

Miscommunication and Misunderstanding: Eisenhower, IRBMs, and Nuclear Weapons in the
NATO Alliance

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Abstract

President Dwight D. Eisenhower's New Look security policy put nuclear weapons at the forefront of U.S. defense efforts. Due to the lack of an effective Intercontinental Ballistic Missile in the mid-1950s, the U.S. required European cooperation to launch an attack on the Soviet Union. This dissertation reveals the difficulties of the New Look defense policy regarding missile development, allied cooperation, and an almost singular focus on Europe as the primary area of concern for U.S. and allied security. These difficulties arose from bureaucratic infighting between the U.S. Army and U.S. Air Force, tensions between the U.S., U.K., and France, and the overarching threat of an all-out nuclear war with the Soviet Union. President Eisenhower did not have an easy task in balancing these competing interests and this study reveals the importance for U.S. political leaders to understand the impact of defense issues not only on U.S. interests but also allied regional and strategic priorities.

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Introduction

President Eisenhower faced many security threats during his administration. During his term in office, thermonuclear war with the Soviet Union was a constant threat. He and his Soviet counterpart, primarily Nikita Khrushchev, both had the ability to level weapons of previously unimaginable power. Understanding how Eisenhower dealt with this security threat is important to understanding his New Look defense policy and his views on how to wage war in the atomic age. A fundamental part of his approach to this security problem was putting more emphasis on technologically advanced atomic weapons. One of the primary weapons systems Eisenhower focused the nation's research efforts on was the Intercontinental Ballistic Missile (ICBM). However, in the mid-1950s, no one believed that these weapons would be ready until the middle of the next decade. The President had to have a more immediate response to the ever growing Soviet military threat. This answer was the Intermediate Range Ballistic Missile (IRBM). The problem with these weapons was that they did not have ability to destroy Soviet targets from the continental United States; they would have to be launched from Europe to reach the U.S.S.R.

President Dwight Eisenhower's decision to deploy IRBMs to Western Europe in the late 1950s had strategic, military, and political objectives. Most works that previously discussed these weapons investigated them from a military point of view. According to this interpretation

only, the IRBMs were of limited value. The missiles, which were operational from 1959 through 1963, were inaccurate, took a long time to launch, and once deployed were already obsolete because of the success of the Navy's Polaris solid-fuelled IRBM program and unanticipated success in the ICBM research efforts. However, the military value of these weapons was not the most only component of the decision to deploy them to Western Europe.

The IRBMs influence on the NATO alliance and American security concerns outweighed their relatively limited military value. As a result of the IRBM deployment, the Anglo-American relationship improved greatly. With this missile deployment, President Eisenhower began the process that he hoped would move America's commitment to NATO away from ground forces and towards missile and strategic bomber forces. He also used their deployment to calm domestic fears after the Soviet launch of *Sputnik*. However, not all the effects of this decision were positive. The establishment of IRBMs in Western Europe solidified a two-tiered alliance in NATO between nations with nuclear weapons – the U.S. and the U.K— and those without nuclear weapons. Finally, the deployment of IRBMs contributed to the French exit, under Charles de Gaulle, from the military alliance.

Deploying IRBMs was one part of President Dwight D. Eisenhower's New Look defense policy. This program sought to weave fiscal and national security into one strategy. In order to do this, Eisenhower had to find different solutions to the serious defense challenges faced by the nation. Atomic weapons seemed to provide a way to deliver maximum deterrence and protection at the lowest possible cost. By the mid-1950s, decreases in the size of nuclear warheads, improvements in guidance systems, and more effective propulsion methods made it possible for missiles to strike the Soviet Union from Western Europe. IRBMs offered a new way for the

United States to protect its European allies that did not require sustaining numerous Army divisions far away from the U.S. The problem for Eisenhower was how to integrate these weapons into the American and NATO defense structure; a corollary to this issue was determining how much control each individual nation would have over the use of these missiles.

IRBMs were part of the new focus on nuclear warfare under President Eisenhower. The controversy over atomic weapons and their use in defending Western Europe also stirred animosity in the U.S. defense community. The Army, which lost its long-range missile program to the Air Force, saw its budget and manpower levels erode after the Korean War. In contrast, the Air Force received almost half of the national defense budget under President Eisenhower. The deployment of IRBMs to Europe represented the dominance of airpower and the decline of ground forces in national security. The struggle over which service should control long-range missile research and development had political and budgetary implications that went beyond the control of specific programs. Again, looking at the IRBMs only from a military perspective clouds their real influence on the struggle between service branches to prosper under the New Look defense policy.

This clash between the Army and the Air Force took place in the new paradigm of atomic warfare. President Eisenhower had the capability to destroy nations with a large arsenal of thermonuclear weapons. The United States tested its first fusion weapon, otherwise known as a hydrogen bomb, in 1952. The Soviet Union tested its first atomic bomb in 1949 and its first hydrogen bomb in 1953. Britain also developed fusion nuclear weapons during the early 1950s. President Eisenhower was the first President to preside in an era when both superpowers had the capability to launch thermonuclear war. Examining Eisenhower's decision to deploy IRBMs

from a military and political perspective explains how he intended to combat the Soviet threat, maintain a viable nuclear deterrent, and balance military spending in the thermonuclear era.

During the 1950s, Great Britain and the United States were the only two nations in the NATO alliance with independent nuclear arsenals. By the end of the decade, nuclear weapons provided a barometer for judging a nation's standing in the alliance. France, which did not have an independent nuclear weapons arsenal at the time, was not in the same tier as Britain and the United States. This influenced the character of the IRBM deployment agreements offered to Britain and then to other NATO nations.

Charles De Gaulle, France's President from 1959 to 1969 thought France deserved recognition for its importance to the alliance with an IRBM deal similar to the one offered to Great Britain. He believed that the U.S. offer of IRBMs held under U.S. control was insufficient. He did not believe that Washington would sanction the use of IRBMs to defend French national interest if it did not align with American security needs. Because of this France, in de Gaulle's opinion, required independent control of the missiles in order to use these weapons best for its own protection. He also wanted the United States to offer technological assistance in addition to national ownership of IRBMs for France, both of which Britain received. President Eisenhower did not want the number of nuclear nations to increase. He wanted the deployment of IRBMs to Europe to offer the protection of atomic weapons without the problems of nuclear proliferation. Eisenhower hoped that this plan would forestall the creation of an independent French nuclear arsenal in favor of a unified European nuclear umbrella under NATO auspices. The roots of this decision are evident in the New Look defense policy, written in 1953. However, looking at the missiles from a military perspective leaves aside the discussion of issues like national control of

these weapons and why certain nations, like Britain, received more generous terms than other nations, like France. This dissertation, by including the political aspects of Eisenhower's decision to deploy these missiles, will illustrate the importance of these weapons to the NATO alliance and the security of Western Europe.

In addition to the two-tier atomic structure, personality differences played a role in diplomatic relations between NATO senior member states. President Eisenhower, while Supreme Allied Commander in World War II, worked with both Charles de Gaulle and Harold MacMillan. His relationship with MacMillan, who would later serve as Prime Minister while Eisenhower was President, improved the Anglo-American alliance. De Gaulle, however, was a frustration for Eisenhower during World War II and this continued when de Gaulle became the French premier. These personal differences colored the diplomatic interactions between these three important NATO nations. Interpersonal conflicts do not receive sufficient attention when considering only the military aspects of the deployment of IRBMs. The addition of the political perspectives will show how important such issues were to the NATO alliance in the early Cold War period.

Underlying the reliance on nuclear weapons was the doctrine of Massive Retaliation. This was an evolution of the United States policy on the use of atomic weapons. The term, coined by Secretary of State John Foster Dulles in a speech to the Council of Foreign Relations in 1954, formed the basis for President Eisenhower's views of deterrence. The doctrine stated that the U.S. did not consider itself bound to limit its response to the scale of the Soviet attack or intervention. The focus on atomic warfare influenced the NATO alliance in terms of military planning and political prestige.

Nuclear weapons were just as much a political barometer of power as they were a measure of military might. President Eisenhower's defense policy's focus on nuclear weapons made them paramount. The possession of an independent nuclear capability had a direct influence on the IRBM agreement offered to the United Kingdom. France did not receive the same offer of cooperation, in part, because of its lack of such a program. The Franco-American agreement came under NATO auspices, whereas the Anglo-American agreement was outside of the NATO alliance. Although these were military agreements, they revealed the political importance of being a nuclear nation.

The New Look defense policy focused defense spending on nuclear weapons and maintaining the ability to launch nuclear assaults on the Soviet Union. Part of this emphasis included improving the United States' bomber and missile capability. ICBMs and IRBMs represented two different ways to strike the Soviet Union. IRBMs played an important role in the New Look and the defense planning for Western Europe.

These missiles would provide NATO forces the ability to withstand and destroy a Soviet invasion. Eisenhower did not want to increase America's ground forces in the region and he believed that without an increase of manpower or IRBMs, NATO would be unable to stop a determined Soviet attack. IRBMs would provide the alliance the ability to destroy a significant amount of invading Soviet forces making it possible for a reduced ground force to fight and prevail. The missiles, in most cases, would remain under American or NATO control and would not be the property of the individual nations. Officially, American forces would control the nuclear warheads and only transfer them to the missiles in case of an attack.

The first generation IRBMs were liquid fuelled rockets with a rudimentary guidance system. There were two different models, the Jupiter and the Thor. The Army developed the Jupiter missile, which it intended to use with a mobile launcher. This would allow forces on the ground to hide the weapons when they were not in use. However, the Army lost control of the program to the Air Force in 1956. This ended the mobile launcher concept. The Air Force design used fixed launch sites. These had hardened bunkers that housed the missiles. However, because hiding these facilities was impossible they became obvious targets in the opening salvo of a conflict.

Another drawback of IRBMs was that they were unable to launch quickly in response to a Soviet attack. The liquid oxygen fuel could not remain in the missiles on the launch pad for a prolonged period. In the event of an alert, the launch teams required almost an hour to fuel and prepare the missile for action. This lag between alert and ability to fire raised many question in host nations about the viability of these weapons as a real second-strike option. These were not the only doubts that nations had concerning the IRBM deployment.

Eisenhower's understanding of warfare in the atomic age affected his view of the place of nuclear weapons in national defense. During his second term, he continued to see warfare in the post World War II period as atomic in nature. Although Campbell Craig argues in *Destroying the Village* that Eisenhower moved away from Massive Retaliation during this time, it is clear that this doctrine remained the central defense paradigm. Eisenhower often talked about balance in national defense and decried favoring only one type of weapon to protect the nation but his actions tell a different story. During the late 1950s, the Army continued to suffer budget and force reductions while the Air Force's missile programs continued to receive significant funding.

Massive Retaliation was not just a doctrine that Secretary of State John Foster Dulles created, it also represented the vision that Eisenhower had of future conflicts. This understanding of the changing character of warfare made national control of nuclear weapons a matter of political importance and not only a military planning concern.

Massive Retaliation was Eisenhower's creation, not just a policy that John Foster Dulles foisted upon the President. President Eisenhower thought that it was effective because of his understanding of Clausewitz's work *On War*. Eisenhower intended this policy to increase the cost of starting a conflict for the Soviet Union to such a level as to make it impossible for any political goal to justify it. This connection between politics and warfare is a fundamental part of Clausewitz's work and the New Look defense policy uses this to inform its stance on nuclear weapons. Eisenhower wanted to make it clear that the United States would fight a total nuclear war with the Soviet Union in the hopes that this would prevent the Soviet Union from risking such a conflict. This made the reliance on nuclear weapons seem like a viable option. These weapons provided a superior level of security and deterrence than conventional forces. One problem with the policy of Massive Retaliation was that it did not protect against the full range of possible conflicts. Limited wars, like the Korean War or communist insurgencies were a poor fit for such a black and white policy approach to warfare.

In order to fully appreciate why Eisenhower's decision to deploy these missiles in the late 1950s it is important to know how he viewed warfare in the atomic age. IRBMs and their role in Western Europe were a part of this understanding of how nuclear weapons changed warfare. These weapons accomplished the political objective of preventing a general war with the Soviet Union. Their importance was not their specific military capabilities but rather what they

represented to the Soviet Union and Eisenhower's commitment to the doctrine of Massive Retaliation.

The Cold War pervaded every security concern that Eisenhower faced during his presidency. His first defense priority was preventing a general conflict with the Soviet Union. Of almost equal importance was maintaining the alliance against the U.S.S.R. This required keeping a viable deterrent and ensuring that America's allies felt that an alliance with the U.S. provided more benefits and security than neutrality. Eisenhower had to address both the military and political tensions in the alliance. IRBMs became a tool to offer security to allies in Western Europe. They also became a way to repair relations with Great Britain after the Suez Crisis caused a rift between the U.S., the U.K., France, and Israel.

The Suez Crisis of 1956 had serious implications for NATO and the defense of Western Europe. President Eisenhower chose not to support U.S. allies, preferring instead to use diplomatic pressure to keep the Soviet Union out of the fight. In the aftermath of the conflict, the relationship between France, Great Britain, and the U.S. deteriorated. Although Eisenhower intended to repair the connections with both nations, he chose two different approaches to do so.

Thus, Great Britain received an offer of IRBMs and technological assistance in nuclear research. The Bermuda Conference in 1957, between President Eisenhower and Prime Minister Anthony Eden, provided a venue for Eisenhower to mend relations with the United Kingdom. Vital to this was the offer of not only the IRBMs but the promise of future collaboration and sharing of nuclear research technology and information. Although President Franklin Roosevelt promised full cooperation with the British in atomic research, President Harry Truman changed American policy to make it much more restrictive and, in effect, broke the accord establishing

the joint Anglo-American nuclear program. Investigating how these weapons worked to address this political problem in the NATO alliance demonstrates their political importance.

In contrast to Britain, France did not receive such a generous offer of cooperation in nuclear research or of IRBMs. Although the administration offered the missiles to France in 1958, it did so under the control of NATO. Britain received missiles independent of any agreement with NATO. France, at this time, did not have its own nuclear weapons arsenal. When President Charles De Gaulle took charge of France, he wanted to improve France's position in the alliance. He expected America to provide some technological aid to shorten the time for France to achieve its own nuclear program, as a sign of France's position in the alliance. However, President Eisenhower was against a nuclear armed France. President Eisenhower did not support any addition to the number of nations with atomic weapons. This placed France in a decidedly junior position in the alliance in relation to Britain and the United States, a position that maintained its World War II and post-World War II status.

The deployment of IRBMs to Europe did not have the effect that Eisenhower intended. It divided the three most senior members of the alliance and created suspicion in other nations about the true nature of America's commitment to NATO. This work will show how the offer of these weapons to Britain and France fit into Eisenhower's conception of atomic warfare and national security. Finally, it will describe how America's allies, specifically Britain and France, reacted to the deployment of these new weapons to Western Europe.

The dissertation, by focusing on both the military and political ramifications of the IRBMs, will explain why considering the political impact of the deployment of IRBMs to Western Europe requires addressing their importance not only in NATO defense planning but

also how their arrival sparked tensions between the three senior members, France, Great Britain, and the U.S. This will add a level of understanding that is absent from other works addressing these weapons and their effect on the NATO alliance and American national security.

This analysis will demonstrate how the New Look defense policy operated during Eisenhower's second term. Although there are many works concerning the New Look, few concentrate on how that policy actually influenced specific decisions. Although his conception of modern war decreased the role of ground forces in favor of the air forces, it did not realize the expected savings in defense appropriations and the over emphasis on technology created a pattern and culture that influenced defense procurement even today. This work investigates the development of IRBMs from both the technological and economic aspects to determine how the reliance on technologically sophisticated weapons impacted the budget outlays during Eisenhower's administration.

Understanding Eisenhower's conception of atomic warfare is important because it sheds light on why the New Look defense policy was so consistent. This work will discuss how the Army fared during the late 1950s under decreasing manpower and budget allocations, under a growing Communist threat in Europe and Asia. Eisenhower's understanding of nuclear war influenced not only the New Look but the NATO alliance as well. The work begins with a discussion of the formation of the New Look defense policy, including how President Eisenhower created the policy and what he expected it to achieve. It will cover Project Solarium and how this conference provided the framework for writing the new defense policy. This gives insight into the foundation of the New Look and demonstrates Eisenhower's focus on national defense combined with economic constraints.

The second chapter explains how Eisenhower understood war in the atomic age. It discusses how his experience in World War II shaped his conception of how these weapons altered military conflicts. This supplements the chapter about the New Look defense policy and will prove that the doctrine of Massive Retaliation was something that meshed with Eisenhower's conception of nuclear age warfare.

The following chapter covers the development of American missile technology and the evolution of cooperation on nuclear matters between the United States and the United Kingdom. This chapter also discusses the changes in the cooperation between the U.K. and the U.S. from World War II through the early Cold War period. This will provide the context to demonstrate how much of a benefit the technical cooperation agreement offered to Britain at the Bermuda Conference was. This chapter will reveal the problems between Great Britain and the United States concerning nuclear cooperation and how the balance of power in the relationship inverted after World War II, leaving Britain in the junior position.

The fourth chapter deals with how the Suez Nationalization Crisis affected the NATO alliance. This chapter will not discuss the crisis in detail but will try to explain how it influenced relations between the United States, Great Britain, and France. The main focus will be on the Bermuda Conference and its role in repairing the Anglo-American alliance. Central to this rapprochement was the offer of IRBMs and nuclear cooperation.

The Soviet launch of *Sputnik* will be the basis for the fifth chapter. This event pushed Eisenhower to expand the deployment of IRBMs to other Western European nations and speed up the IRBM research effort. This chapter asserts that the domestic security concerns raised by the Soviet launch put more pressure on the IRBMs to narrow the gap between the perceived

superiority of Soviet military capability and the U.S. The launch of *Sputnik* spurred a broader IRBM program but the framework of the Anglo-American agreement was not the best platform for such an expansion.

Chapter six discusses the diplomatic and military agreements offered to the NATO alliance as a basis for the deployment of IRBMs. It shows the American point of view of the agreements and what concerns that American policy makers had. It will explain how President Eisenhower and his administration believed this program would work and how it fit inside of the NATO alliance.

The final chapter will show how France, and primarily Charles de Gaulle, reacted to the offer of IRBMs. It explains how the assumption of leadership by de Gaulle changed the relationship between the United States and France. This chapter argues that the informal two-tier alliance structure, based on independent nuclear programs, was not acceptable to the French premier. This chapter covers this relationship from the American point of view. This is important because it will reveal how American policy makers understood French reactions to American policy decisions. It will also describe how nuclear weapons, and the IRBMs specifically, were important politically in terms of perceived importance in the alliance.

The literature concerning IRBMs and their deployment in the 1950s to Western Europe does not cover the major questions answered by this dissertation. There are few works that directly discuss these weapons, because of their military obsolescence. This dissertation shows that the weapons were not as important in military terms as they were political terms.

Philip Nash's work *The Other Missiles of October* is one of the few works to directly address this issue. His narrative spans the end of Eisenhower's administration and the beginning of Kennedy's administration. Nash argues that the launch of *Sputnik* was the major international event that spurred the decision to deploy IRBMs to Europe. Although Nash does discuss how the Suez Crisis of 1956 influenced the initial offer of IRBMs to Britain, he argues that *Sputnik* was more important. Nash's work accurately analyzes the complications of deploying IRBMs to Europe and the lack of enthusiasm for such weapons. However, he does not discuss the formation of Eisenhower's nuclear policy and how the Suez Crisis forced a major change in that policy. In this dissertation, I investigate the evolution of Eisenhower's nuclear policy in his second term and show the influence of the Suez Crisis, *Sputnik*, and the deployment of nuclear weapons to Europe in the late 1950s. Nash's work focused on the deployment of IRBMs to Europe, this dissertation will focus more on Eisenhower's nuclear policy, how that policy justified the deployment of IRBMs, and what the implications of that policy were.

Michael Armacost's *The Politics of Weapons Innovation* discusses the strained politics that complicated the development of America's first IRBMs, the Thor and Jupiter rockets. Both the Army and Air Force developed an IRBM weapon system, because the services had different operational needs for such systems. The political infighting prevented the rapid fielding of a missile and delayed the deployment of IRBMs. The Army wanted to build a mobile launch vehicle, while the Air Force designed one that required a reinforced permanent launching site. Both services designed their missiles to use liquid fuels and neither contained effective targeting technologies. Finally the Secretary of Defense, Charles Wilson, and Eisenhower decided to support the Air Force missile program and ended the Army's IRBM program, but not before both services had made significant progress. The delayed timeline meant that the first deployed

IRBMs were obsolete almost as soon as they reached their bases in Europe. This dissertation expands on Armacost's discussion. It explores the development of the IRBMs to show why the missiles offered to European nations were not well received. This will form the foundation for the argument that the primary benefit of the IRBM deployment was not the protection that the proposed nuclear weapons provided. Rather, the deployment of IRBMs exacerbated issues of national sovereignty. The decision to not offer France an agreement that was similar to that offered Great Britain called into question France's position as a first-tier NATO member state. The IRBM agreement with Great Britain clearly cemented its junior position with respect to the United States on the world stage.

Robert Divine's *The Sputnik Challenge* covers the political ramifications of the Soviet launch of *Sputnik*. Divine argues that Eisenhower's initial response to the Soviet launch was ineffective in calming American fears. The American people thought that the United States had lost the space race. Eisenhower, Divine shows, thought that *Sputnik* was more of a propaganda victory than a technical achievement. Eisenhower did not communicate effectively to the American people the limited technical advances of *Sputnik*. Eisenhower did overcome his initial setbacks in his response to the launch. He created the National Aeronautics and Space Administration (NASA), a space committee to advise him on American research efforts, and encouraged improvements in math and science education. Divine's work shows that Eisenhower did not consider *Sputnik* a serious military threat and was unimpressed with the technical advances it represented. Although Eisenhower misread the political fallout from the launch, he accurately gauged its technical ramifications. The dissertation will include a brief section discussing Eisenhower's domestic response to the launch of *Sputnik*, but will concentrate on how it influenced the international sphere. This will show that *Sputnik* was not as damaging to

American credibility as Philip Nash argues. *Sputnik* did challenge the assumption that the U.S. was immune from Soviet missile attacks. This put more emphasis on the deployment of IRBMs to Western Europe in order to counter the Soviet increased missile threat to U.S. domestic targets. Although *Sputnik* showed the advances of the Soviet space program, it did not invalidate America's nuclear umbrella in Western Europe, since those nations lived under threat of Soviet rocket and conventional forces attack long before the satellite launch.

The intelligence picture began to clear up in the middle of the 1950s. The U-2 spy plane came online in 1956 and was fully functioning in reconnaissance of Soviet sights by 1957. Although the over flights were risky because of the potential political fall-out, the intelligence value greatly impressed Eisenhower. There would be problems with the program as the CIA handlers wanted to do more with the over flights than Eisenhower wanted to allow. It was also problematic using the information provided by the U-2's amazing camera in a public forum. Eisenhower kept the information provided by the clandestine program classified even when it hurt him politically. He knew that the Soviet threat was not as great as many American politicians made it out to be but he did not divulge the truth about the state of Soviet missile development.

David Schwartz in his work *NATO's Nuclear Dilemmas* argues that America's dominance in NATO, specifically in the nuclear realm, created the conditions for serious problems in the alliance. Schwartz argues that most of America's solutions to NATO nuclear problems revolve around hardware. He sees the deployment of IRBMs as an example of this. The deployment of IRBMs was an attempt to bolster America's nuclear umbrella protecting NATO member states. This solution did not address the root of the problem, NATO member

states' concern of Soviet aggression and the willingness of the U.S. to use nuclear weapons to defend them. Schwartz argues that addressing the fears directly, instead of taking them for granted offered a more effective solution to the nuclear problem. He argues that doctrinal issues do not receive enough attention because NATO was too concerned with material solutions. Schwartz shows that the range of solutions to NATO's nuclear problems go beyond deploying weapon systems to include doctrinal and policy solutions. Schwartz's argument fails in one critical aspect; he posits that the three centers of power in NATO were Bonn, Paris, and Washington. This dissertation shows that London was a senior member of the alliance and more important than Paris, at least in the early post war years. Great Britain, throughout the 1950s, was the only other NATO nation to have possession of its own nuclear weapons. It was also the only nation to receive important technical cooperation after the Suez Crisis of 1956. This dissertation demonstrates the efficacy of policy solutions over material solutions to NATO's nuclear problems, in the case of the IRBM offer to Britain. It will also describe how policy proposals that do not meet the critical needs of member states are just as ineffective as material-based solutions.

Chris Tudda's work *The Truth is Our Weapon* shows the importance of public statements in foreign policy. He argues that Eisenhower and Dulles used their public statements to pronounce aggressive policy proposals that were not in line with their true policy positions. He calls this "rhetorical diplomacy." Tudda argues that Eisenhower and Dulles used this type of diplomacy to pressure allies and the Soviet Union to accept the more moderate policy positions presented behind closed doors. However, this type of diplomacy also backfired; it alienated the Soviet Union and convinced Soviet leaders that American interests were more hostile than not. It also convinced the allies of the dangers of the Soviet threat, which Tudda argues precluded the

development of the European Defense Community. Tudda's discussion of the disparities of public and private diplomacy is important. This dissertation examines the public policy positions of Eisenhower before, during, and after the Suez Crisis and *Sputnik* launch to determine how these events changed public policy. It will also analyze the secret policy discussions during the same period to determine if the disparity Tudda alludes to was present.

Campbell Craig's work *Destroying the Village* discusses the changes in Eisenhower's views of nuclear warfare throughout the first part of his administration. He argues that by the mid-1950s, nuclear war was so destructive that Eisenhower decided he needed to avoid it at all costs. He did this by taking away all other options for limited conflict off the table. Craig argues that Eisenhower took such a radical position in order to force his cabinet to push him to compromise on national security issues and away from war. This analysis of Eisenhower's position on war does not treat the issue with enough complexity. Although Eisenhower wanted to avoid war, he did not completely abstain from using force. He used covert operations to maintain American influence in Iran in 1954 and Guatemala in 1953. His defense policy also encouraged allies to fight regional conflicts with American aid. He supported the government of South Vietnam in its struggle with North Vietnam, although he declined to send combat troops. The New Look defense policy had at its heart an avoidance of atomic war, but Eisenhower understood that conflict occurred along a spectrum that ranged from psychological warfare to all out nuclear combat. He wanted to limit the ability of the Cold War to escalate, but he did not shrink from confronting the Soviet Union. Craig's work is important because it shows the evolution of Eisenhower's understanding of nuclear warfare and its growing destructive capacity. The dissertation continues this discussion into his second administration and shows how his nuclear policy changed to adapt to the evolving international scene. It will reveal how the

deployment of IRBMs fit into Eisenhower's understanding of deterrence and whether or not this was an accurate appraisal of their efficacy.

This dissertation will differ from previous works by focusing on the political value of IRBMs both to NATO member states and to America's domestic security. It will demonstrate that only by considering the military and political value of these weapons can Eisenhower's policy for their deployment come into focus. This is why previous works judged these weapons harshly, in a purely military sense they did not accomplish much. However, politically these missiles achieved several specific policy goals that Eisenhower intended, the rapprochement with the United Kingdom, the beginning of the transition away from a ground-force focused defense of Western Europe, the answer to domestic security concerns in the wake of the *Sputnik* launch, and the improvement of America's nuclear deterrent in hopes of decreasing U.S. defense spending.

Chapter 1: Creating the New Look: Project Solarium and the Creation of President Eisenhower's Defense Policy

President Eisenhower assumed office during a turbulent time. The Korean War continued to drag on showing the power of the Socialist world and relative impotence of the Free World to defeat the first Socialist invasion. Atomic warfare reached a new and incredibly more deadly stage with the creation of hydrogen bombs. These new atomic warheads were vastly more destructive than those used in World War II. Although the United States was the first nation to possess hydrogen weapons, the Soviet Union was not long in catching up. Only four years after the Soviets detonated their first atomic bomb in 1949 they perfected a hydrogen weapon. Now large cities like New York faced instant annihilation in a nuclear war with the Soviet Union.¹

Unfortunately for the new President, Eisenhower did not have the most cooperative partner in South Korean President Syngman Rhee, who wanted to expand the scope of the conflict and destroy North Korea. It is understandable why President Rhee would see this as a necessary objective but for Eisenhower this represented an unacceptable risk. However, Eisenhower understood that he could not continue to fight the Korean War for an indefinite period of time. In his memoir of his first term of office, *Mandate for Change*, he summed up his feelings about the need for some resolution in Korea. He wrote, “My conclusion as I left Korea was that we could not stand forever on a static front and continue to accept casualties without any visible results. Small attacks on small hills would not end this war.”²

Communist incursion was nothing new to Eisenhower. He saw the Soviet Union as an expansionary force that wanted “to rule the world by any means, if necessary by force.”³ Even

¹ David Halberstam, *The Fifties* (New York: Ballantine Books, 1994), 87, 99

² Dwight David Eisenhower, *Mandate for Change: The White House Years, A Personal Account, 1953-1956* (New York: Doubleday, 1963), 95.

³ Eisenhower *Mandate for Change*, 78

though the Korean War was over by 1953, Eisenhower was under no delusions about future relations between the Soviet Union and the United States. He also felt it his “duty to make clear to the world the wickedness of communist promises, and to convince dependent peoples that their only hope of maintaining independence, once achieved, was through cooperation with the Free World.”⁴

Eisenhower’s success in avoiding another conflict with the Soviet Union did not come about because of some sense of ambivalence towards the Soviets. Rather, his ability to maintain peace came from his understanding of the horrors of war and what war in the nuclear era would mean for the United States. Eisenhower’s diary, which he kept intermittently from his time in the Philippines in the 1930s through 1967, sheds some light on his views of warfare. Below is a basic outline of Eisenhower’s views on war:

Brutality of war: In May of 1942, Eisenhower struggled to advance the planning of Bolero, which was the name given for the build-up of troops in Britain. In his diary his frustration came through at those who thought they could “buy victory.” He wrote that “not one man in twenty in the government (including the war and navy departments) realizes what a grisly, dirty tough business we are in.” War was destructive and was something to be avoided unless the threat of not going to war was more dangerous than fighting it.⁵

If the nation was going to fight, it should do so completely: At the initiation of the Korean War, Eisenhower went to Washington D.C. to see some of his old friends and discuss preparations for the oncoming conflict. He worried that those in charge of preparing the nation

⁴ Eisenhower, *Mandate for Change*, 97-98.

⁵ Dwight David Eisenhower and Robert Ferrell, editor, *The Eisenhower Diaries* (Norton: 1981), 53.

for war did not understand the necessity of preparing for all-out war, even if they hoped it would be limited. Eisenhower did not think “that an appeal to force cannot, by its nature, be a partial one.” He continued by writing that “in a fight we (our side) can never be too strong.” America had to be ready for any eventuality “even if it finally came to the use of the A-bomb (which God forbid.)” War could not be something that you could put artificial limits on in the beginning of a conflict. This was another reason why Eisenhower was hesitant to use force as President, there was no reliable way to ensure that a limited war would remain limited.⁶

Four pillars of future strength: Eisenhower thought future global wars would be “ideological” conflicts. He wrote that America, in order to be victorious in such a struggle, had to maintain “complete devotion to democracy... and practice of free enterprise”, “industrial and economic strength”, “moral probity in all dealing”, and “necessary military strength.” Eisenhower wrote this entry in 1946 but the four pillars of strength influenced the formation of his defense policy as President.

Importance of maintaining parity with the Soviet Union in military technology,
specifically guided missiles: Long-range ballistic missiles became a threat during World War II. Eisenhower saw their destruction first hand while he was in Britain during World War II; his headquarters was in line with the flight path of the V-2 rockets Hitler launched in the final years of WWII.⁷ There was little defense against such weapons. By the time Eisenhower was President, guided missiles and smaller atomic warheads combined to make it possible to use such weapons to launch a nuclear attack across thousands of miles. He understood that the American people considered these to be the “ultimate” weapon. Eisenhower, in his diary in 1956, wrote

⁶ Eisenhower, *The Eisenhower Diaries*, 175.

⁷ Michael Korda, *Ike: An American Hero* (Harper Perennial: New York, 2008), 490-491.

that people had “a picture of guided missiles raining out of the skies in almost uncoun-
 ted numbers, it is extremely important that the Soviets do not get ahead” of the United States “in the
 general development of these weapons.”⁸ This would become a significant problem for
 Eisenhower after the Soviet launch of *Sputnik*.

Effect of atomic weapons on future wars: Eisenhower saw atomic weapons as a fact of
 future wars. He also believed that there were benefits to this new paradigm. Concentrating
 defense spending on atomic weapons would allow reductions in conventional troops.⁹ However,
 this would mean that any future conflict would be nuclear in nature. Any atomic conflict would
 be incredibly destructive, especially if it exploded into an unlimited atomic war between the
 Soviet Union and the United States. In his memoir of his first term in office, Eisenhower wrote
 that “modern global war would be catastrophic beyond belief.” This made him realize that
 “America’s military forces must be designed primarily to deter a conflict.”¹⁰

Nuclear weapons were not going away, neither was the Soviet Union; Eisenhower
 understood that he had to balance the threat of war with the necessity to continue to maintain
 peace. His understanding that war was not something that you could contain came from his
 understanding of Clausewitz, which he read three times while a junior officer serving in Panama
 under General Fox Conner.¹¹ Although Eisenhower knew he could not control war if it broke
 out, he was very effective in controlling the threat of war, which was what he intended to do with
 his defense policy as President.

⁸ Eisenhower, *The Eisenhower Diaries*, 324.

⁹ Eisenhower, *The Eisenhower Diaries*, 257-258.

¹⁰ Eisenhower, *Mandate for Change*, 446.

¹¹ Dwight Eisenhower, *At Ease: Stories I Tell to Friends* (Doubleday: New York, 1967), 186.

Eisenhower's defense policy, nicknamed the New Look, came out of the Project Solarium conference held in the summer of 1953. He intended this project to provide clear alternatives to President Harry S. Truman's defense policy. Eisenhower wanted to avoid large budget deficits and provide an effective deterrent to prevent future conflicts equal to or greater than the Korean War. Balancing economic stability and national defense became a constant concern for Eisenhower.

The New Look defense policy offered a constructive way to balance these two competing interests. It focused America's national defense assets towards a massive nuclear response capability. Eisenhower intended this reliance on nuclear capacity, known as the doctrine of Massive Retaliation, to deter warfare and show the Soviet Union that America would not countenance communist expansion into specific areas. He also wanted to make clear how America would respond to future acts of aggression. Eisenhower hoped this focus on nuclear weapons would allow the U.S. to concentrate its defense allocations primarily on air power. In the early 1950s, building air power assets was cheaper than maintaining large ground forces deployed to defend Western Europe, Korea, and Japan. If the New Look policy proved effective, Eisenhower could realize economic stability through balanced budgets, made possible by relatively cheap air defenses. Eisenhower believed that a strong economy was the foundation of a strong defense.

Although called the New Look, this name was misleading. It was not a dramatic shift from Truman's defense policy or subsequent Cold War defense policies that followed it. Defense policies throughout the Cold War generally were variations on a theme and not markedly different. Containment, as espoused by NSC-68 under President Truman, continued to be the

dominant paradigm for combating the Soviet Union and the People's Republic of China. Although some of the details changed, the core idea did not. The Army remained forward deployed under President Eisenhower, albeit in smaller numbers. Nuclear weapons, the central component of Eisenhower's policy, remained the main deterrent throughout the Cold War, with differing emphasis depending on the particular administration. Alliances formed a critical element of the New Look policy but they continued to be important in all administrations' Cold War defense programs. Foreign and military aid provided a way for Cold War presidential administrations to garner influence with nations around the world and theoretically limit the need for American ground forces. Finally, scientific research to provide the best weapons technology continued to be important for U.S. strategy throughout the conflict.

Understanding how Eisenhower constructed his defense policy shows the importance he placed, not only on massive retaliation, but also on economic stability. A deeper look at the policy will bring into focus the differences between the New Look and President Truman's previous defense plan. Eisenhower's concern for fiscal security did not stem purely from his conservative political roots. He thought that the economic health of the nation directly influenced its ability to continue to fight communism. Another guiding experience was Eisenhower's time in the Army through the Great Depression; this showed him the damage that an economic crisis could bring to national defense.

In the past 20 years, historians have revealed much about President Eisenhower, particularly how he handled the administrative tasks of the presidency. Gone is the portrait of Eisenhower as a do nothing head of state. Peter Paret, with his work *Eisenhower and the American Crusades* showed how previous historians misjudged Eisenhower and his role in the

policy process.¹² Fred Greenstein continued this with his work *The Hidden Hand Presidency*.¹³ Eisenhower clearly played an active role in his administration. However, he delegated significant authority to his subordinates, just as he did when he was the Supreme Commander of Allied Forces in World War II. This delegation process increased the public profile of subordinates in the government, creating the impression that Eisenhower did little else than play golf. Although Eisenhower allowed his subordinates much leeway within their portfolios, he never delegated his responsibility when issues grew beyond the purview of one individual department or grew so large that they demanded his attention. This process of delegation did not always have the intended result. Particularly, in the case of Project Solarium, delegating the policy formation process to an outside group was not as effective as Eisenhower hoped.

President Dwight Eisenhower entered office confronting both the Korean War and a ballooning deficit. He wanted to reverse the trend of increasing defense costs, due to the ongoing conflict, and create a defense policy that balanced the security needs of the nation with the fiscal stability needed for a prosperous future. In a letter to General Alfred Gruenther, the Supreme Allied Commander in Europe (SACEUR) from 1953 to 1956, Eisenhower dismissed the shallow comments of his critics. He did not agree with those who argued that America's potential for economic growth was limitless. Eisenhower also took issue with the question, "What would you pay to save your life," which, he believed, oversimplified the issue of defense spending.¹⁴

President Harry Truman was also a fiscal conservative; however, he had to contend with the necessary military buildup in order to fight the Korean War. Truman, when he took office,

¹² Peter Paret, *Eisenhower and the American Crusades* (New York: MacMillan Publishing Company, 1972).

¹³ Fred Greenstein, *The Hidden Hand Presidency: Eisenhower as Leader* (New York: Basic Books: 1984).

¹⁴ Letter to General Alfred Gruenther, Dated 4 May 1953, Folder Dec. 52 through Jul. 53, Box 3, DDE Diary Series, Eisenhower, Papers as President, DDE Presidential Library, Abilene, 2 (hereafter cited as Letter to Alfred Gruenther).

worried that the Soviet Union “was trying to scare the United States into spending itself into bankruptcy.”¹⁵ The economic conundrum that the Korean War caused troubled Eisenhower as well. Truman was just as cautious and concerned about deficit spending as Eisenhower was but he had a major conflict that required immediate and drastic action to combat.

Eisenhower observed that the economic problems Truman faced were serious but the previous President’s solutions did not take into account the fact that the United States had a free market economic system. He believed that people depended on an effective economy to spur them to work hard and earn a return on their labor. If the economy did not provide the encouragement for strong production, Eisenhower felt it could invite more state control. This regimentation represented a reduction in the freedoms that the American system provided. Eisenhower believed that the economic system of free market capitalism directly correlated to its lack of government enforced economic and social regulations.¹⁶

In order to balance these forces, Eisenhower intended to strike a compromise between economic prosperity and national defense by reducing government spending. He wanted to decrease the cost of government in order to make it fiscally responsible. The U.S. had to have an “organized, effective resistance... over a long period of years” in order to defend against the Soviet Union. In order to do this, the U.S. economy had to remain robust. If the economy lost its vigor, as he stressed to his old friend General Gruenther, Eisenhower was convinced that America’s free market economy would not survive.¹⁷

¹⁵ Francis, Howard Heller. Ed., *Economics and the Truman Administration* (Lawrence: University Press of Kansas, 1981), 5.

¹⁶ Letter to Alfred Gruenther, 2.

¹⁷ Letter to GEN Alfred Gruenther, 1.

