also avoid consequences of detection on land. South Africa has not denied or confirmed allegations of Vela, thus continuing their nuclear ambiguity, but South African naval security messages had some elements on alert September 22, the day of the event (p.11). The paper then discusses a secret test by Israel with much sanitized, Israel might have designed an untested device and this “approach would have been virtually its only option,” even though the risks would be enormous (p.12). The next section looks at a secret test by South Africa and Israel with the most sanitization of all the sections and this could have happened with a South African agreement to test Israeli designs in exchange for technical assistance (p.13). The findings are inconclusive that South Africa conducted a test, but they are the most likely candidate. An attached technical analysis says it cannot prove or disprove the event as a nuclear explosion, even though it shares many of the same scientific attributes (double flash) as a nuclear explosion along with some unique ones, but is classified as a zoo event, which is a signal of unknown origin that triggers the sensors (p.18).

February 1980	Nuclear Lab		cxcviii
Lawrence Livermore proliferation report that internal considerations may drive South Africa’s nuclear weapons decision more than the obvious regional threats. South Africa			

<p>already has undisputed conventional superiority over its neighbors, but the trend is for rapid military growth in newly independent states, which means the more white men South Africa must add to the army, the less white men there will be in the workforce and this will hurt the economy with reverberating effects.</p>			
2/14/1980	CIA Intelligence	CIA Director	excix
<p>Judgments and recommendations of the Nuclear Intelligence Panel on Vela which is entirely sanitized besides the contents page.</p>			
5/1/80	Nuclear Lab		cc
<p>Technical report on Vela saying the evidence points to a low yield atmospheric test, but possibility still exists something else such as a meteor set off the sensor as it was found to be in working condition.</p>			
5/23/80	Ad Hoc Panel	Science Policy Office	cci
<p>Conclusions of ad hoc panel of nongovernment scientists to review the data from Vela and while they found the evidence very closely resembles a nuclear explosion, but there are many discrepancies, which makes them conclude it was not nuclear in nature but rather a reflection of light reflected from space debris.</p>			
August 1980	Nuclear Lab		ccii
<p>Highly technical document on Vela concluding the source is most likely nuclear in nature as too many coincidences and hypotheticals would have to have happened for it to be otherwise.</p>			
12/11/80	U.S. Naval Lab		cciii
<p>New examinations of Vela using acoustic data are consistent with French nuclear</p>			

explosions in the Pacific, but some uncertainties and anomalies make conclusion difficult and further study may also prove inconclusive.			
March 1981	SA Foreign Ministry		Directives ^{cciv}
<p>Memo for discussion with U.S. officials that first, South Africa is not opposed to the NPT if basic requirements are met, second, it will continue to conduct its nuclear affairs according to the spirit of the NPT, and third, its nuclear program is for peaceful energy and has not tested a device (p.2). It is then to say in “a limited group” the U.S. must realize the threats they face including the USSR and those with Soviet support and encouragement without hope for help from the UN if attacked and therefore “cannot in the interest of our own security sign the NPT and thus set the minds of our would-be attackers at rest” (pp.2-3). It goes on to ask for further fuel supply and says “the stage has been reached when we should tell the present American Administration that because of the actions of the Carter administration...South Africa had no alternative but to develop on its own a fuel element” (pp.3-4).</p>			
3/4/81	SA Embassy	Foreign Ministry	ccv
<p>Telegram regarding potential changes in Reagan’s nonproliferation policy such as restoring U.S. credibility as a nuclear supplier and denial of supply should be applied only to countries posing a threat to US international security interests (pp.2-3). Perhaps even within a month, a South African delegation will meet with the U.S. to discuss current relations and mentions potential domestic U.S. obstacles such as Congress and nuclear supply might first have to go through France. Reminds these proposals have not been approved yet and the U.S. should not be made aware South Africa has this knowledge (p.4).</p>			

5/15/81	Reagan	Botha	Meeting Notes ^{ccvi}
<p>Notes on a meeting between President Regan and Foreign Minister Botha where the President “ made it clear that he was no advocate of what he called “one man, one vote once,”- the inference clearly being that he had no illusions about democratic rule in Africa” (p.2). Reagan agreed to see what could be done on legislation hurting nuclear relations and always help in regard to countering the Soviets, but reiterated there was a need for both sides to know where the other stood on major policy issues after the Minister said it would not sign the NPT and publicly surrender ambiguity and lose a psychological deterrent.</p>			
6/8/81	CIA Office		Status of Relations ^{ccvii}
<p>Brief going over Israel-South Africa relations and how they have grown over the years with the large amount of Israeli arms in the South African military as one of the testaments to this (p.2). Nuclear ties and speculation have been around since 1963 with the sale of 10 tons of uranium to Israel and the reports linking South Africa and Israel to the September 1979 “events” increases this perception dramatically (p.4).</p>			
8/18/81	Botha	Foreign Ministry	ccviii
<p>Letter describing a real change from the Carter administration, but realizes the U.S. is just fulfilling its own interests and “the Americans are not at present trying to make trouble for us,” but this could change without progress on Namibia (p.2).</p>			

OUTSIDE INFORMATION

Documents going back further show the U.S. really suspected a nuclear weapons program in 1976 and thought of the potential even further back, but this development depended on a growing sense of isolation as well as threat (Masiza, 1993). These circumstances are ones shared by Israel as well. The relationship between South Africa and Israel gets a lot of attention with *The Unspoken Alliance* written specifically about it describing how the two countries signed SECMENT, which is a security and secrecy agreement that denies its own existence by saying “It is hereby expressly agreed that the very existence of this Agreement...shall be secret and shall not be disclosed by either party” (Polakow-Suransky, 2010, p. 82). It also says Israel would share nuclear technology and the design of a nuclear weapon in exchange for yellowcake uranium (Polakow-Suransky, 2010; Reed & Stillman, 2009; Richelson, 2007).

DIPLOMATIC SUPPORT

UN Security Council Actions

UN Security Council Resolutions

Date	Resolution (Res.#)	Issue	Vote
5/25/77	407	Condemn coercion against Lesotho	Unanimous
10/31/77	417	Condemns and calls an end to apartheid along with call to release political prisoners	Unanimous
11/4/77	418	Establish Arms Embargo ¹⁵	Unanimous
12/9/77	421	Establishes a committee to review 418 progress	Unanimous
5/6/78	428	Condemn violence against	Unanimous

¹⁵ This resolution has been labeled a nuclear sanction, but the text goes into many specifics in denying arms to the military with the nuclear issues barely touched upon except saying under point four, “further decides that all states shall refrain from any cooperation with South Africa in the manufacture of nuclear weapons,” which seems a strange thing to include as its redundant under the NPT without ever enacting any new form of nuclear prohibition.

		Angola and calls for a withdrawal from Angola and Namibia which are being used as attack launch centers.	
3/28/79	447	Reiterates Resolution 428	12-0; U.S.,UK, and France Abstain
11/2/79	454	Condemns aggression against Angola	12-0; U.S. UK; France Abstain
4/11/80	466	Condemns incursions and acts against Zambia	Unanimous
6/13/80	473	Condemns killing of political prisoners and calls for their release including Nelson Mandela	Unanimous
6/27/80	475	Condemns invasions into Angola	12-0; U.S.; UK; and France Abstain
4/9/82	503	Calls on South Africa to commute death sentences	Unanimous
12/7/82	525	Calls on South Africa to commute death sentences	Unanimous
12/15/82	527	Condemns aggressive acts against Lesotho	Unanimous

UN Vetoes

Date	Veto ID	Issue	P-5 Member
10/31/77	S/12310	Declare South Africa violated the UN Charter and is a threat to peace and security.	France, UK, U.S.
10/31/77	S/12311	Note failure of some governments to implements arms embargo and call to strengthen it. Call for refrain as “Gravely concerned South Africa is at the threshold of producing nuclear weapons.”	France, UK, U.S.
10/31/77	S/12312	Call for no investments loans, imports, exports, or dealing with any company registered in South Africa.	France, UK, U.S.
4/30/1981 ¹⁶	S/14459	“Situation in Namibia” calling for a total embargo and leaving the door open for the use force to protect Namibian independence.	France, UK, U.S.
4/30/1981	S/14460	“Situation in Namibia” calling for a total embargo and leaving the door open for the use force to protect Namibian	France, UK, U.S.

¹⁶ Each entry for this day has revised language, but calls for the same harsh repercussions.

		independence.	
4/30/1981	S/14461	“Situation in Namibia” calling for a total embargo and leaving the door open for the use force to protect Namibian independence.	France, UK, U.S.
4/30/1981	S/14462	“Situation in Namibia” calling for a total embargo and leaving the door open for the use force to protect Namibian independence.	France, UK, U.S.
8/31/81	14664	Condemn aggression against Angola and use of Namibia to launch attacks.	U.S.

SIPRI

(Non)Mandatory	Target State	Entry into Force	Lifted	Establishing Doc
Non-Mandatory	South Africa	8/7/63	11/4/77	UNSCR181; 182 and 282 make additions
Mandatory	South Africa	11/4/77	5/25/94	UNSCR 418; 558 and 591 made additions ex. Dual-use military items like 4WD trucks. 919 ended the embargo.

Unilateral U.S. Sanctions***TIES Sanction Data***

Case ID	Issue	Threat of Sanction	Sanction Imposition	Sanction Start Date	Sanction Identity	Sanction Type	Target Economic Costs	Final Outcome
1977122001	6	1	1	1/10/78-7/11/91	2,4	4	N/A	7

PIEE

Years	Policy Goal	Success Score	Cost to Target GNP%
1975-1982	Nuclear Policy	4	.005%

Miller

Type	Years	Outcome
Threat	1975	Failure
Imposition	1975-1982	Failure

Force or Threat of Force

None. However, South Africa had a growing sense of isolation and threat from the rest of black Africa in an apartheid country ruled by a white minority coupled with the Soviets and Cubans invading Angola while preaching an ideology that would change their way of life forever. Yet, there were also more real threats South Africa never heard of until recently. The Soviets were the ones who approached the Americans to inform them of their satellite discovery of a South African test in the summer of 1977 with the *Washington Post* quoting a US official as saying “we were 99 percent certain that the construction was preparation for an atomic test” (Albright, 1994). One of the options was to attack the South African Y-Plant and a U.S.-USSR meeting on the issue says “The Soviets presented evidence of South Africa’s nuclear program and asked for U.S. cooperation in stopping it. Gerhardt say that one of the several options mentioned by the Russians was a preemptive military strike on the Y-Plant. He said the United States rejected that option” (Albright, 1994; Reed & Stillman, 2009, p. 175; Richelson, 2007, p. 278; Masiza, 1993).

Security Guarantee

None

Great Power Shared Border

None

Detonation

None, however getting caught preparing for a test showed a clear intention to go down the nuclear road, at least with a peaceful explosion. Then there was the Vela incident. Whether to test, threaten to test, or bring scrutiny for benefits from the U.S., a test site was setup, but meant to be secret and if Vela was a nuclear explosion, that too, was meant to be secret.

Presidential Party

If one believes being able to quickly assemble a rudimentary device “even if it had to be kicked out the back of a plane,” the answer is Republican and Ford in 1976 with a test scheduled for 1977. If one believes South Africa had part in the Vela incident, 1979, with a Democrat in Carter. If one considers nuclear acquisition as when first device went in the arsenal in 1982, it changes back to Republican Reagan.

CONCLUDING REMARKS

The U.S. had no problem condemning South Africa in Security Council Resolutions, but refused to take any meaningful action along with the UK and France. The mandatory arms embargo imposed in 1977 had little implementation with Richard Knight (2001) writing an article based on Congressional hearings showing the lax enforcement of the embargo and says “in a number of cases, given the extent and nature of the violations, it seems likely that U.S. intelligence agencies had knowledge of the violations and did nothing to stop them and perhaps even encouraged them.” There was also a specific veto for a resolution on their nuclear weapons program cast by the three Western permanent Security Council members.

Between 1977 and 1979, the tone changed from if South Africa could build nuclear weapons to have they built nuclear weapons. The exact year South Africa joined the club might be debatable, but the evidence shows the U.S. and Soviets as well as other powers knew of the weapons program and actively worked to keep it quiet. It was not until the Cold War ended that South Africa officially announced it had a nuclear capability to the world after having already dismantled it.

CHAPTER 7: PAKISTAN

PROGRAM HISTORY

U.S. history of interaction with Pakistan is pretty documented with focus on their nuclear program beginning a decade earlier than 1987. The U.S. turned its eye to Pakistan immediately after the 1974 Indian nuclear test as it instantly realized a Pakistani bomb or attempt at a bomb would be inevitable. In 1977 the U.S. was only using sticks in an attempt to reverse Pakistani plans to buy a French reprocessing plant, which was implemented through the Glenn Amendment that barred U.S. aid to non-NPT signatories that import nuclear fuel reprocessing technology (Spearhead Research, 2009). The deterioration of U.S.-Pakistani relations would continue through the end of the decade with a paralleled trend of strengthening U.S. relations with India. U.S.-Pakistan relations reached a record low point in the end of the 70's when the United States invoked the Symington Amendment, which allowed the U.S. to discontinue aid to any country found trafficking nuclear technology outside of IAEA auspices (Kux, 2001; Spearhead Research, 2009). Some believed the invocation of the Symington Amendment was a form of punishment since it was announced only two days after the execution of Bhutto, but a month beforehand, U.S. intelligence confirmed Pakistani intention to obtain an atomic bomb (Marwah, 1981; Kux, 1977; Betts, 1980).