In his final budget, President Truman authorized an \$11 billion deficit. Within his first six months in office, Eisenhower decreased this amount by half. He also cut the amount of federal spending by \$13 billion.¹⁸ Much of this savings came because of decreased defense appropriations, following the cessation of hostilities in Korea. Balancing the federal budget consumed much of Eisenhower's thoughts during this time. In a letter to George Whitney, a prominent Wall Street Banker, he wrote that he wanted a balanced budget "as soon as possible." Eisenhower did not agree with the majority of Republicans who wanted to reduce taxes for political purposes. Eisenhower would not sacrifice the economic vitality of the nation for short-term political pay-off.¹⁹

Protecting the nation's confidence in its currency was also a vital part of Eisenhower's economic concerns. He thought that the government should protect people's fiscal stability by ensuring the value of their savings was not eroded through inflation. The absence of inflation would increase the desire to save money, which Eisenhower asserted was vital to a free market. In 1953, the U.S. dollar had the value of "about fifty-three percent of the dollar in 1939." Eisenhower felt that citizens did not buy government bonds because these bonds lacked a sufficient return on their investment. Long-term investments provided "a great portion of the investments in America's development." If inflation decreased people's desire to invest in America, it would retard the nation's growth. Although President Eisenhower could not control all economic influences, he could control the deficit.²⁰

¹⁸ Letter from Secretary of Treasury Humphrey, Dated 29 July 1953, Folder Dec. 52 through Jul. 53 (1), Box 3, DDE Diary Series, Eisenhower, Papers as President, DDE Presidential Library, Abilene, 1.

¹⁹ Letter to George Whitney, Dated 24 June 1953, Folder Dec. 52 through Jul. 53 (2), Box 3, DDE Diary Series, Eisenhower, Papers as President, DDE Presidential Library, Abilene, 3 (hereafter Letter to George Whitney).

²⁰ Letter to Alfred Gruenther, 2.

Since economic policy was so important, in Eisenhower's analysis, to the nation's future, he took an active role in forming his economic policy. Arthur Burns, Chairman of the Council of Economic Advisors (CEA) under Eisenhower, said that the CEA was one of two appointments that the President scheduled weekly; the other was the National Security Council. He compared the CEA to the Joint Chiefs of Staff, their access to the President showed his interest in economic issues. The CEA provided direction for Eisenhower's economic policy, but did not make decisions without his input.²¹

Given Eisenhower's desire to decrease the deficit, he was not willing to sacrifice everything to achieve his goal. He realized that finding the proper balance between fiscal conservatism and a strong defense would take time. On 29 July 1953, Eisenhower received a memo from Secretary of the Treasury George Humphrey requesting an increase in the national debt above the \$275 billion limit set by Congress. Humphrey, the former president of the M.A. Hanna Steel Company, served in the administration from 1953 until 1957. Humphrey argued that raising the debt limit to \$290 billion provided the ability of the government to meet Congressional authorizations and maintain some fiscal freedom of movement. This also would force the administration to begin to reconcile its expenses with revenue and balance the budget. By doing so, America could provide a firm economic foundation, which would allow it to lead the defense of the non-communist world.²²

²¹ Arthur Burns, interview by Hugh Helco and Anna Nelson, "Oral History interview with Andrew Goodpaster, Ann Whitman, Raymond Saulnier, Elmer Staats, Arthur Burns, Gordon Gray by Hugh Helco and Anna Nelson", Interviewed on 11 June 1980, The National Academy of Public Administration, Oral History Number 508, DDE Presidential Library, Abilene, 10 (hereafter OH 508).

²² Memo from Secretary of the Treasury Humphrey, Dated 29 July 1953, Box 3, DDE Diary Series, Eisenhower, Papers as President, DDE Presidential Library, 1.

Taxes, deficits, and other economic factors all influenced national defense in multiple ways. For Eisenhower there was a hierarchy of national needs, as well as an interconnection between these issues. In his letter to General Gruenther, Eisenhower wrote that “we should not really kick about taxes until we know that we have made ourselves reasonably secure against any possible move by the Soviets.” In order to provide this security, the U.S. needed a sound perimeter of allies close to the Soviet Union. This required military and economic aid to foreign nations. If the U.S. cut taxes, defense budgets could suffer, as well as the outposts that provided security. Eisenhower hoped “that nothing will happen to damage irreparably the progress toward unified strength and collective security that we have been trying so laboriously to build up.”²³

Finding the proper balance between defense and economic prosperity required discerning what technological advances and armed forces were most vital to national security. With the Korean War cease-fire recently signed, Eisenhower wanted to reduce military spending, but in a responsible manner. This required determining which weapons systems and military formations were vital and what their size and role in national defense should be. Project Solarium would be one way that Eisenhower began to solve this complex problem.

In order to help his administration strike the correct balance between financial security and military strength, Eisenhower directed that the Secretary of the Treasury attend National Security Council meetings. Bromley Smith, a NSC staff member, said the Secretary of Treasury’s attendance at NSC meetings showed Eisenhower’s acknowledgement that national defense required fiscal discipline as well. He thought that this understanding was the foundation

²³ Letter to Alfred Gruenther, 4.

of many NSC conclusions. The impact of military spending on the nation's economy was an important consideration that the many in the NSC shared.²⁴

Atomic weapons complicated national defense issues, not only because of their economic impact. Scholar and theoretician Bernard Brodie, in a *Foreign Affairs* article, discussed the strategic complications of nuclear weapons. Public discourse concerning these new weapons coalesced around the nuclear fission warhead. This size of weapon Brodie cautioned would be a "city-buster." It had significant latitude in targeting because of its damage radius. Any attack using such a weapon, even if targeted at military units or industrial sites, would destroy the surrounding urban infrastructure. The reason for this was that most military and industrial targets were close to cities. This meant that leaders knew that the decision to employ such weapons meant the destruction of civilians. He wrote that a series of attacks against the Soviet Union or the United States would not leave much for the survivors. The continuous increase in the lethality of nuclear weapons increased the moral cost of their use.²⁵

The United States had to face the possibility of nuclear warfare, because it had no other option. John Slessor explained in his *Foreign Affairs* article, published in 1954, that free nations, which included America, could "not survive a 'war of flesh'" with the Soviet Union. The Soviet Union, in turn, did not have the advanced air or nuclear assets that the United States possessed at this time, although the Soviet Union was quickly closing the gap between the two nations. Due to the disparity of manpower between the Soviet and American army, the U.S. had to compete with

²⁴ Bromley Smith, interview by John Luter, Interview date 29 August 1972, Oral History Number 270, Columbia University Oral History Project, DDE Presidential Library, Abilene, 27-28 (hereafter OH-270).

²⁵ Bernard Brodie, "Nuclear Weapons: Strategic or Tactical?," *Foreign Affairs* 32 (January 1954): 223.

assets and weapons that mitigated the manpower discrepancies between the two blocs. Central to this was the use of atomic weapons.²⁶

Although John Slessor's article argued that the Soviet Union would have a much larger army, the population differential between the U.S. and the U.S.S.R. during the 1950s was about 30 million, or about a 20% difference between the two populations.²⁷ This population distinction was not as dramatic as Slessor contended but arguments similar to his permeated the 1950s strategic perception. American national security experts, including President Eisenhower, continued to believe that the Soviet Union's military force would greatly outnumber those of the free world.

Eisenhower, when he entered office, faced the ramifications of President Harry Truman's administration. Truman faced a deteriorating economic situation in 1949. Eisenhower inherited an economy on wartime footing. Truman had to deal with shifting the nation to a peacetime economy and providing a way for the returning servicemen to integrate themselves into the labor market, this would not be an easy process. His Director of the Budget, Fredrick Lawton, recommended reducing military expenditures for fiscal year 1951, in order to reduce the deficit.²⁸ Truman's economic problems were not only a product of deficit spending; in 1949, the economy was in the midst of a recession, largely due to the removal of government purchases of war material. Although Truman's Secretary of the Treasury, John Snyder, thought that the

²⁶ John Slessor, "Air Power and World Strategy," *Foreign Affairs* 33 (October 54): 46.

²⁷ Central Intelligence Agency, "Comparison of US and Soviet Population and Manpower," (Washington D.C.: Central Intelligence Agency, 1960), http://www.foia.cia.gov/docs/DOC_0000380594/DOC_0000380594.pdf, (accessed 11 Nov 2012), 1.

²⁸ Memorandum by Frank Pace, 1949, File 130, Papers of Harry S. Truman PSF: Subject File, 1940-1953: Bureau of the Budget File: Defense Production Act to FY 1952-1953, Harry S. Truman Presidential Library, Independence.

economy would recover by the end of the year without significant help from the government, the economic outlook at the end of the 1940s was not particularly good.²⁹

The Korean War started in the summer of 1950; this compounded the economic troubles that the nation faced. Truman had to increase the military spending that he previously decreased. The Korean War also gave more aggressive policy makers in the Truman administration, such as Paul Nitze, the Director of Policy Planning for the State Department from 1950 through 1953, the opportunity to turn the recommendations of NSC-68 into a reality.³⁰ This paper, written prior to the outbreak of the Korean War incorporated George Kennan's idea of containment but with a military emphasis. This paper militarized the containment program that dominated subsequent U.S. Cold War policy. NSC-68 centered on preparing for a year of maximum danger, 1954. By this time, under the planning assumptions in the document, the Soviets would possess enough nuclear weapons to deal a devastating blow to the United States. Although, at the time of its drafting, the fears of NSC-68 concerning Soviet nuclear power were projections, these predictions soon became a reality.³¹

When Eisenhower entered office, he saw two major problems with Truman's defense policy. First, he thought that the concentration on a year of maximum danger was unsound. Eisenhower also believed that Truman's policies were too rigid in their estimation of the Soviet threat. He concluded that the policies under Truman did not offer the needed flexibility to operate in a changing world. Apart from the policies lack of military vigor, Eisenhower believed that they relied too much on manpower, which was expensive. Eisenhower said "Today three

²⁹ John Snyder to President Truman, June 28, 1949, Student Research File #14, file The Attempt to Achieve Stable Economic Growth During the Truman Administration [7 of 13]. Truman Presidential Library, Independence.

³⁰ Dean Acheson, *Present at the Creation: My Years in the State Department* (New York: W.W. Norton, 1969), 420.

³¹ Paul Pierpaoli, *Truman and Korea: The Political Culture of the Early Cold War* (Columbia: University of Missouri Press, 1999), 26.

aircraft with modern weapons can practically duplicate the destructive power of all the 2,700 planes we unleashed in the great breakout attack from the Normandy beachhead.” He hoped, to replace soldiers with technology. This effort, to shift the burden of defense from manpower to technology, pervaded Eisenhower’s construction of a defense policy.³²

In his first State of the Union address in 1953, Eisenhower outlined what he thought were the major issues confronting his administration. He said that his administration had to balance national defense and maintain a viable economy. If he concentrated on defense spending with too little focus on economic issues, Eisenhower worried that he would solve one problem while creating another. He thought he could blend both issues into one policy. In this policy, the number of soldiers was not the only indicator of power. In his speech, Eisenhower explained that he wanted a leaner military that would provide significant deterrence but at a reduced cost.³³

The Korean War received special mention in the address. The war, which started after the North Korean invasion of South Korea, was entering its third year and there was little progress on the battlefield due to Truman’s decision to halt U.N. force’s at the 38th parallel, where the war began. Eisenhower explained that the war was “part of the same calculated assault that the [Communist] aggressor is simultaneously pressing in Indochina and Malaya.” However, the Korean War was not the only military problem Eisenhower faced when he entered office.³⁴

Walter Millis, a staff and editorial writer for the *New York Herald Tribune*, discussed the military problems facing Eisenhower as he entered office in 1953. Millis’s article in *Foreign*

³² Edward A. Kolodziej, *Uncommon Defense and Congress, 1945-1963* (Ohio State University Press, 1966), 167.

³³ Dwight David Eisenhower, “Annual Message to the Congress on the State of the Union,” Given on 2 February 1953, Eisenhower Memorial Commission, <http://www.eisenhowermemorial.org/speeches/19530202%20State%20of%20the%20Union.htm> (hereafter Eisenhower State of Union Address, 1953), (accessed on 22 February 2010).

³⁴ Eisenhower State of the Union Address, 1953.

Affairs, published the same year, claims that after WWII, the U.S. rested on its atomic laurels to prevent future wars. While there were no major wars, meaning global wars, the atomic threat did not stop Soviet expansion. Soviet power, according to Millis, continued to grow through means other than war such as subversion and covert programs. America's atomic threat was not effective in stopping these communist incursions.³⁵

The new administration faced several irreconcilable problems, according to Millis. He argued that the administration could construct a peace in Korea by looking at the issue from a new perspective. However, peace in Korea would not solve all of America's security challenges. Millis argued that the redeployment of troops from Korea combined with reductions in defense spending, a more aggressive posture to deter Communist expansion, and decreasing military air power were contradictory goals. Eisenhower had to determine which of these objectives to sacrifice, in Millis's estimation. However, in Millis's opinion, this process was inevitable regardless of the electoral timeline. The election forced Americans to face the problems of their security and their economy. This required a new defense policy that reconciled these contradictory dilemmas. Millis contended that American policy, before Eisenhower, created a conflicting series of expectations; he would have to determine how to manage expectations and balance these discordant ideas.³⁶

What Mills did not account for was the fact that the United States, after World War II, had little choice but to assume a leadership role in the free world. Eisenhower did not have the luxury of simply choosing one of the competing interests that Mills claimed were contradictory, such as pursuing a strong defense or focusing on domestic economic stability. In reality,

³⁵ Walter Millis, "Military Problems of the New Administration," *Foreign Affairs* 31 (January 1953), 217.

³⁶ Millis, 215.

Eisenhower had to make progress in both of these areas. This was one of the many things that made his term in office so complex.

Against this focus on cost cutting, the nation faced what appeared to be an increasingly effective Soviet atomic threat. In order to counter this peril some, like T.F. Walkowicz, advocated using the U.S. Air Force as a strategic deterrent. Walkowicz served in the Air Force as an aeronautical engineer and was a consultant for the Army for airborne forces. After his service in the military, he worked for the Institute of the Aeronautical Sciences founded by Laurance Rockefeller. If the Air Force were the primary deterrent force, instead of U.S. ground forces, then expensive land bases and foreign deployed troops could come home. This would reduce defense spending; as well as consolidate U.S. forces in the continental United States. This concentrated force would be a strategic reserve, capable of deploying to counter any Soviet ground attack.³⁷ The preference for air power stemmed from two assumptions: its cost-effectiveness and the efficacy of its deterrent value. If either one of these did not hold true, then it would degrade the rationale for choosing air power as the main deterrent protecting the United States.

In a nuclear war, Walkowicz theorized the outcome would result from “forces in being.” This term refers to trained, equipped, and ready forces; as opposed to, military units that a nation had to recruit, train, and deploy, in response to a conflict. The reason America and its allies won both world wars was America’s ability to create a fighting force both in manpower and material after the conflict started. In the Cold War, the U.S. could not rely on Europe to fight the initial phases of a conflict; the U.S. needed to build a nuclear force prepared to fight the Soviet Union

³⁷ T.F. Walkowicz. “Strategic Concepts for the Nuclear Age.” *Annals of the American Academy of Political and Social Science* 299, (May 1955), 127.

at the start of any hostilities. This rationale, centering on the necessity of constant preparedness for war, suffused Eisenhower's view of national defense. The luxury of time that the U.S. used in both previous global conflicts was no longer feasible.³⁸ Eisenhower wanted to construct a policy that blended the need for quick reaction to Soviet aggression, smaller defense budgets, and less reliance on large ground formations. This fundamentally changed how America prosecuted wars. The U.S. had to be ready to strike back quickly; it could not wait to build its forces, after the first enemy attack.

Top government officials were not the only ones who thought that the Soviet Union posed a serious threat. Most Americans believed that the Soviet threat centered on more than nuclear weapons. A Gallop Poll, released in 1953, shows that almost 80% of respondents felt that the Soviet Union wanted to rule the world. The American public did not cynically receive the rhetoric of the Cold War. They interpreted the threat as real and dire. This poll, released during the time of Project Solarium, shows the relevance of the Soviet threat. It also shows that most Americans saw the Soviet Union as an expansionist enemy.³⁹

In constructing this new policy, Eisenhower expected Project Solarium to supply a definitive direction for his administration. The project came out of the need to explore different foreign and defense policy courses of action. His intent for the project was to provide different recommendations, from which he would choose the best way to proceed.⁴⁰ Eisenhower expected this new program to give him the tools to cut defense spending, while maintaining sufficient

³⁸ Walkowicz, 118.

³⁹ Gallup Poll, Jul, 1953. Retrieved Apr-16-2010 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut.

http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html.

⁴⁰ Campbell Craig, *Destroying the Village: Eisenhower and Thermonuclear War* (New York: Columbia University Press, 1998) 45.

defense forces. Each of the three Task Forces had separate planning assumptions that drove their investigation. The Task Forces would report their findings to the President and the NSC. While each Task Force created a useful report, making a unified defense policy from these three recommendations proved difficult.

Task Force A, chaired by George Kennan, advocated a program similar to the containment policy under President Truman.⁴¹ George Kennan, a State Department official, who served in the Soviet Union during the mid-1940s, played a fundamental role in Cold War defense policy. His insights into Soviet behavior, as explained in his long telegram and “Roots of Soviet Conduct” published in *Foreign Affairs* in the 1947, gave the ideological framework for the containment policy of the Cold War.⁴² Kennan wrote that his course of action, Alternative A, would preserve armed forces capable of securing the United States and providing assistance to its allies for a prolonged time. This required America to continue to support the free world with military and economic aid. Finally, the U.S. should exploit Soviet weaknesses in the social, political, and economic realms. This effort should not significantly increase the tensions between the Soviet Union and the United States. If carried out successfully it would avert another world war.⁴³

Under the set of assumptions Kennan used for his Task Force the risk of war was not high. In response to this decreased risk, his plan recommended the reduction of defense

⁴¹ The other members of the Task Force were Tyler Wood, Rear Admiral H.P. Smith, Army Colonel G.A. Lincoln, Army Colonel C.H. Bonesteel, Navy Captain H.E. Sears, and John M. Maury. To lessen confusion I will refer the reports of the Task Forces in terms of their Chairmen.

⁴² The “X” Article titled “The Sources of Soviet Conduct” appeared in *Foreign Affairs* in July of 1947.

⁴³ George Kennan et al., “A Report to the National Security Council by Task Force “A” of Project Solarium on A Course of Action Which the United States Might Presently or in the Future Undertake with respect to the Soviet Power Bloc—Alternative “A””(1953), Folder Project Solarium- Task Force “A” Report (1), Box 39, White House Office, National Security Council Staff: Papers, 1948-61 Disaster File, DDE Presidential Library, 1 (hereafter cited as Task Force A Report).

allocations. However, Kennan warned that to reduce the nation's defense at the same rate as after WWII would raise the risk of Soviet aggression due to a diminished American readiness to counter it.⁴⁴

Kennan proposed a strategy centered on three areas, the United States, its allies, and the Soviet Union's sphere of influence. If America focused its efforts in these areas towards the assumed contradictions of the Communist system, as understood by Kennan, then the Soviets would have to accept some form of peace with the West. The contradictions Kennan cited were the authoritarian state, the controlled economy, and the inability of the Soviet Union to provide a national defense, strong military alliance supported primarily by the Soviet economy, and robust economic growth for its citizens. Eventually, if put under enough pressure the Soviet system would demand too much of the people and the system would fall, according to Kennan. He further warned in the report, that the risk of war could not distract America from completing its objective of preventing the Soviet Union from increasing its hegemony. Kennan argued that his Task Force's recommendations would provide the ability to curb, not stop, Soviet expansion if the administration followed its provisions.⁴⁵

The Korean War was in its final stages during Project Solarium. Ensuring that America avoided another conflict was vitally important for Task Force A. Kennan understood this fact and the report contains a section explaining how to proceed during peacetime. The Soviet Union could easily misinterpret American actions, if Eisenhower chose Alternative A, as provoking war and not averting it. The U.S, under Alternative A, intended to reduce Soviet territory to that of

⁴⁴ Task Force A Report, 21-2.

⁴⁵ Task Force A Report, 18.

imperial Russia. This confinement, Kennan's group argued, would discredit the Soviet Union, and cause its failure through its own contradictions in ideology, economy, and politics.⁴⁶

One problem with Kennan's task force was its assumption that its course of action would lead to the Soviet Union's demise. If this were true, it was wishful thinking to argue that the Soviet Union would willingly accept this state of affairs. The U.S.S.R would, if faced with its imminent defeat, strike out in order to reverse its decline. Kennan's group did not adequately address the problems with this fundamental assumption in their report.

Kennan encouraged Eisenhower to ensure that his foreign policy had a sense of consistency and predictability. America should be the solid foundation of the free world and of its resistance to the Soviet Union. Eisenhower, in Kennan's opinion, had to ensure his government acted with one accord, and was consistent in its policy with its allies and the Soviets. This would provide a sense of discipline, which would not allow the Soviet Union to misconstrue changes in policy as aggressive actions.⁴⁷

America's position in relation to the Soviet Union was advantageous in Kennan's opinion. However, there were dangers that could undermine the U.S. He encouraged America to build its alliances, ensure its allies understood the stakes of the conflict, and took on their fair share of the burden. In the end, Kennan's Task Force recommended a continuation of America's containment policy, with a few changes. These changes included the assumption of a strategic offensive against the Soviet Union, as opposed to the general defensive nature of Truman's containment policy. Stalin's death, in February of 1953, was an important turning point in

⁴⁶ Task Force A Report, 18.

⁴⁷ Task Force A Report, 13-14.

Kennan's analysis; he thought that the U.S. could use this to start reducing the Soviet Union's power over its satellites. However, this would occur through ideological and economic means, not a military confrontation. Finally, Kennan cautioned Eisenhower to avoid focusing solely on communism. America's policy, though oriented to bring about the eventual defeat of the Soviet Union, should not imply that the only American concern was the elimination of the Soviet system. The Task Force closed their report by acknowledging the fact that though they did not choose the policy they researched; they thought it could not "be safely rejected."⁴⁸

This strategy did not advocate specific reductions or realignments of defense forces. However, it did imply that strategic forces would be more critical to U.S. defense than tactical units in the long-term against the Soviet Union. This policy, as with the other two policies presented in Project Solarium, only provided broad outlines. The specifics would come after President Eisenhower chose one, or a combination of, the courses of action and translated it into a defense policy.

Task Force B, chaired by Major General James McCormack, advocated a more aggressive position than Kennan's group.⁴⁹ General McCormack served as the director of the Division of Military Application of the Atomic Energy Commission in the early 1950s.⁵⁰ Alternative B compromised three stages. First, the United States would draw a line outside of which it would not allow the Soviet Union to expand. If the Soviet Union tried to expand outside of this line, then the U.S. would respond with a full-scale military reprisal. Second, U.S. leaders had to ensure that their Soviet counterparts understood the serious implications of continued

⁴⁸ Task Force A Report, 151-153.

⁴⁹ The other members of Task Force B were John C. Campbell, Army Major General (RET) John R. Deane, Calvin Hoover, Air Force Colonel Elvin Ligon, Phillip Mosley, and James Penfield

⁵⁰ <http://www.af.mil/information/bios/bio.asp?bioID=6364> accessed on 20 April 2010

Soviet expansion. Finally, McCormack's policy proposal stressed the need for "freedom of action" if communism expanded through revolutions. In this case, he thought America needed to do what was necessary to restore non-communist leadership. This was a primarily military-based proposal.⁵¹

McCormack identified several problems with the legacy of Truman's containment policy. By trying to stop Soviet expansion, America surrendered its ability to shape the conflict between the two nations. This allowed the Soviet Union to assume the strategic offensive, and relegated America to playing a defensive role. Trying to stop all Soviet expansion did not allow America to concentrate its resources where they were most effective. McCormack thought that eventually this would push the conflict to a scale past what the American economy could bear.⁵² His alternative would take back the offensive from the Soviet Union, and allow America to dictate the terms of the struggle between the two superpowers.⁵³

If Eisenhower chose to continue President Truman's version of the containment policy, McCormack warned that it would escalate the arms race. He wrote that within 5 to 10 years the American atomic arsenal would be of sufficient size that the numbers would not be as important as the strategy for their use. Once America reached this "age of atomic plenty," it would have sufficient atomic weapons to ensure the destruction of the Soviet Union. Unfortunately, the Soviet Union would not allow its nuclear program to remain in second place. This would create a nuclear standoff between the two nations, each having the capability to destroy the other.

⁵¹ Major General James McCormack et al., "A Report to the National Security Council by Task Force "B" of Project Solarium on A Course of Action which the United States might Presently or in the Future Undertake with Respect to the Soviet Power Bloc—Alternative "B"", Folder Project Solarium- Task Force "B" Report, Box 39, White House Office, National Security Council Staff: Papers, 1948-61 Disaster File, 1 (hereafter Task Force B Report).

⁵² Task Force B Report, 3-4.

⁵³ Task Force B Report, 3-4.

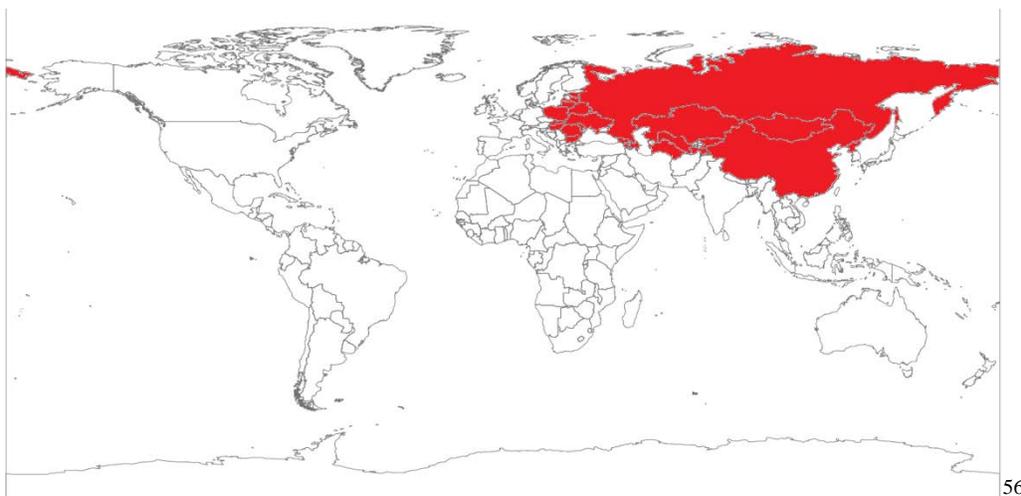
McCormack believed Alternative B diverted the emphasis from atomic weapons in national defense and avoided such a future.⁵⁴

Again, the devil was in the details of this proposal. As with Kennan's policy the fundamental assumption of Soviet passivity was problematic. McCormack assumed that the Soviet Union would accept a state of affairs that ceded the strategic initiative to the United States. Arguing that this policy would halt the escalation in nuclear arms presumed that the Soviet Union would agree to act in the way that U.S. planners dictated.

The pivotal part of McCormack's proposal was the line of defense, or the construction of Soviet and American spheres of influence. It would act as barrier to Soviet expansion, because America would interpret any effort to expand beyond this line as an act of aggression. Similar to the Monroe Doctrine, McCormack defined certain parts of the world as under American influence and others that were under Soviet influence. Constructing the line proved more difficult than anticipated. The line had to encompass the foreign land bases, sea-lanes, and airfields that allowed America to attack the Soviet Union. This required drawing the line well outside the territorial boundaries of the United States and its European and Asian allies. The line, as envisioned by McCormack, confined the Soviet Union to Eastern Europe, North of the Middle East, no farther South than South Korea, and China as its Eastern limit. The figure below is a representation of the Soviet sphere of influence⁵⁵

⁵⁴ Task Force B Report, 4.

⁵⁵ Task Force B Report, 5-6



Shaded area: Representation of area of Soviet influence

One of the benefits of this policy, in McCormack's estimation, was the elimination of peripheral wars. Wars like Korea, which took place outside of American and Soviet strategic interests, would be too costly for the Soviet Union to contemplate supporting. As America's nuclear threat grew, so did the cost of instigating such limited wars, since small-scale wars could escalate. Increasing the cost of aggression would become a fundamental aspect of Eisenhower's New Look defense policy.⁵⁷

By increasing the cost of aggression, and decreasing the likelihood of peripheral wars, McCormack's alternative would give allied nations more faith in American international commitments. Under his recommendation, U.S. military power formed the main deterrent to Soviet aggression. It would reduce the doubts of America's allies and make clear that the intent of U.S. aid was to prepare other nations to fight their own limited wars. This would ensure that limited wars did not take away precious defense resources. McCormack argued that because his policy would prevent Soviet expansion through limited wars, allied nations would not have to

⁵⁶ Map from web resources depot. URL: <http://www.webresourcesdepot.com/free-vector-world-maps-collection/> (accessed 19 Jun 2012), shading by author.

⁵⁷ Task Force B Report, 5.

waste their own defense assets combating small-scale conflicts that would otherwise be supported by Soviet aid.⁵⁸

By concentrating on preparing for general war against the Soviet Union, McCormack believed his policy alternative delineated the roles of American forces and laid out a strategy that used them in an economically efficient manner. If America tried to win the smaller-scale conflicts, it could not create forces necessary to defeat the Soviet Union in a general war between the two super powers. This would put the nation “in mortal danger.” McCormack offered a policy that U.S. citizens could support; it did not require constant U.S. involvement in wars that wouldn’t bring a comprehensive peace any closer.⁵⁹

McCormack identified several implications of his policy. The first was the fact that any Soviet military offensives would bring about a major war between the U.S. and the Soviets. This policy would make such military actions and any direct conflict between the two states unlikely. Although McCormack did not think that the Soviet Union wanted war, he thought it was still possible. Another large-scale conflict could arise from the escalation of several peripheral wars or from inaccurate Soviet perceptions of America’s limitations on Soviet expansion. Since McCormack’s recommendation would prevent small-scale wars and clearly explain America’s intentions, he felt that his plan clearly avoided general warfare, while maintaining U.S. supremacy in the Cold War.⁶⁰

McCormack’s Task Force wanted no misunderstanding about the cost for subsequent acts of aggression by the Soviets. If Soviet leaders understood the risks of continued expansion and

⁵⁸ Task Force B Report, 13-14.

⁵⁹ Task Force B Report, 18.

⁶⁰ Task Force B Report, 11-12.

the ability of the U.S. to respond quickly and decisively to acts of aggression then the Soviets would think twice about trying to change the balance of power. This would allow America to concentrate its defense spending on weapon systems that would be necessary to defeat the Soviet Union in a nuclear war. America could decrease its defense spending on the tools required to fight the peripheral wars, like Korea, since these conflicts would become needless risks to the Soviet Union. McCormack's approach assumed that President Eisenhower and future Presidents, if they continued to use his proposal, would willingly involve the United States in a nuclear conflict with the Soviet Union in order to enforce the American sphere of influence, this was a doubtful proposition.

Task Force C, chaired by Admiral Robert Connolly, differed dramatically from the stance adopted by the other two committees.⁶¹ Connolly recommended a policy that would sow chaos and confusion within the Soviet Union and its allies. This course of action was the most aggressive advocated by the three task forces. Connolly thought that increasing the pressure on the Soviet Union would prevent communism from spreading. The Soviet Union would focus on maintaining their sphere of influence and not on expanding it to new nations. A major drawback of Connolly's policy was the increased risk of world war.⁶²

In order to decrease the threat of general war breaking out, Connolly advocated several different strategies. The first would be the elimination of the Soviet-Chinese alliance. In order for this to occur, America had to remove the communist government from China. This would

⁶¹ The other members of Task Force C were Army Lieutenant General L.L. Lemnitzer, G.F. Reinhardt, Kilbourne Johnson, Army Colonel Andrew Goodpaster, Leslie Brady, and Army Colonel Harold Johnson.

⁶² R.L. Conolly, et al., "A Report to the National Security Council by Task Force "C" of Project Solarium on a Course of Action which the United States might presently or in the Future Undertake with Respect to the Soviet Power Bloc—Alternative "C,"" Folder Project Solarium, Report to NSC by Task Force "C" [1953], Box 9, White House Office, Office of the Special Assistant for National Security Affairs: Records, 1952-61. (hereafter Task Force C Report), (1-2).

eliminate a major Soviet ally. Next, the U.S. would concentrate its efforts on stripping away the allegiance of the Soviet satellite states. Finally, America had to stop communist expansion in Vietnam and Korea. Connolly argued that these courses of action would reduce the power and international prestige of communism, inhibiting the Soviet Union's ability to maintain its global offensive.⁶³

Soviet advances in nuclear weapons brought a sense of urgency to Connolly's report. The assessment of the Soviet nuclear threat led him to conclude that in five years the Soviet Union's nuclear arsenal would be roughly equivalent to that of the United States. Due to the increased military threat the Soviet Union would pose in near future, Connolly stressed that initiating his recommended courses of action was vital. Waiting too long exposed America to the anticipated increased Soviet nuclear response.⁶⁴

Connolly stated that his Task Force's plan would benefit the United States if accepted and executed by quickly resolving the Cold War, something neither of the other proposals promised.⁶⁵ Although the policy could cause general war; it was the only alternative recommending an indirect offensive against the Soviet Union. If America did not act soon against the Soviet threat, then Soviet retaliatory capacity would grow to make such action almost impossible. Alternative C, in Connolly's opinion, was a reasonable recommendation for achieving America's objectives in the Cold War. He wrote that the best way to prevent general war was to end the current conflict with the Soviets. Bringing closure to the Cold War required the U.S. to confront and defeat the threat that the Soviet Union posed. Although Connolly

⁶³ Task Force C Report, 1-2.

⁶⁴ Task Force C Report, 3.

⁶⁵ Task Force C, i.

claimed his course of action would bring the struggle to a close, it was more likely that such an offensive would spur a war with the Soviet Union rather than end the Cold War.⁶⁶

After six weeks of work, the task forces completed their recommendations. However, this was not the end of Project Solarium. One of the expected outcomes of the project was the creation of a Basic National Security Policy paper. Bromley Smith, a senior staffer on the NSC, observed that relying on written policy directives was a great benefit for governments. He thought it provided a coherent framework that explained U.S. national strategy. This document, once written, would form the basis for many future decisions throughout Eisenhower's tenure. It established the basic assumptions of America's security policy. Smith thought Eisenhower's military experience taught him the necessity of publishing specific guidance so every member of the administration understood the strategy that the President wished to pursue. However, constructing one security policy out of three very different recommendations proved difficult.⁶⁷

After the groups drafted their reports, they presented them to Eisenhower and the NSC. The intent was to show the best aspects of each course of action and allow the NSC to make their decision about which to pursue. Andrew Goodpaster, the Staff Secretary to Eisenhower, explained that the presentations led to the realization that the overall strategy would be containment. There would be some notable differences from Truman's policy, such as disseminating propaganda into Soviet territories and Eastern Europe, U.S. allies, and neutral nations. These nations consisted of states such as Egypt, India, and Yugoslavia.⁶⁸

⁶⁶ Task Force C, 8.

⁶⁷ OH-270, 33.

⁶⁸ OH 508, 2.

Eisenhower, after the Solarium groups' presentations, explained his general concerns about national defense. He wanted to make sure that the government did not demand more of U.S. citizens than they could freely give. He thought that asking more of people than they would willingly sacrifice required forceful action from the government. Eisenhower also wondered what America would do with the old communist state if it defeated and destroyed the Soviet Union. Eisenhower explained that Americans "have demonstrated their reluctance after a war...to occupy the territory conquered in order to gain our legitimate ends." He clearly did not support Connolly's aggressive policy recommendation of a quick and aggressive end to the Cold War. This aggressive roll back policy created more problems than it solved.⁶⁹

Eisenhower wanted the Task Forces to continue their work, but with a significant change. He wanted a joint meeting of all the groups to discuss creating a plan that unified the salient points of their proposals. This would include an outline of a policy that unified the groups' fundamental recommendations that the NSC could adopt.⁷⁰

After Eisenhower made his comments and left the conference, the individual groups explained their disagreements with the competing plans. Eisenhower thought that the plans had many of the same recommendations which outshone their differences. The Task Forces did not agree. Admiral Connolly, spokesman for Alternative C, and George Kennan, spokesman for Alternative A, explained that the two groups could not compromise to create one policy. They thought that their groups' estimates of Soviet objectives and capabilities were too disparate to

⁶⁹ Memorandum by Robert Cutler discussing Project Solarium, Folder Minutes of 155th Meeting of the NSC 16 July 1953, Box 4, NSC Series, Eisenhower Papers as President, DDE Presidential Library, Abilene, 3 (hereafter Cutler NSC Solarium Memo).

⁷⁰ Cutler NSC Solarium Memo, 3.

unify. Such a policy would eviscerate the essential recommendations of each group. Neither Kennan nor Connolly thought their group would give its approval to a unified policy.⁷¹

After Eisenhower learned from Robert Cutler, the Special Assistant to the President for National Security Affairs from 1953-55 and 1957-8, that the Task Forces could not reach a consensus, he told Cutler to proceed as he deemed best. He determined that the Special Staff of the National Security Council should summarize the major conclusions each group presented in their presentations to the President. Once representatives from each Task Force approved these summaries, the NSC would review them. Cutler hoped that this review would identify the similarities between each recommendation and allow the NSC to progress to writing one unified policy. Task Force members in Washington D.C. would participate in the review process conducted by the NSC planning board, if possible.⁷²

In a weekly meeting of the NSC on 30 July 1953, Eisenhower discussed the progress of Project Solarium after the NSC Planning Group gave its report and summary of the Task Forces' reports. He thought that the NSC should continue to work on the problem and not assume that the project was complete. Eisenhower said he wanted to blend the three views of the task force into one coherent policy.⁷³

The approved Basic National Security Policy, NSC 162/2 compiled by James Lay, the Executive Secretary of the National Security Council, contained the compromised policies of Project Solarium and presented them as one coherent defense strategy. It outlined the response to

⁷¹ Cutler NSC Solarium Memo, 2-3.

⁷² Cutler NSC Solarium Memo, 2.

⁷³ Marion Boggs, "Discussion at the 157th Meeting of the National Security Council, Thursday, July 30, 1953," Folder 157th Meeting of the NSC 30 July 1953, Box 4, NSC Series, Eisenhower, Papers as President, DDE Presidential Library, Abilene, 12.

the Soviet threat. He wrote that America needed to maintain or develop the assets of an effective defense that focused on nuclear weapons. America and her allies had to be able to deploy their forces quickly, in response to Soviet aggression. This would allow the free world to maintain its influence and its alliances throughout the world. In case of a general war, America had to have the ability to produce a large number of soldiers and munitions to fight such a conflict. In order to achieve these goals, America needed a firm economic foundation that could maintain its citizen's support for building national security.⁷⁴

This paper described how Eisenhower wanted to deter war. He expected the threat of nuclear weapons to stop any Soviet aggression or expansion. This document combined several aspects of different Task Forces' recommendations. Although Eisenhower did not approve of McCormack's spheres of influence in total, his emphasis on the deterrent power of nuclear weapons clearly influenced NSC 162/2.

Kennan's containment policy also comes through in the paper. Lay wrote that America should use all means, covert and overt, to weaken Soviet control over its satellites and China. U.S. propaganda efforts should target the internal contradictions and complications of the Soviet Union. By showing Soviet allies how untrustworthy and problematic an alliance with the Soviet Union was, President Eisenhower hoped to limit Soviet ability to demand loyalty from other members of the union and China.⁷⁵

The Basic National Security Policy (NSC 162/2) became the foundation of the New Look defense policy. This new defense policy contained what became known as the doctrine of

⁷⁴ James Lay, "A Report to the National Security Council by The Executive Secretary on Basic National Security Policy" Folder NSC 162/2 (2), Box 11, Disaster File, White House Office, National Security Council Staff; Papers, 1948-61, DDE Presidential Library, Abilene (hereafter cited as NSC 162/2), 5-6.

⁷⁵ NSC 162/2, 24-25.

Massive Retaliation, a remnant of McCormack's recommendations from Task Force B. This doctrine, as explained by Andrew Goodpaster, relied on the ability to use atomic weapons however the United States deemed appropriate. Goodpaster believed that this would allow Eisenhower the capacity to withstand any Soviet political or social subversion. He continued by stating that if military conflict did arise then the doctrine of Massive Retaliation would stop such action at a low level. He thought that John Foster Dulles', Secretary of State from 1953 until 1959, interpretation of Massive Retaliation stressed the threat of atomic warfare, not its implementation.⁷⁶

Massive retaliation was part of the intent to decrease defense spending. In a conversation Eisenhower had with Secretary of State John Foster Dulles and Secretary Wilson, concerning the defense budget for fiscal year 1955, they discussed methods to realize reduced defense allocations. Secretary Dulles argued for the redeployment of manpower from Korea back to the United States. He thought that this would preclude further ground deployments in Asia and put more emphasis on American naval and air assets in the region. This would allow significant reductions in ground forces.⁷⁷ The meeting concluded with the agreement that America's forces in "Europe could be somewhat skeletonized." The group decided that the Army would not get the 1.5 million soldiers it requested in 1955, unless the strategic situation deteriorated. Eisenhower also wrote that atomic weapons would provide the ability to reduce American reliance on conventionally armed units.⁷⁸

⁷⁶ Andrew Goodpaster, interview by Malcolm McDonald conducted on 10 April 82, Oral History Number 477, DDE Presidential Library, Abilene (hereafter OH-477), 5.

⁷⁷ Memorandum for Record by President Dwight D. Eisenhower written on 11 NOV 1953, Folder DDE Diary Oct.-Dec. 1953, Box 4, DDE Diary Series, Eisenhower Papers as President, DDE Presidential Library, Abilene, 1 (hereafter Eisenhower conversation 11 NOV 1953).

⁷⁸ Eisenhower conversation 11 NOV 1953, 1.

Eisenhower intended to decrease his defense budget by focusing national defense policy towards a reliance on nuclear weapons. The corollary to this decision was the fact that, at the time, the U.S. could only launch nuclear weapons capable of hitting Soviet targets using long-range bombers. This required the use of overseas air bases since aerial refueling would not become an operational capability until the introduction of the KC-135 in 1957. The Army and Navy were equally incapable of taking a prominent role in this new strategy, neither had the force projection capability. As a result, both the Army and Navy saw their allocation of defense spending decrease in Eisenhower's first term.

The Air Force was also the branch that most Americans thought would play the largest role in future conflicts. Almost 80% of the respondents to a Gallop Poll taken in October 1953 said that the Air Force would be the most important defense asset in a future global war.⁷⁹ The policy of Massive Retaliation reinforced the confidence that most Americans placed in the Air Force. The Air Force represented the modern method of warfare, strategic bombing and, in the near future, missiles.⁸⁰

The American public generally supported the idea of using nuclear weapons in a war with the Soviet Union. When asked in 1954 if they thought America should use the hydrogen bomb immediately in a conflict with the Soviet Union or wait for the Soviets to escalate the conflict to the nuclear stage, 57% of respondents said America should escalate the conflict first. This revealed how pervasive the threat of nuclear war was. In the same survey, most Americans thought that the hydrogen bomb made a future conflict less likely. Many Americans thought that

⁷⁹ Gallup Poll (AIPO), Oct, 1953. Retrieved Apr-16-2010 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut.

http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html.

⁸⁰ Adrian Lewis, *The American Culture of War: The History of U.S. Military Force from World War II to Operation Iraqi Freedom* (New York: Routledge, 2007), 70.

improving America's nuclear arsenal would provide some form of deterrent. Much of this stems from the fact that a majority of those surveyed thought that a future conflict with the Soviet Union was inevitable.⁸¹

The rhetoric of the New Look defense policy mirrored feelings in the general population. Americans supported using nuclear weapons in a first strike capacity in conflicts with the Soviet Union. They also supported the belief that improved nuclear technology, which increased bomb yields, did reduce the chances of a general war breaking out. Finally, most Americans believed that America and the Soviet Union would eventually meet in combat. Project Solarium did not consider popular opinion; but the Cold War threat permeated society and influenced the process that created the New Look defense policy.

Eisenhower's understanding of Clausewitz also contributed to his choice of massive retaliation as a means of deterrence.⁸² Clausewitz theorized, in his seminal work *On War*, about the nature of warfare. He spelled out how political and military leaders should approach it. Clausewitz explained that all military goals should stem from the overall political objectives of the conflict.⁸³ This connection between military and political goals comes through in the New Look defense policy. Eisenhower's main goal was political; he wanted to deter future conflicts, at minimal cost. In order to do this, he raised the cost of warfare exponentially, using military means. The New Look defense policy rested on the assumption that, to the Soviet Union, no political objective would be worth the cost of combating nuclear warfare.

⁸¹ Foreign Affairs Survey, Apr, 1954. Retrieved Apr-16-2010 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut.

http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html

⁸² Campbell Craig describes this idea more fully in *Destroying the Village: Eisenhower and Thermonuclear War* (New York: Columbia University Press, 1998).

⁸³ Carl Von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 81.

The French failure to defeat the Viet Minh at Dien Bien Phu, in 1954, signaled the beginning of U.S. involvement in Vietnam. General Taylor argued that the inability of American forces to intervene and support the French in their struggle to maintain their Southeast Asian colony was indicative of the New Look's failure. However, it was also an example of the policy's strength. Since the political goal of retaining French hegemony in Indochina, later Vietnam, was not worth the risk of general war, the rubric of the New Look defense policy mandated that America stay out of the conflict. John Foster Dulles and Admiral Radford supported intervention, in some form. However, the Army, under General Ridgway, and Eisenhower did not want to enter another Korean-style conflict.⁸⁴ Eisenhower supported the South Vietnamese in their opposition to the communist North Vietnamese with military advisors and aid, but not with combat troops. This was part of the New Look's emphasis on supporting allies and increasing their ability to wage limited war. While the New Look defense policy did not solve the problems that would lead to the Vietnam War, it did avoid significant American involvement in the early stages of the conflict. It also avoided a large-scale war in Vietnam during Eisenhower's administration, largely by not forcing a decisive engagement with the Viet Minh.

Dien Bien Phu was indicative of the type of success of the New Look defense policy achieved. In the short-term, the policy achieved its objectives; America did not fight another war on the scale of the Korean War throughout Eisenhower's tenure. However, the policy offered little in the way of long-term solutions to small-scale problems such as Indochina, Cuba, and

⁸⁴ Richard Leighton, *History of the Office of the Secretary of Defense Vol. II, Strategy, Money, and the New Look, 1953-1956* (Washington: Historical Office, Office of the Secretary of Defense, 2001) 535-537.

Iran. Each of these regions contained security threats that eventually required dramatic actions by subsequent administrations.

Project Solarium did not provide President Eisenhower with a single course of action he could use to create a defense policy. It is also doubtful that it greatly changed the ideas that he came into office with concerning defense issues. However, the project did provide Eisenhower with the ability to take stock of a range of ideas concerning how to combat the Soviet threat.

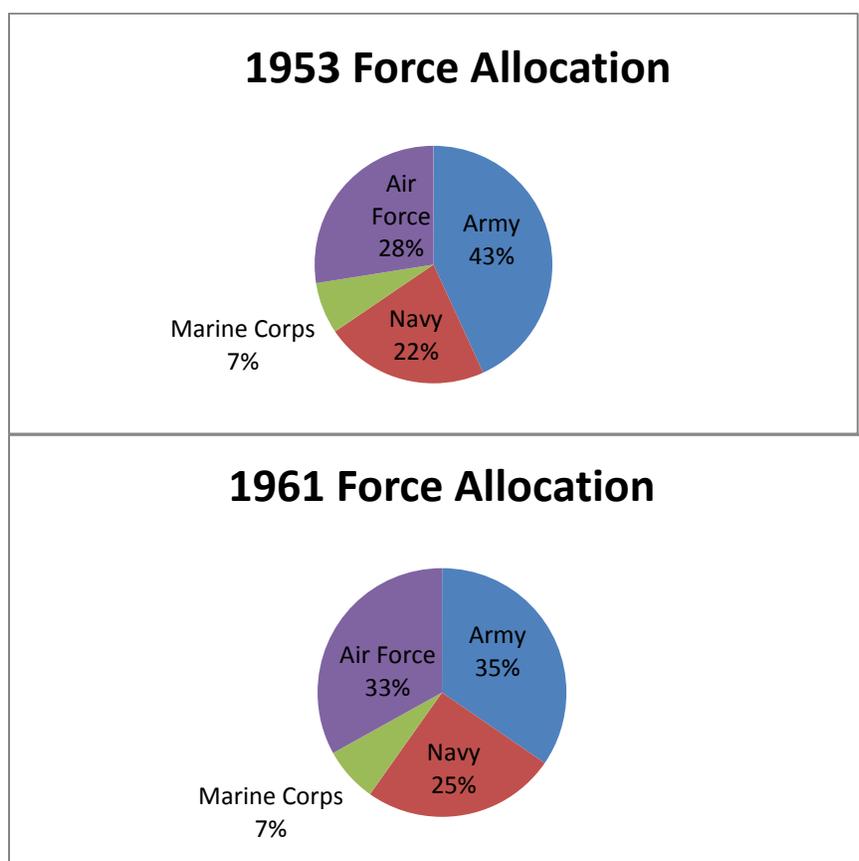
Ramifications of the New Look Defense Policy through the 1950s

The implications of this policy and its influence on manpower and fiscal resources of the military is important to understanding the New Look and its focus on deterring warfare and limiting American involvement in future conflicts. When President Eisenhower took office, there were over 3.5 million active duty personnel. In the aftermath of the Korean War, there was a peace-time reduction so that, by the end of the decade, the total number of active duty personnel was approximately 2.5 million. The Army absorbed the majority of this decrease. It declined from its wartime high of 1.6 million soldiers to less than 900,000 by 1960. This was a 46% reduction in the active force.⁸⁵

The Army's drop in manpower was not the only indication of the New Look and Eisenhower's influence on defense policy. By 1961, the year he left office, the Army and Air Force were roughly the same percentage of the overall force structure, in terms of manpower. The table below shows the differences between the services in the years 1953 and 1961. The

⁸⁵ Department of Defense, *Selected Manpower Statistics Fiscal Year 2003*, (Washington D.C.: Department of Defense, 2003), 43-44 Hereafter Selected Manpower Statistics.

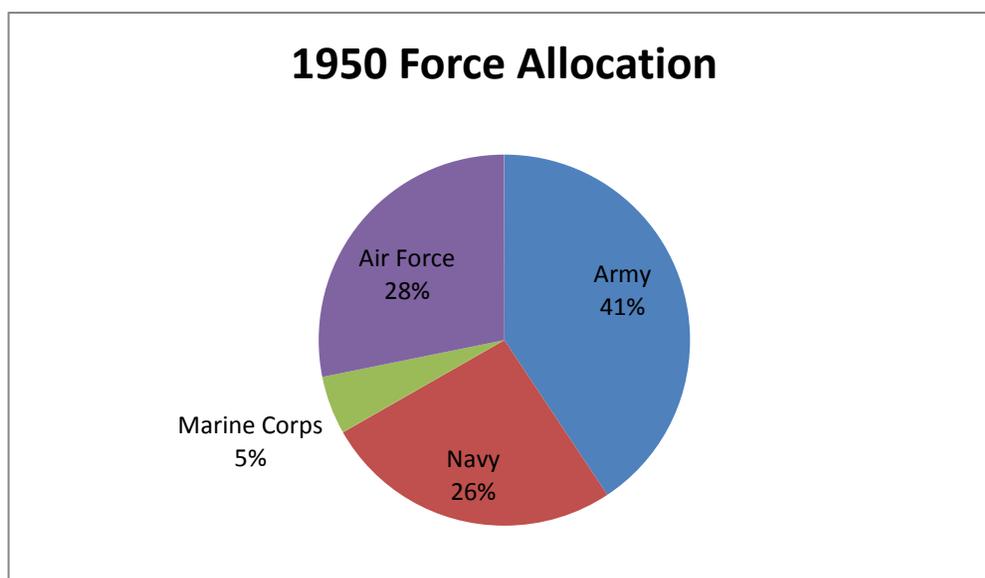
Army took the brunt of the decreases in manpower. The Air Force maintained approximately the same number of personnel as it had during the war.⁸⁶



These tables show that under President Eisenhower, the Air Force clearly won the manpower and budget struggle. It grew 5% during under the New Look policy while the Army decreased 8% from its Korean War level. Of course, some of this was due to the transition from wartime to peacetime reductions. It is informative to look at President Truman's force allocation prior to the Korean War in 1950. The table below shows that, prior to the war, the Army was the largest force in the Department of Defense. Compared to the force structure of 1961 the Army shrank by 6% and the Air Force grew by 5%. This was a force that had a total of 1.5 million men

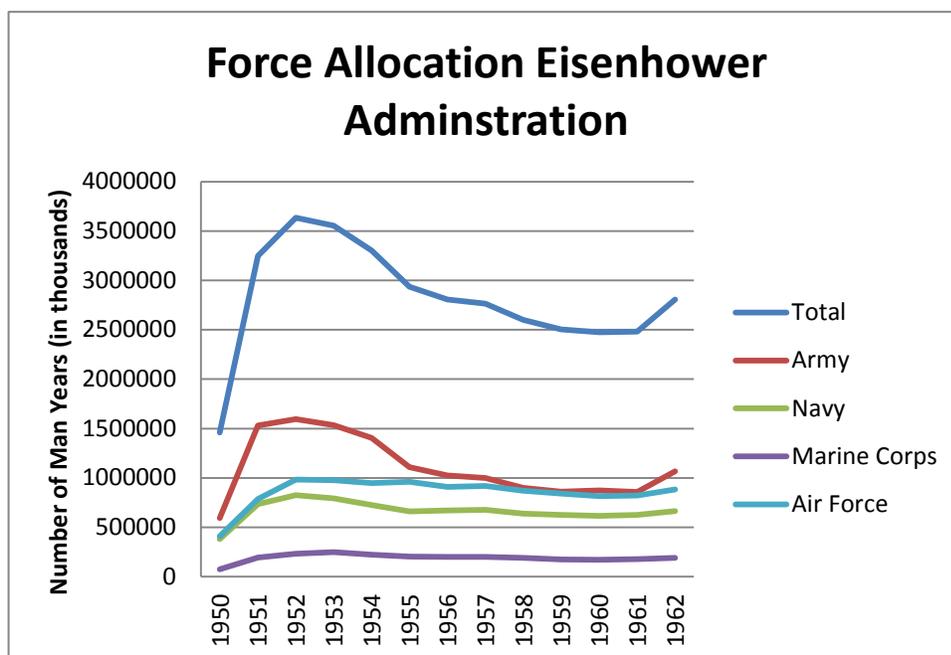
⁸⁶ Selected Manpower Statistics, 43-44.

in uniform. The table and graph below show the changes in manpower through the end of the Truman administration and the entire Eisenhower administration.⁸⁷



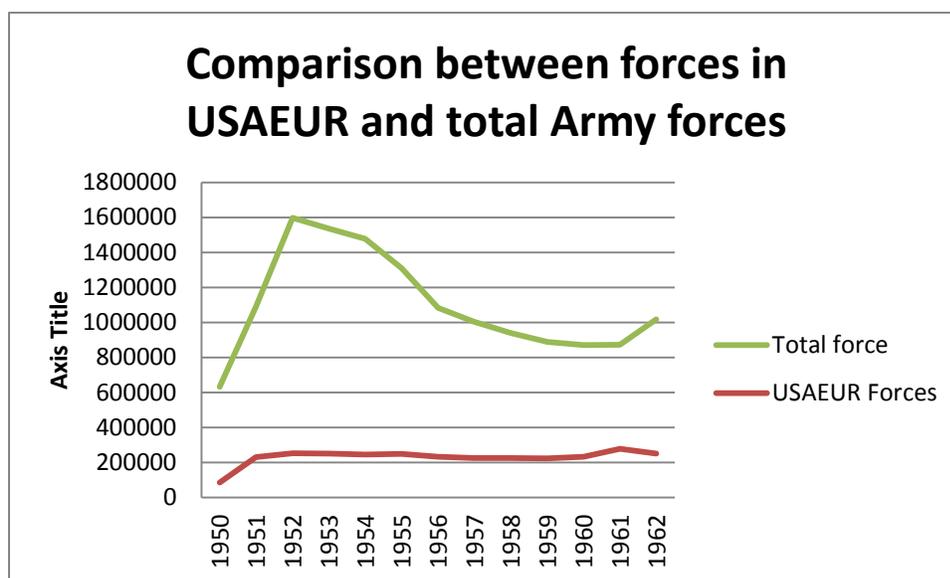
Year	Total	Army	Navy	Marine Corps	Air Force
1950	1459462	593473	380739	74279	411277
1951	3249371	1531774	736596	192620	788381
1952	3635912	1596419	824265	231967	983261
1953	3555067	1533815	794440	249219	977593
1954	3302104	1404598	725720	223868	947918
1955	2935107	1109296	660695	205170	959946
1956	2806441	1025778	669925	200780	909958
1957	2764761	997994	676071	200861	919835
1958	2599518	898925	639942	189495	871156
1959	2503631	861964	625661	175571	840435
1960	2475438	873078	616987	170621	814752
1961	2482905	858622	626223	176909	821151
1962	2805603	1066404	664212	190962	884025

⁸⁷ Selected Manpower Statistics, 43-44



The forces deployed to Europe also provide insight into the New Look defense policy. During the 1950s the Army personnel deployed in Europe did not radically change, as the chart below shows. Although there were several realignments of forces in the Army's European command (USAEUR) the basic formation was two corps headquarters, one with three divisions and the other with two. These units fell under the overall command of 7th Army.⁸⁸

⁸⁸ Ingo Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War*. (Lawrence: University Press of Kansas, 2008), 242,243,245-249.



United States Army Europe stayed around 200,000 soldiers through Eisenhower's eight years in office. He did not change the deployment numbers very much from Truman's initial deployment in response to the Korean War. Although the Army as a whole continued to face severe reductions in manpower, USAEUR maintained its wartime footing. However, the number of American personnel deployed to defend Western Europe along with European forces was not sufficient to defeat a Soviet offensive without the help of atomic weapons. Although the numbers look impressive when compared to present military force levels, Eisenhower understood that if the Soviets invaded NATO nations it would require the use of nuclear weapons to stop the assault.

Although Eisenhower did not reduce forces in Europe after the Korean War, he also did not increase them to the level to fight a Soviet advance. At the height of the Korean War almost 300,000 Army soldiers fought in that theater, this figure does not include allied nations

contributions or the number of South Korean soldiers who fought in the conflict.⁸⁹ Comparing the two forces shows that in order to fight a similar conflict in Western Europe against a fully mobilized Soviet force would require significantly more than 200,000 troops, especially if Eisenhower intended to fight the conflict without nuclear weapons. However, this was not the case; nuclear weapons would be part of any conflict with the Soviet Union in Western Europe in addition to significant troop contributions from NATO member states.

The New Look defense policy did not completely focus on economic issues. Although reducing the fiscal burden of military spending was important, maintaining a solid, credible defense against Soviet aggression was paramount for Eisenhower. For this reason, nuclear weapons provided an effective solution. They would offer a counter to Soviet manpower at a reduced expense.

One area where President Eisenhower assumed risk was in limited conflict. His defense policy centered on deterring a direct conflict with the Soviet Union, not at deterring limited conflicts. Understanding why this was acceptable requires knowing more about Eisenhower's views on warfare as a whole and how nuclear weapons changed Eisenhower's understanding of the character of war.

⁸⁹ U.S. Army Center for Military History, "Statistical Data on Strength and Casualties for Korean War and Vietnam" updated 30 May 2011, <http://www.history.army.mil/documents/237ADM.htm> (accessed 21 FEB 2012).

Chapter 2: The Arguments against Massive Retaliation and
the Deficiencies in Eisenhower's National Security Policies

On 24 May 1956 the Joint Chiefs of Staff met with President Eisenhower to discuss national military strategy. General Maxwell Taylor, Chief of Staff of the Army, requested the meeting to determine which point of view would guide military strategy in the future. He felt that the Joint Chiefs were in two different camps, the Army and Marines advocating for a more flexible policy and the Air Force and the Navy taking the position that “all planning must be based on the use of atomic weapons.” General Taylor argued that the presence of large thermonuclear arsenals made general nuclear war between the Soviet Union and the United States less likely. Since big wars were less likely, Taylor wanted to be able to plan for small-scale conflicts.⁹⁰

General Taylor stated that his main concern was the assumption that nuclear weapons would be a part of any conflict, large or small. He did not think that strategy reflected “the principle of ‘flexibility’ which [had] been worked into NSC papers.” Such an assumption could lead to the concentration of “tremendous atomic forces” while neglecting the resources “needed to handle small war situations.” President Eisenhower countered that he understood Taylor’s position but he thought that the Army Chief of Staff operated from a flawed premise concerning actions that the Soviet Union would take in a conflict.⁹¹

President Eisenhower did not think that the Soviets would “abhor destruction as” the United States did. He continued by stating that if war came, the Soviets would have very little to restrain them from using atomic weapons. Eisenhower wanted to “develop [U.S.] readiness on the basis of use of atomic weapons by both sides.”

⁹⁰ Andrew Goodpaster, “Memorandum of Conference with the President May 24, 1956” Digital National Security Archive, document number NH00088, http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00088, p 1. (hereafter Conference with President 24 May 56)

⁹¹ Conference with President 24 May 1956, 2.

General Taylor did not find a receptive audience to his concerns. This would continue throughout his tenure as Chief of Staff of the Army under President Eisenhower. The root cause of their disagreement was the difference between his and Eisenhower's conception of war in the atomic age. General Taylor wanted to ensure that the Army was ready for the myriad of small-scale conflicts he thought would come about because of the deterrence of thermonuclear weapons. However, Eisenhower did not share this understanding of how atomic weapons would influence future conflicts.

The President, in the conference on 24 May, told General Taylor that he did not think it would be possible to deploy large ground units to fight in the future. The Army, according to President Eisenhower, "would be truly vital to the establishment and maintenance of order in the United States." Eisenhower was sympathetic to the fact that his strategy did not provide the Army with a "great role in the first year of war" relative to the other branches of the military.⁹²

In relation to small wars, President Eisenhower firmly stated that the U.S. would not "deploy and tie down our forces around the Soviet periphery in small wars." He thought that the United States would provide "mobile support with the Air, Navy and Army supporting weapons." He continued that, in order to bolster "critical points," he could see the need to deploy "several battalions" but was adamant that such a deployment would not grow any larger. The President and General Taylor were of two dramatically different minds concerning small-scale wars as well as how to create a national military strategy that would deal with both the threat of thermonuclear war and limited wars.⁹³

⁹² Conference with the President 24 May 56, 2-3.

⁹³ Conference with the President 24 May 56, 2.

General Taylor argued that it was important to have “diverse types of forces to deter large wars, and small wars as well.” He posited that concentrating only on thermonuclear war would lead to defense requirements that were “practically limitless.” General Taylor wanted to determine the necessities for deterring such nuclear conflict first and then “provide the requirements for flexible forces useable in small wars.” Any remaining defense resources would then go to filling the needs for combatting an atomic war with the Soviet Union.⁹⁴

Again President Eisenhower was unmoved by Taylor’s argument. Eisenhower stated that the most important thing the U.S. should do in the early stages of a conflict would be to “get our striking forces into the air immediately.” He told the Joint Chiefs that “massive retaliation... is likely to be the key to survival.” The President ordered his senior military commanders to continue to plan their strategy “on the basis of the use of tactical atomic weapon against military targets in any small war in which the United States might be involved.” General Taylor, just like Chief of Staff of the Army General Mathew Ridgway before him, faced an uphill battle in convincing President Eisenhower about the need for a large Army to combat limited wars.⁹⁵

Before discussing the views of those who disagreed with Massive Retaliation it is important to understand why President Eisenhower thought this was such an important aspect of his defense program. There were many influences on President Dwight Eisenhower’s defense policy and how he viewed matters of national security. Saki Dockrill in her work, *Eisenhower’s New Look Defense Policy*, focused mainly on the economic concerns of Eisenhower’s formation of a national defense policy.⁹⁶ This economic interpretation is too simplistic; it overlooks how

⁹⁴ Conference with the President 24 May 56, 3.

⁹⁵ Conference with the President 24 May 56, 3.

⁹⁶ Saki Dockrill, *Eisenhower’s New Look Defense Policy, 1953-61*. Macmillan Press: New York, 1996.

Eisenhower's military experience in World War II shaped his views on defense issues. It also does not account for the changes in the defense sector in the 1950s, especially in the area of nuclear weapons. In order to provide a more comprehensive understanding of the New Look defense policy and the doctrine of Massive Retaliation, it is important to understand how Eisenhower viewed warfare in the nuclear age. His conception of nuclear warfare centered on atomic weapons as the dominant threat, an emphasis on technologically sophisticated and ever more powerful weapons, a prominent role for the Air Force in future conflicts, and a significantly less important role for the Army in national defense.

Eisenhower understood that atomic weapons dramatically changed warfare. In the 1950s, the pace of change in the yield and range of these weapons grew exponentially. In the beginning of the decade, strategic bombers were the only weapon system capable of projecting an atomic strike into the Soviet Union, using foreign air bases. By the end of the 1950s, the Intercontinental Ballistic Missile (ICBM) was a reality, although still in its infancy. The growth of missiles provided a new way to protect European allies and project American power. It was a modern way to fight a war. In addition, missiles were relatively inexpensive, especially, when compared to large ground forces, namely Army divisions.

Missiles became more important in the New Look defense policy throughout the 1950s. Although the emphasis was on the ICBM, in the early years of Eisenhower's administration no one foresaw the rapid success of the research program for these weapons. ICBMs, and to a lesser extent IRBMs, offered a way to project power without vulnerable air bases or putting pilots and crew in danger flying over enemy territory. Missiles fit well with Eisenhower's and the American peoples' conception of what future conflicts would be; they represented a more

efficient way of war that was technologically sophisticated. Throughout the decade, missiles became more prominent in the nation's deterrent forces. This required more money for research and development. During this time, the Air Force used its position as the proponent for long-range missile technology to increase its share of defense dollars, at the expense of the Army. Also, the Navy began to develop submarines capable of launching nuclear missiles in order to justify an increase in its budget allocation.

President Eisenhower's New Look defense policy relied on the threat of Massive Retaliation to deter warfare. Some observers, specifically Robert Osgood, Bernard Brodie, General Maxwell Taylor, and General Matthew Ridgway, correctly argued that this doctrine was not effective in deterring all possible threats that the Soviet Union posed. This difference of opinion came from disparate understandings of future conflicts. President Eisenhower understood the dangers of nuclear warfare and interpreted the events of his presidency through his conception of atomic warfare as the dominant paradigm for future conflicts. Discussions concerning military appropriations and the role of the Army in the atomic age clearly show how Eisenhower's impression of future wars guided his defense policy. Massive Retaliation played a fundamental role in shaping this framework of warfare in the nuclear age.

Campbell Craig argued in his work, *Destroying the Village*, that President Eisenhower altered the policy of Massive Retaliation during the middle 1950s. Craig posited that Eisenhower realized the limited freedom of action Massive Retaliation gave him and instituted a policy focused on flexible response and limited war, in avoidance of full-scale nuclear warfare. If this were true it was not reflected in Eisenhower's defense budget, which continued to emphasize

strategic nuclear forces.⁹⁷ The mid-1950s were a continuation of, not a retreat from, Massive Retaliation. Eisenhower's decisions concerning military budgets show that his emphasis did not shift from nuclear weapons. As a result of this emphasis on atomic warfare, national defense fiscal allocations continued to center around a robust U.S. nuclear arsenal through the entirety of his administration.

President Eisenhower's speeches, National Security Council (NSC) meeting minutes, and Eisenhower's diary entries shed light on his views of warfare and other defense issues. However, his words only give part of Eisenhower's understanding of how atomic weapons influenced national security. Budget projections and fiscal decisions show where Eisenhower placed his focus in national security. Although many times Eisenhower referenced balance and flexibility when discussing national defense, his actions showed that the idea of atomic supremacy permeated his military planning principles.

Nuclear weapons formed the backbone of Eisenhower's defense policy.⁹⁸ Although these weapons were expensive, using them as the foundation of national defense would allow the President to decrease American ground forces and shift that burden to U.S. allies. In the 287th meeting of the National Security Council (NSC) in June of 1956, one of his regularly scheduled weekly NSC appointments, President Eisenhower encouraged smaller Asian allies to build their ground forces. He stated that this would allow them to concentrate their defense resources on assets that the United States would not supply. He wanted the United States to supply air and naval aid, including an atomic umbrella, in order to provide strategic security. Eisenhower

⁹⁷ Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*. New York: Columbia University Press, 1998.

⁹⁸ James Lay. "A Report to the National Security Council by the Executive Secretary on Basic National Security Policy, White House Office: National Security Staff Papers; 1948-1961: Disaster File Series, Box 1, Dwight D. Eisenhower Presidential Library (Hereafter DDE Library), 7. (Hereafter NSC 162/2)

preferred to support U.S. allies through technologically sophisticated weapons systems or atomic support, not in large combat forces deployed to aid them in fighting on the ground. Improved weapons would substitute for large ground forces.⁹⁹

The pervasive threat of Soviet nuclear attack was one reason why Eisenhower offered an atomic umbrella to U.S. allies. In 1956, the Soviet Union's atomic capability was growing. Admiral Arthur Radford, Chairman of the Joint Chiefs of Staff, in the 288th meeting of the NSC in 1956, said that the Soviet Union would have a multi-megaton weapon sooner than the United States previously thought. This multi-megaton weapon was on par with the United States' hydrogen bomb.¹⁰⁰ Eisenhower's offer of atomic protection, instead of ground troops, bolstered America's European allies against a Soviet atomic strike. This strategy fit with the paradigm of providing strategic support for allies in order to avoid a long-term limited conflict fought with Army forces.

There were two prongs in the defense of Western Europe. One was the military capacity of the conventional forces deployed to protect the region. The other was the superiority of America's nuclear deterrent compared to Soviet atomic capability. Eisenhower's idea of the new paradigm of future wars focused on the nuclear capacity of the United States and framed its effectiveness in bomb yields and operational ranges, not in conventional power metrics like soldiers on the ground.

As part of the effort to design a nuclear age military, Eisenhower integrated these weapons into the U.S. defense system. The United States' official policy concerning the use of

⁹⁹ James Lay, "287th meeting of the NSC 7 JUN 56", DDE Library, Papers as president NSC Series Box 7.

¹⁰⁰ Gleason Everett. *288th meeting of the NSC 15 JUN 56*. DDE Library, Papers as President, Whitman File NSC Series box 7.

nuclear weapons in 1956, clearly stated that the administration considered these weapons a critical part of its arsenal and would use them in general and limited warfare, as the situation required. This understanding concerning the use of nuclear weapons suffused Eisenhower's defense and budgetary policies. Eisenhower did not see atomic weapons as a separate part of the defense arsenal. The message was clear, in a conflict the United States would not hesitate to use nuclear weapons, in the middle of the decade Massive Retaliation was still a fundamental part of Eisenhower's defense strategy.¹⁰¹

In order for the doctrine of Massive Retaliation to be effective, the United States had to have the ability to survive an initial Soviet strike. The basic national security policy stated in NSC document 5501, approved in January 1955, focused the United States' defense assets toward creating an effective atomic capacity to respond to Soviet attacks and surviving the opening stage of an all-out nuclear war.¹⁰² This retaliatory capability was part of the doctrine of Massive Retaliation. In order to maintain the efficacy of this deterrent, America needed to continue to research and develop new weapons systems. This ensured that the United States could strike back at the Soviet Union and offset any growing Soviet nuclear capability.

Ground forces did not represent the cutting edge approach to warfare that nuclear weapons and guided missiles did. NSC 5501 explained that the role of American forces was to suppress hostilities quickly using atomic weapons before a conflict escalated. The document stated that "the United States cannot afford to preclude itself from using nuclear weapons even in

¹⁰¹ James Lay. *Memo Declaring Policy of U.S. Regarding Atomic Weapons*. DDE Library, White House Office; NSC Staff Papers: Ex Secretary Series Box 5, Folder Policy Regarding Atomic Weapons (2), 1.

¹⁰² Lewis Strauss. *Memo for Executive Secretary of National Security Council: Report of Status of Atomic Energy Program on June 30, 1955*. DDE Library, White House Office NSC Staff Papers, Executive Secretary Sub Series Box 1.

a local situation, if such use will bring the aggression to a swift and positive cessation.”¹⁰³ In the context of New Look defense policy, the duty of deterring local aggression fell mainly to America’s allies. U.S. forces would assist and support local forces. By 1957, the Basic National Security Policy NSC 5707/8, which superseded NSC 5501, made the reliance on nuclear weapons more explicit; in this policy, these weapons were the “main” deterrent force.¹⁰⁴

Such statements about Eisenhower’s willingness to use atomic weapons did not mean that he was reckless. Rather, the intent of such policies was to ensure that military planners understood that nuclear weapons were the main focus of U.S. defense strategy. This did not sit well with the two Army Chiefs of Staff who served under Eisenhower, Generals Ridgway and Taylor.

The nuclear battlefield was a relatively new feature in the 1950s; Eisenhower and his administration had to develop new conceptions of warfare that integrated this new technology into the defense structure. However, not all security analysts agreed that nuclear combat would be the dominant paradigm of future wars. Robert Osgood, who served as dean of the Johns Hopkins University School of Advanced International Studies, wrote *Limited War* in 1957. This work detailed the necessity of dealing with small-scale conflicts. He granted that there was a need to deter general war and that

¹⁰³ John Glennon, editor. *Foreign Relations of the United States, 1955-1957. National Security Policy*. National Security Council Report 5501 (Washington: United States Government Printing Office, 1990), 511. Hereafter cited as FRUS.

¹⁰⁴ FRUS, 511.

Massive Retaliation effectively did this. However, Osgood correctly argued that it did not effectively restrain lesser conflicts.¹⁰⁵

Bernard Brodie also participated in the criticism of Massive Retaliation. His work *Strategy in the Missile Age*, published in 1959, showed his concerns. He, as well as Osgood, argued that Massive Retaliation created a gap in America's strategic defense. It deterred large-scale conflicts but did not prevent or prepare the nation to combat limited war. Brodie argued that the Soviet Union would take advantage of this gap in policy. Since the Soviet Union knew that the United States would refrain from launching a nuclear attack in response to small-scale conflicts, if it pursued limited goals with limited means it could be successful. The U.S. would have great difficulty answering these challenges, using the doctrine of Massive Retaliation.¹⁰⁶

These two strategists did not accept the assumption of nuclear supremacy completely. They acknowledged that atomic weapons did have a place in defense policy and they agreed that deterring large-scale conflicts was a vital part of securing the United States. However, they did not concede that concentrating on large-scale conflicts completely neutralized the threat that the Soviet Union posed. The New Look defense policy stated that the central problem of America's national security was to stop the "the Soviet threat to U.S. security", and in doing so protect the U.S. economy and its essential ideals.¹⁰⁷ The New Look defense policy also stated that the U.S. atomic threat inhibited

¹⁰⁵ Robert Osgood. *Limited War: The Challenge to American Strategy*. (Chicago: The University Press of Chicago, 1957), 1.

¹⁰⁶ Bernard Brodie. *Strategy in the Missile Age*. (Princeton: Princeton University Press, 1959).

¹⁰⁷ NSC 162/2. 1.

the Soviet Union from launching “local aggression.”¹⁰⁸ This differed markedly from the argument for limited war made by Brodie and Osgood. The belief in the efficacy of atomic deterrent across the full range of possible conflicts was a fundamental part of Eisenhower’s supposition of atomic supremacy. The effects of decolonization and future wars of national liberation, supported by the Soviet Union, would show the limitations of this policy.

Osgood, Brodie, and Eisenhower agreed on the necessity of countering small-scale conflicts. They disagreed about the best way to accomplish this. For Brodie and Osgood, the answer lay in a robust ground force that could quickly stop limited wars on the perimeter of America’s area of influence. Direct U.S. action would stop these conflicts from escalating according to these two theorists. Eisenhower wanted to shift the burden of ground warfare to America’s allies. He also believed that the Soviet Union was the main enemy; his defense policy put the onus on the Soviets for stopping their client states from starting conflicts. In the 1950s, few questioned the ability of the Soviet Union to control the actions of its client states in Eastern Europe and Asia. So creating a defense policy with the main goal of stopping the Soviet Union from entering into limited conflicts made sense during Eisenhower’s administration. It is important to remember that Khrushchev would not announce the policy of supporting wars of national liberation until 1961, publicly stating what Soviet actions previously implied.¹⁰⁹

Although Brodie and Osgood were more prominent there were other voices of discontent. Prior to the two most prominent academic critics of the policy senior military

¹⁰⁸ NSC 162/2, 4.

¹⁰⁹ Osgood Caruthers. “Victory Seen by Russia.” *The New York Times*. Jan 19, 1961, p. 1.

leaders questioned the efficacy of Eisenhower's defense program. General Matthew Ridgway, Army Chief of Staff from 1953-1955, grew frustrated under the New Look's focus on the Air Force. He did not think that the Army had the appropriate funding or manpower to accomplish its mission. Ridgway asked for more resources but felt that his military opinion did not sway what he perceived as the politically motivated conclusions of Eisenhower's security policy. This led to his termination as Chief of Staff after two years, in contradiction of the normal renewal of the initial two-year term for a second two-year term. He made his concerns about the New Look program public in an article in the *Saturday Evening Post* in January of 1956.¹¹⁰

General Ridgway described the three reasons the administration gave him to justify the cuts to the Army budget, they were: the fact that new atomic weapons were more destructive, the new Army reserve system would make quick mobilization easier, and the creation of a West German military would reduce manning requirements from other NATO member states. The Army Chief of Staff did not think that these were sufficient reasons for what he believed were the dramatic cuts to the Army's manpower and budget. Ridgway pointed out that the Army, during the middle of the decade, only had 30, 280-millimeter atomic howitzers in addition to a few Corporal missiles and Honest John rockets to defend a 400-mile front. He did not think that these resources were adequate, especially if the administration continued to decrease the number of

¹¹⁰ Matthew Ridgway, "My Battles in War and Peace" *Saturday Evening Post*, vol. 228, no. 20 (January 21, 1956): 17-48, 45-46.

troops deployed to Western Europe. General Ridgway argued that telling the American public that atomic weapons would balance out troop cuts was disingenuous.¹¹¹

Concerning the new reserve system, the second justification of troop and budget cuts, the Chief of Staff was similarly skeptical of these soldiers ability to quickly join an atomic war. He claimed that ground forces had to be prepared to fight well before the initiation of hostilities. Otherwise the United States and its allies were at great risk. As to the addition of West German troops to make up for American decreases he found that recommendation wanting as well. Ridgway pointed out that by the beginning of 1956 there were 6,000 of the planned half-million West German troops in uniform. The additional troops would not be ready for at least another three and a half years, according to the General.¹¹²

Another difference between General Ridgway and President Eisenhower was in the estimation of the Soviet threat. Although both understood that the Soviets possessed a large ground force, Ridgway concluded that the Soviets were more likely to use conventional forces in order to prevent a nuclear war. This would make it necessary for the U.S. to establish a similarly powerful conventional force to meet the Soviet threat. He did not think that the U.S. would be able to justify using atomic weapons if the Soviets did not use them first. This would take the teeth out of Massive Retaliation. He also took the administration to task for entering into too many reciprocal defense agreements that Ridgway felt bound the nation to use force to protect its allies. He argued that the U.S.

¹¹¹ Ridgway, 48.

¹¹² Ridgway, 48.

might not have the military power on hand to fulfill its side of the numerous security pacts it signed, if it could not use atomic weapons in a conflict.¹¹³

Matthew Ridgway summarized his concerns by outlining the problems he felt that the United States and its military faced in the coming years, if it continued with the New Look defense policy. He cited Soviet improvements in atomic weapons that would be able to deal “critical damage on the United States’ war-making potential.” He wrote that the Soviet air defenses would, by that time, degrade “the nuclear-air superiority which the United States” possessed in the late 1950s. In addition, the General did not see that U.S. and its allies’ forces could fight as a coordinated whole against a Soviet assault. He wrote that the myriad units deployed to fight the Soviet Union were “military detachments only.” He summed up his argument by stating that the U.S. military had to be able to fight “not only general war but” also “local, or so-called brush-fire wars.” Ridgway did see how the current forces and the planned organizational changes of the New Look would create a military prepared to combat this type of conflict.¹¹⁴

General Ridgway was not the only Army leader to bristle under the restrictions of the New Look defense policy. The subsequent Army Chief of Staff, General Maxwell Taylor, also did not subscribe to the arguments of Massive Retaliation or the supremacy of atomic warfare. Neither of these Army leaders accepted Eisenhower’s paradigm of warfare in the atomic age or his focus on preventing nuclear war in the belief that it would prevent limited wars as well.

¹¹³ Ridgway, 48.