After the suspension of aid due to Symington, U.S. prestige in the country was at an all-time low and Pakistanis felt they were on the negative receiving end of a double-standard in U.S. policy that punished Pakistan and not India for the same violations. Just

a few days short of a full eight months of aid suspension under Symington and a record level of poor relations between the United States and Pakistan, “U.S. attitude toward Pakistan ‘overnight, literally... changed dramatically’” (Kux, 2001, p. 245). Of course, for U.S. policy to change so dramatically as well as quickly, something enormously important to U.S. strategic interests must have occurred. This event would be the Soviet invasion of Afghanistan on Christmas Eve of 1979.

Shortly after the invasion, Soviet diplomats requested an audience with Zia to explain the situation, say the occupation would be limited, and that the Afghan government actually requested a Soviet military presence (Cirincione, 2002; Kux, 2001; Rizvi, 2002). In Pakistani strategic analysis, Afghanistan did not seem to be the heart of Soviet aspirations and Pakistan feared that it might become the next target for Soviet invasion in an attempt to gain access to the Arabian Sea (Betts, 1980). This meant a Pakistani turn towards the United States while realizing it now had strategic bargaining power.

As for the U.S., it almost immediately reaffirmed a 1959 security agreement that Pakistan would receive U.S. cooperation if ever faced with aggression from the Soviet Union or communist infiltration. The United States also offered \$400 million in both military and economic aid over two years, but did not agree to the requested F-16s capable of carrying nuclear weapons. This preliminary deal was referred to as ‘peanuts’ by Zia and soundly rejected (Betts, 1980, p.358; Chambers, 2002; Kux, 2001, p. 249). One would imagine that Pakistan had a keen eye on American politics, knew another American election was coming up and if the winning party was the staunch

anticommunist Reagan, could possibly achieve greater concessions from the United States.

According to Kux (2001), Pakistan and the Soviet invasion of Afghanistan were high on the Reagan administration's national security agenda along with re-forging a new partnership with Pakistan, which can especially be seen when "the Reagan team at the Departments of State and Defense assembled a \$3.2 billion, five-year proposal that President Mohammed Zia ul-Haq was unlikely to dismiss as 'peanuts'" (Kux, 2001, p. 256). In 1984 the nuclear issue came up strongly once again when metallurgist and scientific founder of the atomic program, Abdul Qadeer Khan claimed Pakistan had succeeded in enriching weapons grade uranium in a daily Arabic-language newspaper. This revelation made enormous waves in the U.S. and especially for nonproliferation advocates in Congress. The Senate Foreign Relations Committee formed a hard-nose amendment to the Foreign Assistance Act led by nonproliferation advocates John Glenn and Richard Lugar that required the President annually certify Pakistan did not have a possession of a nuclear bomb nor was it attempting to acquire a nuclear bomb, which would be known as the Pressler Amendment (Fitzgerald, 2009). The Reagan administration was able to put enough pressure on Congress to reduce the amendment to annual certification that Pakistan did not have a bomb and U.S. nonproliferation goals were being advanced through aid. During the early 1990s, although not particularly earthshaking news, reports came about that both the Reagan and Bush administrations knew before of the nuclear program, but did not inform Congress because expelling the Soviets from Afghanistan was more vital to U.S. national security interests than U.S. nonproliferation goals (New Yorker, 1993).

The 1989 Soviet withdrawal from Afghanistan and impending collapse marks a definite change in U.S. strategic interests as well as a departure from policies during the 1980s geared specifically toward Pakistan. No longer was there any strategic interest in Pakistan and at the same time the U.S. was moving closer to India due to their greater democratic record and the boom in information technology of the 1990s. Authors from the National Academy of Sciences (1989), writing on the prospects for arms control and international security find that the Soviet withdrawal from Afghanistan should significantly increase U.S. leverage in dealing with Pakistan. However, at the time of publication the authors note that Pakistan probably had enough nuclear material to manufacture a few simple bombs on short notice (National Academy of Sciences [NAS], 1989, p. 69).

With the dissolution of the Soviet Union, Pakistani officials and mostly all other security analysts found that “with the Afghan war over the United States no longer needed to look the other way on the nuclear issue, and it let the Pressler axe fall” (Kux, 2001, p.311). The U.S. intelligence community claimed Pakistan had the ability to construct basic nuclear weapons throughout the 1980s, but also claimed it did not have definitive evidence for this conclusion until 1990.

October 1, 1990 was the first time that Pressler passed over the President’s desk without certification and froze \$564 million in U.S. military and economic aid for Pakistan. At the time, Pakistan was the third largest recipient of U.S. aid, only behind Israel and Egypt. In the eyes of Pakistan, the United States knew of the nuclear capability in the 1980s and instead of keeping the status quo, decided to arbitrarily enforce Pressler simply because it could in order to change the rules of the game and get

Pakistan to turn back its nuclear program. Pakistan was appalled when it learned of the imposition of sanctions, especially since sanctions had only been a threat in the past that never became a reality. Pakistanis were also incensed that Pressler only punished Pakistan and not India, which had actually detonated a nuclear device. In the view of the United States, Pakistan had plenty if not too many chances for reform and should not have been certified under Pressler in the past (Kux, 2001).

Once Bill Clinton entered office, relations with Pakistan did not improve remarkably right away, but it did start off with a step in the right direction. Ever since Bush senior refused to certify that Pakistan did not possess nuclear weapons under Pressler and would not release F-16s the country already purchased, Pakistan lobbied hard for the easing of sanctions. In 1995, a Republican from Colorado named Hank Brown proposed an easing of the Pressler amendment with the exception of releasing the F-16s. This proposal was heavily supported by the Departments of State and Defense, but found staunch opposition by those supporting nonproliferation. Pakistan had also curried international favor just beforehand by assisting the U.S. in capturing Ramsi Yusuf, the 1993 World Trade Center bomber (Kux, 2001, p. 310). In the end, what would come to be known as the Brown Amendment passed the Senate by a 55-45 vote and allowed for the resumption of economic assistance, but not military assistance, direct U.S.-Pakistan arms transfers, nor the release of the F-16s. The issues of military assistance and arms were issues that Pakistan regarded as the most important. The Brown Amendment allowed the U.S. to sell the F-16s and use the money to reimburse Pakistan. For all intents and purposes, the Brown Amendment does not represent a significant warming of U.S.-Pakistan relations, but rather a symbolic political gesture of

remedying an injustice of enforcing Pressler on Pakistan and not India (Kux, 2001). The United States also refused to reestablish bilateral aid programs and only provided Pakistani NGOs with an annual \$2 million. The Brown Amendment does not come close to presenting itself as a thawing of relations between Washington and Islamabad and the rest of the decade would show vastly deteriorating relations.

Pakistan detonated five underground nuclear devices in Baluchistan on May 28, 1998 and as a symbolic gesture, detonated a sixth bomb, one more than India three days later. As promised, Islamabad was faced with a number of punishments because of the tests. The U.S. invoked the Pressler Amendment, Symington Amendment, and 1994 Glenn Amendment that requires sanctions for non-nuclear states that detonate a nuclear weapon (Spector, 2001). However, the U.S. realized imposing harsh sanctions on a nuclear state that was already heavily in debt and on the brink of financial collapse might not be the optimal approach (Spector, 2001; Rizvi, 2005). Immediately after the tests, Pakistan froze all private foreign currency accounts and threw businesses invested there into a panic (Rizvi 2005). These are the reasons that Congress would go on to pass the first Brownback Amendment in 1998, which gives the President authority to waive Pressler, Symington, and Glenn amendments for one year on both Pakistan and India except for military transfers and sales (Spearhead Research, 2009).

As Avner Cohen called the Israeli bomb the worst kept secret, Pakistani autonomy to conduct various nuclear proliferation activities during the Soviet invasion of Afghanistan deserves the same moniker. In more eloquent terms, President Reagan said geostrategy takes precedence over nonproliferation policy while the only real U.S. resistance came from congress. Evidence of Pakistan nuclear weapons development was

well-documented public knowledge and also an alien planet far from immediate U.S. security interests. While U.S. support faded with the Soviet threat, Pakistan still has another powerful regional friend in bordering China. This means the level of autonomy Pakistan has in nuclear development depends largely on how far and fast China would allow it to develop, leaving little room for others to influence the situation. Even after the end of U.S. support, Pakistan found autonomy in proliferating to others for twenty years under the A.Q. Khan network with house arrest for the national hero as punishment.

CONTENT ANALYSIS SUMMARY

Actually speaking of Pakistan's nuclear weapons capability does not come until after 1991, but starting in 1987, the discussion begins with the recently arrested Pervez on illegal export charges and how this will have political ramifications for the relationship between Pakistan and the U.S. Congress was by far the most active to attempt stopping Pakistan from procuring nuclear weapons with different legislation that made the Pervez case particularly difficult for the administration. The answer was to address top Congressional members and inform them of the circumstances as well as remind them of how geopolitically sensitive the situation is.

The U.S. wanted Pakistan to make some assurances as well as joining the NPT to avoid facing Congressional legislation going into force, but realized the President could always use a waiver, which he did, in the interest of national security. However, there was little trust for America among the Pakistani public who believed the U.S. would abandon them once it secured interests. The documents do show the extensive knowledge the U.S. had of Pakistani nuclear procurement activities within the U.S. and

also the extensive support given by China, which continues nuclear transfers despite U.S. protests.

Shortly, after the Cold War, the situation drastically changed and the U.S. would not certify Pakistan was not in possession of a nuclear weapon for the first time. The documents do not extend into 1998 for Pakistan, which makes for interest in what the next batches of declassification might have in them.

CORRESPONDENTS

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State Department

National Security Council (NSC)

CIA

CIA Director

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Director of Nonproliferation McGoldrick

Assistant Secretary of Environment, Oceans, and Fisheries Negroponte

US Embassies/Consulates

CONTENT ANALYSIS

Circa 1987	Arms Control Brief		ccix
<p>Brief background of the Solarz Amendment that started with the arrest of Pakistani national Nazir Ahmed Vaid who was attempting to illegally export krytron microswitches needed to detonate a nuclear explosive. Next, came charges the U.S. government deliberately protected Vaid, who received a light sentence and deportation. Pakistan denies any official connection with Vaid, but letter shows he was directly linked to the</p>			

Director of Pakistan's Atomic Energy Commission, S.A. Butt. Congress passed legislation to prevent future attempts of illegal nuclear procurement from the U.S. under punishment of cutting U.S. assistance. After Pervez was arrested, a Pakistani delegation visited the U.S. and now have a clear understanding of how violating export control laws could jeopardize the relationship as well as demonstrate how much the U.S. knows about Pakistani procurement activities.

4/9/87

Fred McGoldrick

John Negroponte

ccx

This discussion addresses the growing Congressional concerns over pressing Pakistan on nuclear activities and describes the initial situation as facing pressure to add more nonproliferation conditions to the Symington waiver while Pakistan simultaneously faces increased communist military pressure and cross-border air raids (p.3). Publicity has brought scrutiny from Congress and Pakistan has not taken the steps to reassure the world by demonstrating compliance and "even though it has the required technical capabilities [and has] approached a threshold which [it] cannot cross without blatantly violating [its] pledge not to embarrass the President" (p.4). To show Pakistan's integrity to Congress and the world, a U.S. demarche must make the points verbal assurances will be insufficient to show it will not assemble a nuclear weapon, comply with enrichment restrictions, not conduct more nuclear weapons-related high explosives tests, and no more illegal nuclear procurements in the U.S. (p.5). The next aspect is to deal with Congress and make sure unacceptable amendments are not added to the Symington waiver and encourage the visit of a Senate delegation to both Pakistan and India. On that note, moves must be made to engage both Pakistan and India on the nuclear issue to work on a regional agreement and show commitment to nonproliferation in South Asia.