¹¹⁴ Ridgway, 48.

General Maxwell Taylor, Chief of Staff of the Army from 1955 through 1959, also saw the need for the United States Army to have a limited war capability. In a speech to the Executives' Club of Chicago in 1955, he stated that America needed "an instrument which does not require mass destruction to obtain its end."¹¹⁵ He took issue with people who thought that the next war would be short and devastating. General Taylor did not disagree with those who said that nuclear warfare would be horrendous. However, he stated that as the nuclear arsenals of both America and the Soviet Union grew in power it made the possibility of a general nuclear conflict much less likely. This left limited wars as the only viable alternative.¹¹⁶

The Army under the New Look defense policy faced severe budget cuts. General Maxwell Taylor explained the severity of the Army's fiscal situation in his first speech to the Army staff after he assumed the duties of the Chief of Staff of the Army in 1955. His unease with the New Look policy and Massive Retaliation also came through in his speech. General Taylor outlined his concerns for the Army in the immediate future. Referring to the recent budget cuts, he stated that "your heads be bloody but certainly unbowed."¹¹⁷ The budget cuts to the Army in the aftermath of the Korean War were not simply returning the service to a prewar level of funding. These funding cuts decreased the ability of the Army to meet its commitments effectively.

¹¹⁵ Maxwell Taylor, Speech to Executives' Club of Chicago, 7 Oct 55. Digital National Defense Library. <https://digitalndulibrary.ndu.edu/cdm4/document.php?CISROOT=/taylor&CISOPTR=233&REC=2> (accessed 30 AUG 10), p.33 (hereafter cited as Executives' Club Speech)

¹¹⁶ Executives' Club Speech, 30.

¹¹⁷ Maxwell Taylor. "Remarks by General Maxwell Taylor at his First Meeting with the Army Staff after Assuming the Duties of Chief of Staff, United States Army. 7 July 1955. Digital National Defense University Library, <https://digitalndulibrary.ndu.edu/cdm4/document.php?CISROOT=/taylor&CISOPTR=367&REC=7>, p 1. (hereafter cited as Speech to the Army Staff) (accessed on 30 August 2010).

Under the New Look defense policy, limited warfare was the responsibility of America's allies. In the 257th meeting of the NSC, Eisenhower stated that the United States did not want to send its troops to combat every small conflict. While America should support its allies in these conflicts with air and naval forces, if necessary, he continued, if small skirmishes became too frequent, the U.S. would have to "fight a major war because we can't go around wasting our strength."¹¹⁸ Eisenhower did not see limited hostilities as contributing to the overall security of the United States. Limited warfare was something that would only detract from the U.S. ability to wage general warfare.

This was not to say that the United States under President Eisenhower did not invest in military and financial aid to its allies in order to help bolster their defense forces. Rather, the focus for Eisenhower was not in creating a large-scale standing military force ready to combat limited wars in foreign lands, he wanted to concentrate America's military assets towards deterring the most dangerous threat, a conflict with the Soviet Union.

General Taylor also advocated for other forms of deterrent, outside of nuclear weapons. He said that the Army, with sufficient weapons systems and manpower, was an effective deterrent to future conflict. The Army's ability to deter wars, according to General Taylor, extended beyond the immediate location of American troops. His conception of deterrence did not shift the requirement of local security to indigenous forces, as Eisenhower hoped to do. This difference of opinion arose because General

¹¹⁸ James Lay. *257th Meeting of the NSC*, DDE Library, Papers as President, NSC Series Box 7, 7.

Taylor and the President had different ideas about the influence of atomic weapons on warfare.¹¹⁹

General Taylor did not think that atomic weapons made ground forces obsolete or overly vulnerable. He believed that they still had a place in the nation's deterrence program. When Taylor discussed future conflicts, as shown above, he argued that the Soviet Union would not risk a general war but that it would continue to prosecute smaller campaigns. He did not ascribe to Eisenhower's view that warfare, at least as it concerned the U.S., was increasingly becoming an all or nothing proposition. Much of this came from the emphasis that the New Look defense policy placed on atomic weapons. The doctrine of Massive Retaliation did not leave much room in policy options for responding to any incursion of America's security perimeter other than a full-scale nuclear conflict. This was not a policy oversight; it was a fundamental part of the effort to preclude rising tensions with the Soviet Union.

As part of General Taylor's efforts to improve the ability of the Army to fight and survive on a nuclear battlefield, he created the Pentomic division. This was a short-lived experiment that pushed nuclear weapons down to the tactical level, defined as the division level and below. Its intent was to disperse troop formations yet still give them enough firepower to stop or attrite any attacking Soviet ground forces. Instituted in the late 1950s; by the early 1960s, the Army stopped its atomic transformation and shifted its emphasis to more conventional force structures.¹²⁰

¹¹⁹ Executives' Club Speech, 21.

¹²⁰ For a detailed description of the Pentomic Army see Andrew Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam* (Washington D.C: National Defense University Press, 1986).

When faced with the decision to support allies with ground forces, Eisenhower declined. The preferred method for supporting America's allies was with a nuclear umbrella. This position clearly came through when, as discussed earlier, Eisenhower encouraged Asian nations to supply conventional forces and allow the U.S. to provide the strategic assets. General Taylor's position required the deployment of conventional ground forces to provide deterrence. The difference between the two leaders concerning their view of future conflicts was stark.

Winning small wars was a capability that General Taylor thought that the Army needed. In a speech to the Quantico Conference of Defense Leaders in July of 1955, he said that the ability to win such conflicts would prevent larger wars from occurring. His concept of warfare required the Army to have the ability to apply a range of force to a given problem, not just a massive retaliatory strike; this was a precursor to limited and flexible response that General Taylor would bring to prominence as Chairman of the Joint Chiefs of Staff under President John Kennedy. General Taylor stressed that the U.S. had to "have the means to deter or to win the small wars."¹²¹

General Taylor advocated for a flexible and versatile Army ready to combat several different types of conflicts; his understanding of atomic era warfare did not correspond with the prevailing paradigm put forward in the New Look defense policy. The Army continued to receive far less funding than the Air Force despite the efforts of two Chiefs of Staff to address this situation. Edward Kolodziej in his work, *The*

¹²¹ Maxwell Taylor. "Maxwell Taylor, Chief of Staff of the Army, before Quantico Conference of Defense Leaders, Quantico, Virginia. 16 July 1955. Digital National Defense University Library, <https://digitalndulibrary.edu/cdm4/document.php?CISROOT=/taylor&CISOPRT=341&REC=9> (hereafter cited as Speech to Quantico Conference of Defense Leaders), 3. (accessed 30 August 2010).

Uncommon Defense and Congress, demonstrated that General Taylor's position on limited war did not translate into an increased Army budget. In fiscal year 1958, the Army received 8.5 billion dollars out of a defense budget of 38 billion. In comparison, the Air Force's budget was 16.5 billion dollars.¹²²

The Army continued to bear the burden of shrinking defense budgets in Eisenhower's second administration. Although the Army required \$14 billion to complete its modernization program, it received less than half of what it needed. It did not have enough manpower to support its worldwide responsibilities and was, by its own projections, approximately 50,000 personnel short of its manning needs. Another area slighted in the Army's budget was its missile program. It did not receive adequate funding for its surface-to-air missile program, the Nike Hercules. This project was part of the Army's effort to combat the Soviet bomber threat to the continental United States. Finally, the Army did not receive enough funding for its research program for the Nike Zeus. This program tried to develop an anti-missile missile. However, these initiatives suffered because of the Army's decreased funding.¹²³

The Army tried to improve its budgetary position by researching and developing new weapons systems, such as the Nike Zeus. However, the Army could not match the Air Force's capability to conduct nuclear warfare in accordance with how Eisenhower understood it. These new weapons systems, in addition to the Pentomic experiment, exhibited the lengths that Army leaders went to in order to change their organization to fit

¹²² Edward Kolodziej. *Uncommon Defense and Congress, 1945-1963*. (Columbus: Ohio State University Press, 1966), 239-241.

¹²³ Douglas Kinnard. "Eisenhower and the Defense Budget." *The Journal of Politics*. Vol. 39 issue 3 August 1977, 604.

the new paradigm. These innovative programs also revealed how hard Army leaders tried to demonstrate their service's ability to protect the nation from a Soviet nuclear attack. Eisenhower's fiscal decisions demonstrated that these changes did not have the intended effect.

In contrast to Army leaders' efforts to justify their service's budget, Air Force leaders did not face the same struggle. Vice Chief of Staff of the Air Force, General Thomas White described air power's place in America's security program in an article published in the *Annals of American Academy of Political and Social Science* in 1955. White's article argued that air power, specifically nuclear weapons, were vital to protecting the U.S. in "an age of danger."¹²⁴ The General was not alone in thinking that the Air Force was the number one defense asset that the United States had. Over half of the respondents in a Gallup Public Opinion poll in 1952, believed that the Air Force should receive more funding.¹²⁵ The Air Force, for many Americans, represented the new way to wage war. It was an atomic age force. As General White explained, the Air Force was the only branch of service that could "bring greater forces to bear on an enemy at less exposure of United States personnel than... any other military force available to the United States."¹²⁶

The fiscal implications of the decision to focus more resources on the Air Force initially seemed benign. In the 258th meeting of the NSC in September of 1955, the

¹²⁴ Thomas White. "The Strategy of United States Air Power." *Annals of American Academy of Political and Social Science*. 1955, 25.

¹²⁵ Gallup Poll (AIPO), Nov, 1952. Retrieved Aug-23-2011 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut. http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html . Hereafter November 1952 Gallup Poll.

¹²⁶ November 1952 Gallup Poll.

Council discussed the anticipated cost of Intercontinental Ballistic Missiles (ICBM). Dr. John von Neumann, a professor of mathematics at the Institute for Advanced Studies at Princeton University, said that the cost of the weapons would be \$1 million per missile. Secretary Humphrey replied that they would be “relatively cheap.”¹²⁷

Defense costs came up again a year later in the 280th meeting of the NSC in March of 1956. President Eisenhower discussed the implications of deploying U.S. ground forces to Europe. Initially, he stated that the deployment of these troops was temporary. He continued by observing that U.S. security came from its ability to deploy aircraft armed with nuclear weapons, instead of ground troops. Eisenhower criticized the military services for not working together to reduce the defense costs of securing the United States and its allies.¹²⁸

In the same NSC meeting President Eisenhower referred to a conversation he had with General Taylor concerning the size of the Army. General Taylor said that the Army needed 28 divisions.¹²⁹ This would represent an increase of 8 divisions from its 1953 strength of 20 divisions when Eisenhower entered office.¹³⁰ In 1956, the Army had 19 divisions; the President thought that the general’s request was outlandish.¹³¹ After

¹²⁷ FRUS, 114.

¹²⁸ FRUS, 271.

¹²⁹ FRUS, 271

¹³⁰ Richard Steward, editor. *American Military History, Volume II: The United States Army in a Global Era, 1917-2003*. (Washington, DC: Center for Military History, 2005), 257-8.

¹³¹ Center of Military History, United States Army. *History of Strategic Air and Ballistic Missile Defense. Volume II: 1956-1972*. (Washington, DC: Center for Military History, 2009), 35.

General Taylor's suggestion, Eisenhower said, "he had nearly fainted." This size Army was far too large for the type of war Eisenhower wanted to prepare for.¹³²

Although Eisenhower advocated cutting defense manpower in his budgets during the mid-1950s, he did not believe this decreased the efficacy of America's security forces. Press Secretary James Hagerty noted in his diary that the decrease in manpower allowed for more concentrated focus on "nuclear weapons, guided missiles, and the Air Force."¹³³ Hagerty referenced a conversation with Eisenhower concerning World War II and the invasion of Europe. The President thought if Germany possessed the atomic bomb in World War II that it would have been impossible for the allies to invade Normandy. He thought that an atomic strike would have easily destroyed both the concentrated invasion forces on the beachhead and the naval vessels supporting the invasion.¹³⁴ For Eisenhower, nuclear weapons changed warfare completely. Since large land forces were lucrative targets for atomic strikes, Eisenhower saw them as one of the more vulnerable assets of military on the battlefield. This was especially true when compared to the relative security of long-range missiles.

Hagerty discussed how the President should present this decision to the American people. Hagerty, Robert Cutler, National Security Adviser from 1953 through 1955 and 1957 through 1958, and Colonel Andrew Goodpaster, Staff Secretary and Defense Liaison, suggested that Eisenhower justify his decision to cut the defense budget by referencing his military experience. They told the President that he should tell the

¹³² FRUS, 271

¹³³ FRUS, 5

¹³⁴ FRUS, 5.

American people that this decision was militarily sound and was not done for purely fiscal concerns.¹³⁵

In a conference with Eisenhower about a lack of unity between the Joint of Chiefs of Staff in March of 1956, discussing security issues the President clarified his position on the possible use of atomic weapons in a conflict. He thought that the force structure of the United States military predetermined the use of nuclear weapons in a large-scale conflict. He also discussed his view of shorter-range missiles. He viewed the 1500- and 5000-mile range weapons as being in “the same class operationally.” President Eisenhower understood that his defense decisions took several options off the table; one of them was a large ground force commitment to a limited war. He also understood that, although smaller in payload and range, a nuclear missile was a weapon that would change the nature of a conflict.¹³⁶

One instance where this clash of conceptions of future war came to a head was the policy discussions concerning how the United States should deal with the uprising in Poland in 1956. The Joint Chiefs of Staff wanted to take an active role and support any revolution with unconventional forces and military aid. However, Eisenhower did not think that this was a viable strategy. The uprising in Hungary, in the same year, gave the administration the chance to discuss how it would apply the New Look defense policy to a real-world situation.¹³⁷ One proposition by the Central Intelligence Agency, represented by Robert Armory in the Policy Planning Board, was to use tactical nuclear weapons in

¹³⁵ FRUS, 5.

¹³⁶ FRUS, 280.

¹³⁷ James Marchio. “Risking General War in Pursuit of Limited Objectives: U.S. Military Contingency Planning for Poland in the Wake of the 1956 Hungarian Uprising.” *Journal of Military History*. Vol 66. Issue 3, July 2002. pp.783-812, 807-8.

order to prevent the Soviets from using force to quell an uprising should it occur.

However, during the Hungarian uprising, Eisenhower did not want to use tactical nuclear weapons because of the worry that it would escalate the conflict into a general war.¹³⁸

The use of a tactical nuclear weapon could escalate a limited conflict to a general war. This was another problem that the Army could not overcome in its efforts to show its capabilities on the atomic battlefield. If a tactical nuclear engagement escalated into a general atomic war, then the Air Force would have to become involved. Even though the Army continued to develop tactical nuclear weapons, President Eisenhower was clearly skeptical of their ability to engage in a limited conflict without escalating it.

As the role of the Air Force in national security matters increased, the roles of the Army and Navy shrank. In a discussion during the 277th meeting of the NSC, the President said that American ground forces would mainly secure order in the United States during an atomic war. They would work in the aftermath of a nuclear strike to ensure that society did not fall apart. Ground forces would also maintain the United States' ability to continue the fight. He said, "God only knew what the Navy would be doing in a nuclear attack."¹³⁹

President Eisenhower's public addresses also revealed the influence of nuclear weapons on his defense policy and give insight into his vision of modern warfare. In his State of the Union message, given on 6 January 1955, he discussed the essential functions of government as well as defense issues. He stated that the essential function of

¹³⁸ Marchio, 791-2

¹³⁹ FRUS, 208.

government was to “support freedom, justice and peace.”¹⁴⁰ Secondary to this was the preservation of a sound economy. Eisenhower discussed how the United States could maintain peace with the Soviet Union in his address. He stated that America’s ability to respond to a Soviet attack quickly and forcefully would ensure that the Soviet Union would not start a nuclear war. He continued by saying that this would produce a “world stalemate.” However, this condition, Eisenhower explained, provided opportunities for the free world to work for an ultimate peace.¹⁴¹

Eisenhower, in his State of the Union message, also said it was important for the nation to maintain “balance and flexibility” in its weapons program. He stated that, “undue reliance on one weapon or preparation for only one kind of warfare simply invites an enemy to resort to another.”¹⁴² However, during this period the majority of funding went to the Air Force. Eisenhower advocated the necessity of a balanced military; however, his conception of balance was not equality. When he used these terms he was talking about a defense structure built on nuclear deterrence and a small land force, which would be responsible for domestic security in case of an attack. This is a product of Eisenhower’s conception of modern warfare. Eisenhower thought that nuclear war was the most dangerous threat, if not the most likely, he determined to protect the nation against this type of threat.

The State of the Union message continued with a reference to research and development programs in the defense sector. Eisenhower stated that his budget for that

¹⁴⁰ Dwight Eisenhower. “State of the Union Address 6 January 1955”, Eisenhower Memorial Commission. www.eisenhowermemorial.org/speeches/19550101%20State%20of%20the%20Union.html. (accessed 13 September 2010). Hereafter State of Union Address 1955.

¹⁴¹ State of the Union Address 1955.

¹⁴² State of the Union Address 1955.

year would improve airpower in three services, the Air Force, Navy, and Marine Corps. The budget would also focus on developing weapons with greater “striking power.” He stated that this would ensure “the maintenance of effective, retaliatory forces as the principal deterrent to overt aggression.”¹⁴³ The deterrent force Eisenhower referenced was the United States’ nuclear arsenal, which gave strength to the doctrine of Massive Retaliation. The retaliatory forces were those forces capable of inflicting a swift nuclear response to a Soviet attack. The only forces capable of doing so without being forwardly deployed were Air Force elements. Although Eisenhower discussed the necessity of balance and flexibility in the armed services, his actions showed his preference for a national security program based on nuclear weapons.

Eisenhower then covered his success in decreasing the defense budget. He pointed out that “national security programs [consumed] two-thirds of the entire Federal budget.” He touted his success of cutting defense spending by “concentrating on essentials.”¹⁴⁴ Unsaid was the fact that these decreases came mainly from the Army and Navy budgets. Eisenhower’s words, interpreted through his actions as President, indicate how the assumption of nuclear supremacy shaped his view of defense matters.¹⁴⁵

Eisenhower described his defense budget as one that reflected the “realities of [his] time.” He said that he personally directed the areas of emphasis in the defense budget. Eisenhower believed that this budget gave the United States a defense program suited to the necessities of the world stage. He continued by stating that the focus on

¹⁴³ State of the Union Address 1955.

¹⁴⁴ State of the Union Address 1955.

¹⁴⁵ For fiscal year 1955, the federal budget was 68 billion dollars; the defense budget was 42 billion while non-defense spending was almost 26 billion. Information from the historical budget information from the White House webpage found at <http://www.whitehouse.gov/omb/budget/Historicals> (accessed 29 SEP 2012).

nuclear weapons had to continue because of the Soviet stubbornness in refusing armament limitation agreements. As long as the Soviet Union continued their obstinacy, America had to continue to build and maintain a large nuclear arsenal capable of deterring and responding to a Soviet attack.¹⁴⁶

President Eisenhower spoke of the need to maintain balance in defense matters. He also discussed the need for America to maintain flexibility in its defense preparations. Taken out of context, these comments implied that Eisenhower focused on a wide spectrum of conflict, from limited or conventional battles to full-scale atomic wars. However, Eisenhower's actions during this period show that his conception of balance and flexibility did not mean equality among the forces nor preparation for a wide spectrum of conflicts. He saw the need for America to prepare for future wars, which he believed would be atomic in nature. Eisenhower thought that large land formations would only draw an atomic strike, so building large ground forces would not help combat the Soviet threat. Only by responding with a nuclear strike could the United States hope to survive in the atomic age.

The assumption of the supremacy of nuclear weapons was part of a framework that interpreted defense issues through a new conception of war in the atomic age. This framework influenced budgetary and strategic decisions. America's defense program during the 1950s relied heavily on atomic weapons to cut the expense of ground and naval forces.

¹⁴⁶ State of the Union Address 1955.

Although Eisenhower's conception of modern warfare centered on atomic weapons, he did not think that this new level of destruction would shorten future conflicts. His diary entry for 11 January 1956 discussed the need for the United States to prepare for a long-term war. He did not think that the "theory of the thirty to sixty day war had anything to back it up."¹⁴⁷ Eisenhower wrote that wars were a product of the will of the people and until the people would accept an end to the conflict, a war could not stop. He also thought that preparation for long conflicts would allow America to survive the devastation of a nuclear attack.¹⁴⁸

Behind the discussion of general warfare and how to protect the United States in the Cold War was the knowledge that the Soviet Union was a quickly growing threat. NSC paper 5501, *Basic National Security Policy*, published in January 1955, outlined the advances of the Soviet Union relative to the United States. James Lay wrote that in five years the Soviet Union could deal a severe blow to the United States. Over the period discussed, the Soviet Union would be able to bring missiles with increasingly longer ranges into production, ending in 1963 with an operational ICBM. Lay explained that the United States missile program should plan to keep pace with that of the Soviet Union.¹⁴⁹

Massive Retaliation required that America's nuclear deterrent was equal to or greater than the Soviet Union's. Without the ability to counter a Soviet strike, America had little hope of deterring a general war. Lay, in NSC 5501, wrote that nuclear war was possible if the Soviet Union had a "technological break-through... leading them to believe they could destroy the U.S.

¹⁴⁷ FRUS, 177

¹⁴⁸ FRUS, 177

¹⁴⁹ FRUS, 25-26.

without effective retaliation.”¹⁵⁰ This understanding of nuclear parity with the Soviet Union required the United States to maintain an atomic arsenal capable of delivering a comparable blow to the Soviet Union’s. If America’s ability to retaliate to an atomic attack became too inferior, relative to the Soviet Union, then it invited a nuclear strike. This demanded constant improvement in America’s nuclear arsenal, since general nuclear warfare was the predominant conflict that President Eisenhower thought the nation faced.

This document focused on the technical improvements of the Soviet Union. Eisenhower’s conception of future warfare also focused on the technological advances of American’s weapons programs. Here the emphasis on maintaining technological equivalence with the Soviet Union exposed the importance of this metric in measuring America’s success in deterring a Soviet atomic attack.

Atomic weapons dramatically changed the scope of warfare. For the first time in history, the President of the United States had the ability to destroy an enemy without deploying a massive ground forces. Also, America’s main enemy now had the capacity to deliver the same destruction in return. This increase in the possible destructive capability of warring nations placed an artificial limit on warfare. President Eisenhower did not want to be responsible for starting World War III, so he used the policy of Massive Retaliation to prevent a direct conflict between the United States and the Soviet Union.

In conjunction with this new focus on atomic weapons and nuclear deterrence came a shift in defense spending priorities. The United States Army and Navy lost in relation to the Air Force in the fight for defense dollars. The Army lost manpower as well as funding to modernize

¹⁵⁰ FRUS. 26.

its formations. Nuclear weapons were at the heart of this issue. Eisenhower's conception of future warfare focused on the atomic battlefield as a way to prevent American involvement in limited and conventional wars.

Eisenhower's conception of modern warfare influenced the New Look defense policy. It shaped how he interpreted the problems of national security that the nation faced. It also affected how each service fared in budget decisions. The Air Force was the clear winner because it was the service that could prosecute the kind of war that hewed most closely to Eisenhower's idea of future wars. The Army suffered under this paradigm because its capabilities could not conform to fit this new idea of what modern war was.

President Eisenhower focused on the most dangerous threat to the United States, a nuclear conflict with the Soviet Union. Developing missile technology was one of the important projects Eisenhower wanted to focus on during his administration. It would allow him to deter a nuclear conflict with the Soviet Union. IRBMs were a part of this emphasis on missile technology and fit the paradigm of Massive Retaliation and Eisenhower's understanding of the paradigm of warfare in the atomic era. They provided a way to limit the contribution of American ground forces while still providing security for America's allies in Western Europe.

Limited war in this context, while arguably a more likely threat, was not as dangerous. President Eisenhower did not seek to craft a defense policy that would create a force that could handle anything from a limited conventional attack to a full-scale nuclear conflict. The New Look defense policy consciously focused on general nuclear warfare as the paradigm to guide budget allocation and force structure decisions. IRBMs fit this policy well and became a focus for the administration.

In order to understand why IRBMs came to Western Europe it is important to know how guided missile technology developed in the United States. This will reveal the history of cooperation between the United Kingdom and the United States in term of nuclear research. It will also explain why that cooperation came to an end in the post-World War II period. Finally, it will give demonstrate why the Army was unable to surmount the Air Force in the New Look era, although the Army initially had more success in its guided missile program.

Chapter 3: Development of Tactical and Strategic Guided Missiles

Throughout the 1950s both the Army and the Air Force worked to garner a larger share of the public's attention, defense budgets, and congressional support. The Army focused its efforts on public information. It opened offices in Los Angeles and New York in order to ensure that it could effectively tell its story to the American people. The Air Force, however, did not have to reach out to the American populace as vigorously as the Army. The Air Force concentrated most of its efforts on courting and supporting its defense contractors and their efforts to lobby Congress on the Air Force's behalf. The fight for control over the IRBM programs was, in some sense, a proxy for the larger conflict over which service would control the direction of national security policy and defense budgets.¹⁵¹

One of the main points of contention between the Army and the Air Force was which service would direct the development of America's long-range guided missile program. By the middle of the decade both the Army and the Air Force had long-range missile programs. In the early stages of these projects, Eisenhower decided to let both services continue to pursue their weapons. However, by the end of the decade the Air Force came out ahead and gained control of both its Thor IRBM and the Army's Jupiter IRBM. Of course there were obvious reasons for the Air Force to be the service that would direct long-range missiles but that did not stop Army leaders such as Generals Matthew Ridgway and Maxwell Taylor from trying to put their service at the forefront of these new weapons.

In many ways the Army was best suited for developing guided missiles. It had access to some of the best minds, such as the German scientist Werhner von Braun and it was able to capitalize on captured German missile designs, specifically the V-2. This rocket would become the basis for the Army's Redstone missile. The Redstone then became the foundation for the

¹⁵¹ Samuel Huntington, "Interservice Competition and the Political Roles of the Armed Services" *The American Political Science Review* vol. 55, Issue 1, pp40-52, 47.

Jupiter program.¹⁵²

Although von Braun's presence gave the Army an initial lead in missile development, the structural design of the branch's development process hindered progress. The Army used a series of arsenals across the United States, like the Red Stone Arsenal in Huntsville Alabama. While these facilities provided the Army with an in-house research and development team they cut out much of the defense contracting industry. The Army's decreased use of defense contractors meant that it did not have a solid foundation of corporate support to protect its interests in Congress.¹⁵³

The Air Force, in contrast to the Army, did not have as well-developed of a system of internal research and development. It relied on civilian contractors to help generate new aircraft and missile designs. Although the Army's arsenals had support from their Congressional representatives, they could not compete with the public relations teams and lobbying money that private contractors provided to the Air Force and its missile programs. Senator Barry Goldwater made this point when he said, "The aircraft industry had probably done more to promote the Air Force than the Air Force had done itself."¹⁵⁴

The struggle over missile development between the two branches replaced the tensions over Universal Military Training (UMT) that occurred in the late 1940s. The Army's position was that it was important for national security to train every American male when he came of fighting age. The Air Force, which did not support UMT, countered that a larger budget for its operations would alleviate the need for such a large and expensive training operation. Secretary of Defense James Forrestal, who served between 1947 and 1949, commented in his diary about

¹⁵² Bob Ward. *Dr. Space: The Life of Wernher von Braun*. (Annapolis: Naval Institute Press, 2005), 80.

¹⁵³ Huntington, 47.

¹⁵⁴ Huntington, 47.

the tensions between the two services. He wrote that the debate shifted from “UMT vs. no-UMT” to one of “UMT vs. a seventy-group Air Force.” Forrestal continued that the Air Force convinced “the country that by a substantial increase in appropriations for Air, there would be no necessity for UMT.” As a result of its advocacy, Congress increased the Air Force’s budget by \$822 million and the UMT legislation never made it out of committee.¹⁵⁵

This was one of the first examples of the Air Force’s seductive argument concerning its position in national defense during the Cold War. More money would provide a relatively painless increase in U.S. security. The Army’s position of training every male for possible combat meant that the Air Force could promise better defense with only money, while the Army demanded both money and the lives of the nation’s youth. Requiring both these meant that the Army faced an uphill battle against the Air Force concerning its position in national defense, regardless of the viability of the Air Force’s promises about wartime effectiveness or its deterrence capability. This debate would continue as IRBMs and ICBMs became viable weapons systems.

Although both services argued that their approach to missiles was the right choice, one reason Eisenhower supported them was that he wanted to find a way to reduce the need for large ground forces. In pursuit of this, he would spend 1.3 billion dollars in both 1957 and 1958 to research IRBMs and ICBMs. This was almost eight percent of the total defense budget in 1958 and is equivalent to 9.9 billion in 2011 dollars. Missiles were a significant part of Eisenhower’s fiscal and strategic planning for national defense.

The Air Force clearly had an institutional need for a long-range missile. However, the Army made serious gains in its own missile development. The irony was that, by the mid-1950s,

¹⁵⁵ Huntington, 41.

the Army's program, although not institutionally necessary, was more successful than the Air Force's. In 1955 von Braun's team solved the inertial guidance problems that increased the accuracy of the Redstone missile. Another improvement that the Army capitalized on was General John Medaris's success in building improved test stands at Cape Canaveral capable of withstanding a 500,000 pound-thrust blast-off, providing the ability to test larger missiles.¹⁵⁶

Both of these improvements allowed the Army to continue its early lead. However, neither could create a justification for America's ground force to maintain an expensive long-range guided missile program. This was the final nail in the coffin of the Army's sojourn into IRBMs. When President Eisenhower had to determine which service would control America's long-range missile development, the natural selection was the Air Force, regardless of any Army progress or arguments to the contrary.

The competition between the Army and the Air Force made the U.S. IRBM program better. However, there was another element of missile development, allied participation, specifically that of Great Britain. America's missile development coincided with the U.K.'s efforts in the 1950s. Both spent a significant amount of money to develop larger atomic weapons and to create viable guided missile defense forces. The United States, led by President Eisenhower focused America's defense policy on atomic weapons. In the beginning of the decade, strategic bombers composed the nation's primary force projection capability. However, by the end of the decade, the U.S. would have several squadrons of IRBMs deployed to Western Europe and the United Kingdom.

One important distinction concerning guided missile development during the 1950s was the difference between long-range missiles and IRBMs, of which IRBMs were a sub-set. Long-

¹⁵⁶ Michael Armacost, *The Politics of Weapons Innovation: the Thor-Jupiter Controversy* (New York: Columbia University Press, 1969), 46-47

range missiles included the Redstone, with a range of 200 miles, as well as Inter Continental Ballistic Missiles with ranges of several thousand miles. Under this large umbrella of long-range missiles were several classifications, such as ICBM, IRBM, and tactical guided missiles.

The struggle between the Army and Air Force about which service would control long-range guided missiles provides insight into Eisenhower's understanding of the role of IRBMs in national defense. Also the tensions between the U.S. and the U.K. over sharing atomic weapons information were indicative of how the President used these missiles to address domestic and allied security as well as redress problems in the Anglo-American alliance. This chapter outlines the development of IRBMs through the 1950s. It also covers the history of Anglo-American cooperative nuclear research. The resolution of these issues will be discussed in subsequent chapters.

The development of IRBMs in the United States began as two projects, one under Air Force control and the other under Army control. How these two forces approached the problem of creating such weapons heralded how each viewed their role in national defense. The Army focused on improving ground operations and sought to create a mobile missile system capable of moving with its formations in a ground war against the Soviet Union. The Air Force built a missile that relied on permanent launch facilities that would be obvious targets in the opening salvos of a war with the Soviet Union. The first generation IRBMs used liquid fuel and had a range of approximately 1500 miles. These missiles became operational in the United Kingdom and NATO nations in 1958 and 1959.¹⁵⁷

The United States' missile program grew in capability as the nation's nuclear warhead

¹⁵⁷“Chronology of Significant Events in IRBM and ICBM Program” DDE Library, White House Office, Office of the Staff Secretary, Subject series, Department of Defense subseries, Box 7, Miscellaneous and Satellite Report on Significant Events, Appendix pages a-b. (hereafter Chronology of Significant Events in IRBM and ICBM Programs)

development improved. In the early 1950s, there were no missiles capable of carrying a sufficiently large warhead to make long-range missiles a viable weapon. In March of 1956, Eisenhower explained that he saw guided missiles as simply another way of delivering the destructive power that America already possessed. It was not until the late 1950s that warheads of small enough size with sufficiently large yields arrived to make long-range guided missiles cost effective. Advances in missile technology changed the perception of these weapons in warfare. No longer were they only auxiliary options, they took on a more prominent role in the defense of the United States and NATO. The problems facing the development of U.S. missile capacities were primarily technological. However, the initial successes in missile development led to a missile force that quickly faced obsolescence.¹⁵⁸

Pushing the United States to develop its guided missile capability was the knowledge that the Soviet Union was becoming more and more successful with its program. By 1955, intelligence officials at the Pentagon understood that the Soviets had the capacity to reach European capitals with long-range nuclear missiles. In reaction to this information, President Eisenhower redoubled the research efforts of the Atlas and Titan ICBM projects. In addition he also required that Brigadier General Shriever, head of the Western Development Division, the division responsible for the ICBM, and Defense Secretary Charles Wilson brief him monthly on missile progress.¹⁵⁹

Soviet advances spurred Eisenhower to focus more on America's missile capability. The problem was that the ICBM was still years from completion. The Thor and Jupiter would provide the short-term solution because of their shorter range and relatively less complicated technical

¹⁵⁸Dwight D. Eisenhower, "30 March 1956 Diary Entry", Dwight D. Eisenhower Presidential Library, Abilene KS (hereafter DDE Library), Dwight David Eisenhower Diary Series, Box 13, Folder March 1956, p. 1.

¹⁵⁹ Michael Armacost. *The Politics of Weapons Innovation: The Thor-Jupiter Controversy* (New York: Columbia University Press, 1969), 53.

problems. Development on these weapons would continue while the ICBM was still in the formative stages. This, Eisenhower hoped, would give the U.S. and its allies enough protection against the increasingly dangerous Soviet missile threat.

Another nuclear weapons issue during the 1950s was the progress of America's closest ally. Britain's atomic program struggled in the post-war period. Although it benefitted greatly from its wartime cooperation with the United States, this ended after the conflict. The British view of the importance of atomic weapons was very similar to that of the United States. Although the two nations continued to collaborate in other arenas of defense, cooperation and information sharing concerning atomic weapons was impossible because of the legislative obstacles during most of the 1950s.¹⁶⁰

The cooperation or the lack thereof, between the U.S. and Great Britain demonstrated the distance between these two nations in the post-war period concerning nuclear research. President Eisenhower did not have the political leverage necessary to alter the legislative restrictions concerning sharing of atomic information to allied nations early in his tenure in office. Many of these limitations came in response to the discovery that the Soviet Union's intelligence stole much of the atomic research data used to build the Soviet atomic bomb. This reactionary fear of espionage would take time to ebb and ease fears about sharing atomic information. So the effort to research IRBMs, in the beginning, would be a purely American project

One of the first bodies that undertook an investigation of guided missiles and their viability was the Technological Capability Panel (TCP), chaired by James Killian. He served as the President of the Massachusetts Institute of Technology and then as the Scientific Advisor to

¹⁶⁰ Armacost, 51.

President Eisenhower.¹⁶¹ Eisenhower's use of the TCP and the nation's top scientists in determining guided missile policy displayed his emphasis on technical solutions as opposed to manpower intensive remedies. The TCP, began in 1954, framed the problem of American capability in terms of technological advances. Using these achievements as a metric made it imperative that the United States maintain its lead in sophisticated strategic weapons systems. This panel was fundamental in getting Eisenhower to support guided missiles as a way to protect America in the nuclear age.¹⁶²

In addition to guided missiles there were other efforts aimed at defending the United States from Soviet attack. One of the most long-lasting was the creation of the North American Aerospace Defense Command (NORAD) in 1958. This was a joint operation between the United States and Canada and attempted to create a radar shield to warn of an impending Soviet attack. However, NORAD, unlike the IRBM program, did not center on weapons to provide protection. The TCP recommended the IRBM program as a short-term fix for the long-range solution of creating a viable ICBM program. This view of the IRBM as an interim option was similar to the Air Force's point of view that looked at the ICBM as the paramount weapon. The Army, by contrast, looked to the IRBM as an end for specific operational needs, not a means to a larger goal.¹⁶³

The TCP began by defining the threat that the Soviet Union would pose during the next 10 years. They identified four different phases of danger during this time. The first period was one of American supremacy in atomic capability but vulnerability to surprise attack because of

¹⁶¹Richard Damms, "James Killian, the Technological Capabilities Panel, and the Emergence of President Eisenhower's 'Scientific-Technological Elite'" *Diplomatic History* Vol. 24, Issue 1, Malden: Blackwell Publishers, 58.

¹⁶²Micahael Armacost. *The Politics of Weapons Innovation: The Thor-Jupiter Controversy* (New York: Columbia University Press, 1969), p 50-1.

¹⁶³ Damms, 58.

the lack of an early warning system, this would last until 1956. From 1956 through the end of the 1950s, the U.S. would continue to build upon its supremacy in the area of strategic bombers. It would also increase the destructive power of the atomic arsenal relative to the Soviet Union. This period, the panel reported, would see the largest disparity between the Soviets and the U.S, in terms of military power. The third period from the end of the 1950s until the middle of the 1960s the panel believed the Soviets would gain on America in striking capacity and atomic bomb yield. Although the panel argued that the U.S. would maintain its strategic superiority during this period it would continue to degrade until middle of the 1960s when the Soviet Union would possess similar striking power to the United States. The panel reported that when this happened it meant that each nation would have the capability to destroy the other in a nuclear war.¹⁶⁴

By the end of 1956, the Army had made significant progress in its missile program. The Army created the Army Ballistic Missile Agency headed by Major General Medaris. This agency would take control of Jupiter missile development. In September 1956, von Braun's team launched a four-stage Jupiter missile. Although this missile had an inert fourth stage it still managed to reach a height of six hundred miles and a range of thirty-three hundred miles, equal to the altitude of *Sputnik*. General Medaris, worried that von Braun would take the opportunity to try to launch the nose cone into space with an active fourth stage ordered him not to try it. He told von Braun to "personally inspect that fourth stage to make sure it [was] not live."¹⁶⁵

Two months later Defense Secretary Wilson ordered the Huntsville team specifically and the Army in general to limit its missile programs to a range of two hundred miles. This was quite a blow to von Braun, who wanted to achieve orbit with his missiles and had already showed that it was possible to do so. However, this decision was not about the success of the Army in

¹⁶⁴ Damms, 68.

¹⁶⁵ Ward, 80-98.

developing a missile capable of launching a satellite, it was about which service would use the weapons on the battlefield. Undoubtedly, this would be the Air Force. Secretary Wilson's order, although it seemed definitive at the time, would take another year to come into force. The Army did not accept this decision without a fight.¹⁶⁶

Although President Eisenhower made the decision to support IRBM research and development early in his administration it was unknown what the fiscal implications of this decision would be. By 1957, the President realized that it made little budgetary sense to maintain two research and development programs aimed at creating the same capability. Eisenhower's understanding of how he wanted to fight future wars influenced his decision about which project to keep and whether the Air Force or the Army would control the research. This decision also projected how the administration envisioned these weapons working in NATO and U.S. defense systems.

The Air Force approached the development of its IRBM in a different way from the Army. It believed that the problems posed by the ICBM and IRBM were similar. By researching the IRBM Air Force scientists and contractors believed they would solve the problems associated with the IRBM along the way, it would be a fall-out of this effort. The Army saw much success in researching its shorter range missiles. Its version of the IRBM actually came out of the Army's Redstone missile program.¹⁶⁷ The Redstone missile, with a range of 200 miles, was smaller and had a mobile launch capability to support ground operations.¹⁶⁸

The Army and the Air Force both looked to guided missiles to provide improved force projection capability. These two projects approached the problem of guided missiles from two

¹⁶⁶ Ward, 98.

¹⁶⁷ Ibid.

¹⁶⁸ Norman Polmar and Robert Norris. *The U.S. Nuclear Arsenal: A History of Weapons and Delivery Systems Since 1945* (Annapolis: Naval Institute Press, 2009) p 168.

different points of view. The Army-Navy program, Jupiter, which the Navy soon left to research its own missile system, started from the beginning to design a missile with the range of 1500 nautical miles. The Air Force, with the Thor program, saw the IRBM as a capability that it would achieve along the road to the ICBM. The hope was that these two programs would make quicker progress apart than just one program researching the problem alone.¹⁶⁹

Although the Army and Navy began developing the Jupiter missile together it soon became apparent that the program would not meet the Navy's needs. Liquid fuel was too problematic for naval use, it cause too many problems with its demanding storage conditions. Liquid oxygen required extremely cold conditions making storage on a submarine dangerous. If the propellant spilled during fueling operations it would cause catastrophic damage to the submarine and crew. The Navy wanted to develop a solid fuel missile, Army leaders did not think that was possible in the short-term, so they did not try to stop the Navy from leaving the program.¹⁷⁰

Lieutenant General James Gavin, head of the Army's research and development, did not worry about losing naval support. He did not think it was wise for the Army to lose the progress it made on the liquid fuelled Jupiter in order to accommodate the Navy's needs. Besides the Jupiter was a successful missile and was possibly the vehicle that would carry an American satellite. Gavin did not want to lose this opportunity for the Army to shine.¹⁷¹

The Navy however, would make good on its investment in research of solid-fuels. By going to corporations such as the Aerojet General Corporation and Lockheed's Missile and Space

¹⁶⁹ Andrew Goodpaster. Memo of Conversation with the President 8 October 1957, DDE Library, White House Office, Office of Staff Secretary, Subject Series, Department of Defense subseries, box 1, Folder Department of Defense volume II (August-October 1957), 2.

¹⁷⁰ Roger Lanius and Dennis Jenkins, editors, *To Reach the High Frontier: A History of U.S. Launch Vehicles* (Lexington: The University Press of Kentucky, 2002), 239.

¹⁷¹ Armacost, 87-88.

Division, the Navy found solutions to the barriers of solid-fuel missiles that were unforeseen by the Army research team. Capt. Levering Smith, commander of the Naval Ordnance Test Station, worked with the companies to develop a 50-foot solid propellant missile, "Big Stoop" in 1956. The two corporations, working with Capt. Smith, developed a solid-fuel version of the Jupiter, called Jupiter-S. The problem with the Jupiter-S was its size; it was 44-feet long and 10 feet across. This meant that a submarine could only carry four missiles. This was not enough for sustained naval operations. So the Navy abandoned the Jupiter but showed that the technical problems preventing the switch to solid-fuels were not insurmountable but required the proper help.¹⁷²

The two-pronged approach to missile research between the Army and the Air Force, created as many problems as it solved. The two services did not agree with each other concerning how the missiles would operate on the battlefield. Eventually, Eisenhower had to decide which program best fit the nation's needs. This would mean determining which branch would continue to receive funds to field this weapon. It also meant that the losing service would no longer have the ability to direct the progress of America's long-range missile program.

Losing missile research funds was only of part of the problem for the Army under the New Look defense policy; this was part of a larger bureaucratic struggle. Eisenhower's emphasis on cost cutting meant decreasing the manpower of the United States military, as well as its overseas contingent. In a conversation with Eisenhower in August of 1957, Secretary of Defense Charles Wilson discussed how to achieve this. He suggested that the administration could remove approximately 35,000 troops from Europe. The President countered that the U.S. could

¹⁷² Launis, 239.

only do this if it kept this information secret.¹⁷³

Another aspect of the rationale for decreasing the United States' presence in Europe was that an improvement in its strategic weapons would provide the same defense capability as ground forces deployed to defend Western Europe. This made guided missiles an important part of the deterrent program. They would operate with a small American force deployed to operate them; they would not need large ground forces to deter the Soviet Union from attacking Western Europe. This was part of the New Look defense policy's focus on sophisticated weapons to replace expensive ground units that required intensive support in terms of manpower and logistics.

By this time von Braun's team in Huntsville had achieved some measure of success on the Jupiter project. On 31 May 1957 the third test flight of the Jupiter was successful. The missile attained a range of 1400 nautical miles and an altitude of 350 nautical miles. This was just over half the altitude of *Sputnik*, which would reach just over 600 miles in altitude in October of that year. The Air Force's program, Thor, headed by Colonel Edward Hall, an expert in propulsion had some difficulty.¹⁷⁴ Of the three test flights all ended in failure. The second flight launched effectively but because of safety problems the missile self-destructed.¹⁷⁵

There were two major variations of the Jupiter missile, the Jupiter A and the Jupiter C. The A variation was the military version that would carry a warhead. The C variation was the model used to test reentry technologies; this was the missile that reached 600 miles in altitude in 1956. In order to perfect ballistic missiles, both American programs had to determine how best to

¹⁷³John Eisenhower, Memorandum of Conversation with the President 16 August 1957, DDE Library, White House Office, Office of Staff Secretary, Subject Series, Department of Defense subseries, Box 1, Folder Department of Defense Volume II (1) August 1957, 3-4.

¹⁷⁴Neil Sheehan, *A Fiery Peace in a Cold War: Bernard Schriever and the Ultimate Weapon*, (New York: Vintage books, 2009), 317-319.

¹⁷⁵Chronology of Significant Events in IRBM and ICBM Programs, 12-14.

get the warheads back into the lower atmosphere. The Jupiter C nosecone had a fiberglass coating that would dissipate heat in reentry by burning off. It was also relatively blunt, compared to other designs. These innovations helped von Braun's team resolve many of the problems ballistic missiles.¹⁷⁶

By August of 1957, Secretary of Defense Charles Wilson wrote to Secretary of the Army Brucker concerning the fate of the Army's IRBM program. Secretary Wilson told Secretary Brucker that the Army should not dedicate any more funds to the Jupiter program. Although at this time the IRBM panel had not officially come to a conclusion concerning which missile would be the primary focus for the nation, Wilson's memo made clear that the Army lost control of its IRBM program. The Air Force would have the responsibility to integrate the IRBM into its force and bring them into an operational use.¹⁷⁷

Both programs by 1957 had some measure of success. However, by this time President Eisenhower grew frustrated with the progress and cost of the duplicate programs. He said, in a conference concerning security issues in general, that he would create only one program, similar to the Manhattan Project, if he could go back in time and revisit the missile development decision. He wanted to consolidate the programs into one single project. This would decrease overhead cost and would lead to a single conception of what the weapon's role on the battlefield would be. Eisenhower understood that the decision about which service continued to develop its missiles meant more than just the budget allocations, this would impact the morale of both services.¹⁷⁸

¹⁷⁶ Launis, 48-49.

¹⁷⁷ Charles Wilson, Memo to Secretary Bruker from SECDEF Wilson IRBM Program. Digital National Security Archive accessed (23 Sep 11), 1-2.

¹⁷⁸ John Eisenhower, Memorandum of Conversation with the President 20 August 1957, DDE Library, White House Office, Office of the Staff Secretary for National Security Affairs, Subject Series, Department of Defense

Another factor in the struggle between the Army and the Air Force was the loss of face. If the Air Force carried the day and took over both IRBM programs it would solidify its position in the national security structure. If the Army won, it would represent that it was still important in defending the nation and determining the future of America's atomic arsenal. This was not just a technical discussion but also a disagreement at a fundamental level concerning which service was primarily responsible for national security, the Army or the Air Force.

The Army faced an uphill battle concerning its justification of its missile program. Guided missiles would help the Army face the new realities of the atomic battlefield. However, convincing President Eisenhower that the right place for long-range missile development was the ground service would not be an easy task, especially considering the Air Force's natural need of such a capability. Although the main concern between the two services was the range of their respective weapons systems. The fight was also about who would get more defense funding and which service would define how the U.S. would use the IRBM.

The Army in 1957, wanted to modernize its Redstone missile in order to increase its range as well as improve its fuel from liquid oxygen to solid propellant. This modernization would increase the range of the missile to 500 miles. It is important to look at this modernization program and how the Army justified it because the Redstone modernization program was indicative of how Army leaders understood how guided missiles impacted warfare.

Lieutenant General James Gavin, the Army's Chief for Research and Development in the late 1950s, wrote about the importance of this in his book, *War and Peace in the Space Age*. He argued that the German scientists understood that the German missile program failed in part because of the constant threat of allied bombing operations. He argued that American designs

should start from the ground up with the assumption that mobility was crucial to maintaining the security of a missile system. It would allow the missiles to move out of contentious areas and preclude the military from having to defend an area just because it had missile bases present.¹⁷⁹

The discussion to switch to a solid fuel system revealed the serious problems that the liquid oxygen fuel had. The liquid fuel was corrosive and so the missiles could not remain fueled for a prolonged period of time without destroying the fuel system. This meant that the missiles required significant preparation time in order to fire. A solid propellant system did not have such issues. The solid propellant was stable and had the ability to withstand storage over a prolonged period. Missiles with solid propellant, such as the Army's proposed modernized Redstone and the Navy's Polaris were still years from realization. The first solid-fuel Polaris missile came into operation in 1960; its first successful test flight came in 1959.¹⁸⁰ However, the Army did not design the first generation of Jupiter missiles with a solid fuel capability and this led to the quick obsolescence of the weapons system because General Gavin did not want to sacrifice the Army's substantial progress with the liquid fuelled Jupiter.

Part of the reason that Army leaders advocated for a 500-mile range missile was that they wanted to ensure that the Army maintained its ability to conduct combat operations against the Soviet Union. Lieutenant Colonel Guthrie argued in a report on the Redstone modernization program that an Army Group required a 500-mile missile in order to counter the known doctrine and capabilities of the Soviet Union. He cited Army studies that investigated what the Army would require in order to fight Soviet ground forces. These studies concluded that the Army required a longer-range mobile missile.¹⁸¹

¹⁷⁹James M. Gavin. *War and Peace in the Space Age* (Harper Brothers: New York, 1958), 77-78.

¹⁸⁰Polmar and Norris, 186-188.

¹⁸¹J.R. Guthrie, Memorandum Concerning the Modernization of the Redstone Program, DDE Library, White House

On 2 August 1957, after much bureaucratic infighting, Defense Secretary Charles Wilson issued a memorandum concerning the Thor and Jupiter IRBM projects. He declared that the Air Force would be the service responsible for determining how to use these weapons. The Army could continue studies to determine how it could use missiles or use IRBMs to a limited extent. However, it could not plan for using any missile with a range greater than 200 miles. This meant that the Air Force would take control of the Army's IRBM project. Although the Army would continue to work on the project, it would be under the direction of the Air Force. This edict ended the two service effort to develop an operational IRBM both programs now fell under Air Force direction.¹⁸²

The Air Force continued to work on the Jupiter. In fact, this missile had the most success in terms of performance, irrespective of the guidance system or warhead. The Army had clearly made significant progress with its missile program. The problem was the Army could never overcome the basic fact that the Air Force's justification for IRBMs was superior to that of the Army's, no matter what arguments General Taylor or any other Army leader made.¹⁸³

General Maxwell Taylor, Chief of Staff of the Army, spoke about his concern that the Army lacked a long-range missile. In a memo to the Secretary of Defense about the Army's Redstone modernization program, he wrote that the Army had a significant capability gap because its longest range missile was the 175-mile Redstone missile. The IRBM program

Office, Office of the Staff Secretary for National Security Affairs, Subject Series, Department of Defense subseries, Box 6, Folder Missiles and Satellites August 1957 Volume I (2), 3. (hereafter cited as Modernization of Redstone Memo), 2.

¹⁸² Charles Wilson. Memo for JCS concerning readjustment of IRBM program, DDE Library, White House Office, Office of the Staff Secretary for National Security Affairs, Subject series, Department of Defense subseries, Box 6, Folder Missiles and Satellites August 1957 Volume I (2), 1

¹⁸³ Andrew Goodpaster, Memorandum of Conversation with the President 8 October 1957, DDE Library, White House Office, Office of the Staff Secretary for National Security Affairs, Subject series, Department of Defense Subseries, box 1, Folder Department of Defense Volume II August through October 1957, 2. (hereafter Goodpaster Memo of Conversation with the President 8 October 1957)

planned to introduce a missile with a range of 1500-miles. This left a significant gap in what targets the Army could engage. General Taylor wrote that if the Army had to engage these targets it would require the Air Force to execute these missions with “manned aircraft or air-supported missiles.” He continued by writing that he thought both of these systems faced obsolescence soon, leaving only the IRBM to fill the operational gap. General Taylor characterized the IRBM as too expensive, too cumbersome, and not accurate enough to provide proper support for Army missions. He believed that this meant that the Army had to have its own long-range missile capability in order to directly support its own operations.¹⁸⁴

General Taylor characterized many Army leaders' fears about the lack of capability in relation to the Air Force and the Soviet Union. The Army required a missile capable of supporting what Army leaders thought was their operational requirements. However, the original Redstone did not meet this criteria and the Jupiter, although capable of reaching such targets was out of their control. Each branch developed missiles for their own purposes; however, in the case of IRBMs the service that designed the weapon did not directly reap the benefits of its research program. General Taylor's vision of future wars that would require missiles was deeply flawed. These missiles would not play a significant role in any conflict from 1957 through the present.

The Air Force program, which fielded the Thor missile, operated parallel to the Army's IRBM project. Thor was similar to the Jupiter missile; however, it came as a result of the Air Force's research on the ICBM problem. The Thor was the first IRBM to become operational, although, as discussed previously, it was not the system with the best test record. The first deployment of these weapons was to Britain, 1959. Getting these weapons deployed was

¹⁸⁴Maxwell Taylor, Memorandum for the Secretary of Defense Concerning the Army Redstone Modernization Program, 2 August 1957, DDE Library, White House Office, Office of the Staff Secretary for National Security Affairs, Subject series, Department of Defense subseries, Box 6, Folder Missile and Satellites 1957 Volume (2), 1.

problematic. In October 1957, the administration had to deal with the launch of Sputnik. One concern was the lack of an effective ICBM capability to counter the Soviet missile threat. The Thor provided a way to create a relatively effective ICBM quickly. The problem as outlined in a progress report concerning guided missiles written by Dr. Killian, the scientific advisor to the President, was that this solution was not without problems. If the administration chose to use the ICBM variant of the Thor, called the Thor-Able, it would delay operational readiness date of the Thor squadron in Britain. Also, the Thor-Able missile was not a panacea. Its technical failings would lead to its quick obsolescence.¹⁸⁵

The problems with both the Thor and Jupiter were readily apparent even in 1956. The Scientific Advisory Committee recommended that a solid propellant IRBM receive top priority. Neither the Jupiter nor Thor first generation missiles had the capability to burn solid fuel. The advisory committee also recommended in 1956 that the research of a solid fuel variant be independent of the Jupiter. This gave the Navy the ability to develop the Polaris missile, a solid fuel submarine launched IRBM.¹⁸⁶

One reason that the United States focused on the development of IRBMs was the slow pace of progress on the ICBM program. Although the program planned to create an operational ICBM by the middle of the 1960s, there was not a feasible way to increase production or research quickly to meet the growing Soviet threat. The only option was to make the Thor variant the emphasis of the ICBM program. This would provide the capability but at the cost of diverting resources from other programs. Killian characterized this option as something that would make

¹⁸⁵ George Kistiakowsky, Progress Report for Dr. Killian on the State of Guided Missile Programs, DDE Library, White House Office, Office of the Staff Secretary for National Security Affairs, Subject series, Department of Defense subseries, Box 8, Folder Science and Technology Assistant to the President (2), 4. (hereafter Progress Report for Dr. Killian on Guided Missiles)

¹⁸⁶ Chronology of significant events in IRBM and ICBM programs, 10-11.

sense as an “emergency measure only.”¹⁸⁷

Both the Army and Air Force’s IRBM programs had their problems. However, both offered a reasonable solution to the problem that the nation faced; its lack of a long-range ballistic missile. By the end of the 1950s, it was clear that these weapons would only serve as temporary solutions until more effective weapons could reach the battlefield. This lack of effectiveness did not eliminate the fact that the U.S. did not have an effective counter to the Soviet ICBM capability, at least in terms of its missile force. This was why the both IRBM programs were so important to President Eisenhower.

The Jupiter missile system completed 5 test flights from 1956 through 1957. Of these flights, three were successful and attained ranges over 1,000 nautical miles. Also, the Jupiter project managed to launch a missile with a working guidance system. During this time, the Jupiter team also launched and recovered a small-scale nose cone after a successful test flight of 1100 nautical miles. The Thor program did not have the same level of success. Although it was able to launch 8 test missiles during the same year-long period, only 2 were successful. One of these successful test flights attained a range of 2,300 nautical miles. By the end of the year, the Secretary of Defense limited the maximum production of Thors to 2 missiles a month and Jupiters to one missile a month, until President Eisenhower chose one land-based system to move to full production.¹⁸⁸

It was not surprising that the Army’s missile project was so successful. German rocket scientist Wernher von Braun and his team worked for the Army in the immediate post war period. In 1956, Braun was the lead scientist in the Army Ballistic Missile Agency, built in Redstone Arsenal. His work for the Army in weapons research continued until the creation of the

¹⁸⁷ Progress Report for Dr. Killian on Guided Missiles, 5.

¹⁸⁸ Chronology of Significant events in the IRBM ICBM programs, 11-16.

Marshall Space Flight Center in Huntsville, Alabama in July of 1960, when he started his work at the center a part of the year old National Aeronautics and Space Administration (NASA).¹⁸⁹

Although the Army and the Air Force each had projects that completed successful test flights during 1957, both still had problems. The guidance systems were not tested in a majority of the flights. Also, the Jupiter missile was the only one to test a version of its operational nose cone. There were more problems with the Thor, which continued to see performance issues through most of 1957. By the end of 1957 it was clear that these weapons still required much work to be viable. The following table illustrates the dates and results of the initial test flights of the Jupiter and Thor programs.

Test flight information for Thor and Jupiter IRBM programs from 1956 through 1957¹⁹⁰

Date of Test	Results of test
11 February 1956	Scientific Advisory Committee recommended continuing both the Thor and the Jupiter IRBM programs
18 October 1956	Air Force received the first Thor IRBM for testing
25 January 1957	First Thor test, contaminated fuel caused the missile to explode in the early stages.
1 March 1957	Jupiter missile first full-scale test. Launch was successful but it lost control due to heat build-up in the control fins.
19 April 1957	Second test flight of Thor, problems with safety instruments cause early explosion of missile.
26 April 1957	Second test flight of Jupiter. After 93 seconds of successful flight the movement of liquid oxygen caused the missile to lose control.
21 May 1957	Third test of Thor, problems in fueling operations led to the destruction of the missile on the launch pad.
31 May 1957	Third test of Jupiter. Attained a range of 1400 nautical miles and height of 350 nautical miles. Test was 100% successful.

¹⁸⁹ Bob Ward, *Dr. Space: The Life of Wernher von Braun*. (Annapolis: The Naval Institute Press, 2005).

¹⁹⁰ Chronology of significant events in IRBM and ICBM programs, 10-15.

8 August 1957	Jupiter nosecone tested on an 1100 nautical mile test flight. This was the first object recovered from space. The nosecone attained a height of 600 miles, equal to that of <i>Sputnik</i> .
28 August 1957	Fourth flight of Jupiter was successful
30 August 1957	Fourth test of Thor, launch was successful but a fire in mid-flight required the destruction of the missile.
20 September 1957	Fifth test of Thor, this was the first successful test flight of the missile.
3 October 1957	Sixth flight of Thor ended 30 seconds after launch due to engine malfunction.
11 October 1957	Seventh flight of Thor was successful.
22 October 1957	Fifth test of Jupiter, this was the first full-scale test of guidance system.
24 October 1957	Eighth flight of Thor was successful, tested subsystems and fuel economy.

One reason for the emphasis on the IRBM program was the threat of a Soviet nuclear attack or an imbalance in Soviet capacity compared with that of the U.S. Secretary of Defense McElroy in a conference with Secretary Dulles in November of 1957, a month after the Soviet launch of *Sputnik*, reminded him that the nation only had intelligence estimates concerning Soviet advances. This meant that the information could be erroneous, either underestimating or overestimating Soviet capabilities. McElroy suggested that the best path was to continue to emphasize IRBM production as a hedge against Soviet missiles. Since the U.S. had no definitive knowledge of what the Soviets actually possessed, outside of *Sputnik*, continuing IRBM research and production would be a safe bet.¹⁹¹

In the same conversation, the Defense Secretary discussed how to pay for the increased production of IRBMs and what to do with them. He said that European states were not ready or willing to receive them. Their main concern was the ability of the U.S. to continue to provide an

¹⁹¹“Andrew Goodpaster, Summary of Conversation in Governor Adam’s Office 26 November 1957, DDE Library, White House Office, Office of Staff Secretary for National Security Affairs, Subject Series, Department of Defense subseries, Box 6, Folder Missiles and Satellite September through December 1957 Volume I (3), 2. (hereafter cited as Conversation in Governor Adam’s Office 26 November 1957)

effective deterrent to Soviet incursion. It did not matter whether this was through strategic bomber coverage or through newly deployed missiles. What mattered was the technical proficiency and the quality of American weapons protecting its European allies. The group wanting missile coverage was the American people. He said that U.S. citizens worried that they were under direct threat of an attack and missiles provided an effective counter to that threat. It is important to remember that until September of 1959, with the acceptance of the first U.S. ICBM, there was only one type of guided missile system that could effectively reach Soviet territory with a sufficiently large nuclear warhead, the IRBM. Both the Jupiter and Thor were similar in characteristics, although the Jupiter had more success. Using the IRBM as a deterrent required the use of European bases since the missiles lacked the range to hit Soviet targets from North America.¹⁹²

Secretary McElroy recommended producing both the Thor and Jupiter missile based on the political situation after Sputnik and to quiet the domestic concerns. This would allow the U.S. to produce more weapons in a shorter time frame. This decision had the support of President Eisenhower although McElroy and Dr. Killian had the authority to work out the specific details of the program. This process was separate from the decision to allow the Air Force to be the branch in charge of the IRBM development. When the Air Force got control of both missile programs, it did not have the authority to stop the development of the Army's Jupiter missile. Only President Eisenhower could order the elimination of the Jupiter missile program.¹⁹³

Dulles's comments reveal that there were two different sets of priorities for security. One set dealt with how to secure European allies and the second on how to secure the United States directly. Missiles mainly catered to the concerns of American citizens. Sputnik, at least in

¹⁹²Conversation in Governor Adam's Office 26 November 1957, 3.

¹⁹³Conversation in Governor Adam's Office 26 November 1957, 3-4.

Dulles's estimation, did not affect European citizens as much as it worried Americans. The Eisenhower administration had to contend with the reality and perception of security. This required him to act to create the conditions for the right perception of security in the minds of American citizens. In order to do this, President Eisenhower had to expend resources to produce weapons that, in reality, the United States did not need. So the push to produce a guided missile force answered security concerns of Americans, although it would directly impact European nations. This was Dulles's problem with missiles; he had to find nations willing to allow these weapons within their boundaries. This problem was not easy to solve and would cause significant disruption within Europe and NATO.

Expediting missile research and production required about \$200 million dispersed over the two to three years of increased production.¹⁹⁴ This was in addition to the baseline costs of missile production. Secretary McElroy discussed his perception of the production program; he did not think it was necessary to make a large number of weapons. Instead, he wanted eight squadrons ready by the beginning of 1960. His main motive was "psychological" in order to "stiffen the confidence and allay the concern particularly of our own people."¹⁹⁵

The specifics of the reaction to the launch of *Sputnik* are outside the scope of this chapter, they will follow in a subsequent chapter. However, it is clear that with the launch of the Soviet man-made satellite, the U.S. missile program was important to national pride and national defense. The problem was that the missile program was still years away from an operational ICBM and lacked a clearly viable IRBM. *Sputnik* threw into relief the problems of American guided missile development.

The United States was not the only nation researching sophisticated weapons during the

¹⁹⁴Conversation in Governor Adam's Office 26 November 1957, 2.

¹⁹⁵Conversation in Governor Adam's Office 26 November 1957, 1.

1950s. The United Kingdom also had a nuclear weapons program. The United States and the United Kingdom worked together on the Manhattan Project, which was the name of the project for the development of the atomic bomb in World War II. In the immediate post war period, the United States ended this cooperation and carefully guarded its atomic secrets from all its allies. Although no allied nation got complete disclosure of America's atomic secrets, the U.K. and Canadian governments did receive special exemptions from certain American security classifications. Officials could disclose information classified through TOP SECRET to U.K. and Canadians officials with a need to know. This exemption included information concerning weapons systems and technical research information but not of an atomic nature.¹⁹⁶

This openness demonstrated the special position of the United Kingdom and Canada. Both English speaking nations had clearance not afforded to any other NATO or Commonwealth nation. Although the U.S. did not work directly with the U.K. to develop its guided missiles, it ensured that the U.K. was up to date concerning American progress of its missile program. This information did not include specific technical data or warhead development.

The cooperation between the United States and the United Kingdom on nuclear issues had a troubled history. Prior to World War II, Great Britain, Germany, and the United States each had scientists aware of the possibility of nuclear fission. Much of this research took place at the academic level and did not primarily focus on the military applications of this new energy source. In the late 1930s, Great Britain's nuclear research program was ahead of the United States' research. The U.S. reached out to the U.K. and offered to cooperate on nuclear research. However, the U.K. rejected this offer because of the lack of progress from the American

¹⁹⁶James Lay. NSC 151/2 Note by the Executive Secretary to the National Security Council on Disclosure of Atomic Information to Allied Countries, DDE Library, White House Office, Office of the Special Assistant for National Security Affairs, Records, Special Assistant series, Presidential Subseries, Box 1, Folder President Papers 1953 (2), 35. (hereafter NSC 151/2 Disclosure of Atomic Information)

program. Another reason for the British hesitancy was the perceived inability of the United States to safeguard its nuclear information or British nuclear information exchanged in any cooperative agreement.¹⁹⁷

One of the reasons for the disparity between the United States and the United Kingdom in atomic weapons research was the difference in the focus of the nations' research programs. In the late 1930s, British scientists spent much of their time researching the military applications of this new atomic field. In contrast, American scientists mainly focused on the industrial or energy generating possibilities of atomic power. Britain faced a direct threat from the growing power of Germany and this influenced its atomic research. British scientists understood that they needed weapons much more than they needed plentiful energy. The U.S. did not face such a threat and concentrated on using this technology mainly for economic purposes.¹⁹⁸

The situation changed dramatically after World War II. During the war, the British and the Americans did cooperate on researching nuclear weapons. The framework between the two nations was the Quebec Agreement. This agreement, signed in 1943, included Canada in the cooperative research program. When the United States dedicated significant national resources toward the problem of making nuclear weapons it ensured that the U.S. would soon overtake the United Kingdom in terms of its research efforts.¹⁹⁹

The Quebec Agreement also outlined how the three nations would and could use nuclear weapons. Specifically, no signatory state could use a nuclear weapon against any other signatory state. The research effort would be completely cooperative and would involve a free exchange of certain information between the nations in the accord. No nation in the pact would disclose any

¹⁹⁷ Andrew Pierre, *Nuclear Politics: the British Experience with an Independent Strategic Force, 1939-1970* (London: Oxford University Press, 1972), 26-27.

¹⁹⁸ Pierre, 21.

¹⁹⁹ Pierre, 45.

of the information from the research to any other nation. The use of atomic weapons required the consent of other states in the agreement. Any industrial or commercial information that came out of the research would only go to the United Kingdom after the consent of the President of the United States due to the large amount of money and resources that the United States contributed to the project.²⁰⁰

Nuclear weapons research during World War II was a joint activity. It involved the U.K., Canada, and the U.S. Although it was an international project, the United States carried the bulk of the responsibility for funding the research. American scientists also made up the majority of those working on the project. This would have significant implications for the continued cooperation between the United States and the United Kingdom after the war.

The United States quickly stopped cooperating with the United Kingdom and Canada in weapons research after World War II. The Atomic Energy Act of 1946, known as the McMahon Act, ended the British and American cooperation established under the Quebec Agreement of 1943. This act prevented United States agencies from disseminating atomic information to any other nation. The act specified that Congress could not pass any agreement authorizing the exchange of atomic information until there was a viable set of “international safeguards.” This restriction only related to research that would lead to “destructive” ends. The act specifically allowed and encouraged the exchange of nuclear information that aided atomic energy endeavors.²⁰¹

The United States was now in the position of worrying about the ability of its allies, specifically the United Kingdom, to protect sensitive nuclear weapons information. This expressed not only the change in America’s technological growth during wartime; it also

²⁰⁰ Pierre, 45.

²⁰¹ McMahon Act. <http://www.osti.gov/atomicenergyact.pdf> , 13 (accessed 14 Oct 11)

demonstrated Britain's decreased influence in the world. No longer was the U.K. dictating terms in its relationship with the United States as it did prior to World War II; now it was in the position of having to accept the termination of its nuclear cooperative agreement with the U.S.

The end of Anglo-American atomic cooperation made it more difficult for the United Kingdom to continue researching nuclear weapons. However, the fruits of the collaboration between the two nations continued to influence and aid the development of Britain's nuclear weapons program. After the war, the U.K. did not have to start from scratch in its quest for nuclear weapons. It had significant leads in the theory and the technical knowledge necessary for building an atomic weapon. Creating a functioning weapon still required significant amounts of money and research. The British were far ahead of what was possible, had the United Kingdom pursued such an endeavor alone.²⁰²

The cooperation between the United Kingdom and the United States was profitable for the UK. It provided the foundation for Britain's postwar nuclear research and decreased the amount of time and resources necessary for the nation to acquire its own atomic weapon. Although its influence decreased after the war, the United Kingdom still saw a need to build a robust atomic capability in order to secure itself on the postwar international stage and maintain its position as a first-rate world power.

President Truman's decision to stop cooperation between the U.K. and the U.S. on atomic weapons shaped Britain's atomic program because it set the nation back to its 1943 position in terms of its progress. Another influence on its atomic program was the decision to keep most of the research under the auspices of the government and not allow private industry to conduct contract work on atomic research. This was a different approach from the American strategy,

²⁰² Pierre, 63

which allowed significant contributions from the private sector in atomic exploration. The decision to maintain most research in the public sphere arose from economic concerns of the United Kingdom. It did not have the economic resources to pay for several different research contracts that would investigate similar problems. The British government had to come to terms with the economic reality of its situation; it could not afford to build a large nuclear arsenal without American support. One benefit of the beginning of an independent British nuclear program was the concentration of British scientists working in their homeland. During the war, most of the prominent British researchers worked in labs in the United States. After the end of wartime cooperation, they returned home and worked for the United Kingdom directly.²⁰³

Britain's atomic program produced its first atomic weapon in 1952. Although it was an atomic power, its economic situation was not as powerful as its weapons arsenal. In a letter to Richard Austen Butler, Chancellor of the Exchequer, Harold Macmillan, Minister of Defense from 1954 through 1955, discussed the economic implications of securing the United Kingdom. Although this letter does not specifically address the issues of atomic weapons, it does reveal the problems that the United Kingdom faced in the postwar world in terms of economic and defense predicaments. Macmillan did not see any way to decrease defense spending in the short-term. In fact, he thought that defense spending would increase as the Royal Air Force's mission would continue to increase in its expense. The British government worried as much about defense expenditures as President Eisenhower did. However, both Eisenhower and Macmillan believed that spending money on atomic weapons was important. These similarities in thinking between Eisenhower and Macmillan would allow them to work well together when Macmillan became Prime Minister in 1957. Both thought that these weapons provided a solid foundation for

²⁰³ Viscount Waverly, "Report of the Committee on the future organisation for the Atomic Energy Project" 23 July 1953, British National Archives CAB/129/62, 3-4.

national security in the Cold War.²⁰⁴

Early in the atomic age there was a breakthrough in the power of atomic weapons. This was the hydrogen bomb. It increased the yield from the kiloton range into the megaton range, a hundred-fold increase in power. These weapons used nuclear fusion and not nuclear fission for their power. The creation of fusion atomic weapons changed the paradigm of atomic warfare. These weapons were more powerful than any other atomic weapon. Using technological sophistication and bomb yield as a measure of effectiveness in the absence of an actual nuclear war meant that hydrogen weapons called into question an arsenal based only on atomic weapons. The dramatic increase in destruction raised the risk of one Soviet missile or bomber getting through America's defenses. If one hydrogen bomb hit a U.S. city it meant the complete destruction of that city and, possibly, its surrounding areas as well. This was different than the previous generation of atomic weapons with yields in the kiloton range. A one-percent failure rate, in the hydrogen bomb age, meant the death of possibly millions of Americans.²⁰⁵

In 1955, the British Ministry of Defense commissioned a study to discern the implications of a hydrogen bomb attack on the United Kingdom. This report, chaired by William Strath, described the horror of such an attack in great detail. It also disclosed the planning assumptions of the British military staff during the mid-1950s. Strath wrote that hydrogen bombs would be a part of any future war that the United Kingdom fought. He advocated that preparing for an atomic or conventional attack was not effective. He believed that the government should focus on planning for defense against hydrogen bomb attacks and this would allow it to save the money it spent on planning on conventional and atomic attacks.²⁰⁶

This report expressed the British government's belief that atomic weapons, and later

²⁰⁴ Harold MacMillan, "Letter to RAB from MacMillan in the Ministry of Defence" 21 March 1955, British National Archives, 1

²⁰⁵ The U.S. Nuclear Arsenal: A History of Weapons and Delivery Systems since 1945, 44.

²⁰⁶ William Strath, "The defense implications of Fall-out from a hydrogen bomb: note by the home defence committee" 22 March 1955, British National Archives CAB/21/4053, 1.

hydrogen weapons, defined the postwar security paradigm. In a 1954 Cabinet, meeting Prime Minister Winston Churchill made his position clear concerning the importance of atomic weapons in protecting Great Britain. He said that Britain's atomic capability would allow it to prevent war. This made it vitally important that the nation continue to research and develop the best atomic and hydrogen weapons. In this Cabinet meeting, Churchill announced that the nation would begin work on the hydrogen bomb and would continue to improve its atomic capability.²⁰⁷

Churchill's decision to make the hydrogen bomb came about two years after the United States detonated its first fusion, or hydrogen bomb, in 1952 and one year after the Soviet Union detonated its first fusion weapon in 1953. Clearly, the quick progress of the United States and the Soviet Union spurred the United Kingdom into action. It demonstrated the difference between the two nations' atomic research programs. During this period, there was no cooperation between the U.S. and the U.K. concerning atomic research. The American program produced significant results in short period of time. The British program took until 1957 to reach the thermonuclear or hydrogen bomb stage.

The British nuclear program was effective. However, the United Kingdom struggled to balance fiscal and defense issues during the 1950s. The United States faced similar concerns but did not face the problems of rebuilding an economy and society damaged by World War II. The United Kingdom wanted to cooperate with the United States in its atomic program. Churchill expressed optimism that this would happen soon in 1954. However, this cooperation did not move beyond the surface level until three years and several international crises later. The United States and Britain would only share physical data concerning atomic weapons and destruction

²⁰⁷ British Cabinet Meeting Conclusion 7 July 1954 including Confidential Annex, British National Archives, CAB/128/27, 6 (hereafter 7 July 1954 Cabinet Meeting)

estimates of their weapons. They did not cooperate on a technical level or on a research level.²⁰⁸

Although there was not cooperation on atomic research, there was collaboration in other defense areas. In 1955, the United Kingdom Ministry of Defense asked to purchase Corporal missiles in conjunction with a bulk purchase of the United States Army. Harold Macmillan, then the defense minister wrote the request along with the Secretary of State for War, Antony Head. They argued that the missile would allow the British Army to have a much needed short-range atomic capability. The Corporal missile had a maximum range of 75 miles. This cooperation was only for the missile and not for the warhead. The British government had to develop their own warhead to arm this missile.

There was a significant amount of cooperation between the two nations throughout the 1950s in non-nuclear areas of defense. This collaboration expressed Eisenhower's desire to work with the British on nuclear issues. The Anglo-American alliance in the post war period did go through some strain. However, this strain did not drive the nations completely apart. The United Kingdom and the United States each needed each other, although the balance changed through the decade. The United States continued to need access to the United Kingdom because of its proximity to the Soviet Union. The United Kingdom continued to need the U.S. to provide economic and military aid and support as it dealt with the implications of its decline on the international stage.

The progress of America's IRBM program through the 1950s allowed the U.S. military to begin to change from using only strategic bombers to a combined force that relied on guided missiles as well as bombers to project force into Soviet territory. President Eisenhower's decision to delegate the control of the IRBM program to the Air Force did not come from an assessment

²⁰⁸ 7 Jul 1954, British Cabinet Meeting, 3.

of the technical progress of each program. If this were the case, then the clear leader was the Army's Jupiter program. However, the Army faced an uphill battle because its national security mission did not require a long-range missile. Although General Taylor argued that it would support ground operations, this did not sway President Eisenhower. The Air Force carried the day because it was the force that had a missile program aligned with its operational needs. The Air Force's missile program also meshed well with what the administration wanted from the weapon system, a way to de-emphasize ground operations and focus more on strategic nuclear war as a way to deter future conflicts with the Soviet Union.

The relationship between the U.S. and the U.K. concerning atomic research also revealed the problems that Eisenhower faced in building an effective relationship between America and Great Britain. Although the two nations did not cooperate in atomic research in the early Cold War period, it was obvious that both looked to nuclear weapons to secure their respective nations. However, in order for the U.S. to take full advantage of its IRBM force it would have to have European bases. This would require the consent of individual nations to agree to have American nuclear weapons deployed within their boundaries. If Great Britain, America's closest ally in Western Europe, declined then it would be a loss of face for the President.

With the launch of Sputnik there was great concern in the United States about the ability of the Soviets to strike America with a long-range missile. Europeans did not share this concern. President Eisenhower needed some political leverage to convince European nations to agree to IRBM deployment to meet American concerns. This leverage, in the case of the United Kingdom, came from the disruption of the political relationship with America because of the Suez Crisis and the Bermuda Conference of 1958, which saw both nations seeking to repair the special relationship between America and Great Britain.

Chapter 4: Suez Crisis and Bermuda Conference Reconciliation

No one expected 26 July 1956 to be as dramatic as it was. Gamal Abdel Nasser was due to give a speech celebrating the revolution in Egypt that deposed King Farouk. This coup, led by the Free Officers, was part of the growing Arab Nationalism movement that started in North Africa and the Middle East in the 1950s. The officers, led by Muhammad Naguib and Nasser not only wanted to change the political structure in Egypt, they wanted to end British occupation. However, ending the British presence in Egypt would take several years.

When Nasser came to Alexandria to give his commemorative speech, the world expected him to discuss the importance of the revolution and to reveal a major policy proposal, as was customary at these events. He began his discussion by talking about Egypt's history of oppression and exploitation. Nasser explained to the attentive crowd that they had suffered under both domestic and foreign oppressors. He wanted to give them something else.²⁰⁹

The crowd consisted of a quarter of a million people packed densely to hear their leader address them. They were there to celebrate the freedom of Egypt but Nasser had greater plans. As he continued to discuss Egypt's oppressors he started to talk about the building of the Suez Canal. He reminded the crowd how Ferdinand de Lesseps imposed conditions upon Khedive Said. When Nasser said de Lesseps' name, he signaled to his associates to start the takeover of the Suez Canal Company offices.²¹⁰

As Nasser's conspirators seized the offices, the President of Egypt continued to tell the people of his plans. He told them that he had previously signed a decree nationalizing the canal. This move would end the foreign ownership of the waterway and would allow Egypt to claim all of the canal's revenue, instead of only getting a royalty. The implications of this decision would

²⁰⁹ Mohamed Heikal, *Cutting the Lion's Tail: Suez Through Egyptian Eyes* (New York: Arbor House, 1987), 120-127.

²¹⁰ Heikal, 127.

lead to war with Great Britain, France, and Israel allied against Egypt. This conflict would force President Eisenhower into an uncomfortable position. He could support U.S. allies and by implication help reestablish colonialism in North Africa. Or he could choose to alienate America's closest allies in order to salvage the U.S. position in the Middle East. These were not easy diplomatic waters to steer the ship of state through. Eisenhower's adept handling of the crisis and its aftermath show how important averting war was to him and the rapprochement process between the U.S. and the U.K. showed the importance of the Anglo-American alliance to Eisenhower's military and political strategy.

Nasser's nationalization of the canal called into question the ability of the United Kingdom and France to use the canal to supply and support their colonial holdings as well as both of these states positions as first-rate powers. This was a direct threat to the national security and prestige of both the U.K. and France. This slight could not go unchallenged because if it did, it would quicken the dissolution of both empires.