7/14/87	Arms Control Memo		ccxi
<p>Angry note over tone to use in Pakistani discussions that the “approach should not be business as usual...but rather should be more outraged indignation. Anything less and I fear Pakistan will continue its bomb program and continue to lie to us” (p.2). The U.S. should not dilute the private message to Pakistan as it struggles to maintain Congressional support.</p>			
7/14/87	State Department	US Embassy	ccxii
<p>State Department giving guidance about speaking with press on arrest of Pervez, who was caught violating U.S. export control laws by trying to send specialty steel to Pakistan, which could be used in its nuclear program. Instructions are not to speculate on intended use of the steel and to let the courts decide if there was a violation of law.</p>			
7/15/87	State Department		Memo ^{ccxiii}
<p>State Department letter to Justice Department recommending prosecuting Pervez to the fullest extent of the law and help dispel the notion the U.S. will help some violators get off the hook, such was the perception after a light sentence was given in a previous nuclear export related case to Pakistan (p.3).</p>			
7/16/87	Arms Control Memo		ccxiv
<p>Memo looking at the four aspects to determine the applicability of the Solarz amendment from the Pervez case. The first was the intention to build a nuclear bomb with Oak Ridge analysis saying this steel only goes to build centrifuges to enrich uranium, which Pakistan cannot use except for weapons. Second, was Pervez acting alone or for Pakistan, which</p>			

<p>he admitted to working for a known Pakistani General nuclear procurement agent and only the government of Pakistan controls enrichment facilities. Third considers how much it would help the program with the amount of steel, if used to make centrifuges, could produce 8-12 bombs a year as compared to current HEU production which is enough for one a year (p.2). Fourth looks at legality and Pervez is charged with filling out a false export license application and bribery of a Customs investigator (p.3).</p>			
7/20/87	State Department		Memo ^{ccxv}
<p>Legal review of the applicability of the Pakistani nuclear program and Solarz Amendment requirements, even though all elements of the Pervez case had yet to be released to State Department. In discussing the amendment, it mentions it was made in 1985 as part of the Foreign Assistance Act born out of the Vaid episode, which is another illegal export case by a Pakistani national (p.3). It then looks at each element of the amendment and possible arguments that the Pervez case does not meet the requirements, although the President can veto any Congressional action to overturn a waiver.</p>			
7/23/87	Arms Control Memo		ccxvi
<p>Memo recommending terminating assistance according to Solarz to show U.S. resolve on nonproliferation and not create problems for Congress to extend the Symington waiver. Terminating aid will ensure more support for future aid from Symington if Pakistan fulfills the conditions of terminating procurement and enrichment activities, but “if we now ‘lawyer our way around’ the Solarz Amendment, Zia will conclude once again that he need do nothing about his bomb program” (p.2).</p>			
7/23/87	NSC Memo		ccxvii

NSC memo looking at how to deal with Pakistan's nuclear program, which has changed the political calculus since Pervez was arrested. The focus turned to corrective measures to be taken by Pakistan including reliable assurances on enrichment and illegal procurement, with enrichment being the more difficult issue to control (p.1). Pakistan has continued to pursue its nuclear weapons option despite a potential clash with the U.S. since it views the U.S. as more occupied with Afghanistan and the annual Presidential Certification to Congress focuses only on the assembly of a device, which Pakistan interprets "as allowing the program to remain a 'turn screw' away from the manufacture of a bomb" (p.2). Next, there is little support for the relationship between the two countries as many Pakistanis believe U.S. support and interest will not last long, India is more attractive to the U.S., and perhaps Pakistan should pursue independence from both superpowers such as the Iranian model (p.2). On the U.S. side, there is recognition in both houses on the difficulty choosing between nonproliferation policy and Afghan policy, but the onus is on Pakistan to provide evidence of steps taken to end violations (p.3). The next step is to make sure the Symington Waiver does not lapse as has been threatened by some in Congress and Pakistan may be will to give the minimum to continue assistance, however, "few in Pakistan would sacrifice the entire weapon's option even for the U.S. security assistance" (pp.3-4).

7/24/87	Arms Control		Brief ^{cccxviii}
<p>Arms Control memo on Congressional Subcommittee hearing on Pakistan finding that without proper assurances Pakistan is not enriching uranium, the law must be upheld and calls for a cut-off of aid with the recognition pressing Pakistan during the current Afghanistan situation makes the decision difficult. The document has a letter attached for</p>			

the President calling for the temporary suspension of military and economic aid until Pakistan proves its peaceful intent.			
7/26/87	State Department	Congress	Briefing ^{ccxix}
<p>Briefing on Pervez case causing Congress to invoke the Solarz amendment to cut-off aid to Pakistan for export violations with the second paragraph acknowledging “Pakistan has long had an active clandestine program to procure items on the international market for its unsafeguarded nuclear program” (p.1). State has encouraged Justice to prosecute the individual to the fullest extent, but any foreign national attempting to violate nuclear export law is considered acting as an agent of the state, which in this instance, has particular foreign policy consequences. The specific legal aspects of Solarz still need further investigating for this case and the President should wait to comment until legal proceedings conclude, though ultimately, the power resides with him to sign a waiver. This also gives time to press Pakistan and demand explanation for violating assurances, presenting evidence, and looking into the possibility a Pakistani businessman independently acted as Pakistan claims it gave the order to halt illegal nuclear procurements (p.2). It then calls for any potential hearings to be held in closed session to avoid prejudicing the case, gather more facts, test Pakistani behavior, and maintain a strong position on Afghanistan while warning against a hasty response in fear of “weakening the President’s hand in discussions with the Soviets on Afghanistan, which is at a critical stage” (p.3). An attached potential Q&A to use with Congress denies the assumption Pakistan was directly involved, strategic interests still exist for continuing the security assistance program, which also reduces “its incentives to acquire nuclear weapons and [creates] disincentives to such acquisition” (p.4). Further questions about</p>			

<p>the applicability of Solarz are delicately avoided such as how “significantly” the exports enhance the nuclear program and whether the intention was for a nuclear device, all in need of further study(pp.4-5). A Q&A attached for use with the media says the link to the Pakistani government has not yet been established nor the intended purpose of the materials while also including the same paragraph on strategic interests as a reason to continue promoting security assistance (p.7).</p>			
7/28/87	U.S. District Court	Pervez	Indictment ^{ccxx}
<p>Copy of the indictment against Pervez charging he knowingly defrauded the U.S. government to export nuclear materials and technology to further the Pakistani nuclear program violated law between 1986 and 1987.</p>			
7/28/87	State Department	U.S. Embassies	ccxxi
<p>Draft telegram to embassies with information to share on the Pervez case that State believes the maraging steel was destined to build centrifuges and is one of many events showing Pakistan’s effort to procure all kinds of nuclear related materials either legally or illegally. After voicing these concerns, urges the increase in any step to prevent Pakistan from acquiring materials for its nuclear explosives development program (p.3).</p>			
7/30/87	U.S. Embassy	State Department	ccxxii
<p>Telegram transmitting statement made by Pakistani official on Pervez stressing the conspiracy explanation that outside forces opposed to close U.S.-Pakistan ties are deliberately attempting to disrupt this relationship and no government agency had any part in the illegal export.</p>			
8/3/87	U.S. Embassy	State Department	ccxxiii
<p>Telegram on first day of meetings with Pakistani officials claiming they had no</p>			

<p>knowledge of illegal procurements and gave instructions not to violate any supplier country export laws, especially at such a critical time. Pakistan offers all cooperation and requests evidence as it has no basis to prosecute on its end, shows willingness to work on stopping illegal procurement, but on-site verification of enrichment practices remains unacceptable (pp.2-3).</p>			
8/5/87	US Embassy	State Department	ccxxiv
<p>Telegram on what is described as a “frequently highly charged session” with President Zia where he was willing to resign if it is shown the government was involved with Pervez and promised to ban a list of imports of any items concerning the U.S., but rejected any enrichment verification or assembly of an information sharing mechanism without India taking part or a regional agreement made (p.2). After expressing the need to appease the Congress, the conversation ends with a request to further discuss possibilities on verification, though Pakistan remains angry the entire government has seemingly already been condemned by the actions of one man and before the justice system has worked itself out.</p>			
8/10/87	Arms Control Memo		ccxxv
<p>Memo about upcoming meeting with Pakistanis with first issue to stop all violations of U.S. export control laws. The enrichment issue will be taken up at the upcoming IAEA Vienna meetings, but without verifiable compliance to past commitments, Pakistan might face “tough, binding legislation once it returns to session” (p.1).</p>			
8/13/87	Arms Control Memo		ccxxvi
<p>Memo stating all nuclear supplier states, besides Soviet, have responded favorably to</p>			

<p>increased effort and cooperation to stop illegal nuclear procurements by Pakistan. A Pakistani delegation will soon visit to discuss procurement issues while a range of overt and technical verification approaches on enrichment still have differences on best implementation practices.</p>			
8/23/87	U.S. Embassy	State Department	ccxxvii
<p>Telegram of private conversation with Foreign Minister Khan that “there might be a roadblock” in obtaining a copy of the procurement regulation Pakistan issues to its nuclear agencies and promised to provide the US for private use with Congress (p.1).</p>			
9/2/87	U.S. Consulate	U.S. Embassy	ccxxviii
<p>Confidentially informed, this brief says the whereabouts of Brig. Inam Ul Haq (procurement agent Pervez works for) is being held by authorities, rotating locations weekly, and treated well with his family informed.</p>			
11/4/87	Arms Control Agency	State Department	ccxxix
<p>Memo on a strategy to pressure Pakistan to stop enrichment and illegal procurement by invoking the Solarz amendment and not waiving restrictions or certifying Pakistan does not have a nuclear device until long as possible, January 15, 1988. By providing certification and waiver early, the President removes pressure on Pakistan and opens himself up to domestic criticism.</p>			
11/21/87	Arms Control Agency	President Reagan	ccxxx
<p>Memo requesting the President delay any certification or waiver for Pakistan until after January as the Secretary of State already recommended certification Pakistan does not possess a nuclear device. Certification would remove pressure from Pakistan and look as</p>			

<p>“business-as-usual,” precisely when it’s the most opportune moment to press Pakistan on enrichment and procurement (p.1).</p>			
12/17/87	President Reagan	Speaker of the House	ccxxxix
<p>Presidential letter to House Speaker offering certification to Congress based on “whether Pakistan possess a nuclear explosive device, not whether Pakistan is attempting to develop or has developed various relevant capacities” (p.1). It goes on to say the security assistance program and security relationship is the best means to dissuade Pakistan from acquiring nuclear explosives.</p>			
12/21/87	Arms Control Agency	State Department	ccxxxix
<p>Memo arguing the President should still not waive Solarz and Pakistan needs to go back to the original four red lines of no reprocessing; no assembly of a nuclear explosive device; no testing of a nuclear device; and no transfers to other countries of sensitive nuclear technology” (p.3). Failure to press Pakistan now and not get meaningful restraint, besides pressing the hand of Congress, “we are unlikely to be able to sustain a significant relationship with Pakistan in a post-Afghanistan environment” (p.1).</p>			
12/29/87	State Department		Memo ^{ccxxxix}
<p>Memo on applicability of Solarz to Pakistan from the Pervez case shows the maraging steel was destined for A.Q. Khan, but byryllium most likely for the Pakistani Atomic Energy Commission. An in-depth look would show “the procurement network supplying Pakistan’s nuclear program could not exist without the umbrella of government approval, protection, and funding” (p.1). Evidence shows Pakistan really did issue an order to cease illegal procurements, but even “after more credible orders to cease U.S. procurement have been largely confirmed, we see continued efforts by PAEC officials,</p>			

<p>including some in the most sensitive nuclear weapons group, engaging in clandestine plotting to circumvent U.S. export controls” (p.2). The question becomes is there another Pervez waiting to come out, but real cooperation would bring more scrutiny to the nuclear weapons program and it seems both the U.S. and Pakistan hope another Pervez case does not happen though for different reasons. (p.3).</p>			
1/15/88	President Reagan		Statement ^{ccxxxiv}
<p>Statement the President signed and sent Symington and Solarz waivers to Congress as otherwise would prove counterproductive to strategic objectives and damaging the stability of South Asia as a whole. Pakistan is aware of U.S. concerns on procurement and has made serious steps on crucial criteria, but the administration is still committed to stopping the spread of nuclear weapons.</p>			
1/15/88	President Reagan		Federal Register ^{ccxxxv}
<p>Signed document by Reagan for the Federal Registrar invoking, then waiving Solarz. He begins “that material, equipment, or technology covered by that provision was to be used by Pakistan in the manufacture of a nuclear explosive device,” but denying aid “would be seriously prejudicial to the achievement of United States nonproliferation objectives and otherwise jeopardize the common defense and security” and against “the national interest of the United States and therefore waive the prohibitions of Section 669 of the Act” (p.1).</p>			
July 1991	CIA Office	CIA Director	ccxxxvi
<p>Comprehensive national security estimate declaring “Pakistan has a viable nuclear weapons design and has components that it could assemble into nuclear devices on short notice” (p.18). The rest of the section on the Pakistani nuclear program is sanitized except for saying reprocessing will likely expand to include plutonium and nuclear</p>			

weapons designs.			
1/10/92	State Department	U.S. Embassy	ccxxxvii
Cable directing to express concern of the sale of a Chinese nuclear power plant to Pakistan not under the full scope of safeguards the U.S. insisted upon, but to begin by praising the recent accession to the NPT. Ask for the full scope of safeguards and let them know the majority of other nuclear supplier states have made this policy and it helps in competition by not allowing a state to shop for fewer restrictions (p.1).			
1/14/92	U.S. Embassy	State Department	ccxxxviii
Cable reporting Chinese response that it recognizes full scope safeguards on exports is the policy of the U.S., but China has not adopted such a policy and it is not required by the NPT. Furthermore, China is a longtime ally of Pakistan and wants to see its economic development and the reactor deal is open and subject to IAEA safeguards. The U.S. ended by reiterating the position sales without full scope safeguards should not be made and say the same point will be made at an upcoming embassy meeting (p.1).			
1/24/92	U.S. Embassy	State Department	ccxxxix
Cable reporting a source from the German embassy said China approached a German firm for equipment for a Pakistani reactor, but without Pakistan accepting full scope safeguards, the government would not permit such a sale. China then asked for a price quote on the same equipment, but this time for their own reactor (p.1). The rest of the document is from a French source about a French delegation that went to Beijing to confront China over a reactor sale to Algeria and the Chinese are quoted as saying “we got caught this time in Algeria, but this will not happen again” (p.1).			
8/18/92	U.S. Embassy	State Department	ccxi