This chapter focuses on the different perceptions of Nasser's threat and how the three NATO members sought to address it. The intent is to show how these differences in perception contributed to the strain in relations between Eden and Eisenhower personally and the United Kingdom and the United States politically. This tension set the stage for the Bermuda Conference between Macmillan and Eisenhower in 1957. The conference was part of an effort to repair some of the damage done during the Suez Crisis.

President Eisenhower focused his defense policy on deterring war with the Soviet Union; this was a globally focused end state. Eden, in response to Nasser's nationalization, made efforts to restore British influence in the Middle East, a regional objective, with global strategic implications for Britain. These two different focuses added to the tensions between the U.S. and

the U.K. Eisenhower did not want to sacrifice his global goal of avoiding a direct conflict with the Soviet Union in order to support the regional aspirations of the United Kingdom, even if it meant an uncontrolled slide into decolonization for America's closest ally.

The diminishing role of Great Britain in world affairs was another complicating factor in the Suez Crisis. Although the United Kingdom was part of the successful coalition in World War II, after that conflict the U. K. faced significant challenges in rebuilding its economy and maintaining its empire. This tension between remaining economically solvent and keeping the vestiges of empire in a post-colonial world forced the U.K, and Anthony Eden specifically, to face some hard truths about its role in international affairs and its position relative to the United States. The British and French Empires were falling apart, as national aspirations influenced the people in all parts of the Earth.²¹¹

Eisenhower was not entirely sympathetic to the problems of decolonization. This lack of consonance contributed to the disagreement between the President and Anthony Eden about the threat that Nasser posed. Although Eisenhower understood the security risks that Britain and France faced if they lost prestige in the region; he would not support their duplicitous actions to reaffirm their control over their shrinking realms.

The Suez Crisis represented a turning point for Great Britain. After the conflict, British leaders would have to ensure their foreign policy closely aligned with the United Kingdom's most powerful ally, the United States. The British invasion of Egypt represented Eden's last attempt to act unilaterally to protect the British Empire from collapse. This last act was a failure. The reasons for its failure are beyond the scope of this chapter but the influence of the crisis and

²¹¹ For an in depth treatment of Eisenhower's reaction to the crisis see Cole Kingseed's *Eisenhower and the Suez Crisis of 1956*. For an effective treatment of the impact of the crisis on British imperialism see William Roger Louis's collection of essays in *Ends of British Imperialism: the Scramble for Empire, Suez and Decolonization*. For a general discussion of the crisis from the British perspective see Chester Cooper's *The Lion's Last Roar: Suez, 1956*.

the need for an Anglo-American rapprochement are vital to understanding how and why Eisenhower deployed IRBMs to Great Britain.

After World War II, alliances were a fundamental part of American foreign and military policy. On 2 February 1956, Secretary of Defense Charles Wilson drafted a memorandum explaining to President Eisenhower the state of America's national defense structure and its relative advantage compared with the Soviet Union. This memo laid out the recent progress each of the branches made in terms of atomic capability. It also described how they were integrating these new weapons into their organizational structures. He further discussed how the U.S. should approach its allies in order to make it clear that the interests of the U.S. aligned with their own. He told the President that America's allies had to understand that U.S. forces provided their security as well as that of the United States. However, the President should make it clear that American policy aimed at preventing warfare, which would benefit everyone.²¹²

Eisenhower did not want to fight the Soviet Union or any other nation. His national defense policies specifically tried to calm tensions between the two nations. This also required that America's allies hue to a similar line. The Suez Crisis of 1956 uncovered the problems inherent in this strategy. The United States was subject to the actions of its allies in the Middle East and did not have complete control of the situation. One reason for the lack of influence in the region was that parts of the Middle East were in the peripheral zones, not clearly in the U.S. or Soviet sphere of influence. The Suez Crisis strained the special relationship between the United States and Great Britain.

²¹² Charles Wilson. "Military and Other Requirements for Our National Security." DDE Library, White House Office, Office of the Staff Secretary, Subject Series, DoD subseries (Hereafter WH Office, Staff Sec, Sub Series, Dod Subseries), Box 6, Folder Military Planning 56-57 (2), 4-5. Hereafter cited as Wilson Security Memo Feb 56.

Another point covered by Secretary Wilson in his memo to Eisenhower was the key to making this cooperative strategy successful was ensuring that America's allies understood the mutually beneficial aspects of an alliance with the U.S. This, according to Wilson, would ensure that U.S. allies knew that their needs mattered to American leaders and that they were not simply helping the U.S. fight its own conflicts, at the expense of their own security. Of course, when the interests of allies conflicted with those of the U.S. it did cause significant disruptions in relations between America and its associates. The Suez Crisis was one episode that showcased the problems that occur when nations' interests diverged.²¹³

Admiral Radford, Chairman of the Joint Chiefs of Staff, provided an indication of the tense security situation that the U.S. faced in the middle of the 1950s. In a memorandum to the Secretary of Defense written in March of 1956, he aired the defense concerns of the Joint Chiefs of Staff. Although the Chiefs all understood the importance of reducing security spending because of its deleterious effect on the economy, they could not recommend any defense reductions at that time. The primary reason the Chiefs could not countenance any decrease in defense spending was because of the persistent threat of conflict with the Soviet Union.²¹⁴

Throughout the Cold War, the threat of a future conflict with the Soviet Union pervaded any discussion of America's national defense strategy. Any action that precipitated a potential conflict with the Soviet Union was antithetical to U.S. policy. The Suez Crisis would put this aspect of Cold War doctrine under considerable strain. If the British, French, and Israelis pushed the issue too far and made Egypt seek support from the Soviet Union it would possibly create a situation where American allies faced a Soviet sponsored enemy. This would set the stage for

²¹³ Wilson Security Memo 56, 6.

²¹⁴ Arthur Radford, "Memorandum for the Secretary of Defense." DDE Library, WH Office, Staff Sec Sub Series, DoD Sub Series, Box 6, Folder Military Planning 56-57(2), 2. Hereafter Radford memo to Sec Def 12 March 56.

either the Americans or the Soviets entering the conflict and greatly expanding the scope of the war.

As discussed earlier, American defense planners expected any conflict with the Soviet Union to be nuclear in nature. Although the Suez Canal Crisis began as a limited conflict, if the Soviet Union intervened it had the possibility to destroy any artificial limitations on the use of military power. Eisenhower was hesitant to act too forcefully to change Nasser's position because of the threat of Soviet involvement combined with the express purpose of U.S. policy of averting war. For the President the main threat was always the Soviet Union, he did not want to take any risks in provoking a war over anything that was not an existential threat to the U.S. For the British and French, Nasser, and his nationalization of the canal, represented an existential threat to their own national interests. Both Eden and French Prime Minister Guy Mollet saw this threat as one that approached that of the Soviet Union because of what it would communicate about the crumbling power of each of their empires. The canal crisis forced these two interpretations of security issues into stark relief. Eisenhower would face the decision of supporting American allies at the cost of potentially engaging the Soviet Union.

Nasser's takeover of the Suez Canal was part of his effort to regain Egyptian sovereignty over its territory, sovereignty the British and French had long ago taken. His decision to nationalize the canal came after American efforts to improve its image in the nation. Prior to the nationalization decision, the United States offered to support Abdel Nasser in his desire to improve the infrastructure of Egypt as a way to keep Egypt out of the communist orbit. The most high profile project of this effort was the promise aid to build the Aswan Dam. However, President Eisenhower decided to withdraw American aid for the project due to Nasser's addition of several conditions on the Aswan Dam project. Nasser also began to receive weapons from the

Soviet Union, through Czechoslovakia, furthering alienating his American supporters. This, in Eisenhower's estimation, made the deal more trouble than it was worth.²¹⁵

The Aswan Dam project came up for discussion in the 289th meeting of the National Security Council held in June 1956. Allen Dulles, director of the Central Intelligence Agency, told the council that the Soviet Union agreed to help Nasser build the dam. This aid would consist of a no interest loan of \$400 million with a 60-year term. In addition to this loan, the Soviets agreed to forgive all of Egypt's debt for the Soviet arms purchased prior to the agreement. The Soviet Union also promised to buy the nation's entire cotton crop and build a steel mill. The discussion then turned to the impact that Soviet aid would have on America's influence in the region. Secretary of the Treasury Humphrey did not think that it was problematic that the Soviet Union wanted to help Egypt. He did not see it as a loss for the U.S. but he believed "it was the best possible thing" for the United States because of the second and third order effects of the agreement.²¹⁶

Secretary of State John Dulles agreed, he added that while the near-term impact would be negative, for the long-term the United States actually dodged a bullet for its image in the region. He told the council that any nation that decided to help Egypt build this dam would become the object of scorn by the Egyptians. The construction project, even though it was supported with significant financial aid, would eventually require the Egyptian people to sacrifice to pay for it. Once the people experienced the fiscal impacts of this project through reduced government spending on public programs and other hardships they would first blame their own government. However, they would also look to the foreign power that loaned the money to Egypt and now

²¹⁵ Dwight Eisenhower, Robert Ferrell, editor, *The Eisenhower Diaries*. (New York: W.W. Norton, 1981), 329-330.

²¹⁶ Everett Gleason, "Minutes of the 289th meeting of NSC" DDE Library, Eisenhower Papers as President, NCS Series, Box 8, Folder 289 Meeting of NSC 29 Jun 56, 6-7. Hereafter 289 Meeting of NSC.

wanted repayment. Dulles believed that it was a good thing that the Soviet Union would have to be the one to call the Egyptian government to task if it didn't pay its obligations; this would allow the U.S. to side-step the problem in the future as well as remove itself from any further economic entanglements with Egypt.²¹⁷

Eisenhower's ambivalent attitude towards Nasser and Egypt shown through in this discussion, he did not see it as a necessity for the United States to rush to support Egypt. While he did not want Nasser to fall completely in with the Soviet Union, Eisenhower did not think Soviet involvement in the Arab state was an urgent problem. As Secretary of State Dulles made clear there were some significant complications that Soviet support would cause between Egypt and the Soviet Union as a result of their financial support of Nasser.

Eisenhower made his thoughts on the matter more clear in his diary entry on 8 August 1956. In this entry, he discussed Nasser's nationalization decision as well as America's efforts to help him build the Aswan Dam. Eisenhower wrote that Nasser decided to nationalize the Canal as a result of the American decision to withdraw funding for the dam project. Eisenhower continued that Nasser said he expected to receive approximately \$100 million in profit in the first year of nationalization. This required a steep increase in the tolls charged by the canal company. The Suez Canal Company, according to Eisenhower, only netted \$35 million and that was after the rental of \$17 million paid to Egypt. As a consequence of nationalization the company would not pay rent on the canal to Egypt. Under the rate structure prior to nationalization, the company would only profit approximately \$52 million a year. In order for Nasser to reach his goal of \$100 million he would have to double the tolls charged by the canal. This estimation assumed no drop in traffic because of Nasser's actions. Another problem the Egyptian President faced was the

²¹⁷ 289 Meeting of NSC, 7.

need to improve the canal in order to accept larger ships. This would require about \$750 million in the short-term, according to Eisenhower.²¹⁸

In addition to laying out the problems of nationalization Eisenhower also articulated what Nasser would have to do in order to see the profits he hoped for. In his entry, Eisenhower did not reveal any animosity concerning the Nasser's decision. Rather, the tone is calm and the President simply provides an accounting of the problems of this decision in financial terms. Nasser's actions, while Eisenhower did not think them prudent, were not a cause for panic for the United States.

Eisenhower's diary entry also contained his version of the Aswan Dam decision. The project was going to involve the British and Americans in a combined effort. After the initial investment of these two nations, the World Bank would provide the aid required for Nasser to finish the dam. Eisenhower wrote that he thought the project was feasible but would be very expensive for Egypt and would consume almost all of its domestic spending. According to Eisenhower, Nasser then sent a list of conditions that the Americans and British had to meet in order for him to agree to the project. Next, Eisenhower wrote, that Nasser began a military improvement program that would detract from the funds required to build the dam. Eisenhower did not think that Egypt would have the necessary resources to complete its military improvement program and pay its share for the dam so he withdrew American support from the project.²¹⁹

Once again, Eisenhower's tone was not angry. He related these events in a matter of fact manner. He simply wrote that he had "lost interest and said nothing more about the matter." It was not a dramatic decision for Eisenhower; it was simply a potential investment where the costs

²¹⁸ Eisenhower, 329-330.

²¹⁹ Eisenhower, 330.

became too onerous for American support. When Nasser replied in July of 1956 that he withdrew any conditions for Egyptian participation, Eisenhower wrote that the United States considered the project dead and did not have any interests in reviving it.²²⁰

When describing the nationalization crisis, Eisenhower did not convey any serious concern for American national security. He seemed to understand this problem as something that Nasser brought on himself. The U.S, in Eisenhower's view, offered to help Egypt but then Nasser placed conditions on this aid and Eisenhower decided it wasn't worth it. The nationalization crisis would not put America in dire straits. However, this was not the view of the United Kingdom.

In a letter to Prime Minister Anthony Eden, written on 2 September 1956, Eisenhower advised him that the best option for the United Kingdom was to ensure a successful outcome of the discussion with Nasser concerning the future access to the canal. Eisenhower brought up the possibility of taking the issue to the United Nations. He wrote that the problem should not go to the United Nations until the discussion talks that the British government was participating in fell through. Eisenhower cautioned Eden that the most important thing was maintaining a united diplomatic front. If the British, the Americans, and the other nations in the Suez Committee of Five user nations of the canal stayed together, there was a greater chance of Nasser backing away from his nationalization policy. Eisenhower did not think that there was any need to resort to force at that time and he wanted the diplomatic process to have the full participation of all those concerned.²²¹

²²⁰ Eisenhower, 330.

²²¹ Peter Boyle, Editor, *The Eden-Eisenhower Correspondence, 1955-1957*, (Chapel Hill: The University Press of North Carolina, 2005), 162-3.

Eisenhower treated this problem as a diplomatic conflict. It was not something that required the use of military force. He believed that the nations involved should be able to bring it to a close without any violence. He saw certain British actions, such as evacuating its civilian personnel, as provocative and thought it would precipitate a military response that would only serve to strengthen Nasser's appeal. Eisenhower told Eden that this crisis was improving Nasser's position in several areas where previously he was unpopular. The President felt that this was where the British and American positions started to diverge from each other. The British thought that force was the proper tool, given that Nasser was not bowing to their desire. However, Eisenhower wrote to Eden that neither he nor the American people thought that resorting to force was the proper way to resolve this problem.²²²

The letter to the Prime Minister continued by stating that Eisenhower did not see a possibility that using force would bring a positive result. If the dispute spurred military action, Eisenhower told Eden that Europe would not survive long without access to Middle Eastern oil imports. Any military conflict would, according to Eisenhower, bring together many of the neutral nations in Africa and Asia in opposition to the Free World. It would make Nasser a rallying point for anti-Western sentiment, which Eisenhower thought could last for decades. He ended this section of the letter by writing that only when there was a consensus among nations that their key interests required military action would he support such a decision.²²³

The differences between the United Kingdom and the United States concerning the Suez Canal Crisis were stark. Eden believed that the United Kingdom had to act in order to protect its interests in the region. However, these were not just issues of a financial nature. Egypt, for Eden and Britain, represented empire. If Nasser's ploy succeeded it would show Britain's weakness in

²²²Boyle, 162-3.

²²³Boyle, 162-3.

projecting power to its colonial holdings and could possibly quicken other nascent independence movements. Eden, and Great Britain, wanted to manage the decolonization process. If he were unable to stop Nasser, then it might become impossible to create the commonwealth of former colonies that the Prime Minister hoped would be Britain's post-colonial legacy.²²⁴

The post war British Empire was a shell of its Victorian apogee. Following World War II, many British colonies sought independence, chief among them was India. In the late 1940s and 1950s maintaining its colonial presence was expensive. Although giving colonies independence allowed the British government to recoup some costs of maintaining large colonial police forces it also dealt a severe blow to the perception of Britain as a world power. The immediate post war period for Britain was one of compromise. The first task was to rebuild after years of conflict; the second task was to find a way to keep its relevance and position as a world power. Both would prove very difficult.

France also struggled in the post war period. The spread of nationalism through North Africa undermined French rule in the region. In Indochina, present day Vietnam, a communist movement led by Ho Chi Minh fought to separate that colony from Paris. Similarly to Britain, France had to rebuild from the destruction imposed on it from Nazi Germany. French leaders also wanted to remain relevant to world events and maintain France's prewar position as a world power. Overcoming the malaise of defeat in World War II and decolonization would push French leaders, particularly de Gaulle, to demand recognition of France as a senior member of NATO.

For Eisenhower the nationalization crisis was not as big of a threat. He thought that an overreaction would only bring more problems and could possibly upset the balance of power in

²²⁴ William Roger Louis, *Ends of British Imperialism: The Scramble for Empire, Suez and Decolonization*(New York: Taurus, 2006), 689-692.

the region in favor of the Soviet Union, which would have significant consequence in the global Cold War. The differences between the two interpretations of the ramifications of the nationalization crisis would become more pronounced as tensions increased between Britain, France, and Egypt.

Anthony Eden replied to Eisenhower's letter on 6 September 1956. In it, Eden restated his support for a diplomatic solution to the crisis. He stressed that the United Kingdom did see the diplomatic approach as the primary avenue to settle this dispute. Eden told Eisenhower that any preparations taken came from his experience in the anti-British riots in 1952 that killed a little more than a dozen British citizens. He replied to Eisenhower that he found any concern that the President had about the evacuation of civilians from the region unsettling. However, the letter changed in character when he discussed his view of the threat that Nasser posed in Egypt.²²⁵

In discussing Nasser's threat to the United Kingdom, Eden recounted the concessions that the European community gave to Hitler in the 1930s. He compared Nasser's goals with those of Hitler, by claiming that Nasser's move was analogous to the gradual expansion of Germany in the 1930s. Eden reminded Eisenhower that no European power resisted these moves in the interwar period because no one thought it proper to question what Hitler did inside his own territory or in those territories that acquiesced to his control.²²⁶

Comparing Nasser to Hitler was evidence of the dramatic difference in opinion of the threat posed by the nationalization of the Suez Canal. For Eden this was an issue that went far beyond access to the canal. It threatened the British ability to control the transformation of its empire into a commonwealth. If Eden failed, British colonial holdings could revolt and drag the United Kingdom further away from being a world power. Eden saw this as a test case for

²²⁵Boyle, 164.

²²⁶Boyle, 164.

decolonization. If Eden and the United Kingdom were unable to stop Nasser it would prove to British colonies that the Empire was hollow. If the U.K. were successful, perhaps colonies or newly independent former colonies would still look to the commonwealth for direction. This would make Britain powerful on the international stage as the leader of a small-scale United Nations. If it failed and the Empire fractured into disassociated states, Britain would only have its own strength to leverage for international prestige. In the 1950s, with Britain still hurting from the social and economic costs of WWII as well as the psychological damages from the war, the crisis represented a way for the British imperialism to stem the tide of waning power. For Eisenhower, the crisis risked possible confrontation with the Soviet Union. The potential for trouble far outweighed any potential benefit for a controlled British imperial transformation.

Although Eisenhower hoped that the talks with Nasser would provide an acceptable solution for the British, this was not the case. In October of 1956, the British and French governments supported a draft resolution in the United Nations Security Council that supported their positions and would authorize international control over the canal. This would put an end to Nasser's hopes to nationalize the waterway. The British and French submitted this draft resolution for consideration to the United Nations Security Council. The hope was that if the Security Council authorized international control of the Suez, then it would make it more difficult for Nasser to get international support.²²⁷

John Foster Dulles met with the British and French foreign ministers about this proposed resolution on 5 October 1956. Dulles said that he wanted to make sure that he understood their position and they understood the U.S. position. He told the ministers that the American people

²²⁷ Kathleen Teltsch, Special to *The New York Times*. (1956, October 3). "Lloyd is hopeful over Suez in U.N.: Briton Here to Seek Backing for International Control Lloyd Hopes U.N. Solves Case Complicating Factor Seen Lloyd Wants Peaceful Solution. *New York Times* (1923-Current file),1. Retrieved December 16, 2011, from ProQuest Historical Newspapers New York Times (1851-2007) w/ Index (1851-1993). (Document ID: 84885656).

did not know what to make of French and British actions. He continued that he found it surprising that the two nations had submitted a draft to the United Nations in such a short time. Dulles told the ministers that when he left London only a few days before, he felt sure that neither Britain nor France would go to the U.N. Now there was a draft resolution prepared for the Security Council.²²⁸

The change in British and French diplomatic stances caught Dulles by surprise. The primary reason for this was the lack of communication between the British, French, and American governments concerning the Suez Crisis. As covered earlier, Prime Minister Eden believed that Nasser posed a significant threat to the future of the United Kingdom regarding its ability to transition its colonies into commonwealth member states. Eden's regionally focused approach to the problem clashed with the global scope that Eisenhower used to interpret the crisis. This divergence made miscommunication and misunderstanding almost inevitable. Eisenhower made it clear in his correspondence to the Prime Minister that the preferable, and primary, solution was the multilateral conference of Suez Canal user nations. Only after that avenue failed would the United States support going to the United Nations.

The meeting between Dulles and the foreign ministers then turned to the motivation behind the potential Security Council resolution. The Secretary of State suggested that the intent behind the resolution was to offer cover for a future military strike that would force the issue of who controlled the Suez Canal. Dulles wanted to know why the French and British wanted to go to the Security Council so that the American government, specifically President Eisenhower, would at least understand why they submitted the resolution. He cautioned the two ministers that the U.S. and any other nation would not follow without knowing where the British and French

²²⁸ Jack Glennon and Nina Noring, Editors, *Foreign Relations of the United States, 1955-1957: Suez Crisis July 26-December 31, 1956*. (Washington: United States Government Printing Office, 1990), 639-40. Hereafter FRUS.

intended to lead them. The stakes were too high in this situation to allow for any unintended consequences.²²⁹

On 29 October 1956, Israel invaded the Suez Canal Zone. The Israelis invaded the Sinai in order to open the Straits of Tiran and stop Egypt's blockade of Israeli shipping in the region. This military maneuver advanced to within 25 miles of the Suez Canal in the first day. Eisenhower's initial reaction was to honor America's commitment to prevent aggression in the region. He thought that "the United States was pledged to support the victim of an aggression in the Middle East. The only honorable course was to carry out that pledge."²³⁰ Anthony Eden sent a letter to President Eisenhower on 30 October 1956, discussing the Suez conflict. Eden explained to Eisenhower that the Israeli invasion was in response to the Nasser's actions concerning the Suez and his belligerent attitude towards Israel. He told Eisenhower that when the British government received word of the movement of Israeli troops, Eden had cautioned Israel to ensure it did not move against Jordan. The Prime Minister wrote that this would infringe upon the British treaty with Jordan and Britain would have to support its treaty obligations. Eden implied that he did not know that Israel planned a military incursion into Egypt. However, he opened his letter saying that he did not hide his feelings that Britain had every right to defend its "vital interests" against Nasser's encroachment.²³¹

Eisenhower responded to Eden on the same day. He related to Eden that the U.S. sent its ambassador to the U.N. to meet with the British representative in order hammer out a policy to mitigate Israel's military action. However, the American ambassador did not receive a warm reception to this invitation of cooperation. Instead the British ambassador said his government

²²⁹ FRUS, 639-40.

²³⁰ Dwight Eisenhower, *Waging Peace: The White House Years* (London: Heinmann, 1966),71-73.

²³¹Boyle, 178.

would not support any attempt to restrain Israel. Eisenhower told Eden that he did not know why the British government took such a stance and that this was quite a departure from what he expected from such a close ally.²³²

The letter to Anthony Eden continued with Eisenhower telling the British Prime Minister about the possible implications of the British support for Israeli military activities. If the French and British involved themselves in a regional war and the Egyptian government asked for help from the Soviet Union, it would put the United States in a very awkward position. If the United Nations determined Israel to be the aggressor and the Soviet Union intervened, the U.S. would then face the stark choice of abandoning its European and Israeli allies to a Soviet proxy war. Otherwise, Eisenhower would have to aid them in what would be a long conflict. If the Soviets became directly involved, Eisenhower wrote that the United States would be “confronted with a de facto situation that would make all our present troubles look puny indeed.”²³³

None of these scenarios boded well for the U.S. Engaging in a proxy war or a protracted limited war required the repudiation of the doctrine of Massive Retaliation and fighting a war similar to the Korean conflict. Fighting the Soviet Union directly would put Massive Retaliation to the ultimate test and would disclose whether or not America’s nuclear arsenal could stop a Soviet attack. Choosing any of these alternatives would force Eisenhower to abandon his hope of providing national security at an affordable price. Abandoning the British and French to a Soviet sponsored conflict, if that happened, would likewise further split the Western European alliance making it difficult for the U.S. to use NATO to defend against Soviet European incursion.

In a conversation on 30 October with Secretary Dulles, President Eisenhower voiced his frustrations with British actions. The Secretary of State told Eisenhower that he believed that

²³² Boyle, 176-7.

²³³ Boyle, 176-7.

Eden was trying to force the United States to support them by “confront[ing] us with a de facto situation.” Dulles continued that although the British may recognize that their actions were “rash” they “would say that the U.S. could not sit by and let them go under economically.” Eisenhower replied that, “he did not see much value in an unworthy and unreliable ally and that the necessity to support them might not be as great as they believed.”²³⁴

In the conference, colonialism was also a topic of discussion. The President said that he thought that neither the French nor the British had proper “cause for war.” For Eisenhower, this was not a conflict about the Suez Canal. For the French, as Eisenhower interpreted the situation, it was about Algeria and for the British it was about their prestige in the Middle East. Dulles told Eisenhower that “he had been greatly worried for two or three years over our identification with countries pursuing colonial policies not compatible with our own.” The Secretary said that he recently told British and French officials as much and they did not respond well to his comments. Dulles cautioned the President about the possible expansion of the conflict. He reminded Eisenhower that the United States got involved in the previous World Wars, in some sense, in order to support its allies. The Secretary did not want this to happen with this conflict because America’s allies “might well be considered the aggressors in the eyes of the world.” Eisenhower’s main focus during the crisis was how to maintain the balance of power between the Soviet Union and the United States. Backing the U.K. and France, in a bid to secure their imperial holdings in the Middle East, did not further that goal.²³⁵

The military phase of the Suez Canal Crisis revealed the depth of the divergence between the U.S. and the U.K. concerning the need to take action against Nasser. Britain supported, and

²³⁴ Andrew Goodpaster, “Memorandum of Conference with the President 30 OCT 1956, DDE Library, DDE Papers as President, Diary Series, Box 19, 3-4. (Hereafter Conference with President 30 OCT 1956).

²³⁵ Conference with President 30 Oct 1956, 3.

secretly helped plan, the Israeli military operation. On 31 October, British and French airplanes launched air raids against Egyptian targets in the Sinai Peninsula and the Suez Canal Zone. Eisenhower did not know that the British and French worked with Israel to plan and conduct a military campaign.²³⁶

Although the President was unsure of exactly what his allies were doing, he was suspicious. Secretary Dulles, in a telegram to the U.S. Ambassador in Paris on 29 October, related what Eisenhower's reaction would be if the crisis became violent. He told Douglas Dillon, the U.S. ambassador, that military action would be a tremendous setback for European relations with the Middle East. This would allow the Soviet Union to increase its influence in the region. He also reminded the ambassador that the United States would not come to the aid of its allies in this situation, because they would be the instigators. Secretary Dulles' remarks revealed Eisenhower's laser-like focus on the global implications of the crisis. Britain's regional or imperial concerns were not part of Eisenhower's strategic calculus. This difference of perception made it very difficult for the two allies to share any common ground.

On 30 October 1956, the British and French governments issued a 12-hour ultimatum to Nasser and David Ben-Gurion. Both nations, according to the ultimatum, had to withdraw their forces from the Canal Zone and cease military actions. Of course, this would require the Egyptians to forfeit control of the Canal Zone to European occupation. This was unacceptable for Nasser and the ultimatum was only a pretense for the British and French to involve their forces in the war.²³⁷

In a phone conversation with John Foster Dulles on 30 October Eisenhower vented his frustrations about the British and French actions in the crisis. He said he could not believe that

²³⁶ Martin Gilbert, *Israel: A History* (New York: Harper Perennial, 1998), 315-322.

²³⁷ Gilbert 320-21.

the America's allies expected the U.S. to offer some form of assistance. He continued, "They are our friends and allies, and suddenly they put us in a hole & expect us to rescue them."

Eisenhower told Dulles that he had no intention of considering military action to aid the military maneuvers against Egypt and was also cool to the idea of financial support for the operation.²³⁸

In a subsequent phone conversation between the Secretary of State and the President, Eisenhower and Dulles discussed the text of a public message about the invasion. The President said he wanted to express his distaste for the ultimatum that the French and British issued. Although Eisenhower felt that the U.S. had to issue the declaration to communicate that the nation did not support the ultimatum, he understood that neither the British nor the French would change their actions as a result. The declaration, Eisenhower knew, would also influence the perception of the Arab states. It would publicize the fact that the United States was not a part of the invasion.²³⁹

Eisenhower's worried that if he did not communicate his lack of support for Britain and France then America's image in the Middle East would suffer. If this damage occurred it meant that the U.S. would be surrendering ground to the Soviet Union in the region. He wanted to make it obvious that the United States did not condone Nasser's action. The President, although he didn't believe Nasser's tactics were productive, saw no reason to forcefully impose the will of nations that were, until recently, imperial masters over the canal.

The Suez Crisis was not the only international conundrum Eisenhower faced in October of 1956. Adding to the international tensions, on 19 October, the Central Committee of the Polish United Workers' Party ousted the Soviet supported Deputy Chairman of the Council of

²³⁸ Dwight Eisenhower, "Phone Call between Eisenhower and Dulles," DDE Library, DDE Diary Series, Box 18, Folder Phone Call, 2. Hereafter Call between Eisenhower and Dulles 30 Oct 56.

²³⁹ Call between Eisenhower and Dulles, 30 Oct 56, 4.

Ministers Konstantin Rokossovsky. Rokossovky, a Marshal of the Soviet Union and a Marshal of Poland, was also the Polish defense minister. Although he was Polish by birth, many Poles considered him a Russian and looked at his leadership as proof of Soviet oppression. Nikita Khrushchev flew to Warsaw on 20 October to force Rokossovsky on the Polish people; they refused and maintained their support for Wladyslaw Gomulka, a Polish Communist leader. This unrest soon spread to other Eastern European satellites, notably Hungary.²⁴⁰

When news reached Hungary about the Polish uprising, many Hungarians took to the streets. They called for the removal of Soviet forces and the right to elect their own communist leaders. With the unrest continuing to grow, the Hungarian government invited Soviet forces into the nation in order provide security. However, this supposed security came with a heavy price. Days after the Soviet intervention there were reportedly over 5,000 dead. Eisenhower issued a statement on 25 October, decrying the Soviet action. He also said that the Hungarian people desired freedom and that Soviet actions only demonstrated the oppressive nature of the Soviet alliance.²⁴¹

The Hungarian problem gave Eisenhower a quiver full of arrows to target Soviet imperialism and draw attention to the dangers of nations becoming too close to the socialist alliance. Making the most of this situation would allow the President to hopefully sway neutral nations away from Soviet influence and increase American prestige at the same time. However, the Suez Canal Crisis, especially the military action of Israel, France, and Britain, made it difficult to demonize Soviet actions too much when American allies were committing similar, although not as deadly, acts in the Middle East. Secretary Dulles relayed the President's frustration in a phone call with Canadian Secretary of State for External Affairs, Lester Pearson

²⁴⁰ Eisenhower, *Waging Peace*, 58-62.

²⁴¹ Eisenhower, *Waging Peace*, 62-64.

on 30 October. Dulles told Pearson that the Hungarian situation was forcing the Soviet Union into “losing all credit;” however, due to the actions of U.S. allies the Secretary said “we [came] along with action as bad or worse.”²⁴² Not only did the Suez Crisis clash with the global focus of Eisenhower’s strategic framework, it also detracted from his ability to make gains at the expense of the Soviet Union.

As the conflict continued Eisenhower again tried to influence the British and French Prime Ministers. On 30 October, in response to the ultimatum issued by both nations, President Eisenhower wrote to Eden and Mollet stating, “I feel I must urgently express to you my deep concern at the prospect of this drastic action even at the very time when the matter is under consideration as it is today by the United Nations Security Council. It is my sincere belief that peaceful processes can and should prevail to secure a solution which will restore the armistice condition as between Israel and Egypt and also justly settle the controversy with Egypt about the Suez Canal.”²⁴³

Eisenhower’s main concern was in keeping the conflict from expanding in scope. He also saw America’s credibility in the region at stake. Eisenhower intended to keep his commitment to protect any Middle Eastern nation from aggression. However, with America’s allies now the aggressors in the region; maintaining fidelity to this promise would stress the ties between Eisenhower, Eden, and Mollet.

Neither the Egyptian nor Israeli forces abided by the ultimatum; as a result, the British and French moved to reoccupy the canal. On 1 November, the British and French forces began bombing Egyptian targets in order to prepare for an invasion. By 3 November, the bombing

²⁴² John Foster Dulles, Telephone Conversation with Lester Pearson 30 October 1956, DDE Library, John Foster Dulles Papers, Telephone Conversation Series, box 5, 1.

²⁴³ Eisenhower, *Waging Peace*, 77-78.

campaign destroyed the Egyptian air force. The destruction of the air assets allowed the ground phase of the operation to start sooner than planned. By 5 November, elements of the invasion force were on the ground in Egypt and had secured El Gamil airfield.

Eisenhower, though frustrated with the British action, still understood that eventually the Anglo-American alliance would return to good relations. In a letter written on 3 November to Lew Douglas, a personal friend, he discussed his understanding of the British actions. He told Mr. Douglas that he had “no intention of using the British Government as a whipping boy.” The President believed that their actions were “stupid” and that Eden and the British allowed their “distrust and hatred of Nasser to blind their judgment.” Eisenhower claimed that the British chose an inappropriate method to handle their problem. Eisenhower’s understanding of the long-term value of the Anglo-American relationship was clear even in the middle of the military phase of the crisis. The President’s high regard for the U.S.-U.K. alliance, though strained through the crisis, would help repair the relationship after the conflict died down.²⁴⁴

Two days later, in a letter to Dr. Eli Ginzberg, a professor Eisenhower became acquainted with while President of Columbia University, the President connected the Suez Canal Crisis and the Hungarian rebellion. He told Dr. Ginzberg that he recently received a telegram from a Hungarian national who claimed that the uprising was going well until the Suez Crisis. Eisenhower’s Hungarian contact argued that the British, French, and Israeli actions “encouraged the Russians to come in and batter down the insurgents.” Eisenhower told Dr. Ginzberg that no international issue was “ever confined to the exact area in which it [was] physically located.” Eden focused on the Nasser’s impact on Britain’s immediate imperial transformation and its

²⁴⁴ Dwight Eisenhower, Letter to Lew Douglas 3 Nov 1956, DDE Papers as President, Diary Series, Box 20, 1.

long-term position on the international stage. Eisenhower looked to how this crisis, and its potential for expansion, affected the U.S. strategy of deterring war with the Soviet Union.²⁴⁵

The situation deteriorated further when the Soviet Union unsurprisingly chose to support Nasser. On 5 November, Soviet Premier Nikolai Bulganin issued a statement that said that the Soviet Union would return peace to the region even if it required Soviet military intervention. This increased the morale of the Egyptian military and gave them renewed enthusiasm for the conflict. Bulganin also contacted President Eisenhower and recommended that the Soviet Union and the United States join forces to bring peace back to the region.²⁴⁶

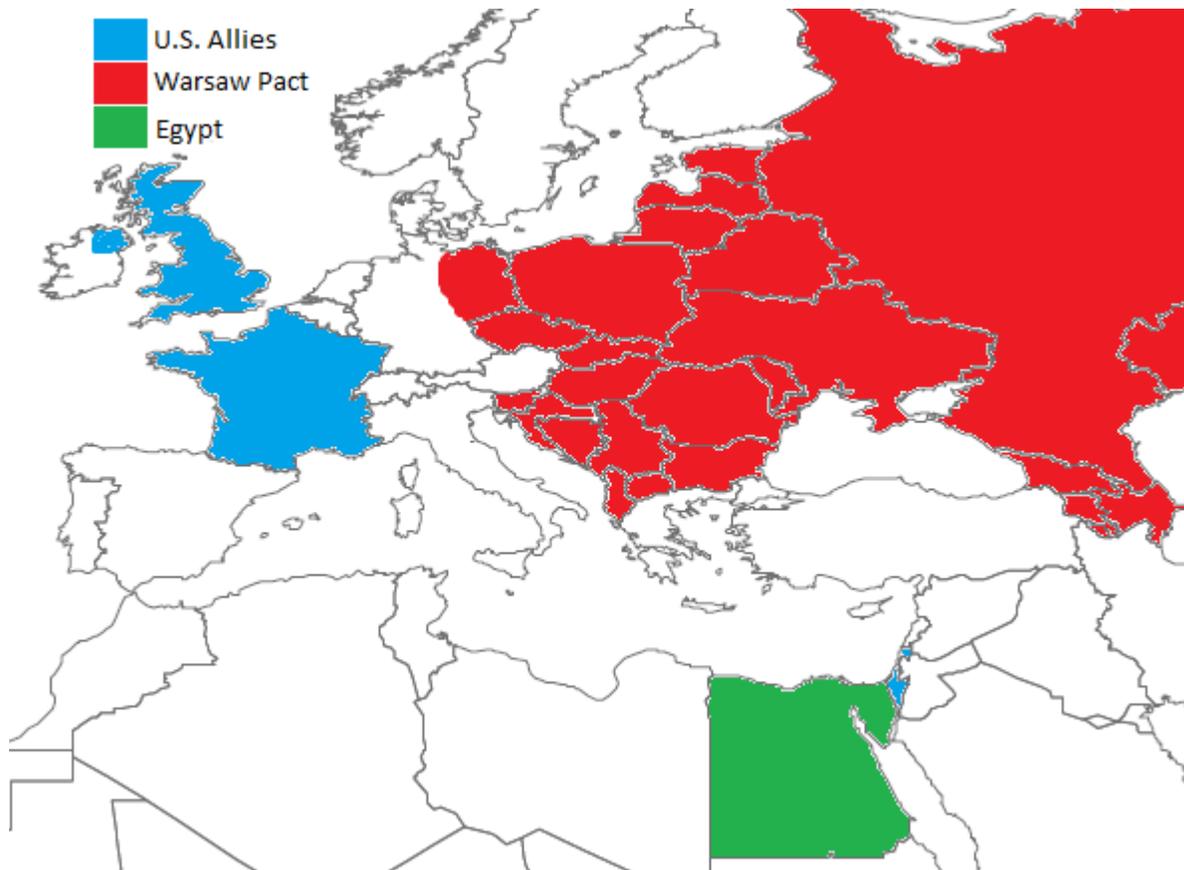
The military action ended quickly after the Soviet offer to join with U.S. forces or, failing that, to intervene unilaterally. Eisenhower, on 5 November, worried that the Soviets were desperate and could possibly act as recklessly as Hitler did in the closing stages of World War II.²⁴⁷ The following day, 6 November Admiral Radford commented that Soviet intervention would likely come in form of air strikes, as the Soviet Union did not have much capability to deploy its forces so far away from its bases. Radford thought that this made any serious intervention by the Soviets improbable. However, a brief look at the geographic proximity of the USSR indicates that it was possible for the Soviets to intervene with ground forces. The map below shows how close the Soviet Union was to the battlefield.²⁴⁸

²⁴⁵ Dwight Eisenhower, Letter to Dr. Eli Ginzberg 5 Nov 1956, DDE Library, DDE Papers as President, Diary Series, box 20, 1.

²⁴⁶ Eisenhower, *Waging Peace*, 89-90

²⁴⁷ Andrew Goodpaster, Memorandum of Conference with the President, 5 Nov 1956, DDE Library, Papers as President, Diary Series, box 19, 2.

²⁴⁸ Eisenhower, *Waging Peace*, 91.



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On the date of the 1956 Presidential election, 6 November, the belligerents in the Suez Crisis agreed to a cease-fire. One of the first problems Eisenhower faced after the crisis was repairing the relations between the U.S. and its allies. Eisenhower told James Hagerty, his Press Secretary, and Admiral Radford that it was “very important to find a way of bringing about a rapprochement with the British.” Herbert Hoover Jr., Under Secretary of State, asked if the President wanted to contact the French Prime Minister Guy Mollet as well. Eisenhower declined to call the French premier instead he decided to send a cable. The President only decided to

²⁴⁹ Map from web resources depot. URL: <http://www.webresourcesdepot.com/free-vector-world-maps-collection/> (accessed 19 Jun 2012), shading and text by author.

contact Mollet after Hoover suggested that Eisenhower contact him because Mollet was certain to hear of the President's phone call to Eden.²⁵⁰

In the immediate aftermath of the crisis, Eisenhower first wanted to repair relation with Britain, France came as an afterthought. This was the likely path for events to take because of the close ties between the United Kingdom and the United States. Although Eisenhower did not agree with the Eden's actions, the President understood that he could not sacrifice America's closest alliance over the Suez Crisis. The fact that France did not receive the same focus on repairing its relations with America would have second and third order effects as Eisenhower brought the Anglo-American alliance back to its pre-Suez state.

While French and British actions were problematic in the Middle East, their participation in the defense of Western Europe was extremely important. Repairing the Anglo-American alliance would come much easier than those with France. Part of the process to repair U.S.-U.K. relationship was the Bermuda Conference held in March of 1957. This summit meeting gave President Eisenhower and the new Prime Minister Harold Macmillan a chance to ease the tensions between their two nations. One significant outcome of the discussion was the formation of an agreement between the U.S. and the U.K. concerning the transfer of IRBMs to Britain. Eisenhower believed the IRBMs to be of "signal importance to the defense of the Free World for the next several years." He also described the conference as "by far the most successful international conference" since the meetings at the end of World War II."²⁵¹

This process did not start at the Bermuda Conference; there was discussion about the implications of this decision prior to the meeting. The talks concerning the transfer of IRBMs

²⁵⁰ Andrew Goodpaster, Memorandum for Record 6 Nov 1956, DDE Library, DDE Papers as President, Diary Series, box 19, 3-4.

²⁵¹ Eisenhower, *Waging Peace*, 124.

began in early of 1957 and stirred up misgivings in the State Department. In a meeting between Defense Secretary Wilson and British Minister of Defense Sandys on 28 January 1957, the pair discussed guided missiles and decreased military expenditures. Both of these topics paralleled President Eisenhower's plans for the American military forces deployed to protect West Germany. According to Sandys, Britain needed to relieve the fiscal pressures of keeping large forces in Germany. In order to achieve this reduction, it would need to remove approximately 80,000 men from the British contingent. In addition to this, the British government proposed cutting its Second Tactical Air Force by almost 200 aircraft, from 466 to 220. Sandys finished the discussion by turning to the subject of guided missile cooperation between the U.S. and the U.K. He said that this area was an example of effective collaboration. He wanted to continue this beneficial relationship between the two governments and improve upon them.²⁵²

The following day, 29 January, Dulles and Sandys discussed the IRBM transfer agreement in more detail. Sandys told Dulles that the outlines of the potential agreement would give the British control over 4 squadrons of IRBMs with the nuclear warheads to remain in U.S. custody. He continued by saying that the structure of the agreement was like the one concerning V bombers and nuclear warheads. The British owned and operated the delivery vehicle but did not have possession of the atomic weapons. However, if the British developed their own nuclear warheads they would retain ownership of the IRBMs, giving them a fully functioning nuclear ballistic missile weapon system.²⁵³

In reaction to the potential IRBM agreement between Britain and the U.S, Edwin Martin, the Alternate Permanent Representative on the North Atlantic Council (the primary political

²⁵² John Glennon and Madeline Chi, editors, *Foreign Relations of the United States*, (Washington: United States Government Printing Office, 1992), 683-4. Hereafter FRUS II.

²⁵³ FRUS II, 687.

body in NATO), wrote a memorandum raising important questions about the implications of such an agreement. Martin wrote that the Defense Department representative, Acting Assistant Secretary of the Air Force for Research and Development Richard Horner, did not wait for State Department approval before agreeing with the British memorandum outlining the potential agreement. Martin's concern centered on the possible complications with giving the British such a powerful weapon system in the immediate aftermath of the Suez Canal Crisis. He cautioned that the agreement put forward would give them a free hand with the missiles.²⁵⁴

Martin also saw the early finalization of an IRBM agreement as giving up too much too soon in the rapprochement with the British. He advocated, in his memo, that agreeing prior to the Bermuda Conference prevented the U.S. from having the ability to communicate its policies at the highest levels and use these weapons for leverage with the British. He called the agreement to transfer the IRBMs to Britain key to the repairing of relations between the two nations. However, this meant that the U.S. should make the most of this opportunity and not squander it by agreeing to any proposal before it could garner the most successful terms.²⁵⁵

It was in the interests of both nations to improve their relationship. The question was how best to achieve this objective. The transfer of IRBMs would allow the British to have a sophisticated, although still not proven, guided missile capability. This was something that they currently lacked and did not want to commit financial resources to achieve.

President Eisenhower resolved the question of how to use the IRBMs in the Anglo-American relationship when he declined to approve the British proposal concerning the agreement. Eisenhower did not think it appropriate to make a decision with American policy still at an early stage of development. Giving IRBMs to Britain was not an approved policy; it was

²⁵⁴ FRUS II, 691.

²⁵⁵ FRUS II, 692.

only a National Security Council proposal. Eisenhower did not want his deputies making commitments before he made the decision to endorse such a program. He wanted to be ready to discuss the matter at the Bermuda Conference in March and until then, he would not agree to any position concerning the transfer of IRBMs to Britain.²⁵⁶

During the Bermuda Conference President Eisenhower discussed the IRBM agreement with Macmillan. The transfer proposal and the discussions between Macmillan and Eisenhower provide insight into how these weapons worked to improve the nature of the Anglo-American alliance. The President formally introduced the agreement in the early stages of the conference to the Prime Minister and by the end of the summit meeting they had announced the acceptance of the framework. In the coming months, American and British diplomats would work together to hammer out the specifics of the agreement and start to put it into action.

One of the reservations President Eisenhower had about the agreement was the possibility that the accord would commit the U.S. to missile production before it was ready. In a conversation in the opening stages of the Bermuda Conference the President spoke with his advisors about the state of American IRBM technology. Secretary of the Air Force Donald Quarles told Eisenhower that the agreement would only commit America to produce missiles when both the U.S. and U.K. agreed that they had a viable weapon. After that decision, the U.S. controlled the scale and timeline of production, not Britain.²⁵⁷

On 22 March 1957 in Bermuda, Eisenhower made the official offer of guided missiles, IRBMs, to Prime Minister Harold Macmillan. The President told the Prime Minister that much of the specifics of the agreement would come later but he wanted to make the offer formally.

²⁵⁶ FRUS II, 692.

²⁵⁷ FRUS II, 733-4.

Eisenhower continued by stating that the weapons were still in development and perhaps the missiles given would not be IRBMs but something of the same capability but different name.²⁵⁸

Eisenhower told Macmillan that the four squadrons of missiles would be deployed under this agreement. Two of the squadrons would be under U.S. control, while the other two would be under British control. As part of the agreement, the United States could change the missiles in the future for improved versions; if it became necessary. Eisenhower did not want anything specifically said about the IRBMs at the time, he would only allow a general reference to guided missiles in the communiqué issued after the Conference. Eisenhower did not intend this program to become wide-spread when discussed at the Bermuda Conference. The agreement also made clear that the British would own two squadrons of missiles, although they would not own the warheads.²⁵⁹

Harold Macmillan asked the President when the missiles would be ready. Eisenhower replied that he could only give estimates. His best information, he told Macmillan, was that the first missiles would arrive in July 1958, the first squadron in June 1958, and the four squadrons would be operational by July 1960. Macmillan stated that this information would help the U.K. determine whether or not to continue its own research program for a long-range guided missile. If the missiles provided by the U.S. would fit British defense needs then the U.K. could put more emphasis on other defense assets. Macmillan would not have made such comments if he were not confident about his ability to control the use of these weapons for British needs. If the Prime Minister thought that the weapons deployed by the U.S. would only serve American interests, there would be no incentive to give up on researching a British missile. However, the promise of

²⁵⁸ United States Delegation to the Bermuda Conference, Memorandum of Conversation 22 March 1957, DDE Library, DDE Papers as President, Box 3, 2. (Hereafter Bermuda Conference 22 Mar 57 Meeting)

²⁵⁹ Bermuda Conference Meeting 22 Mar 57, 3.

ownership of half of the planned IRBMs provided a strong guarantee that these weapons would serve British ends.²⁶⁰

The discussion of IRBMs shifted to limiting nuclear testing as a method of preventing nuclear proliferation. Macmillan told Eisenhower that he thought that the test ban was important to prevent other nations from getting nuclear weapons. Eisenhower agreed and said that the expansion of atomic weapons was problematic. Stopping the proliferation of these assets was something that both the Prime Minister and the President supported as an effort to ensure the nuclear club did not expand its membership. Of course, this meant excluding another important European ally, France.²⁶¹

In the afternoon session on 22 March, the Prime Minister brought up the issue of the Western European Union (WEU) and the research and development of advanced weapons. The WEU was a group of seven European nations, including Britain and France that were also members of NATO. The WEU was a defense union, similar to NATO, but much more regionally focused. British Foreign Minister Selwyn Lloyd assured Eisenhower that the WEU weapons development program would not involve nuclear matters. President Eisenhower agreed and said he wanted to “maintain the special relationship now existing between the U.S., Canada, and Britain” concerning nuclear technology.²⁶²

On the next day, 23 March 1957, the British Foreign Minister Lloyd and U.S. Secretary of State Dulles had a conversation about nuclear proliferation. The two diplomats discussed the French effort to manufacture nuclear weapons. If successful, it would make France the fourth

²⁶⁰ Bermuda Conference Meeting 22 Mar 56, 5.

²⁶¹ Bermuda Conference Meeting, 22 Mar 56, 10.

²⁶² United States Delegation to the Bermuda Conference, Memorandum of Conversation 22 March 1957 (afternoon session), DDE Library, DDE Papers as President, Box 3, 6-7. (Hereafter Bermuda Conference Afternoon Session 22 Mar 57 Meeting)

nation to have an atomic capability. Both ministers agreed that neither the British nor American governments should openly or discreetly support the French effort. However, they also could not openly condemn such an effort, since France was an ally.²⁶³

The U.S. accepted and supported improving an independent British nuclear capability, as displayed by the offer of IRBMs. The possibility that France would join the nuclear group of nations presented an opportunity to deploy guided missiles even closer to the Soviet Union. This benefit did not seem to outweigh the potential problems associated with an independent French nuclear deterrent.

The exclusion of France from the group of nuclear nations would cause problems in the European alliance in the near future. France didn't detonate its own nuclear weapon until 1960. Its weapons program was independent of the United States and the United Kingdom. The agreement to limit the expansion of nuclear weapons excluded France from gaining a very important national security asset and prestige weapon, an independent nuclear deterrent.

Much of the problems between the United Kingdom and the United States concerning the Suez Crisis stemmed from the different strategic frameworks used by Eisenhower and Eden. The President measured the events, as well as the potential expansion, in terms of the global Cold War. Since his primary policy goal was avoiding a direct confrontation with the Soviet Union, the nationalization of the Suez Canal was hardly worth fighting a nuclear war to reverse. This focus on the global context made it difficult for Eisenhower to support Eden and the British position concerning the canal.

Similarly, Prime Minister Anthony Eden did not approach the nationalization crisis from the same point of view as Eisenhower. Eden wanted to maintain control of the British

²⁶³ FRUS II, 766.

decolonization process; this required stopping Nasser from thumbing his nose in the face of British authority. Either, Eden stopped Nasser or he believed that the British Empire faced a rapid and uncontrolled collapse. While Eden did not want war, in the initial stages of the conflict, he did not feel that there were many other options that would affirm British prestige and power in the region as much as a show of force. The regionally focused concentration of his assessment meant that Eisenhower and Eden would have little common ground when discussing the threat posed by Nasser because each focused on different sets of ramifications of the Egyptian leader's actions. However, the British well understood the potential threat of the Soviet Union and Soviet power. Their actions indicate that Eden did not believe that the Soviets would intervene, but it was a risk.

Although Eisenhower's global concentration on the Cold War was part of the reason for the tensions between the two nations concerning the Suez Crisis, it would also be a large part of the rapprochement in the Anglo-American alliance. Even during the crisis, Eisenhower knew that he would have to work to reaffirm the U.S.-U.K. relationship because of its importance to defending Western Europe. His understanding of the Cold War was a doubled-edged sword for the United Kingdom; it could be detrimental in the short-term if the two nations approached an issue with divergent policies but in the long-term it would ensure that the relationship with America endured. This would not be the same case with France, especially with the rise of Charles de Gaulle and his nationalistic aspirations for returning France to prominence both in the alliance and the world.

At the conclusion of the Bermuda Conference there was still much left to do to make the IRBM agreement a reality. The accord made clear that the alliance between the U.S. and the U.K. was improving. Eisenhower's hesitation to support an independent French nuclear weapons

program expressed his concerns about the Franco-American alliance, especially when compared with the Anglo-American reaffirmed friendship. The work between American and British diplomats to make the IRBM deployment a reality manifested the improved relationship between the two nations. Similarly, the actions of President Eisenhower and his advisors concerning France, combined with the resistance of Charles De Gaulle, revealed that the relationship between France and America still had serious complications.

**Chapter 5: A European Solution to an American Problem:
Eisenhower's Initial Reaction to the Soviet Launch of Sputnik**

On 4 October 1957, the Soviet Union launched the first artificial satellite into orbit. While the United States had a space program at the time, it was not yet capable of launching a satellite. This was a technological as well as a propaganda victory for the Soviet Union. The long-term impact of the *Sputnik* launch provided the impetus for the creation of the National Aeronautics and Space Administration (NASA) as well as other federal programs to advance science and technology; however, the short-term impact was less dramatic. In the months after *Sputnik*, President Eisenhower evaluated the military and political impact of the Soviet accomplishment. He initially showed some concern about the military implications but the political ramifications soon became paramount. The Soviet satellite launch further reinforced the importance of the decision made early in 1957 to deploy IRBMs to Great Britain. This was a solution that answered domestic, not European, security concerns.

The United States satellite program at the time, Project Vanguard, did not plan for a payload as large as that of the Soviet *Sputnik*. Dr. Joseph Kaplan, head of the United States program for the International Geophysical Year, described the weight of the Soviet launch as incredible. Its 184 pound weight was over seven times as heavy as the projected 21 ½ pound American satellite. The American program lagged behind the Soviet program in terms of capability and results.²⁶⁴

Project Vanguard was not the only missile program capable of launching a satellite. The Army's Jupiter program already showed that it was possible to use that launch vehicle and put a satellite into orbit but von Braun could not continue his research because of the bureaucratic

²⁶⁴ Special to the *New York Times*, 2.

restrictions placed upon him by President Eisenhower's decision to put control of the IRBM program in the hands of the Air Force.²⁶⁵

Another hurdle von Braun encountered was the resistance of the Vanguard project lead, John Hagen, to understand the urgency of the situation. Von Braun told astronomer John O'Keefe, who worked for the Army Engineer Corps, that von Braun was willing to "paint 'Vanguard' right up the side of my rocket." O'Keefe replied that he did not think that Hagen worried much about getting into space first and this led to the lack of urgency of the Vanguard program. Von Braun responded, "If that's what he really thinks, will he for Christ's sake get out of the way of the people who think it makes a hell of a lot of difference!"²⁶⁶

Von Braun did not speak out of hubris; his missile was indeed ready for launching a satellite. By the end of 1956, he had already achieved a height of six hundred miles; this was comparable to *Sputnik's* orbit of five-hundred and fifty-nine miles above the earth.²⁶⁷ Von Braun again succeeded in achieving this altitude on 8 August 1957 when his team used a Jupiter C missile to test a redesigned nose cone. Von Braun had the ability to beat the Soviets but he did not have the blessing of the Air Force, which now controlled his missile program.

Eisenhower's understanding of the importance of getting to space first resembled Hagen's initially. Although he became frustrated when he realized that the United States had the capability to launch a satellite much earlier if it concentrated its resources on other rockets, prior to *Sputnik*, he did not want to risk involving military technology in order to assure a quick

²⁶⁵ Ward, 98.

²⁶⁶ Ward, 98-99.

²⁶⁷ *Sputnik*, *Science*, New Series, Vol. 126, No. 3277 (Oct. 18, 1957), pp. 739-740, <http://www.jstor.org/www2.lib.ku.edu:2048/stable/1754428>. (accessed 19 October 2012).

launch. Eisenhower would change his mind in the wake of *Sputnik*, but it would take the realization that the American people worried about *Sputnik* much more than Eisenhower initially did.

The irony of the *Sputnik* situation was that it showed how advanced the Jupiter program was. After the Vanguard rocket failed to successfully launch a satellite, President Eisenhower gave his permission to use the Army's Jupiter C to launch America's first satellite, Juno I. The only change was the addition of a fourth active stage. Although von Braun and his Jupiter team clearly produced a superior missile, Eisenhower's decision to give authority over IRBM production to the Air Force, the Jupiter was a first-rate program with second-class status. Another influence was Eisenhower's resolution that the U.S. satellite program be free of military technology. This restriction was short-lived after the drama of the Soviet launch of *Sputnik*.

American scientists expected the Soviets to launch a satellite. They were unsure of when the U.S.S.R. would do so, but had little doubt that Soviet scientists were working on the same project as American scientists. One reason for the lack of American urgency was the different point of view of those in charge of the Vanguard program. Rear Admiral Rawson Bennet, who worked for the Office of Naval Research, the organization in charge of America's satellite program, said he did not think that his program was in competition with the Soviet Union. He believed that the Vanguard Project would not change its schedule to have an earlier launch date.²⁶⁸

²⁶⁸ Special to The New York Times.. "Device Is 8 Times Heavier Than One Planned by U.S: Its Direction in Doubt WEIGHT OF 'MOON' A SURPRISE TO U.S. Assumptions on 'Moon!'" New York Times (1923-Current file), October 5, 1957, <http://www.proquest.com.www2.lib.ku.edu:2048/> (accessed December 21, 2011) (hereafter cited as Special to the *New York Times*), 2. (Hereafter Special to the *New York Times*)

President Eisenhower's reaction to the launch at first was unimpressive. He and his senior administration officials did not understand the importance of the Soviet accomplishment. Eisenhower did not see it as a security risk, at least initially. Of course he had the benefit of U2 photo reconnaissance to prove to himself that the launch of the satellite and a Soviet ICBM were unrelated. The problem was that he could not communicate this intelligence to the American people without divulging how he attained it.²⁶⁹

Although Eisenhower did not put much stock in the Soviet achievement, the American people did. In a Gallop poll taken in in the week following *Sputnik*, the majority of respondents said that they believed that the Soviet Union was ahead of the U.S. in the development of missiles and long distance rockets.²⁷⁰ Also, in November of 1957, fifty-three percent of the respondents said that they believed that defense policies should change.²⁷¹ The majority American people did not agree with the initial interpretation of Eisenhower and his administration, they wanted action and saw this as a security issue. Many Americans did not agree with Eisenhower when he said that there was nothing "significant in that development [*Sputnik*] as far as security is concerned."²⁷²

Eisenhower would change his initial reaction to the Soviet launch and by the end of the year; he would call for the expansion of the deployment of IRBMs to Western European. He intended this deployment to answer both the domestic security concerns as a result of *Sputnik*

²⁶⁹ David Halbertam, *The Fifties* (New York: Random Hosue, 1993) ,624-5.

²⁷⁰ Gallup Poll (AIPO), Oct, 1957. Retrieved Oct-19-2012 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut.

http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html

²⁷¹ Gallup Poll (AIPO), Nov, 1957. Retrieved Oct-19-2012 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut.

http://www.ropercenter.uconn.edu.www2.lib.ku.edu:2048/data_access/ipoll/ipoll.html

²⁷² Haberstam, 625.

and an attempt to change the nature of America's security commitment to its NATO allies. This plan would have significant ramifications with U.S. allies particularly Britain and France.

Special Assistant to the Secretary of Defense, William Holaday, commented on his understanding of the successful Soviet satellite launch. He believed that the Soviets spent an abundance of time and resources in order to beat the U.S. into space. He did not think that Vanguard, which he termed an open project, was such a rushed program. His comments implied that the American scientific community did not think that the *Sputnik* launch was a remarkable scientific advancement. They felt that it was something they were capable of doing but just did not have the same timeline as the Soviet program.²⁷³

However, the American scientists' reaction was not the only response to the Soviet launch. President Eisenhower understood that the U.S. government had to react to this as well. Eisenhower asked, in one of the first discussions of the launch on 8 October 1957, what the capabilities of the satellite were. He wondered if it had the ability to communicate any information in its signal. Deputy Secretary of Defense Donald Quarles said that the satellite could transmit its location according to what the Soviets said publicly about the satellite. However, Dr. Alan Waterman, director of the National Science Foundation, said that the *Sputnik* signal did have some modulation. However, he could not say whether this was by accident or was some attempt to code the communication from the satellite.²⁷⁴

Eisenhower did have some initial concerns about the satellite and what its capabilities were. The scientific achievement of launching a satellite into space was not his first worry.

²⁷³ Special to the *New York Times*, 1-2

²⁷⁴ Andrew Goodpaster, "Memo of Conference with President on 8 October 1957", DDE Library, DDE Diary Series, Box 27, Folder Staff Notes Oct 57 (2)hereafter (Memo of conference with the President 8 OCT 57), 2.

Rather, it was the fact that the Soviets had a body orbiting above the U.S. and it was continuously sending a signal to the world that gave him pause. Eisenhower questioned what the Soviets could do with their new satellite.

Eisenhower did not want to make any drastic changes in reaction to the Soviet success for fear of giving the Soviets too much credit. In the conference about the launch on 8 October, the talk turned to whether or not the United States should reorganize or speed up its launch program in order to get some surveillance vehicle quickly into orbit. Sherman Adams, Eisenhower's Chief of Staff, said that, in his opinion, the administration should not approach this project in a rushed manner. He said that the U.S. "had never thought of this as a crash program, as the Russians apparently did." Adams characterized it as a project intended to "develop and transmit scientific knowledge." Adams stated that the Soviets conducted their program in a hurried way with the goal of beating the United States. Eisenhower asked those present to think ahead five years and tell him what the U.S. would have in terms of surveillance capacity. Secretary Donald Quarles said that that Air Force had a research program with this as the end state.²⁷⁵

Sherman Adams' statements about the desire to altruistically transmit knowledge did not tell the entire story. Of course, there were issues of prestige involved, even if President Eisenhower did not see this as a serious problem, for the American people the Soviets proved their superiority in guided missiles. This would continue to affect Eisenhower's handling of the fallout of the launch through the rest of the 1957.

Eisenhower's questions, in his conversation with his Chief of Staff and other administration officials on 8 October, relayed his concerns about the Soviet capacity to make

²⁷⁵ 8 Oct 57 conference with President, 2.

some military use of their space program. However, he did not want to take dramatic action. Any quick changes in policies or programs from the United States would suggest that the Americans felt some threat from the new Soviet capability. Eisenhower did not want to give this impression and so chose not to discuss any radical alterations in the direction of America's research programs at that time.

The *Sputnik* launch was not all bad news. President Eisenhower believed that the Soviets had in fact contributed to the freedom of orbital space with their satellite. He called this launch a "good turn" because the satellite was in "orbital space... which the missile is making an inoffensive passage." Eisenhower felt that *Sputnik* orbited in international space and so no nation could take action against it. He continued that this was an unintentional benefit of the *Sputnik* launch.²⁷⁶

The conversation then turned to what the United States had at that time that could launch a satellite into orbit. Secretary Quarles said that the Army's Redstone missile, which was undergoing a modernization program, was capable of launching a satellite. The Secretary stated "there was no doubt that the Redstone, had it been used, could have orbited a satellite a year or more ago." The Redstone missile, which was a tactical missile, had a range of 200 miles. The Jupiter missile was part of the Redstone family. However, it was capable of space flight, with some modifications. NASA combined a Jupiter missile for the first stage of the booster. The first sub-orbital flights by NASA used Mercury-Redstone boosters.²⁷⁷

²⁷⁶ 8 Oct 1957 conference with the President, 2.

²⁷⁷ Special to The New York Times. "7 Astronauts Watch Space Capsule Shot." *New York Times (1923-Current File)*, Dec 20, 1960. 1, <http://search.proquest.com/docview/115087853?accountid=14556>. (accessed 29 October 2012).

However, the U.S. did not take advantage of its military missile programs because the Scientific Advisory Council, chaired by Dr. James Killian, recommended that the U.S. not mix military and civilian research programs. Secretary Quarles continued that the council thought that this would make the peaceful intentions of the American program clear to the international community. Also, since the project involved international scientists, any military technology used posed greater security risks and would inhibit the cooperative spirit of the program. President Eisenhower cautioned that members of Congress would wonder why the U.S. did not try to launch a satellite sooner, since it clearly had the capability. He then stated that he did not think that the date of launching a satellite was as important as ensuring that international scientists had the opportunity to gain from the American program.²⁷⁸

The Soviet launch did not interrupt Eisenhower's efforts to rein in spending. In a Cabinet meeting on 11 October 1957, the Cabinet talked about how to cut the defense budget from the fiscal year 1957 high of \$43 billion. Secretary Quarles presented information about the personnel reductions planned for the fiscal year 1958, which began in October of 1957. He said that the first quarter reductions accomplished 20 percent of the yearly goal.²⁷⁹

Eisenhower, in the immediate aftermath of the Sputnik launch, did not radically change his perception of the security situation. It did not invalidate America's strategic manned bomber force nor did it require a quick change of emphasis to replace manned aircraft with guided missiles. Following the discussion of personnel cuts the Cabinet then talked about Congressional cuts in defense spending. The President said that the legislature appropriations were below what

²⁷⁸ 8 Oct 1957 conference with the President, 1-2.

²⁷⁹ L.A. Minnich, "Cabinet Meeting Minutes 11 October 1957", DDE Library, DDE Diary Series, Box 27, Folder October 57 Staff notes (2) (hereafter Cabinet meeting 11 Oct 1957), 4.

the administration asked for. Eisenhower stated that the Defense department had to continue to pursue missiles as well as maintain manned aircraft. He still thought that the goals he entered office with in 1952, decreasing defense spending with new technology, were still viable and worth striving for.²⁸⁰

Eisenhower pushed the Cabinet to focus on the long-term economic viability of the nation. He did not want to sacrifice the strength of the U.S. economy to the U.S.S.R., although there were significant defense issues that the nation had to face. Ideally, Eisenhower said, he wanted to have a surplus in the budget in order to reduce taxes in the event of an economic slump in the coming year. If he were able to do this, he thought it would have a “psychological value.”²⁸¹

President Eisenhower actually thought he would have to resist pressure from Congress to increase defense spending in the coming year. He told his Cabinet that the administration had to ensure that it defused new legislative initiatives to increase defense spending in light of *Sputnik*. Eisenhower recommended to his Cabinet officers that the administration submit a budget that contained “the costs of those programs which the Administration wished to carry and excluded those it was forced by Congress to carry.” This would show what Eisenhower wanted to focus his fiscal resources on and make clear to the legislators how the administration intended to proceed. If Congress increased defense spending it would make it difficult for him to maintain the defense spending ceiling of \$38 billion he wanted.²⁸²

²⁸⁰ Cabinet meeting 11 Oct 1957, 4.

²⁸¹ Cabinet meeting 11 Oct 1957, 3.

²⁸² Cabinet Meeting 11 October 1957, 2.

If Eisenhower saw *Sputnik* as an immediate threat to the nation it did not come through in his plans to resist the predicted reactionary Congressional demands he thought would be a product of the Soviet launch. This is not to say that he did not think that the United States should not have some reaction to the launch. Eisenhower simply did not see as much as a security threat in the period immediately following *Sputnik*.

Another reason for Eisenhower's relative calm after the launch was the U-2 spy plane. This aircraft had the ability to fly over Soviet territory and take photos of missile sites. The program became operational in 1956. Eisenhower understood more about Soviet capabilities than he could publicly disclose. If he let the American people know what the U-2 program uncovered then the Soviets would know what U.S. intelligence capabilities were.²⁸³

Eisenhower had access to information about the Soviet missile capability. He understood, although not with perfect clarity, that the Soviet capability was not far superior to that of the United States and in many cases was equal or inferior to America's capabilities. This information, however, was still classified. This was one of the reasons why Eisenhower's reaction to the *Sputnik* launch seemed so out of touch with the general public's reaction. He did not see it as much of a security concern because he had a more accurate assessment of what the Soviets were capable of, most Americans did not. This disconnect would soon force Eisenhower's hand into expediting the deployment of IRBMs to Western Europe.²⁸⁴

²⁸³ Dwight D. Eisenhower. *The White House Years: Waging Peace, 1955-1961*. (New York: Doubleday, 1965), 483.

²⁸⁴ "CIA Collection Activities against the Soviet Guided Missile Program" [Includes Attachment], Top Secret Chess; Eider, Memorandum, Excised Copy, January 16, 1958, 3 pp. From the Digital National Security Archives, http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CHN01009 (accessed 28 Jun 12).

In a meeting outside of the Cabinet meeting on the same day, 11 October, the President discussed missile research with Secretary of Defense McElroy. Eisenhower wanted to make sure that the first priority of the IRBM program was to have an effective missile test. He wanted a missile that hit its intended target and reached the prescribed range. Concerns such as how to deploy the missile or which service it would eventually fall under were of lesser importance to him. The President also suggested that there should be a fourth service, apart from the Army, Air Force, or Navy that would control missile functions. He thought that this would prevent many of the service rivalries that he said detracted from the important work being done on guided missiles.²⁸⁵

Eisenhower's suggestion about creating a fourth service never materialized. However, it did make clear how serious he was about maintaining a focus on guided missiles. He thought that having individual services control such important weapons programs divided both the branches of the military and their resources. In the aftermath of *Sputnik*, guided missiles were still important and the IRBM program represented one of the more successful programs. Although the IRBM project, both the Jupiter and Thor variants, had successful test launches they had yet to have full-scale test flights that checked their guidance systems and the ability of the missile to transport a payload to the proper range.

Sputnik caused several discussions immediately following the launch; however, there were other issues that Eisenhower faced. One problem was the relationship between the United Kingdom and the United States. In preparation for a visit from the British Prime Minister Harold Macmillan, the President and the Secretary of State talked about what to bring up during the

²⁸⁵ Andrew Goodpaster, "Memorandum of Conversation with the President 11 October 1957", DDE Library, DDE diary Series, Box 27, Folder Staff Notes Oct 57 (2), 1-2.

visit. Although *Sputnik* was not part of the conversation, nuclear issues were a topic of conversation. The influence of the *Sputnik* launch came through in the discussion about the close relationship between the U.S. and the U.K. Specifically, the IRBM issue, which would be a central part of the planned meeting.

Secretary of State Dulles discussed the diplomatic problems that faced the United States in its policies in Western Europe and NATO. He said that the changing character of warfare in the nuclear age made America's allies want atomic weapons. Dulles told Eisenhower that since the U.S. was clearly telling its allies that these types of weapons were increasingly becoming part of the conventional spectrum of available military weapons, it would be more difficult to prevent or discourage U.S. allies from attaining them. Dulles wanted to close the agreement concerning the deployment of IRBMs to the U.K. and then work on extending it to other nations. He thought that the U.S. presented its allies with an unacceptable situation, that nuclear weapons, specifically IRBMs, were going to be a major part of the defense plan for Western Europe yet they could not have these weapons for their own defense.²⁸⁶

The influence of *Sputnik* made the deployment of IRBMs for the defense of Western Europe even more important. These missiles, although already planned to deploy to Britain in 1959, took on a new urgency after the launch of the Soviet satellite. They represented the only American long-range missile capable of targeting that Soviet Union with a sufficiently large warhead but they required European bases for this plan to work.

²⁸⁶ Andrew Goodpaster, "Memorandum of Conference with the President 22 Oct 57", DDE Library, DDE Diary Series, Box 27, Folder Oct 57 Staff Notes (1) (hereafter Conference with the President 22 oct 57), 1.

During the discussion, Eisenhower voiced his hopes that the U.S. and U.K. could work more closely together on defense issues. He also stressed the fact that the Americans and the British were the only nations in the alliance with nuclear weapons. Eisenhower said that this was one reason why the two nations should collaborate, in order to help the whole alliance. Dulles cautioned the President about making close cooperation between the two nations too prominent at the risk of alienating America's other NATO allies. This tension between the Anglo-American relationship and its affect on the NATO alliance as a whole continued to be a problem as the deployment of IRBMs came to fruition.²⁸⁷

Secretary Dulles proceeded to discuss what he felt were the British intentions for this visit. He said that the Prime Minister hoped to solidify the relationship between the United Kingdom and the United States. Dulles thought that this was potentially problematic; since such an affirmation could upset relations with some of America's other European allies, if Eisenhower made it obvious how unique the relationship between the two nations were. The President, in contrast, hoped to communicate to the American people the importance of IRBMs in the nation's security as well as in the security of its allies. He also wanted to make it clear to the American public that the U.S. would not be able to continue to deny these weapons to its allies in NATO.²⁸⁸

Eisenhower wanted to use the British deployment and subsequent European deployments of IRBMs to reassure the American public of its safety in the missile age. The Soviets demonstrated with *Sputnik* that they had the ability to launch a missile that could reach the U.S. Eisenhower knew that the U.S. did not have such a capability but IRBMs offered the same

²⁸⁷ Conference with the President 22 Oct 57, 2.

²⁸⁸ Conference with President 22 Oct 57, 1.

capacity with bases in Western Europe. This fit with the emphasis of the New Look defense policy's focus on decreasing defense spending by concentrating resources on technologically sophisticated but less manpower intensive solutions to defense issues. It also fit with President Eisenhower's understanding of warfare in the atomic age; these weapons provided the strategic deterrent that would prevent Soviet military incursions into Western Europe.

The next day, 23 October, Eisenhower received a memo from Bernard Baruch, a close personal friend and advisor to the President, concerning the domestic impact of the *Sputnik* launch. Baruch wrote that the American people worried about the security implications of the Soviet satellite. However, he also thought that this would put the American people in a position to support defense measures intended to restore the balance between American and Soviet military capabilities. Baruch told Eisenhower that he must make sure that Secretary of Defense McElroy drove the missile program ferociously. He compared the need for dedication in missile research to the need for rubber in World War II. He wrote that if it were necessary the "impossible" had to become possible with this program.²⁸⁹

The press release that followed the Bermuda Conference in 1957 stated that the United States would give guided missiles to Great Britain. It did not specify exactly what type of missile would be a part of this agreement. Although the IRBMs were not clearly described in the agreement it was no secret that they would become part of the deal when the missiles became operational.²⁹⁰

²⁸⁹ Bernard Baruch, "Memorandum", DDE Library, DDE Diary Series, Box 27, Folder Oct 57, 1.

²⁹⁰ Hanson Baldwin, "Missiles For Britain: Where U.S. Program Stand Now," *The Week in Review, The New York Times*, March 30, 1957.

President Eisenhower said with enthusiasm that he felt that the American position should not get too bogged down in legal niceties. He said that one of the important aspects of an alliance was the confidence each nation had in the other. If the U.S. did not engage in a “liberal exchange” of information then he did not think they were living up to the spirit of the alliance. He hoped that the new agreement would resemble the Quebec Agreement that defined the Anglo-American cooperation in nuclear matters during World War II. Specifically, he said that each side “should be able to expect to receive whatever the other has.”²⁹¹

This meeting did not set any specific policy. However, Eisenhower made his views on the matter clear. If the U.S. worried too much about the legal minutia of such an agreement it would destroy the very thing that such an agreement was supposed to create, a healthy spirit of cooperation between the two nations. The relationship with the British was clearly important to Eisenhower. Although Secretary Dulles previously counseled against becoming too close to the British because of the risk of alienation of the other NATO allies, Eisenhower still felt that there was much benefit in renewing a special relationship with the United Kingdom. This close alliance would include significant sharing of atomic information, if Eisenhower got his way.

The British alliance was not the only important issue discussed in the wake of *Sputnik*. In a conference concerning NATO, on 26 October, the former U.S. representative to the organization Ambassador George Perkins conveyed the member nations’ concerns about the security of Western Europe. Perkins said that many European nations worried about the decreasing presence of American soldiers. They believed that this was a sign of America’s lack of commitment to the alliance. They feared that as the U.S. and the Soviet Union approached an

²⁹¹ Andrew Goodpaster, “Memorandum of Conference with the President, 25 Oct 1957”, DDE Library, DDE Diary Series, Box 27, folder October Staff Notes (1), 1-2.

atomic stalemate the U.S. would be less willing to engage the Soviets in combat. Eisenhower countered that the U.S. forces in Europe at the time were more powerful than before. He said that he entered office with the idea of using smaller but more powerful military formations. This increased firepower would come from innovations like the IRBM and other tactical nuclear weapons. The President referenced the new pentomic divisions deployed to Europe that, while smaller, had more striking power than a traditional division. Eisenhower then vented his frustrations with the U.S. budgetary process. He said it was troubling that military forces manifested themselves only in terms of manpower and not in actual strength. American divisions did not decrease but the new formations had less men assigned.²⁹²

This consternation about how to measure military power was something that Eisenhower faced throughout his implementation of the New Look defense policy. He believed that military formations under his administration were more effective because of their ability to rely on atomic weapons. Eisenhower also worried, as shown above, that many would only concentrate on the total number of soldiers in a military unit and then use that figure alone to calculate the fighting power on the battlefield. Eisenhower preferred to relate military power “on the basis of units and their combat power.”²⁹³ This was indicative of a fundamental problem of how to measure combat power. A missile unit was much more powerful than the sum of its individual soldiers. The President did not see his policy as weakening any military formation. Rather, his New Look program provided these formations the ability to defeat Soviet forces for less cost. This would prove a hard sell to the New Look’s critics both at home and abroad.

²⁹² Andrew Goodpaster, “Memorandum of conference with the President, 26 October 1957”, DDE Library, DDE Diary Series, Box 27, Folder October Staff Notes 57 (1) (hereafter Conference with the President 26 Oct 1957), 1-2.

²⁹³ Conference with the President 26 Oct 1957, 2.

The discussion then turned to atomic weapons and their role in future conflicts between the Soviets and the NATO alliance. Ambassador Perkins said that the European nations worried about the staying power of American forces in Europe. Eisenhower said “we never agreed to station ground forces permanently in Europe.” However, he also understood that the U.S. had a commitment to provide a guarantee that it would act to protect NATO from Soviet advances, which he would honor as long he was in office. He continued by saying that the atomic capability of American forces was part of that guarantee. Eisenhower wanted “no doubt as long as he [held] his present responsibilities. Atomic weapons would be used in case of attack.” American forces represented the U.S. guarantee to protect Europe, no matter how small the actual number of troops present.²⁹⁴

NATO integration also came up in the discussion. Eisenhower did not think it was profitable for each nation to work for a self-contained force. Instead, NATO should operate as a consolidated whole. This approach allowed for greater efficiency in using resources and would stop the waste of each nation duplicating efforts in fielding similar forces.²⁹⁵

The problem with this idea was that it asked NATO nations to do something that the American and British governments were unwilling to do, stop pursuing advanced weapons, particularly atomic weapons. The view that NATO nations should accept the American and British atomic monopoly as beneficial was problematic. It also demonstrated that the special relationship between the U.S. and the U.K. interfered with NATO relations as a whole. The U.S. wanted to offer an atomic umbrella to protect NATO. However, this protection would come at the cost of abandoning an independent atomic program, unless that nation was the United

²⁹⁴ Conference with the President 26 Oct 57, 2.

²⁹⁵ Conference with the President 26 Oct 57, 2

Kingdom. There were clearly two levels of membership in NATO, atomic members and those nations not part of the atomic club.

Sputnik, while not directly discussed in this conversation, was still important. The American public worried about the security implications of the Soviet launch. However, for European nations the main concern was the presence of American troops and the promise that they represented. Western European nations lived under the threat of Soviet missile, bomber, and ground forces assault, so *Sputnik* did not radically alter their perception of security. Getting more nuclear weapons to Western Europe was part of Eisenhower's response to NATO member states worries but it did not directly address their primary concern, American ground forces continued presence in the region. Deploying nuclear capable guided missiles targeted the domestic security concerns of American citizens. Unfortunately, this did not alleviate the main concern of America's NATO allies who lived under the threat of a Soviet invasion. *Sputnik* sent two different messages one to the American people and another to the Western European public.