<p>Cable on consultations with Chinese that the U.S. encouraged full scope safeguards on all nuclear exports to third parties and express concern China is not pressing North Korea hard enough and about “reports of Chinese involvement in Pakistan’s nuclear weapons program” (p.3). Other issues discussed include limited nuclear tests and chemical weapons convention.</p>			
11/25/92	U.S. Embassy	State Department	ccxli
<p>Cable on recent international arms control conference assessing the view of Chinese participants on the NPT as a flawed treaty and one politically expedient for China to sign. They say China will most likely argue for negative security assurances such as no first use pledges and pledges not to use nuclear weapons against non-nuclear states as positive assurances are politically unrealistic (p.1). Some Chinese attendees, “especially those long involved in China’s nuclear weapons program took a dim view of the NPT and China’s decision to adhere to the treaty. They saw the Chinese decision to join as due mainly to international pressure on nonproliferation” with the main selling point increased markets for nuclear technology (p.2). In private discussions, the Chinese repeated the same old line of allowing states to pursue national interests and since it works for the U.S. and USSR, “they questioned whether other rivals states, such as Pakistan-India, Israel-Arab states, shouldn’t be allowed the same chance to prevent conflict through nuclear deterrence,” however, some in the foreign ministry disagreed (p.2). NPT extension on the side of China will be a tough political bureaucratic debate where negative security assurances will be lobbied for.</p>			
December 1992	State Department		Briefing Paper ^{ccxlii}
<p>Briefing paper on getting Chinese adherence to nonproliferation principles, which it</p>			

<p>scoffed before the 1970s when it became a nuclear supplier. Western states warned assistance in the nuclear field would end if China did not conform to international nonproliferation standards. After making much progress, China maintains longstanding cooperation with Pakistan in its nuclear weapons program and continued with a reactor sale while assistance to Algeria just came to light in 1991 (pp.1-2). In order not to further isolate China, the U.S. should incrementally increase the severity of options to implement as China “is a key actor on nuclear nonproliferation and, while some gains have been made, its policies still fall short of minimum standards – particularly its continuing activities with Pakistan’s nuclear weapons program” (p.2).</p>			
1997	State Department	Congress	ccxliii
<p>State Department classified report to Congress on China and nonproliferation stating it has come a long way since its views in the 1960s, but still has not conformed to the standard practices of international nuclear suppliers. Most of the section on Chinese nuclear cooperation with Pakistan is sanitized except for not applying the full scope of safeguards (pp. 9-14). With the exceptions of states like Pakistan, Iran, and Algeria; China has come a long way and fulfills the set objectives of the U.S. (p. 23).</p>			

OUTSIDE INFORMATION

Other work from Clinton insiders say after the Indian test Pakistan had the option of following the instructions of the United States, which would put relations on a better path while making India stay the impulsive international aggressor or Pakistan could test its weapons and face a severe round of sanctions that could possibly cause the already

impoverished country to go bankrupt. President Clinton offered Pakistan the delivery of the F-16s and repealing the Pressler Amendment to resume the flow of economic and military aid. He argued that Pakistan could be rewarded with great international favor for not following suit and testing a nuclear weapon. Once these carrots did not seem to be generating the response Clinton wanted, he showed the plethora of sticks that could be unleashed upon Pakistan. Clinton “all but begged” Sharif not to test and warned that if Pakistan proceeded, his hands would be tied and he would be forced to impose sanctions that would cripple the economy (Kux, 2001, p. 346). However, Clinton was not the only one with his hands tied. Sharif faced incredible domestic pressure to conduct tests of its own. A Pakistani poll found 97% in favor of conducting nuclear tests and a Pakistani newspaper claimed, “There is going to be an explosion soon. It will either be a Pakistani nuclear test or your being blown out of office,” (p. 346). Pakistan also had a difficulty believing Clinton would be able to get Congress to repeal Pressler and felt insulted the U.S. used F-16s Pakistan already purchased as a bargaining chip (Rizvi, 2005).

DIPLOMATIC SUPPORT

UN Security Council Actions

UN Security Council Resolutions

Date	Resolution (Res.#)	Issue	Vote
10/31/88	622	Assistance to Mission of Good Offices for both Pakistan and Afghanistan	Unanimous
1/11/90	647	Extend stay of Good Offices	Unanimous
6/6/98	1172	Shared with India, it	Unanimous

		condemns tests, calls for calm, and reminds all of the NPT	
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UN Vetoes

Date	Veto ID	Issue	P-5 Member
None			

SIPRI

Type	Dates Effective	ID	Notes
None			

Unilateral U.S. Sanctions*TIES Sanction Data*

CID	I	TS	SI	SSD	SID	ST	TEC	FINAL
1988011301	6	1	0	N/A	N/A	N/A	N/A	3
1996032703	12	1	1	3/27/96-2001		N/A	1	N/A
1997042505	13	1	1	11/28/97-2001		N/A	1	8
1998051002	9,6	1	1	5/28/98-2001		7,4,7 ¹⁷	1	10

PIEE

Years	Goal	Success Score	Cost to Target GNP%
1979-2001	Nuclear Policy	1	1.0%
1998-2001	Nuclear Policy	4	1.0 %
1991-2001	Coup/Democracy	2	Negligible

Miller

Type	Years	Outcome
Threat	1976	Failure
Imposition	1977-1978	Failure
Threat	1979	Failure
Imposition	1979-1980	Failure

¹⁷ 7 is marked twice as it ends two different types of US Foreign Assistance

Force or Threat of Force

None. However their neighbor and mortal enemy equipped itself with nuclear weapons and has far superior conventional forces. Between 1979-1989 and the Soviet invasion of Afghanistan, there was great fear a desperate USSR would do whatever it could to get control of Afghanistan and access to a year-round waterway.

Security Guarantee

None

Great Power Shared Border

China, Soviet Union (Tajikistan) 1924-1991.

Detonation

Yes. Six explosions in 1998. However, it is rumored they watched a detonation in China with North Korea in 1992 (Khan, 2012; Reed & Stillman, 2009; Richelson, 2007)

Presidential Party

If one to take 1986-1987 as the date of first assembly of the device, Republican Reagan.

If one needs a nuclear detonation, 1998 and Democrat Clinton.

CONCLUDING REMARKS

The United States and Pakistan have had a rocky relationship over the years, the nature of which seemingly changes every decade or so. The US has long known about the Pakistani nuclear weapons program, but Pakistan never faced any nuclear resolution until the 1998 tests. By the time the documents start in 1987, it already is a foregone conclusion Pakistan has nuclear weapons or the ability to build some and begins looking at legal ramifications of a Pakistani national caught exporting sensitive nuclear goods. In his book *Eating Grass*, titled such as to say the Pakistani people would eat grass in order to get a nuclear bomb, a former director of strategic planning for Pakistan says it conducted a successful cold test in 1983 and had an operational nuclear weapon by 1986 (Khan, 2012, pp. 189-190). Either way, Pakistan obviously had nuclear weapons on the shelf before the 1998 tests.

CHAPTER 8: NORTH KOREA

PROGRAM HISTORY

Gordon Chang (2006) provides useful insights when he notes the Korean peninsula has been a historic prize for Great Powers and has experienced five major occupations and over 900 invasions (p. 4). The ceasefire end to the Korean War left Russia and China vying for control of the communist world, leading them to send North Korea exorbitant amounts of aid and inadvertently kicked off North Korean dependency on foreign aid and coercive bargaining tactics (Chang, 2006, p. 12). Cha and Kang (2003) find that North Korea has a long history of using coercive bargaining to gain leverage and continually played Moscow and Beijing off one another (p. 74).

After the Korean War, North Korea interpreted the assistance delivered by China as a sign of friendship that supported the socialist cause (Fuqua, 2007, p. 64). It also signed the Treaty of Friendship, Cooperation, and Mutual Assistance with China in 1961. At the same time, it despised the direct meddling in affairs by the Soviet Union and future relations suffered as a result (p. 64). Cynthia Lee (2009) argues China has a serious domestic imperative to uphold the 'One China' policy, which jealously guards territorial integrity and fears North Korean regime collapse and ensuing refugee problem (para. 9-10).

North Korea acceded to the NPT in 1985, but this was a condition to receive Soviet nuclear reactors. By 1990, the IAEA had much evidence North Korea reported less of its nuclear activities than required, including reprocessing to separate plutonium,

which the North Korean government calls ‘campaigns’ (Fischer, 1997). The U.S. was instrumental in providing further satellite images and evidence to the IAEA, eventually leading to North Korea withdrawing from the NPT in 1993.

North Korea enjoyed its extensive bargaining power in the communist world until after the fall of the Soviet Union, when it lost protection from the nuclear umbrella and both Russian and Chinese affections both shifted towards South Korea due to its economic growth (Cha and Kang, 2003). When the North Korean nuclear program caused a crisis in 1994, it received international aid and light water reactors to dismantle the program while missile tests were met with the easing of economic sanctions for a moratorium on such tests (CNN, 2009).

In 1994, the crisis was resolved with the signing of the Agreed Framework, a UN agreement that would freeze the nuclear program, allow for verification of all existing plants with plans to eventually dismantle them in exchange for rejoining the NPT along with providing light water reactors funded by the U.S., Japan, South Korea, and to a lesser extent other Western European countries. However, IAEA verification would not occur until after six or seven years when the light water reactors would almost be complete (Fischer, 1997).

Normal relations came to end with hostility directed at North Korea by the Bush administration. While Pyongyang demanded normal relations in the aftermath of 9/11, Bush administration speeches declared North Korea would be held responsible for any WMD development and accused the nation of a nuclear weapons program. Pyongyang did not deny the claim, but rather boasted it and proceeded to break IAEA seals and left the NPT in 2002 (Chang, 2006, 26). Since that time, North Korea had increased

belligerent rhetoric and made continued demands for international aid to at least freeze the program.

North Korea saw the United States preemptively attack states that did not possess weapons of mass destruction, the opposite of Bush's intention. Having been labeled a member of the 'axis of evil,' presented a 'no sticks and no carrots' option of negotiation based on complete, verifiable, irreversible, disarmament (CVID), seizure of overseas bank assets, and pure disregard of threats by the Bush administration, North Korea faced severe systemic pressures (Chang, 2006, p. 42). In this particular case, U.S. nuclear posture of ambiguity directly affected the security of North Korea.

With a closed-off state like North Korea, it becomes difficult to determine how exactly internal operations of the state puts pressure on the leadership to detonate a nuke and accept responsibility. Because of this, we can only go upon what we *do* know.

Any study on the North Korean nuclear program will mention the concept of *juche*. Not to pervert such a complicated subject, *juche* means 'self-reliance,' but also includes the hegemonic unification of the peninsula under socialist ideology (Fuqua, 2007, p. 29-31). However, Cha and Kang (2003) argue this concept "has changed from one of hegemonic unification to basic survival, avoiding collapse, and avoiding dominance by the South" (p.21).

This concept of *juche* is especially prevalent within the People's Army, which had strong support for nuclear weapons as according to a military defector (Solingen, 2007, p. 133). As to determining the influence on leadership to detonate in a closed-system, Solingen argues even a centralized system needs to "craft supportive clientelistic networks with stakes in regime maintenance" (p. 125). Reports from the North Korean

state newspaper reiterated the importance of a strong military to build a strong economy and Solingen goes on to argue military satisfaction comes before society (p.137). Based on the evidence available, pressures from the military did exist to detonate nuclear weapons, fulfilling the goals of *juche* and becoming self-reliant.

Whatever the reason, October 9, 2006, North Korea detonated a nuclear explosive, which represents the first time North Korea really showed the world its nuclear capability as well as the first time China agreed to punitive sanctions against North Korea, which has only grown following further tests consisting not only of nuclear explosions, but also ballistic missile tests.

Despite the concept of *juche*, North Korean nuclear autonomy has long been dependent upon the kindness of others on top of all the other charity it receives. It had received Soviet support, but its closest ally lies on its northern bordering neighbor China, especially since Americans crossed the Yalu River, aka MiG alley during the Korean War. Because of this close relationship with China along with other reasons, the U.S. has very little influence with the North Korean regime besides the easing of its own sanctions and aid packages. However, once the DPRK detonated its nuclear weapon, the pendulum of control swung from China to North Korea. China finds itself in a bit of a bind with North Korea as the seemingly feasible prospect of collapse would leave nearly 25 million desperate denizens looking for a new way to survive with much more room and options traveling north while avoiding the treacherous crossing of a 2.5 mile mine-ridden trip south traversing the demilitarized zone. By punishing North Korea too harshly, China might inadvertently create its own largescale refugee problem.

CONTENT ANALYSIS SUMMARY

Coming in at 1994 starts looking at the nuclear crisis with North Korea producing plutonium and withdrawing from the NPT. Discussions between South Korean and U.S. defense officials prepare additional security measures from this development with the South believing the North already possess one or two and the rest of the comments all sanitized. Both the U.S. and North Korea take steps not to antagonize each other, much to the anger of the South, which has had deteriorating relations since the death of the eldest Kim.

The crisis ends with the Agreed Framework, with the U.S. reaching out for international help in implementation, working for a North-South dialogue, as well as concerns of the food shortage causing internal strife. The deal is not one the South condoned and questioned its effectiveness while distrusting the North to abide by the conditions.

As the years go on, it is shown the Agreed Framework is making progress, but North Korea still does not fully cooperate with the IAEA. Indeed, working in Pyongyang proves difficult for many Americans with an unofficial document for any diplomat that travels there, informing them of the culture shock to expect as well as things to avoid like making jokes that never go over well and only serve to embarrass the interlocutor.

In 2002, the US receives definitive evidence North Korea switched from a plutonium program to enriching uranium for nuclear weapons. At this point, the Bush administration cut off relations with North Korea after it answers the accusation belligerently. The final document from the Congressional Research Service describing

the Bush policy of cutting all ties also includes an old KGB report that states the North first finished a bomb in 1990.

CORRESPONDENTS

Secretary of State or Secretary of State Morning Intelligence Summary (Intelligence Summary)

U.S. State Department

U.S. Energy Department

U.S. Embassies/Missions

IAEA

CIA

Congressional Research Service (CRS)

William Perry (Former Defense Secretary)

U.S. Energy Department Spent Fuel Team

Former Soviet Ambassador to North Korea

CONTENT ANALYSIS

4/21/94	U.S. Embassy	State Department	ccxliv
<p>Cable describing the meeting between the respective Defense Secretaries of the U.S. and South Korea in case of potential hostile action from North Korea if sanctions are imposed. South Korean Defense Minister Rhee began the meeting by bringing up the nuclear program and saying “he is confused because he read that some believe North Korea already has one or two bombs. So what is our objective? To freeze the program? Or to prohibit North Korea from owning any bomb?” (p.4). The rest of the section on this discussion is sanitized (pp.4-6). The U.S. assessment does not see an imminent danger of war on the peninsula, but the situation will become more difficult if diplomacy fails to</p>			

<p>control North Korean plutonium and it becomes time to seek sanctions, even the mention of such bringing threats from North Korea, but the US does not believe it wise to give into bluster. Some key agreements of the meeting include reconfirming U.S. commitment to South Korean security, arranging for more military solidarity and maintaining a staunch deterrent despite North Korean claims these are provocative measures along with continued vigorous diplomacy (pp.11-12).</p>			
5/18/94	U.S. Embassy	State Department	ccxlv
<p>Memo informing North Korea has been removing reactor rods from the Yongbyon facility claiming safety reasons even as the IAEA says there is no technical reason to do so even if the rods are broken and the North needs to allow inspection. The IAEA is avoiding public comment and preparing a letter for the Security Council on the status of inspection.</p>			
6/27/94			Intel. Summary ^{ccxlvii}
<p>Intelligence summary that both Koreas look ready to continue a dialogue at a summit offered by the North, which has happened previously in 1972 and 1991 and then fell apart after the usual suspicions arose (pp.2-3). North Korea has softened its rhetoric against their neighbor recently and the South has cautiously reciprocating the positive signals with most of the public in favor of the recently accepted summit offer (p.3).</p>			
7/11/94	State Department	U.S. Embassies	ccxlvii
<p>Cable on reports in North and South Korea after the death of Kim Il Sung, the news of which has both fully absorbed with the North wishing to postpone the planned June 25-27 summit until the succession inaugurating Kim Jong Il, with most believing he will continue the policies of his father to sustain legitimacy (p.1). North Korea has yet to</p>			

make an official announcement, but one is expected in the next several days.			
7/23/94			Intel. Summary ^{ccxlvi}
Intelligence summary that despite the death of the elder Kim, there are good indications nuclear talks can continue as mentioned through some back channels and the clear avoidance of criticizing the U.S. in the state news (p.2). On the other hand, prospects for a summit between the Koreas have gone down as the North criticizes the South for its treatment of the death of Kim Il Sung.			
8/18/94			Intel. Summary ^{ccxli}
Intelligence summary that South Korean press has been slamming the US “for giving away too much in the Geneva talks, failing to take ROK interests into account, and not pinning down the North on special inspections” (p.2).			
8/22/94	State Department	All U.S. Embassies	ccli
Cable with information on Geneva talks to report to host governments that North Korea has accepted freezing and eventually dismantling its graphite-moderated reactors to be replaced with light water reactors and a multilateral group established to provide funding, fuel, and technology. North Korea will accept its NPT commitments and begin normalizing relations with the U.S. prepared to invite experts to visit light water facilities. However, the North continues to resist special and full inspections.			
9/24/94	U.S. Embassy	State Department	ccli
Cable including text of statements by Ambassador Gallucci at the Geneva talks agreeing to provide light water reactors in return for freezing the current program and construction (p.3). The discussion then goes into specifics in return for US assurances on what should be dismantled with concluding remarks urging increased cooperation with the South			

(pp.4-5)			
November 1994	State Department		Talking Points ^{cclii}
<p>Talking points for discussion with Russian diplomats on the Agreed Framework and expressing concern of an upcoming reactor sale with the rest of this section sanitized. No agreement would work without the input and cooperation from Russia and the U.S. would like it to be part of the light water reactor projects, but there is a great need to implement these projects while simultaneously acting to improve North-South relations and concludes by asking how the Russian embassy in Pyongyang views the situation (p.3).</p>			
11/2/94	IAEA	U.S. and North Korea	ccliii
<p>Text of the Agreed Framework where the U.S. would provide light water reactors and fuel in exchange for freezing graphite-moderated reactors and facilities with the intent to eventually dismantle the reactors and ultimately move to normalized economic and political relations on a nuclear-free Korean peninsula.</p>			
11/8-10/94	State Dept. Staff	Secretary of State	ccliv
<p>Memo on the daunting task of implementing the Agreed Framework and holding North Korea to its commitments, which has caused a new problem in that many South Koreans do not believe it possible (p.2). This development leads to new objectives to dispel misgivings about the Geneva Agreement and reassure commitment to South Korean security by emphasizing how the relationship has remained constant and even strengthened by successfully collaborating on the Agreed Framework (pp.2-3).</p>			
11/10/94	State Department	U.S. Embassy	cclv

Cable on the status of relations with the Koreas after an official U.S. visit describing it as a success and North Korea scaling back rhetoric against South Korea with a potential for business opening. The U.S. will soon send a delegation to North Korea to discuss spent fuel storage and then more technical details later on in Washington (pp.4-5).			
12/21/94	U.S. Embassy	State Department	cclvi
Cable on downing of U.S. helicopter in North Korean airspace threatening to derail progress on cooperation and making North Korea suspicious of what its real intentions were while the U.S. says it was an accident.			
1996	Soviet Ambassador		Recollections ^{cclvii}
Former Soviet Ambassador to North Korea reflects on normalizing relations with South Korea and how North Korea did not take it well with tense personal discussions followed by a memo from North Korea stating the Soviets broke the Treaty of Alliance of 1961, DPRK views the Treaty as annulled, quoting Gorbachev statements the USSR would never open diplomatic relations with South Korea, DPRK will leave the NPT and develop nuclear weapons leading to a nuclear arms race and “you know better what fate awaits the Nuclear Non-Proliferation Treaty if we, willingly or unwillingly, quit this Treaty” (pp.2-3). North Korea views this develop as a conspiracy where the Soviets are joining the side of the U.S. and South Korea by saying “frankly, the USSR has actively encouraged the policy of ‘perestroika’ inside the GDR, as a result of which the environment changed sharply, and a situation occurred whereby GDR was annexed by the FRG. The situation is Korea will not turn out the way the USA and South Korea want, and it will not develop in the way you expect” (p.4).			
1996	State Department		Briefing Paper ^{cclviii}

<p>Briefing paper on the food shortage in North Korea that is expected to worsen during the winter and be short almost two million metric tons of grain for humans, livestock, and seed. The U.S. has no plans to offer additional food assistance, but policy review would happen if an international outcry occurred. Providing additional aid would have political ramifications, but further review will take place in the upcoming months as this shortage is nationwide, affecting both civilians and military.</p>			
January 1996	State Department		cclix
<p>Fairly sanitized memo on U.S. Policy on North Korea remarking on the momentum since the Agreed Framework implementation that has even more ambitious plans including “food aid, sanctions removal, a stable system for supplying Heavy Fuel Oil, missile talks, return of POW-MIA remains, opening of Liaison Offices, and creation of North-South dialogue (p.1). North Korea has been implementing its part of the Framework, but there remains unresolved safeguard issues and the IAEA has growing concern they are not receiving full North Korean cooperation.</p>			
2/8/96	Spent Fuel Team	Energy Department	cclx
<p>Memo reporting on argument between North Korean engineer working with U.S. spent fuel team who wanted to make changes that were not originally agreed upon. The discussion ends when the U.S. team says this has to be taken to a higher level if there are to be changes because this is the agreement and “I don’t think you have that authority” (pp.5-6).</p>			
April 1996	State Department		Briefing Paper ^{cclxi}
<p>Briefing on how to propose Four Party talks to North Korea in close consultation with South Korea with an emphasis on showing flexibility and the benefits of normalizing</p>			

political and economic relations. However, the U.S. would not be willing to work only bilaterally with North Korea as it would prefer (p.3).			
4/11/96	State Department	U.S. Embassy	cclxii
Cable to U.S. Ambassador in Russia requesting he transfer the information of the peace initiative to the Russian government, which will be announced April 16 th (p.1). Talking points the Ambassador should use that include recognizing Russian interest on the peninsula and the need for their help along with requesting to convey to North Korea that this is a serious proposal and encourage them to think about the possibilities along with requesting confidentiality until the peace initiative is actually announced.			
May 1996	State Department		Talking Points ^{cclxiii}
Talking points for meeting with South Korea and Japan mainly on asking for input on what looks to be a severe upcoming food shortage along with an energy shortage. Even though the political transition to Kim Jong Il is still incomplete, he has been consolidating his control with and within the military and social control remains effective despite the declining situation.			
May 1996	State Department		Briefing Paper ^{cclxiv}
Briefing paper on the Agreed Framework, the implementation of which described as 'good progress' along with the beginning of canning spent fuel under IAEA supervision (p.1). Unfortunately, less meaningful progress has been made on establishing a North-South dialogue and both South Korea and Japan fear waning U.S. financial support the Korean Energy Development Organization (KEDO), essential to implementing the Framework. Both have been reassured full funding for KEDO will be restored and the administration is requesting more for 1997. Despite South Korean objections that North			

<p>Korea has resisted some IAEA safeguard requirements, overall cooperation from the North has been good (p.2). However, the North has criticized the U.S. for not fulfilling its part on economic deals and cited it as a reason further moves have not been made and “they have a valid point” (p.1).</p>			
December 1996	State Dept. Staff	Secretary of State	cclxv
<p>Briefing paper on key issues of concern to the U.S. on the Korean peninsula including the Agreed Framework, Four Party proposal, economic deterioration of the North, food shortage, bilateral U.S.-North Korean relations, and Congressional resistance and support for KEDO. The Four Party proposals is yet to be accepted or rejected and North Korea wants a clearer picture of what to expect before it would accept (p.3).</p>			
12/18/96	State Dept. Staff	Secretary of State	cclxvi
<p>Briefing paper on U.S. policy and goals on the Korean peninsula that include promoting South Korean security and regional stability, fostering Korean dialogue, forestalling drastic consequences as a result of a North Korean collapse, and to keep the nuclear program frozen and eventually dismantled while halting the proliferation of missiles and technology (p.2). Potential problems to fulfilling these goals involve provocative actions by the North, internal troubles of some sort like food shortages, funding problems for KEDO and the skepticism from Congress on its effectiveness (p.2).</p>			
12/20/96	State Department		cclxvii
<p>Status paper on the North Korean nuclear program reporting Yongbyon remains frozen and construction on two more powerful reactors halted, but may already have enough plutonium for one or two bombs. Unless the Framework is fully implemented, the North would have access to several more bombs worth of plutonium from spent reactor fuel</p>			

<p>currently in cooling ponds and awaiting canning, which is about 50% complete (p.1). Canning has progressed, but “Department of Energy contractors complains that the North’s cooperation has been uneven and that American technicians have had to do most of the canning...The North views the canning operation as its best leverage” (p.1). The IAEA complains North Korea refuses to cooperate on providing historical documents on reactor production for verification purposes and although the IAEA does not believe the North is currently destroying data, it needs to make sure the history and waste products are being properly preserved for later analysis (p.1).</p>			
12/20/96	State Department		cclxviii
<p>Brief on North Korean food shortage affecting all sectors of society including the military with an inability to purchase grain due to lack of credit and hard currency. However, there are no signs of domestic unrest and the hardship is viewed as a consequence of long enduring imperialism with public confidence in the North Korean government still running high. Japan, South Korea, and China have donated substantial amounts to food to ease the rampant starvation and help the shortage caused by abnormally heavy rains that destroyed vast amounts of crops as well as homes (p.1).</p>			
4/16/97	U.S. Vienna Mission	State Department	cclxix
<p>Cable responding to questions on how well North Korea is cooperating and implementing the Agreed Framework saying verification remains limited, full IAEA safeguards have not been accepted, yet to be in compliance of the Agreement by not allowing IAEA verification, and has not sent information of operating history to the IAEA as it says that is too invasive, but the IAEA has no way to know if the information is even being</p>			

preserved (pp.2-3).			
1/16/98	State Department		Memo ^{cclxx}
Memo on upcoming Four Party meetings stating the U.S. goal is to secure agreement to implement a phased introduction of confidence-building measures and tension-reduction measures with gradual reduction of U.S. sanctions. Many of these measures came from close consultation with South Korea and manly reflect the massive imbalance of North Korean forces on the peninsula.			
3/10/98	State Department		Briefing Paper ^{cclxxi}
Briefing paper describing the many positive inducements to North Korea to show how much it can benefit by the removal of sanctions just as a first phase if it takes substantial measures to reduce tension on the peninsula.			
5/21/99			Talking Points ^{cclxxii}
Talking points for a meeting with North Korean officials by former Secretary of Defense William Perry when asked to review policy toward North Korea by President Clinton. Despite massive ideological difficulties between the two countries, they coexist and prosper together, yet the buildup of forces on the DMZ is unacceptable and “the development by the DPRK of nuclear weapons and long range ballistic missiles represents a clear and present danger and should not continue” (p.8). Even though progress has been made on the Agreed Framework, much more can be done, but the rest of this section until the end of the document is sanitized (pp.9-17).			
10/12/99	William Perry		Policy Review ^{cclxxiii}
Review of U.S. Policy toward North Korea led by William Perry finding North Korea is deterred knowing the strength of U.S. forces in the region and the U.S. and South Korea			

are also deterred from attacking since the war would happen in densely populated areas and cause immense destruction (p.4). The relative stability that now exists could easily be undermined if North Korea acquires nuclear weapons or long-range missiles while also damaging global nonproliferation efforts. Five key policy recommendations include adopting a comprehensive and integrated approach involving both the nuclear weapons and ballistic missile programs; creating a mechanism within the U.S. to implement North Korea policy; continue close coordination with South Korea and Japan; get bipartisan support as no North Korea strategy would succeed without input and support of Congress; create contingency plans for responding to the various ways North Korea could take provocative actions on the peninsula, but not undermine the Agreed Framework at the same time (pp.12-13).

November 1999

U.S. House of Reps.

House Speaker

cclxxiv

Report to the House Speaker Dennis Hastert on the question if North Korea poses a greater threat to national security than it did five years ago with the overall finding being that the comprehensive threat has increased since 1994 and identify some serious U.S. policy weaknesses. North Korea continues developing nuclear weapons; enriching uranium; producing, deploying, and exporting missiles with U.S. policy that does not address effectively address these issues or narcotic trafficking, counterfeiting, promoting human rights, encouraging political and economic liberalization all while providing assistance to a repressive authoritarian regime without proper monitoring. “North Korea has at least enough plutonium for one to two nuclear weapons. There is little reason to believe that North Korea has not or could not make a nuclear explosive device capable of producing a significant yield. North Korea’s ongoing nuclear program activity raises the

possibility that it could produce additional nuclear weapons” (p.7). Despite evidence North Korea continually violates the 1994 Agreed Framework; the administration maintains no violations had occurred and gives certification for the release of aid (p.9).			
6/16/00	State Dept. Staff	Secretary of State	cclxxv
Memo on North-South relations having improved recently with a change to a more lively and active style of diplomacy such that Kim Il Sung practiced until his death with vast swaths of this document sanitized. A change in South Korean leadership also helped make an opening for new talks.			
10/19/00	State Dept. Staff	Secretary of State	cclxxvi
Memo of proposed itinerary for Secretary Albright’s trip to Pyongyang where she is advised that they are somewhat under Kim Jong Il’s control of what happens and to be flexible on her stay due to potential unpredictability. It also advises her to stay two nights for Kim to digest all she has to say and in the event he wants to have another meeting.			
November 2002	CIA		Memo ^{cclxxvii}
Short CIA memo beginning “the U.S. has been concerned about North Korea’s desire for nuclear weapons and has assessed since the early 1990s that the North has one or possibly two weapons using plutonium it produced prior to 1992” (p.1). Despite the freeze at Yongbyon, the nuclear weapons program continues and recent assessment shows the North embarked on a uranium enrichment program two years ago with a plant under construction that could produce two or more weapons a year as early as 2005.			
11/29/02	IAEA	IAEA Board	cclxxviii
IAEA North Korea report on the implementation of NPT safeguards and calls for			

compliance to international commitments as it is part of the Treaty with section (d) “noting with extreme concern recent reports of an unsafeguarded DPRK uranium enrichment programme, and the DPRK statement of 25 October 2002 that it is ‘entitled to possess not only nuclear weapons but any type of weapon more powerful than that’” (p.1).

2/27/03

CRS

cclxxix

Congressional Research Service report on the North Korean nuclear weapons program after it restarted operations at Yongbyon and withdrew from the NPT with the assessment of the major motive to put major pressure on the Bush administration for a nonaggression pact or a new nuclear agreement with added U.S. benefits. Since learning of how aggressively North Korea was working on its uranium enrichment program and the confession of officials it was conducting a HEU based weapons program after confronted by the U.S. with evidence, Bush administration main policy elements are “(1) terminating the Agreed Framework; (2) no bilateral negotiations with North Korea until it satisfies U.S. concerns over its nuclear program; (3) assembling an international coalition to pressure North Korea; (4) proposing multilateral talks involving North Korea and other countries” along with planning for future sanctions and warning that all options are still open (pp.3-5). A 1990 KGB report published in Russian newspapers once in 1992 and again in 1994 states “according to available data, development of the first nuclear device has been completed at the DPRK nuclear research center in Yongbyon. The North Korean Government, the report stated, had decided not to test the device in order to avoid international detection” (p.11).

DIPLOMATIC SUPPORT

UN Security Council Actions

UN Security Council Resolutions

Date	Resolution (Res.#)	Issue	Vote
7/15/06	1695	Condemns ballistic missile test and demand halt to activities	Unanimous
10/14/06	1718	Condemns nuclear test, demand end to missile program, imposes arms embargo, inspection of ships for WMDs and no luxury goods.	Unanimous

UN Vetoes

Date	Veto ID	Issue	P-5 Member
None			

SIPRI

Type	Dates Effective	ID	Notes
Mandatory	10/14/06-Present	UNSCR 1718	Does not cover small arms/light weapons for military use.

Unilateral U.S. Sanctions

TIES Sanction Data

CID	I	TS	SI	SSD	SID	ST	TEC	FINAL
2001020101	9	0	1	2/1/01	5	2,4	1	9
2002101601	6	1	1	11/14/02	5,6	1,2,3,4,5,6,7,8	2	N/A

PIEE

Years	Goal	Success Score	Cost to Target GNP%
1993-1994	Nuclear Proliferation	9	N/A
2002-2006	Nuclear Proliferation	1	.6%

Miller

Type	Years	Outcome
Threat	1993-1994	Failure ¹⁸
Threat	2002	Failure
Imposition	2002-Present	Failure

Force or Threat of Force

No explicit force or threat of force has been used, but implicitly is a different story. Technically, North Korea is still at war as the Korean War never ended in a truce or treaty, but rather a delicate ceasefire. The little known about the internal workings does show the government portrays the constant possibility of outside threat from the imperialist powers wishing to continue the long legacy of conquering the peninsula.

It was described as a member of the ‘axis of evil’ in the 2002 State of the Union speech by President Bush along with watching Iraq being easily conquered under the auspices of WMD production while the Iran became surrounded by the American military with all options still on the table. Also, the Bush administration refused to commit to a no nuclear first use policy against a nonnuclear state.

Security Guarantee

None. However, in 1961, North Korea signed the Treaty of Friendship, Cooperation, and Mutual Assistance, which has been described as a security alliance, but remains unclear exactly what the understanding is between these two countries. This Treaty started the growing solidarity of the relationship later described as close as “lips and teeth.”

¹⁸ Merely switched to HEU production instead of plutonium.

Great Power Shared Border

China. The waters definitely muddy when viewing South Korea and the US security agreement along with the troops and weapons stationed there.

Detonation

Yes. The study for North Korea only goes until their first detonation in 2006, but again in 2009, 2013, and 2016.

Presidential Party

If one believes 1990 was the first nuclear assembly, Republican Bush. If one believes South Korean expressing concern it already has one or two bombs coming out in 1994, Democrat Clinton. If one needs a nuclear explosion, Republican Bush II.

CONCLUDING REMARKS

North Korea represents the clearest case of international nuclear proliferation simply because it started with a plutonium program and then moved to enriching uranium, which in scientific terms is like learning to run before walking. It has long had a close relationship with China during the time period for this study, but that solidarity seems to be cracking a bit in recent years, starting with the 2006 test bringing UN agreement and sanctions and only increasing Chinese anger with each additional nuclear or ballistic test.

Despite all the knowledge of North Korean nuclear activities and the belief by many it had a bomb on the shelf before 1994, it never actually faced sanctions until it tested in 2006. The description of North Korea as an international extortionist, making trouble when it wants something from the world, looks incredibly apt. However, it seems to have played its last card when it tested its nuclear weapon in 2006 with each additional provocative action receiving no more attention than condemnation, but do succeed in bringing joint US-South Korean military exercises as a response.

CHAPTER 9: CONCLUSION

MAIN FINDINGS

The focal question of this study asked why were the five cases presented able to successfully develop nuclear weapons when the world, and more importantly, permanent United Nations Security Council members committed themselves to preventing international nuclear nonproliferation in the form of the Nonproliferation Treaty with the International Atomic Energy Agency policing activities. The hypothesis questions the underlying assumption of a commitment to nonproliferation by posing the idea that the five nuclear additions gained their capability not through security demand or technical ability with nuclear material access alone, but also with the tacit or over support of a P-5 member. The proposed explanation argues this support is provided by one or more Great Powers to confound other Great Powers and protect global interests where supplying credible deterrence proves unfeasible.

The evidence greatly supports a supply-side variable of diplomatic support as the documents show the U.S., as well as other Great Powers were well aware of nuclear weapons programs but never brought punitive sanctions until a nuclear detonation declared for military purposes. With the exception of India and some export restrictions in 1974, it was not until after the Cold War did any of these nuclear weapons programs face the UN Security Council beginning with the 1993 North Korean crisis that merely called for rejoining the NPT. Without the occurrence of 9/11 and the need for cooperation

with Pakistan and India, it would be interesting to see how those sanctions would have stood in a counterfactual where that awful event never happened.

For each successful nuclear club addition, it cannot be said an inevitability of accession exists solely by strong security demand and supply of expertise and nuclear material, but more is necessary. Previous studies never pay real attention to the interests and actions of external powers. In all five cases, P-5 members and particularly the United States and Soviet Union were acutely aware of the states with the most potential to go nuclear and worked hard to stop it. However, some worked harder than others depending on the case, but none acted fiercely enough to make it an international issue to be considered by the Security Council until after the Cold War and after a nuclear detonation for military purposes. From the limited evidence of five cases, it can be shown a state only faces punitive UN sanctions if it conducts a test for military purposes.

The question then becomes why any of the Great Powers would provide this support even though it would diminish their own international influence and power by greatly increasing that of another state. Confounding others by providing this support actually looks less important than not confounding their own international interests by making it a public issue and look as a nonproliferation failure especially when the development seems an inevitability. Great Powers fear this potentially encouraging others if it seems they would face little resistance going nuclear and this also shows the power small states can have over large states interested in the region.

For future study on methodology related to providing security agreements, there must be a better way to measure the ability and political will to provide security assurances. Strictly by the numbers, the United States could have secured Israel and

South Africa, but at the cost of the Arab world and the rest of black Africa. On a micro level, many people could afford a Lamborghini if they do not mind living in it cold, hungry, and broke. Perhaps each case could have been prevented, but finding an acceptable cost for providing security while still covering other expenditures remains a subjective answer. The fascinating part for this study is when the nuclear course a state is taking cannot be diverted through unilateral sticks and carrots, the issue never even went to the UN until after the Cold War. Even then, no sanctions were applied until military nuclear tests occurred.

The underlying assumption that the US always supports nonproliferation efforts holds true as it pressed allies and enemies alike not to develop nuclear weapons and sign the NPT. Consequently, the documents show the Soviets did the same and perhaps pushed even harder than the US. Yet in the five successful cases, the pressure did not work, but nothing punitive came from the Security Council unless a military detonation occurred. Countries were privately well aware of nuclear weapons activities, but never made these issues public and official in a Security Council Resolution until exploding a bomb. Signing the NPT, thus giving birth to the nuclear club created an expectation of policing such activity. Specifically, the P-5 is the only international body capable of policing such activity and accepted the responsibility by ratifying the NPT.

As plainly stated, this work comes squarely from the realist perspective that scoffs at the notion of international policing to fulfill a treaty, particularly if it works against strategic interests or the costs outweigh the benefits. Yet a conflict arises by having both domestic and international harmony in support of nonproliferation, but then actually

having to fulfill the duty to police and punish proliferation despite the geopolitical and strategic considerations of Great Powers in different regional security complexes.

By enshrining nuclear nonproliferation in the NPT, distinguishing between nuclear and nonnuclear states while pledging to keep the status quo led to the nuclear club metaphor due to its exclusivity. The original P-5 members are the architects, owners, operators, and bouncers of the club while also having competing global interests in every other possible realm. U.S. friends and enemies alike tried to join the club, but met resistance. All the bouncers had and shared information on all of those trying to sneak into the club. The U.S. and Russia were the most active at blocking the door while China left the window cracked for a couple friends. Because of the increasing amount of openings to sneak into the club and lack of will and cooperation amongst bouncers against determined and capable prospects, five additional states got into the club yet have no official recognition as nuclear states. It seems Israel, India and South Africa had to sneak in while Pakistan and North Korea were let in. Once in the club, the bouncers did not work to remove the party crasher, but essentially agreed they could stay without true consequence if they remained quietly in a dark corner. The bouncers feared a rush for the door if it appeared they were unable or unwilling to do their self-appointed job, making dereliction of duty the best of bad options. Preventing those outside the club from discovering the entrants became the new task of Great Powers, which not only included states, but the general populous as well.

Keeping nuclear proliferation issues quiet and practicing Q&A for the media and Congress are recurring themes throughout the documents. Another recurring theme in each government analysis is how any country that publicly go nuclear would not only

cause both domestic and international problems for the United States, damaging immediate interests, it would also give a huge blow to the nonproliferation effort, especially a prevalent concern when the NPT was in its infancy. The explanation for not taking the issue to the Security Council goes beyond the divisions that exist within, but with those divisions in mind, an unsuccessful public attempt would also damage the nonproliferation effort. *Thus, maintaining the appearance of nonproliferation becomes just as important if successful nonproliferation cannot be achieved.*

THE STUDY OF SECRETS

The most difficult part of this study is dancing the line between science and conspiracy. The facts do say over 30 countries embarked on a nuclear weapons program, but only five succeeded, which seems like a remarkably low success rate, especially to a realist looking strictly at power and survival in the international system. Both of which, would be greatly enhanced by nuclear weapons.

The hypothesis for this study proposed something more nefarious than what turned out to be the case. It argued permanent Security Council members would provide diplomatic support and protection from international punishment to protect their own global interests and confound other Great Powers in a particular security complex where it could not adequately and credibly provide deterrence. Through a different perspective, the findings actually support Kroenig and his idea of strategic proliferation by non-power projecting states as it initially included all P-5 members of being guilty of such. The U.S. documents do consider geopolitical benefits and alleviation of balancing responsibility if

a state went nuclear in the Israeli, South Africa, and India cases, but the main focus was always nonproliferation and getting a signature on the NPT.

The case of UK and proliferation remains largely unexplored, but as Kroenig has shown along with the documents presented here, there is a definitive split on proliferation views between the U.S. & Russia and China & France. Chinese commitment to nonproliferation has long been questioned, but the surprising finding gives a taste of just how close France was to the South African and Indian nuclear programs while Kroenig had previously detailed the close nuclear relationship France had with Israel. This poses an area well deserving of further study as well as the nuclear relationship between Russia and India, particularly after the Sino-Ruso border war and Chinese opening to the West.

Even with divisions on nonproliferation commitment within the P-5, the question then turns to why the power projecting states would not push harder, whether unilaterally or multilaterally through institutions to reverse these developments or at least create more hurdles for a state by making it public information. Theoretically, the UN Security Council has the task to deal with these issues to protect international peace and security, which certainly includes proliferation. Each P-5 member signed a contract and ratified it within its own government agreeing to prevent the spread of nuclear weapons under the NPT. Besides the IAEA, each P-5 member had its own sophisticated equipment to detect not only detonations and preparations, but also procurement activities. The U.S. passed legislation punishing states guilty of such activities in addition to agreed upon multilateral sanctions. Yet, none of the successful cases faced any punishment until after the Cold War and not internationally until a military detonation. Why?

The declassified documents had been used to establish knowledge on the part of the Great Powers, particularly the U.S., of nonproliferation activities then using sanctions data to show these states did not face punishment until well after being able to build a bomb, if they faced any punishment any at. The Great Powers, defined as the five permanent Security Council members tasked themselves with policing and prosecuting nonproliferation. They clearly had knowledge of such “illegal” activities, but did not act forcefully and publicly.

However, privately, many conversations related to nuclear activities occurred between top officials of Great Powers and the proliferators. The declassified documents utilized in this study did not get their status and remain classified for decades without good reason. Matters of national and international security were at stake in these documents and most were limited only to top officials. Even titles of some documents have only recently been declassified. Clearly, the documents become a bit more scant with each case as the information chronologically gets closer to present date. Many blanks still need filling in, which can only happen years from now when more government information becomes declassified.

To accept the following, one must first accept governments sometimes do “bad things” for the sake of national security where they would greatly prefer the domestic and international public to remain unaware. This is not to cast judgement and a definitive departure from a conspiracy theorist. We have already seen cases with entire books written about such secret relationships, some of which unconfirmed or denied by governments, but still worthy enough of academic publication and discussion.

The relationship between Israel and South Africa has been published as *The Unspoken Alliance* while both have long been speculated to have had some part in the Vela Incident, which still has no definitive conclusion though evidence points to a likely nuclear explosion. Avner Cohen, the leading authority on the Israeli nuclear program if not Israeli security in general labels that bomb as *The Worst Kept Secret* in which he describes the meeting between Nixon and Meir and remains the only one to do so without someone else citing him. *Foxbats Over Dimona* details a potential USSR amphibious attack on Israel under the guise of nonproliferation to destroy Dimona. The documents here show India thanked both the USSR and France for not making a big fuss out of its PNE. The first chapter detailed the confirmed case of France accidentally destroying the Rainbow Warrior in an attempt to disable the ship and continue on with a planned nuclear test in the South Pacific in a scandal that went all the way up to President Mitterrand.

In a case not mentioned here, Richard Thornton (1998) wrote *The Falklands Sting* where he describes the “sting” as Reagan making nice with the Argentine junta, making it believe it would not face U.S. resistance for the Falkland Islands while really being on the side of Thatcher and providing intelligence and material support to the British. While this aided British interests and helped Thatcher’s own political survival, it served different purposes for U.S. interests. He says,

“In terms of the secret nuclear arms race between Argentina and Brazil, which, from the point of view of the United States was the deep origin of the conflict, Argentine defeat brought the end of the military junta that concocted the nuclear program and the return of civilian government... [Argentina] then revealed and abandoned the Argentine nuclear weapons program, and in 1986 reached agreement with Brazil to do the likewise (lasting to this day). Thus, the conflict served major United States foreign policy objectives - civilian rule and nuclear nonproliferation in Latin America” (Thornton, 1998, p. 242).

GREAT POWER INFLUENCE

Realists have long said morals do not apply when considering national security and the need to defend the homeland and everybody within. These secret agreements and covert operations should not actually surprise anyone and would be easy to continue on with examples. The finding explaining why the power projecting states would not make the cases of proliferators public and brought to the Security Council is actually far more benign than previously hypothesized and especially in comparison to past secret agreements between nations.

Security demand is indeed a potent ingredient to spark nuclear proliferation, but previous studies forgot about the policemen of said proliferation. Strong states with a real interest to maintain their own international power and influence. From this study, one cannot say institutions do not work because they had not actually been used until recently to punish a state with sanctions for a nuclear weapons program. Private and quiet diplomacy seem much the preferred method to deal with proliferation issues rather than going to an institution. In every case here, the U.S. and other P-5 members were in discussions with proliferators to urge and negotiate forbearance, but eventually failed with each case crossing the nuclear threshold. What happened and why was the issue not taken to the next level by going to the UN or the outright use of force?

The answer is actually quite simple. If stopping proliferation proves too costly, the next best option is to keep the proliferation quiet and deny official knowledge. This is what I label an *arcane entente*; a quietly held, secret, informal and unofficial agreement

or understanding. Arcane ententes have existed for years and all the above examples represent arcane ententes. It just never had a name before.

In the case of a nuclear arcane entente, the agreement is to keep the nuclear weapons quiet, do not make it into an international issue with tests or declarations, and will not face any problems in return. Definitely not the ideal goal of the U.S. as initially hoped, but the end result is really a case of satisficing. The deal is the best one possible and will both suffice and satisfy; satisfice. This explains why only those that actually detonate for a declared military purpose get punished by the UN as a whole. They have their hands tied to protect the nonproliferation effort.

If one were to believe in a thing called “international law,” what the U.S. and other Great Powers are really guilty of is some level of “mens rea.” A Latin legal term meaning “guilty mind” with different levels of culpability including the knowledge of a crime being committed or “recklessness” which in U.S. legal terms translates to “willful blindness.” This term serves as a more accurate description of what I call “diplomatic support” throughout the text. P-5 members did not actually support the programs, but looking the other way was much more palatable than actually doing something about it. China and France are both areas for further studies while the U.S. and Russia both deplored nuclear proliferation yet never reached the point to attack facilities, let alone bring the issue not only to the world with a public declaration, but also to the United Nations through a proposed resolution with sanctions.

This study shows a ridged adherence to any IR paradigm would not be able to hash out details and accurately answer why these five states succeeded despite protests and abilities of the most powerful. The neorealist looks for balancing in the system

where little else matters beyond the distribution of power. Realists easily discount the utility of institutions, but a modern realist realizes they do exist and cannot be written away to ontological foundation. Institutions act as arenas to balance relative gains into absolute gains where nonproliferation and protecting global influence is an absolute gain for all P-5 members.

When a realist considers the world as one with some loose governing rules and institutions as well as opening the black box of domestic politics to bring back policy agents, it becomes obvious these developments go beyond more than just power considerations. Realism provides a useful roadmap to compare what one should theoretically expect compared to what really happened. With a ridged realist analysis excluding the role of institutions and policy agents, mixed explanations emerge. A classical realist expects these states to arm with nuclear weapons for security while a neorealist would expect a powerful actor or coalition to stop a new nuclear state that would jeopardize its regional influence and perhaps future national security.

When bringing back policy agents, power considerations look much less important than a state maneuvering to avoid hurting itself or getting dragged into some conflict without reward. A realist thinks in terms of power and interests. In these cases, securing interests such as not looking complicit in the creation of a new nuclear state or undermining the credibility of the nonproliferation regime might only be secured by sacrificing power and quietly allowing a new club member. Institutionalism is a liberal construct, but nuclear proliferation has not been studied by any paradigm putting them into practice. Realists should pay more attention to institutions since when viewed through this study, utility is not the issue, but rather the publicity it would bring, domestic

legal requirements it would induce, and the potential fallout it would cause all hurt interests.

States not following international law is nothing new, but this study examines the makers of the law and finds a dereliction of the policing, prosecuting, and punishing duties the P-5 members appointed themselves with. International delinquents faced Superpower pressure, but were able to successfully fulfill nuclear weapons aspirations without facing further pressure with it becoming a public international issue not because of the perceived geopolitical benefits, but the best option in a bad situation that still protects the concept of any nonproliferation norms while preventing further proliferation, arms races, requests for security agreements, and the maintaining the illusion of successful policy implementation. Indeed, Clinton championed his 1994 Agreed Framework with North Korea, while it's more likely than not Kim Jong Il already possessed one or more plutonium bombs.

Only the uniqueness of the methodology could have shown the conclusions found here, some of which such as Great Powers not fulfilling international contractual obligations seem like simple common sense, but has never had ink put to paper as it required a diverse and multifaceted approach to be a persuasive and convincing argument instead of speculative conjecture bordering conspiracy. Simply put, those that appointed themselves proliferation police witnessed what they all agreed to be a crime through international law and only pursued some form of prosecution in a private way and to minimal extent. Previous studies utilizing declassified documents merely tell a history story while this study utilizes said documents to create the poorly named variable of diplomatic support. It establishes knowledge of proliferation activities by Great Powers

that did nothing in the way of punishment confirmed not only by looking at sanctions during the period of proliferation, but also revealed from the actual documents as the preferred route to take.

Could these programs have initially been prevented with security agreements? Security agreements and providing a nuclear umbrella was and remains most definitely an efficient tool for preventing proliferation by both the U.S. and USSR, but the ability to provide security does not necessarily depend on economic capacity, but rather the global repercussions of firmly taking sides with a state embroiled in a difficult international political position. Perhaps an agreement could have prevented proliferation, but the enormous political price of committing foreign policy in defense of another country with an inability to control the situation is obviously great, but there is no good way to measure such a delineation except conceptually.

As detailed in the literature review, some would say this gives credence to the idea that each successful case has its own unique and unrepeatably historical circumstances as only five states straddling a precarious international position between the Great Powers were able to slip into the club. The circumstances may be unique, but far from unrepeatably. Many states still remain of particular interest to Great Powers, causing divisions. Smaller states with security problems and of interest to the Great Powers, but far from their respective spheres of influences such as Saudi Arabia could find itself under these circumstances. The uniqueness of these circumstances could easily vanish and become quite commonplace if the U.S. ended security agreements or support for nonproliferation, leaving nuclear abstinence dependent upon the power of norms. It goes back to the old mantra that loyalty cannot be bought, but it can be rented.

FINAL REMARKS

That leads to the future of nuclear nonproliferation if security agreements, nuclear umbrellas, and providing advanced conventional arms really prevent proliferation by easing security concerns of others as well as the true role and even the very existence of nonproliferation norms in forbearance. For instance, Japan has an anti-nuclear culture, but originally required the U.S. to give back Okinawa along with a security agreement for signing the NPT. Future studies looking at nuclear forbearance cannot simply look at the presence of a security agreement, but take an in-depth historical look, especially using declassified documents and accounts from top officials to potentially find more inducements for states not to go nuclear instead of some internationally shared anti-nuclear morals. The method is the link bringing neorealism back to the real world with real people with real thoughts and that have real differences in how to proceed.

This analysis brings back the domestic actors in foreign policy, a policy continued with bipartisan support for decades to unsurprisingly find disagreements within internal government discussions. Ultimately, not only does the final decision rest with the President, the information is only available to the President and his close inner circle. Lower levels of bureaucrats and congressmen looked into nuclear programs long after nuclear possession was a foregone conclusion to the highest in government. Top officials disagreed on different approaches and stances to each program despite status of ally or adversary, but still supported and worked toward the nonproliferation policy in each case although recognizing potential geostrategic benefits.

Seeing how information remained and still remains strictly available to a small group, many challenges emerge studying contemporary proliferation and holes need filling from past studies. With the documents showing early knowledge of nuclear weapons programs. This brings back acquisition dates for each case study, which has varied considerable in research until now. From a U.S. perspective of knowledge of a state having a bomb, the earlier dates apply best, but dates would be earlier if the bar was set at having the ability to build a bomb. These dates will change slightly when more empirical evidence comes available. The table includes prospective earlier acquisition dates, but future studies should not use later dates as it simply does not correspond to empirical reality.

State	Date (potential earlier date)
Israel	1969 (1967)
India	1974 (1972)
South Africa	1979 (1977)
Pakistan	1987 (1986)
North Korea	1994 (1991)

Israel may have possessed a bomb on the eve of the 1967 war, but as documented by Cohen, a scholar known for his unprecedented access to Israeli nuclear history details how Nixon received confirmation from Meir in 1969. Besides documents confirming U.S. knowledge on Indian nuclear ability before the test, 1974 is the day the U.S. received confirmation after its PNE that some Indian officials later admitted had nothing peaceful about it. South Africa was an instant suspect after the Vela Incident where only the Carter administration pushed the public idea it was not a nuclear explosion while most observers agreed it was along with the Soviet press openly accusing the U.S. of

collusion. The U.S. was exceedingly close to Pakistan while the Soviets rolled thunder through Afghanistan and documents starting in 1987 were concerned with diffusing a situation caused by a Pakistani national getting caught violating nuclear export laws and not having it lose aid because of Congress. Documents dated 1987 admit it had the technical expertise and interprets some “pledge” made to President Reagan as remaining a “turn screw away” from having a nuclear device while Pakistani officials claim to have assembled a bomb in 1986. The opening document speculates North Korea has a bomb in 1994 while a familiar rumor stirs that it watched a nuclear detonation along with Pakistani delegates in 1991 on a Chinese test site. As the documents only start in 1994, it is a particularly interesting case for expansion.

Having any type of nuclear weapon is an area where theory and practice diverge, especially among thinkers from a U.S. military perspective on nuclear proliferation. Whereas the U.S. has enemies thousands of miles away, our successful cases all have an enemy next door. The U.S. thinks in terms of sophisticated nuclear warheads attached to the most advanced delivery systems that can hit a target with pinpoint accuracy after traveling halfway across the globe. This is not how the successful cases thought and either tested the nuclear explosive as a PNE, hid the explosion, prepared to test, or had military plans not to attack, but to test during times of crises to force the U.S. to intervene as seen in the Israeli and South African cases.

For those that tested a weapon, each shares a border with a Great Power, specifically, China. This brings more suspicion to Chinese commitment to NPT, but also an area of further study as all states that tested nuclear weapons faced no Chinese criticism. It seems China has a more Waltzian view on proliferation and feels a stable

regional balance of power rests on nuclear weapons. All maintain a minimal nuclear deterrent with the exception of the U.S. and Russia who find security in being able to destroy the world ten times over or create weapons they cannot even use in fear it might catch the atmosphere on fire.

The Great Powers play a significant role in determining who joins the nuclear club as well as maintaining nonproliferation as a global ideal. This norm is one they created, entrepreneured by the U.S., as well as taking the de facto positions of police, prosecutor, judge, jury, and executioner for all nuclear aspirants. However, there is no department of internal affairs. No way to police the police except for a study like this that shows the U.S. and other Great Powers were aware of nuclear programs and never used the institutions created to handle these situations until well after the Cold War. Quiet diplomacy took place with internal struggles on what path to take, but the ultimate U.S. goal was nonproliferation.

The five successful cases are unique, but have the similarity in that the U.S. had little power or will to stop the programs leaving the best option to keep everything quiet. In the end, a more modern realism wins the day in explaining state behavior as the P-5 members did not use institutions and acted selfishly when it came time to take meaningful action to stop programs, but instead took actions mainly directed not to hurt themselves with the added benefit of confounding another Great Power. The future of nonproliferation may well depend upon commitment to security agreements or if the Great Powers find themselves hamstrung by the economics and geopolitics of providing deterrence rather than norms or even commitment to the policy itself.

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APPENDIX: DECLASSIFIED DOCUMENTS

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- ⁱⁱ NIE 4-66, "The Likelihood of Further Nuclear Proliferation," January 20, 1966, Secret, excised copy Source: Lyndon B. Johnson Library, mandatory review release; currently under appeal. National Intelligence Estimate. NIE 4-66. From Deputy Director of CIA. Jan. 20. 1966. Pp1-25. <http://nsarchive.gwu.edu/NSAEBB/NSAEBB155/prolif-12.pdf>
- ⁱⁱⁱ State Department Briefing Paper for Eshkol-Johnson talks, "Israel: The Nuclear Issue and Sophisticated Weapons," December 31, 1967, Secret/Exdis (Note 1) Source: Department of State Records, Record Group 59 [RG 59], Subject-Numeric Files, 1967-1969 [SN 67-69], DEF 12 <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-01.pdf>.
- ^{iv} Parker T. Hart to Secretary Dean Rusk, "Issues to be Considered in Connection With Negotiations With Israel for F-4 Phantom Aircraft," October 15, 1968, Top Secret/Nodis /Sensitive Source: SN 67-69, Def 12-5 Isr <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-02.pdf>.
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- ^{vi} Memo of Conversation Israel/US on F-4s. Nov. 4, 1968. (80-82). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf
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- ^{viii} Memcon, "Negotiations with Israel - 4F and Advanced Weapons," November 8, 1968. Top Secret <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-03b.pdf>.
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- ^{xi} Memo of conversation Israel/US on F-4s Nov. 12, 1968. (90-93). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf
- ^{xii} Israeli embassy letter from Rabin to Warnke. Nov. 22, 1968 (104-105) http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf.
- ^{xiii} Memo of conversation Israel/US on F-4s Nov. 22, 1968. (94-97). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf
- ^{xiv} Memo of conversation Israel/US on F-4s Nov. 26, 1968. (98). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf
- ^{xv} Letter from Warnke to Rabin. Nov. 27, 1968 (106-107) http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf.
- ^{xvi} Paul C. Warnke to Ambassador Yitzhak Rabin, November 27, 1968. Secret <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-03d.pdf>

^{xvii} Memo of conversation Israel/US on F-4s. Warnke and Rabin present. Nov. 29, 1968. (99-101). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf

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^{xxi} National Security Decision Memorandum 6, "Presidential Decision to Ratify Nuclear Non-Proliferation Treaty," February 5, 1969. Secret Source: Declassification release by NSC <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-04.pdf>.

^{xxii} Henry Owen to the Secretary, "Impact on U.S. Policies of an Israeli Nuclear Weapons Capability," February 7, 1969. Secret/Nodis/Noform Source: SN 67-69, DEF 12 Isr <http://nsarchive.gwu.edu/NSAEBB/NSAEBB189/IN-05.pdf>

^{xxiii} Assistant Secretary of Defense for International Security Affairs [ISA] Paul Warnke to Secretary of Defense [Melvin Laird], "Stopping the Introduction of Nuclear Weapons Into the Middle East," 15 February 1969, with attached record of Rabin-Warnke conversations, October-November 1968, Top Secret, excised copy <http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%201%202-15-69%20Warnke%20report.pdf>

^{xxiv} Memo for Sec of Defense from Assistant Sec. of Defense. Stopping the Introduction of Nuclear Weapons into the Middle East. Feb. 15, 1969. (63-65). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf

^{xxv} Telephone conversation transcript, Henry Kissinger and William P. Rogers, 17 February 1969, excised copy, under appeal Location of original: Nixon Presidential Library, Henry Kissinger Telephone Conversation Transcripts <http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%202%202-17-69%20Kissinger%20telcon.pdf>

^{xxvi} Memorandum from Ralph Earle, Office of International Security Affairs to Secretary of Defense Laird, "Stopping the Introduction of Nuclear Weapons Into the Middle East," 21 February 1969, enclosing memorandum from Secretary of Defense Laird to Secretary of State Rogers, National Security Advisor Kissinger, and DCI Helms, same subject, 27 February 1969, top secret, excised copy <http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%203%202-27-69%20Laird%20memo.pdf>

^{xxvii} Memo for Sec. of Defense from Assistant Sec. of Defense. Stopping the Introduction of Nuclear Weapons into the Middle East. Feb. 23, 1969. (p. 67). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf

^{xxviii} Memo for Sec. of State, NSA advisor, CIA Director from Laird. Sec of Defense. Stopping the Introduction of Nuclear Weapons into the Middle East. Feb. 27, 1969. (p. 66). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf

^{xxix} Deputy Secretary of Defense Memorandum to Laird, 14 March 1969, Top secret, excised

copy <http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%204C%20Pages%20from%20Doc%204%205-5-69%20stash%20re%20Feb%201969-2.pdf>.

^{xxx} Secretary of Defense Melvin Laird to Secretary of State et al., "Stopping the Introduction of Nuclear Weapons into the Middle East," March 17, 1969. Top Secret, excised copy Source: Nixon Presidential Materials Project (NPMP), National Security Council Files (NSCF), box 604, Israel Vol. I

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^{xxxii} Secretary of Defense memo to Secretary of State et al, 17 March 1969, Top Secret, excised copy <http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%204B.pdf>.

^{xxxiii} Correspondence between Nixon and Meir in two separate letters. March 20-21, 1969. (76-79). http://fas.org/irp/offdocs/nssm-nixon/nssm_040.pdf

^{xxxiiii} Joint Chiefs of Staff memorandum on "Nuclear Missile Capability in Israel," 26 March 1969, Top Secret, excised copy

<http://nsarchive.gwu.edu/nukevault/ebb485/docs/Doc%204E%20Pages%20from%20Doc%204%205-5-69%20stash%20re%20Feb%201969-4.pdf>

^{xxxiv} Secretary Rogers letter to SecDef, 28 March 1969, Top Secret

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