The subject of force cuts came up again two days later, 28 October 1957, in a discussion concerning NATO. Eisenhower understood that the U.S. could not drastically reduce its manpower in Western Europe. It had to slowly and cautiously reduce troop strength and ensure that its allies agreed, or at least didn't object to, these cuts. The President said that the cuts would not decrease the 5 divisions and 4 regiments currently stationed in theater. However, the cuts would reduce headquarters units. Also, with the addition of missiles, much of the American tactical air units could redeploy to the United States. These cuts would not decrease the fighting power of its forces in NATO, according to Eisenhower. He also understood the importance of allowing General Norstad, the Supreme Allied Commander in Europe, to determine where these

cuts would come from. The Defense Department would give him the details of the cuts but he would make these cuts a reality.²⁹⁶

On 29 October, the President discussed the possibility of a Soviet ICBM with Dr. Isidor Rabi, a Noble Laureate and professor of physics at Columbia University, where President Eisenhower previously served as president. Dr. Rabi said that the Soviets would have an ICBM soon, as well as a warhead for such a weapon. The conversation also covered whether or not the U.S. should push to halt nuclear testing. Dr. Rabi said that the time to stop testing was prior to the Soviet Union's detonation of its thermonuclear device; however, this occurred in 1953. He said that if the U.S. continued to test new weapons and allowed the Soviet Union to do so also it meant that the U.S. would improve its nuclear arsenal as well as the Soviets.²⁹⁷

Eisenhower faced two problems, how to keep American defense costs down and how to ensure American superiority in weapons technology. These would prove to be two contradictory goals that would pull him in competing directions. The Soviet Union would continue to make advances as long as the U.S. continued to test nuclear weapons. However, if Eisenhower abandoned nuclear weapons testing it would not allow him to base an increasingly large part of America's defense on a nuclear arsenal that was equivalent to the Soviet Union's. Conventional forces would then have to take on a more important role in defending the nation and its allies, this meant increasing ground forces and spending more money. Alternatively, Eisenhower could choose to assume more risk and not increase conventional forces and assume that the Soviets would not attack.

²⁹⁶ Andrew Goodpaster, "Memorandum of Conference with the President 28 October 1957", DDE Library, DDE Diary Series, Box 27, Folder Oct 57 Staff Notes (1), 1-2.

²⁹⁷ Andrew Goodpaster, "Memorandum of conference with the President 29 October 1957", DDE Library, DDE Diary Series, Box 27, Folder Oct 1957 Staff Notes (1), 1-2.

Although European security was important, it was one of many competing interests that the President dealt with in the immediate aftermath of *Sputnik*. The subject of America launching a satellite came up again on 30 October, 1957. Eisenhower expressed frustration at the suggestion of adding the Jupiter rocket to the Vanguard program in order to launch a satellite sooner than the Vanguard program would be able to do alone. Although the President agreed with the recommendation, he reminded the Secretary of Defense that he had suggested the same thing 18 months prior. However, at that time, the Department of Defense, then under Charles Wilson, counseled against such a combination of civilian and military programs. The current Secretary, Neil McElroy, agreed that combining the programs meant that it would transform the nature of Vanguard; it would no longer be a purely civilian program.²⁹⁸

This represented a change not only in schedule of an American satellite launch but also a change in the necessity to keep such a program purely civilian and open. The Soviet advance, although not publicly admitted, did have an influence on the decision to accelerate the American satellite program. Secretary McElroy saw a way to prevent such a jarring change in the public sphere by announcing the addition of Jupiter as a secondary option for launching an American satellite. However, this secondary option would become the launch vehicle for the first American satellite on 31 January 1958.²⁹⁹

The American military response to Sputnik relied on IRBMs, principally the Army's Jupiter program. This weapon system was capable of carrying a satellite into orbit before the civilian booster was ready. This proved the success of the Army's rocket development, which

²⁹⁸ Andrew Goodpaster, "Memorandum of conference with the President 30 October 57", DDE Library, DDE Diary Series, Box 27, Folder Oct 57 Staff Notes (1), 3-4. (hereafter Conference with the President 30 October 1957)

²⁹⁹ Conference with the President 30 October 1957, 3-4.

was largely a result of its service's capitalization of German scientists such as Wernher von Braun. Although the launch of an American satellite did not directly influence the Western European security situation, it did announce to the American public that the Soviet Union's lead in the space race was not insurmountable.

One issue that the Soviet success brought closer to home was the damage of a nuclear attack. President Eisenhower and his administration already started planning for such an event prior to October of 1957 but *Sputnik* gave such efforts more relevance. In a conference on 4 November 1957 the members of the Gaither Committee presented their findings to the President. Formed in April of 1957, this committee had the task of assessing the destruction of a Soviet atomic strike in terms of nuclear fallout and blast damage. Several members of the advisory panel came to the conference to discuss their findings with the President; these members were retired military officers, elite businessmen, and university faculty.

The conversation also included the committee's estimates of how the Soviet threat would develop in the future and what they thought the nation should do to stop it. The group said to the President that they believed that the nature of the Soviet threat came from the growing military might of the Soviet Union, in terms of their technology. They advocated that "the peril to the United States must be measured in mega-tonnage in the years ahead." This view meshed well with Eisenhower's perception of modern warfare. It also downplayed the ability of the Soviet Union to call up much larger number of soldiers than the United States. While putting the threat

purely in terms of atomic yield made it more dramatic, it also framed the problem in terms of a conflict that the United States could win, at least in the mid-1950s.³⁰⁰

Unstated in this discussion was what the U.S. would actually win if it were victorious in a general atomic war with the Soviet Union. After a large nuclear barrage, especially one that contained hydrogen bombs, there would be massive destruction in both human lives and social infrastructure. Depending on the number of missiles and bombers unleashed there would be catastrophic damage to major population centers on both sides and those who did not die in the initial attack would have to struggle with the radioactive fallout and reconstruction. Such a victory could well be pyrrhic.

Sputnik, in Eisenhower's view, did not immediately upset the strategic balance of power between the U.S. and the Soviet Union. He said, in the conference with the Gaither Committee members, that strategic bombers would still be the key to America's nuclear superiority over the Soviets. However, after five years, this would change and, without significant effort, America would fall behind the Soviet Union. The President saw his main duty in the next five years as convincing the American people of the importance of continuing to make the required effort to stay ahead of the Soviets. This education had to focus on the specific technological and scientific necessities to defeat or, at least, stay ahead of the Soviet Union.³⁰¹

Throughout his time as President, Eisenhower continued to focus on the long-term security problems of the United States. His understanding of how to fight war in the atomic age required establishing a far reaching program of innovation and advances in order to reform

³⁰⁰ Andrew Goodpaster, "Memorandum of conference with the President 4 November 1957", DDE Library, DDE Diary Series, Box 28, Folder Nov 57 Staff Notes (hereafter Conference with the President 4 Nov 57), 1.

³⁰¹ Conference with the President 4 Nov 57 2-3.

America's military into a force ready to fight on the nuclear battlefield. The launch of Sputnik did not alter his thinking concerning the importance of advanced weapons and strategic force projection in America's defenses. If anything, it actually made these elements more important since Americans saw this as a direct threat to the continental United States.

The committee told Eisenhower that they expected casualties of close to 50% in a Soviet ICBM strike on the U.S. They did not think that the American deterrent force was adequate to prevent a Soviet ICBM attack. The committee recommended deploying IRBM in 1959 in order to have some type of deterrent to the expected Soviet ICBM threat that would come online that year.³⁰²

The President replied that he thought that group overstated the U.S. vulnerabilities in some areas. He felt that the Soviet Union was at a disadvantage because of its central position, in relation to the United States and the free world. The free world, Eisenhower said, held the peripheral positions and this allowed it to disperse its strategic weapons yet concentrate them on the Soviet Union. The Soviet Union did not have the same advantage. Eisenhower said he still thought that the policy of Massive Retaliation should be the basis of U.S. and NATO defense strategy.³⁰³

Although *Sputnik* exposed the Soviet Union's recent advances in its ability to project power strategically. This new capability did not cause the President to question his policy of Massive Retaliation to deter Soviet aggression. Although the Gaither Committee reported that the U.S. could fall behind the Soviet Union and was still vulnerable in many aspects, Eisenhower

³⁰²Conference with the President 4 Nov 57, 1-2.

³⁰³Conference with the President 4 Nov 57, 2.

maintained his conviction that America's defense forces continued to pose a significant threat, at least for the time being, to the Soviet Union. *Sputnik* demonstrated the U.S. deficiencies in its missile program. From the beginning of his administration, Eisenhower wanted to focus on missile development. *Sputnik* did put more focus on the IRBM program in two ways. First, by developing a viable weapons system the U.S. would relieve the necessity for large ground units. This would help Eisenhower in reducing defense costs. Secondly, a successful IRBM program, Eisenhower hoped, would also instill confidence in the American people about the ability of their military to prevent or counter an attack by Soviet missiles. This second issue was a concern that Eisenhower's advisers told him existed but did not have much real evidence to back up the claim that the American public cared much about the progress of their nation's guided missile program.

The successes and failures of the American missile program were not secret. Several days after *Sputnik*, *The New York Times* ran an article discussing recent advances that the U.S. missile projects made. It also discussed the reason why the Secretary of Defense still wanted two different missiles fielded and researched. Although the specifics of each program remained classified, successful test firing and range estimation did not receive the same secrecy.³⁰⁴

In a meeting on 6 November, the President met with members of the Joint Chiefs of Staff and the Secretary of Defense. Eisenhower said that his three previous conferences that day convinced him that the U.S. citizens had great concern about their security because of the rivalry between the services. Eisenhower said he thought "that out people now believe the services are more interested in the struggle with each other than against an outside foe. He said the people in Defense must give their heart to national interests and welfare." The President thought that the

³⁰⁴ *The New York Times*, October 11, 1957.

security problems facing the U.S. were also part of the problem not only the inter service rivalry. He cautioned that the correct response to *Sputnik* was a measured one, neither too strong nor too weak. Eisenhower reminded the chiefs that their main consideration should be on a joint national defense against the Soviet Union, not in ensuring the best conditions for their particular service.³⁰⁵

Although Eisenhower said that he worried about the concerns that the American public had about inter-service rivalry the only evidence he had of such a problem was from those within the administration. There is little evidence that the American public worried about the struggles between the military services. However, Eisenhower's overall concern was that this inter-service rivalry would prevent the services from effectively cooperating to provide the national defense. The doubts he had about the unity of America's military affected his relationship with service Chiefs of Staff, especially those who were not sufficiently supportive of the President's agenda such as the Army Chief of Staff General Taylor.

The nature of America's retaliatory forces, and by implication, the ability of the U.S. military to protect it was the subject of a conference following a National Security Council meeting on 7 November 1957. This conference dealt with the ability of the U.S. Air Force's Strategic Air Command (SAC) to adequately scramble its planes in response to an early warning of an impending Soviet attack. Robert Sprague, advisor to the NSC on continental defense issues, gave the findings of the report to the President and select members of the NSC as well as the leadership from the Air Force. Sprague said he calculated that the Soviet Union needed approximately 240 aircraft to hit all of America's 60 counter-attack positions. He said that the

³⁰⁵ Andrew Goodpaster, "Memo for Record 6 November 1957", DDE Library, DDE Diary Series, Box 28, Folder Nov 57 Staff Notes, 1,4.

Soviets had more than enough aircraft available for this type of operation. The problem with America's response forces was the concentration of Soviet air-defense assets at the proposed Soviet targets. He said that the U.S. could launch up to 150 counterstrike weapons. However, due to the integrated and effective nature of Soviet air-defenses this meant that the Air Force could not guarantee the effectiveness of an American counter-strike.³⁰⁶

Sprague continued that SAC's other major problem was the inability to quickly get its aircraft in the air. He said that during a surprise inspection he found that SAC could not get any of its planes in the air within 6 hours, excluding those already in the air for testing purposes. Of course, any aircraft in flight at the time of an attack would not necessarily have the required weapons loaded or fuel capacity to be part of an effective counter-attack.³⁰⁷

Another concern Sprague had was the lack of overseas deployment of American strategic assets. He said that his information did not reveal any significant presence of American strategic bombers outside the continental U.S. Any overseas base was only a post-strike base, meaning that after the planes launched their initial counterattack, they would use these bases to land, refit and refuel. However, while on the ground at these bases, American planes would be vulnerable due to a lack of effective radar facilities to detect a Soviet attack on overseas bases.³⁰⁸

As Sprague made clear, there were significant problems with the U.S. ability to launch a counter-attack from American soil. The IRBM program, with its focus on European deployment, would alleviate some of these issues. IRBMs deployed to Europe would provide a relatively quick and ready response force to a Soviet attack. Such a deployment would answer both the

³⁰⁶ Andrew Goodpaster, "Memorandum of conference with the President 7 November 1957", DDE Library, DDE Diary Series, Box 28, Folder Nov Staff Notes 57 (hereafter Conference with the President 7 Nov 57), 2.

³⁰⁷ Conference with the President 7 Nov 57, 1-2.

³⁰⁸ Conference with the President 7 Nov 57, 1-2.

domestic and international security concerns raised as a result of the *Sputnik* launch. IRBMs would provide a remedy for the inability of the U.S. military to adequately deter a Soviet attack on the continental United States as well as address the significant amount of money that the nation spent defending its Western European allies.

Eisenhower, in a letter to his close friend Swede Hazlett, written on 18 November 1957, commented on the fears he felt the American people held concerning *Sputnik* and the Soviet Union. He wrote that Americans worried about the supposed superiority of the Soviet Union. One problem Eisenhower identified in the letter was his inability to publicly speak about many of the things that would reduce Americans concerns.³⁰⁹

Eisenhower did not want to publicly discuss many of the coming advances in American military technology. Although this would give him some political relief from charges of his inaction in the wake of *Sputnik*, he did not think it was prudent to tip his hand to the Soviets. That was the burden of the Commander-in-Chief, he knew many secrets but if he used them for his short-term political gain he could endanger the future security of the United States. Eisenhower, of course, had the benefit of this crisis coming during his second term, so he did not have to face the problem of running on his record. However, this does not discount the fact that he showed great restraint in keeping intelligence secrets that would have made it easier to counter his critics who claimed he did not act forcefully enough to defend the United States.

This concern for public perception came up again during a phone call with Secretary of Defense Secretary McElroy concerning funding for guided missiles and the anti-missile weapon

³⁰⁹ Dwight Eisenhower, "Letter to CAPT Hazlett" DDE Library, DDE Diary Series, Box 28, Folder Diary Nov 57, 1-2.

system. Eisenhower thought the new figures were too high. He thought that the American people would infer that previous efforts were not enough, if the programs required such a dramatic increase in funding in the wake Soviet advances. The President also said that his science advisors related to him that the problem was not merely money and that significantly more money would not necessarily solve the technical problems facing these programs. The Defense Secretary countered that if the U.S. intended to deploy these weapons to its European allies, as well to the British, the budgets for missiles would have to increase dramatically.³¹⁰ This increased pressure for missiles in Europe came again the next day during a conversation with the Secretary of State. The President said that he had several people telling him that both the State and Defense Departments wanted to put missiles in Europe more quickly. Dulles agreed with the President that there was a need to speed up the planned deployment of guided missiles to Europe.³¹¹

IRBMs and ICBMs, at their inception, represented a way to reduce expenditures on costly ground forces. However, as the Secretary McElroy's concerns revealed, this was not true by the end of the decade. These weapons required significant outlays in defense spending and the administration was unable to fully realize its reductions in ground forces because of the political reasons discussed earlier. By 1957, the United States spent \$11.8 billion on military missile research and production, at a time when the entire defense budget was \$45 billion. This would be the equivalent of 90 billion in 2010 inflation adjusted dollars.³¹² However, Eisenhower could not change the paradigm of the New Look national security strategy because he spent too much political effort defining America's position in terms of technological advances relative to the

³¹⁰ Dwight Eisenhower, "Telephone Call to Defense Secretary Charles Wilson 21 November 1957", DDE Library, DDE Diary Series, Box 29, Folder Phone Calls Nov 57, 1.

³¹¹ Andrew Goodpaster, "Memorandum of conference with the President 22 November 1957", DDE Library, DDE Diary Series, Box 28, Folder Nov 57 Staff Notes, 1.

³¹² Roger Lanius and Dennis Jenkins, editors, *To Reach the High Frontier: A History of U.S. Launch Vehicles* (Lexington: University Press of Kentucky, 2002), 7.

Soviet Union. It would also go against his understanding of what the U.S. needed to do in order to succeed in preventing war and, if necessary, fighting a successful war in the atomic age.

The President presented more formal plans for advancing the deployment of IRBMs to Europe in a bi-partisan Congressional meeting on 3 December 1957, held at the White House. Secretary Dulles outlined 4 important points that the administration would present at the next NATO meeting. The first was an atomic stockpile that would be under the control of Supreme Allied Commander Europe (SACEUR), an American four-star general. No nuclear warheads would change hands but it would require the transfer of some nuclear capable weapons for training NATO forces. Dulles did not think that this required a change in the McMahon Act and he referenced a JCS report that outlined their justification for the program and why it fell in line with the current legislation.³¹³

The second issue that Dulles spoke about was the expanded program to offer IRBMs to all NATO nations that wanted them. This program, Dulles explained, was in accord with what the administration agreed to with the British at the Bermuda Conference earlier in the summer. It would require that the nations that wanted IRBMs to make the preparations, mainly to build the infrastructure to support the missiles, in order for the U.S. to agree to deploy them. The third issue brought up was the scientific research program, which would make a cooperative research initiative in order to make the most of the physical and intellectual resources in Europe for atomic research. This research would benefit every NATO member state and would be open to

³¹³ L.A. Minnich, "Bi Partisan Congressional Meeting Minutes 3 Dec 57", DDE Library, DDE Diary Series, Box 29, Folder Staff Notes Dec 57 (hereafter Bi Partisan Meeting 3 Dec 57), 3.

all of them. However, this nuclear research would not transfer any nuclear weapons technology; its intent was peaceful research and not to expand the number of nations with atomic weapons.³¹⁴

The final program discussed intended to improve the NATO nation's ability to manufacture "advanced weapons." This would not include the nuclear warheads of the weapons but just the actual delivery system or other conventional component of the weapon system. NATO nations would still rely on the U.S. for providing and authorizing the use of nuclear warheads, since by law the U.S. could not allow other nations to control American nuclear weapons.³¹⁵

These programs focused on NATO as a whole. However, the superior position of Britain became clear later in the discussion concerning nuclear weapons cooperation. Director of the Atomic Energy Commission, Lewis Strauss, told the Congressional delegation that the U.S. would not give away its most secret atomic designs. However, he did say that the administration may seek to change the legislation to allow this in some specific issues. One issue he wanted dealt with under an amendment was the acquisition of plutonium for France. This would allow President Eisenhower to offer some assistance to René Coty, the President of France, without giving the French concrete support in building a nuclear weapon. More importantly, Strauss said that the administration would seek an amendment to allow for more collaboration between the U.S, U.K, and Canada. This change would not apply to any other nations. This demonstrated that the effect of the Bermuda Conference on the strained relationship between the United States and

³¹⁴ Bi-partisan Meeting 3 Dec 57, 3.

³¹⁵ Bi-partisan Meeting 3 Dec 57, 3.

the United Kingdom. The special alliance continued and it influenced atomic cooperation between the two nations.³¹⁶

Strauss explained why Eisenhower wanted to improve the atomic cooperation between the British and the Americans. He told the legislators that the two nations' combined atomic stockpile greatly exceeded that of the Soviet Union. However, the lack of formal cooperation meant that both nations duplicated certain efforts. In order to make this relationship more effective and make the combined stockpile more efficient, the administration needed some legislative changes.³¹⁷

One of the final issues discussed was the influence of *Sputnik* on the defense budget. Secretary McElroy said that the launch did cause the administration to reassess the nature of its budget allocations. He continued that although the actual expenditures increased, in order to accommodate increased research and production of missiles. These increases would allow an eventual reduction in ground forces. He reminded the delegation that they should not think of the power of America's military only in terms of the number of soldiers. Rather, increased sophistication and striking power provided by new weapons would provide the same defense capability as older force structures.³¹⁸

At the end of the 1957, in the wake of *Sputnik*, Eisenhower still favored atomic weapons and that the paradigm of nuclear warfare as the dominant form of future wars was still foremost in the President's security plans. In light of *Sputnik*, defense spending increased but, as Secretary McElroy explained, Eisenhower continued to believe that this would allow future decreases in

³¹⁶ Bi-partisan Meeting 3 Dec 57, 4.

³¹⁷ Bi-partisan Meeting 3Dec 57, 3-4.

³¹⁸ Bi-partisan Meeting 3 Dec 57, 8.

defense spending. In the wake of the Soviet launch America's allies became more important. The IRBM program expanded to include any willing NATO nation and not just the U.K. However, the program extended to NATO nations would place the missiles inside European nations without the concessions concerning the control of the missiles that the British government received. This would answer the domestic security concerns that *Sputnik* raised as well as provide an opportunity for the President to restructure America's defense commitment to Western Europe.

President Eisenhower, in the aftermath of *Sputnik*, did not take dramatic action. He realized that many Americans perceived the Soviet advances as proof in the inadequacy of the U.S. in the technology and military power. However, he did not act rashly. Rather, Eisenhower chose to advance the only viable atomic weapons program that fit his understanding of what modern warfare would be, the IRBM. It was the only missile system the U.S. had available that had some hope of being ready relatively soon. It also had the range to attack targets deep inside the Soviet Union. The problem would be getting these weapons ready for deployment and in getting NATO nations, other than the U.K. to accept them.

Chapter 6: Anglo-American IRBM Agreement

In October of 1957, General Norstad went to the United Kingdom to play golf. This was not just a pleasure trip, he had a serious mission to accomplish while there. He needed to meet with the British minister of Defense, Duncan Sandys, to discuss the reduction of British NATO forces. The United Kingdom in the late 1950s wanted to reduce its foot print in Europe in order to save on defense costs. Norstad, who had been fighting the British ground force decrease since its inception a year earlier, came prepared to negotiate. He offered to work out a 3-year deal between Britain and West Germany to defray some of the costs of the British presence in Germany.³¹⁹

Unfortunately, Norstad's combined golf and diplomatic trip did not bear fruit. On the same day he traveled to the UK to discuss stopping the force cuts, the British Permanent Representative to the North Atlantic Council met with Henri Spaak, the Secretary General Designate of NATO, to talk about the withdrawal of more forces from NATO. This phase of the reduction would compromise 13,500 British troops. The British representative made it clear that the United Kingdom was not going to "contemplate any Deutschemark funds after March 31, 1958 for maintenance" of British forces based in Germany. Norstad's mission was dead in the water; he failed before he ever left.³²⁰

Britain, after World War II, had to find a way to balance its fiscal constraints and its defense capabilities. This problem continued to plague the United Kingdom throughout the 1950s. The British government wanted to develop a larger nuclear deterrent but could not do so if it had to maintain a large ground force. Also, with the dissolution of the empire, the economic

³¹⁹ Laurence Legere, "SACEUR Views on UK Troop Reductions and Support Costs," DDE Library, Norstad Papers, box 50, folder UK 56-569 (4), 8

³²⁰ Legere, 8.

situation of the British government continued to decline, making it more difficult to reconcile the competing interest of supporting NATO forces in Europe and providing a nuclear deterrent.

However, Britain had made some progress in its attempt to create a viable nuclear deterrent. Harold Macmillan secured the agreement between the U.S. and the U.K. to deploy Thor IRBMs to Britain. This would allow Macmillan to stop duplicating efforts in researching and creating a long-range ballistic missile that the United States already developed.

According the press releases in the United States and Britain, the first Thor arrived in Britain on 29 August 1958 and four months later the first of the four IRBM bases in Britain was operational. This was optimistic assessment of the IRBM program and British facilities. When the U.S.-U.K. command announced that the facility was ready to launch they did not admit that this process would require Douglas engineers to participate because of the lack of trained and ready airmen. Also the announcement did not disclose that the chances of a warhead hitting its intended target were little better than 50 percent. Defense Secretary McElroy demanded that the Thor be ready by the end of 1958 and he was successful, although not as much as the public announcement implied.³²¹

Getting the missiles to Britain was just as problematic as getting them ready to launch. The pilots transporting the missiles had to alter their descent in order to control the expansion of the Thor's fuel tanks due to the pressure changes. Also the inertial guidance system were so

³²¹ Peter, Portanova and Parker Temple, "Project Emily and Thor IRBM Readiness in the United Kingdom, 1955-1960." *Air Power History* Vol. 56. Issue 3 (Fall 2009)
go.galegroup.com.www2.lib.ku.edu:2048/ps/i.do?id=GALE%7CA208109166&v=2.1&u=ksstate_ukans&it=r&p=AONE&sw=w (accessed 25 OCT 2012), 34-38.

sensitive that technicians had to fly with them to monitor the temperature and power supply to the units to ensure that the flight did not damage them.³²²

Once on the ground the problems did not stop. Moving missiles through the United Kingdom was not an easy task. Trying to do it covertly was even more problematic. Although the specific sites of the future bases were secret, other information leaked out. *Flight* magazine released drawings of the facilities and equipment used to launch the missiles. In order to curtail espionage, the U.K. restricted the movement of Soviet diplomats but not those of other Eastern European nations. In addition to the concern of ground espionage, aerial reconnaissance was another weakness. Although far from conclusive, there were more coincidental navigation errors by Soviet airliners flying over the launch sites during construction.³²³

Project Emily, the name of the operation to deploy Thor IRBMs to Britain, had two major objectives, to affect a rapprochement between the U.S. and the U.K. and to redress the security imbalance between the U.S. and the Soviet Union in the wake of the launch of *Sputnik*. Deploying IRBMs to Britain required Eisenhower and his administration to resolve serious problems concerning national sovereignty, control of nuclear warheads, and how to authorize the use of such weapons. Unfortunately, few of these solutions would be relevant when Eisenhower decided to expand the scope of the deployment beyond Britain to include all willing NATO member states.

After the Suez Crisis, the relationship between the United States and the United Kingdom suffered strains. Also put under stress during the crisis was the alliance between France and the

³²² Portanova and Temple, 33.

³²³ Portanova and Temple, 34

U.S. The Bermuda Conference in 1957 did much to restore the relationship between the U.S. and the U.K. However, notably absent from the conference was France.

During the conference, President Eisenhower made an offer to deploy IRBMs to Britain. Under this agreement the British would own two squadrons each equipped with 15 missiles but the U.S. would maintain ownership of the warheads. Also offered was an expansion of Anglo-American cooperation in field of nuclear weapons research.

In response to the Soviet launch of *Sputnik*, President Eisenhower offered IRBMs to NATO as a whole. However, the character of the bilateral agreement between the U.S. and the U.K. was fundamentally different from the subsequent NATO agreement offered to the alliance. The Anglo-American agreement was outside of the NATO framework; it was purely a joint agreement between two nations each with independent nuclear arsenals. The other NATO agreements proposed by the U.S. were bilateral but still fell under NATO authority.

Two reasons for Eisenhower's offer of IRBMs to Britain revealed the differences between nations in the NATO alliance. One was that Britain already had its own nuclear weapons program. The other was the affinity that Eisenhower had for the British and the Anglo-American alliance. These two issues allowed Britain to become first among equals in the NATO alliance, relative to the other European nations.

Of course the Anglo-American alliance in World War II had a significant impact on Eisenhower's appreciation of the importance of the United Kingdom. However, the Suez Canal Crisis, while it did not threaten to end the two nations' cooperation, put the relationship between

the two under a great deal of stress. The offer of IRBMs was part of the process to repair the tension that the canal crisis created.

Britain, as the only other nation in NATO to have its own nuclear capability, saw the New Look defense policy framework as a viable path forward for balancing its security and fiscal needs. As Britain continued to define security in terms of nuclear power it sought to separate itself and the U.S. into the top tier of the NATO alliance. The unique bilateral agreement concerning IRBMs that the British and Americans agreed to supported this position. Eisenhower's conception of warfare in the atomic age and the New Look defense policy influenced Macmillan's defense policy and his government's white papers outlining British defense programs.

The Anglo-American IRBM agreement was one factor in the reconciliation between the U.S. and U.K. after the Suez Crisis, but it also created a two-tier alliance inside of NATO. The two nations with independent nuclear weapons occupied the first-tier of member states. Those nations without an independent nuclear capacity found themselves relegated to the bottom tier of the alliance. They had to accept the offer of IRBMs under NATO or not receive any IRBMs in their nation at all, which for some nations was not a problem.

In order to understand why Britain agreed to accept Eisenhower's offer of long-range guided missiles in 1957 it is important to know how nuclear weapons fit in the British national defense plan. In April of 1957, a month after the Bermuda conference, the British government published a white paper discussing how it intended to use these weapons. One of the key concerns in the white paper was limiting the British contribution to European defense. British

leaders, as outlined in the paper, understood that the security of the United Kingdom and Western Europe required cooperation.³²⁴

The white paper laid out the close association between Britain and its allies; it also discussed how Britain intended to fulfill its commitments to defending Western Europe. In the paper, the British would reduce their troop commitments by approximately 10,000 soldiers. Nuclear artillery provided to the remaining units would make up for this reduced combat power. The British implied that though they were withdrawing some fighting units they were not withdrawing any real combat power. Nuclear weapons would balance any reductions in manpower levels. This argument was similar to one that President Eisenhower made concerning his New Look security policy.³²⁵

According to the British policy paper, the United States protected Western Europe and other American allies through its nuclear deterrent. Britain, at the time, was unable to match the U.S. in quantity or quality of nuclear weapons. However, the white paper declared that it was important to the British government that it maintain an independent nuclear deterrent, although a considerably smaller one than that of the U.S. In the near future, according to the paper, the British would test their first thermonuclear weapon and so join the U.S. and the Soviet Union as the only nations in the world with that capability. Britain made good on this promise and tested its first thermonuclear weapon in May of 1957, declaring it was a first-rate atomic power.³²⁶

This focus on nuclear weapons was similar to that of the New Look defense policy. President Eisenhower's defense program put the brunt of the burden of national defense on

³²⁴ *Defence: Outline of Future Policy*. DDE Library, Norstad Papers, Box 78, Folder Sir Frank Roberts (3), 3. Hereafter *Defence: Outline of Future Policy*

³²⁵ *Defence: Outline of Future Policy*, 3.

³²⁶ *Defence: Outline for Future Policy*, 3.

nuclear weapons. So when Eisenhower offered IRBMs to Prime Minister Macmillan it meshed easily with the British need for a robust nuclear deterrent. The independence of Britain's nuclear force was unique in Western Europe. Eisenhower's offer of IRBMs did not challenge this independence. In fact, it would strengthen Britain's position by allowing it to own the missiles and possibly fit their own warheads to them in the future. This would cause significant problems with expanding the IRBM program to the rest of NATO because of the different terms offered to other member states.

One of the final sections of the white paper discusses cooperation with the United States on weapons programs, specifically guided missiles. It referenced an agreement signed in 1953 as the framework for this cooperation. However, this agreement was not as generous as the one codified in 1959 between the U.S. and the U.K.³²⁷ This later agreement implied that there were two-tiers to NATO membership, nations with nuclear weapons and those without them. The deployment of IRBMs to Britain, initially, and to Western Europe, later on, brought tension between the Anglo-American part of the alliance and France.³²⁸

In December of 1957, in conjunction with the NATO heads of government meeting, the U.S. created a working paper to determine its position on a joint decision making process for using nuclear weapons. The staff group stated that the U.S. position concerning the use of nuclear weapons was that they were a vital part of NATO's defense plans. In their paper, the group wrote that a nuclear attack would not always allow for a timely discussion of how to respond. If there were time to coordinate a response to such an event, the U.S, according to the

³²⁷ "Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of American for Co-operation on the Uses of Atomic Energy for Mutual Defence Purposes." http://www.nti.org/media/pdfs/56_4.pdf?_=1316627913 (accessed on 27 Jan 2012).

³²⁸ *Defence: Outline for Future Policy*, 9.

group, would collaborate with other NATO nations prior to any action. If this were not possible, the U.S. would then make its decision unilaterally and convey it to its allies at the soonest possible time after the retaliation occurred.³²⁹

From the opening of the working group paper it was clear that the U.S. did not intend to sacrifice the initiative in a nuclear conflict with the Soviet Union. If time did not permit for communication with its allies, the U.S. would act first and then seek approval after the fact. America's nuclear arsenal gave it the ability to dictate such stark terms to its allies. Member nations in NATO, especially those without their own nuclear deterrent, had little ability to deny the protection of America's atomic umbrella. They had to accept the terms that the U.S. offered because the cost, in both fiscal and political terms, of creating an independent nuclear arsenal was prohibitive and the majority of nations in the alliance could not afford to embark on such an expensive adventure, nor did the U.S. want them to develop independent programs.

One aspect of having joint possession of nuclear weapons, as the IRBM agreement would create, was having a joint decision making process in their use. One issue that the paper brought up was the bilateral relationship between the U.S. and the U.K. The closeness of this relationship was not a secret in NATO. However, the U.S. did not have a similarly intimate relationship with any other nation in NATO at the time.³³⁰

Expanding the relationship between the British and the Americans to include other NATO nations would make using nuclear weapons problematic. A nuclear attack launched from a joint base or using a jointly owned weapon required the approval of both member nations. If

³²⁹ Benson Timmons, "Working Group on NATO: Political Authority for Use of Atomic Weapons" DDE Library, Norstad Papers, Box 85, Folder Atomic Nuclear Policy 57-59 (2) Hereafter Working Group on NATO: Political Authority for Use of Atomic Weapons, 1-2.

³³⁰ Working Group on NATO: Political Authority for use of atomic weapons, 2-3

this type of agreement expanded to include all NATO nations, the working group argued that it would be impossible to launch an atomic attack in a timely fashion. Under such an arrangement, one veto could derail a quick response. The working group advocated that the U.S. adopt a position that would cement individual agreements between nations in NATO. This would avoid the problem of having one nation using a veto to prevent a retaliatory response launched from another nation. Each of these individual agreements would still fall under NATO and SACEUR.³³¹

A proposal discussed at the heads of government meeting that December was the concept of a NATO atomic stockpile. The stockpile would put atomic weapons in Western Europe under NATO control. However, the decision to release warheads for military action would come solely from the United States, since it would provide the atomic weapons to the stockpile. This meant that U.S. General Lauris Norstad, NATO Supreme Command, would be in control of the entire NATO nuclear arsenal. President Eisenhower, as Commander-in-Chief of the United States military, would have the authority to withhold such weapons, even if the other member nations disagreed. The working group stated that Eisenhower should make clear America's willingness to use atomic weapons and its trustworthiness to be the sole provider of NATO's atomic retaliatory capability.³³²

The exception to this would be the United Kingdom. Since the British maintained their own nuclear arsenal, the U.S. had no ability to stop them from using it as they saw fit. However, if the United Kingdom used nuclear weapons without American approval it would doubtless pay a heavy political price. This exception to unilateral use did not include any joint weapons

³³¹ Working Group on NATO: Political Authority for use of atomic weapons, 2-3.

³³² Working Group on NATO: Political Authority to use Atomic Weapons, 2

systems, such as the proposed IRBMs. At this time the U.K. had a fleet of strategic bombers and a newly tested thermonuclear warhead; it was a first-class atomic power in quality, although not quantity.

Nuclear testing was another area of tension within the alliance and the world during this period. The deployment of IRBMs was one way that President Eisenhower sought to reduce the Soviet threat to the United States. Suspending nuclear testing would provide another avenue to stop the arms race and at least maintain a manageable status quo in the Cold War, in terms of atomic capacity. Prime Minister MacMillan expressed his doubts about the efficacy of such a course of action in January of 1958.

He wrote to Eisenhower in January of 1958 to make his case against such a plan. He explained that such a ban would not serve British interests. The British could only support such a course of action if the United States were willing to alter its legislation to allow for the transfer of knowledge to the United Kingdom. Macmillan's concern for supporting a test ban was to limit the proliferation of nuclear weapons to other nations. Only if the U.S. offered its knowledge, would the sacrifice of improving British weapons be worth knowing that other nations would be unable to attain such devices. Proliferation continued to be a major concern for the Prime Minister and his government concerning American nuclear policy.³³³

Another problem that Macmillan had with the test ban treaty was the possibility that it could lead to a ban on nuclear weapons entirely. He did not think that this was a viable solution. Macmillan reminded Eisenhower that the Soviet Union had a large surplus of manpower

³³³ Glenn LaFantasie, general editor, *Foreign Relations of the United States*, Volume VII Part 2 (Washington D.C.: U.S. Government Printing Office, 1993), 796.

compared to the nations of Western Europe and the U.S. The Prime Minister wrote, "I would frankly fear a situation in which the Russians kept great armies and a huge submarine fleet easily mobilized and the West was deprived of our ready defense, the nuclear deterrent. You know as well as I do that neither the new world, nor the old, could permanently keep arms of a conventional kind to meet this kind of attack."³³⁴

Although the combined manpower of the NATO alliance was comparable to the Soviet Union the perception by Western leaders, as evidenced by Macmillan and Eisenhower, was that it would be ruinous to try to match the Soviets in conventional weapons. This perception reinforced the need to rely on nuclear weapons to correct the assumed disparity between the West and the Soviet Union military power. One problem with this was that it put nuclear weapons on a pedestal and made them prestige weapons. They were not only one aspect of national defense; they were the weapon that allowed the West to avoid complete militarization of society in order to maintain parity with the Soviet Union. Of course, there were some who did not ascribe to this theory; General Maxwell Taylor did not think that the overreliance on nuclear weapons was the right policy choice. However, he was unable to have much influence over national defense policy until President Kennedy brought him in as Chairman of the Joint Chiefs of Staff.

As a report to President Eisenhower and Prime Minister Macmillan later that year explained, the decision to launch jointly held atomic weapons would be between the two nations exclusively. In this report there was no mention of any NATO control for atomic weapons jointly controlled by the two nations. The President and Prime Minister would have to personally speak

³³⁴LlaFantasie, 797-8.

to each other in order to authorize a nuclear attack. This report did not include any weapons held by the U.S. outside the United Kingdom. It only included Royal Air Force medium bombers capable of carrying nuclear weapons, R.A.F. IRBMs under the bilateral agreement, and any American Strategic Air Command forces in the U.K.³³⁵

Expanding the IRBM deployment to all willing NATO nations would increase the force projection of the United States and improve the deterrence to Soviet attacks targeting Western Europe. One problem with the evolution of the program to include other nations was the relatively primitive nature of the Thor and Jupiter missiles offered. In a telegram from Amory Houghton, the American ambassador to France, he expressed several doubts that General Norstad had concerning the current state of IRBM development. Houghton wrote that new developments in the missile field would soon make the current IRBM systems obsolete. According to him, Norstad did not recommend increasing the scope of the deployment of first generation IRBMs too broadly because of the technological advances planned in the near future.³³⁶

First generation IRBMs suffered from accuracy problems and took a relatively long time to prepare for launch. If the warheads were not already fixed to the missile bodies the required for launch increased dramatically. If the warheads were on the weapons, the missiles still had quite a lengthy process to prepare for firing. It included rolling back the shelter, raising the missile, starting the guidance system, loading target data, fuelling the missile, transition electronics to missile power source, and finally authenticating the launch codes. In order to fully

³³⁵ Robert Murphy, "Report to the President and Prime Minister: Procedure for the Committing to the Attack of Nuclear Retaliatory Forces in the United Kingdom," DDE Library, Dulles Herter Series, Box 10, Folder June 1958, Hereafter Report to President and Prime Minister Concerning Use of Atomic Weapons, 1.

³³⁶ Amory Houghton, "Telegram From U.S. Embassy Paris 11 February 1958" DDE Library, Norstad Papers, Box 89, Folder IRBM (3), 1.

prepare a missile for action the entire process took approximately one to two days. Several missiles remained on a 30-minute readiness status for emergencies. The complete launch sequence, not counting previous preparation to bring the missile to its ready state took fifteen minutes.³³⁷

These complications did not stop the British from accepting the offer of these weapons. The proposed deployment of IRBMs to Britain also came with the offer of technical cooperation in the field of guided missiles as well as atomic weapons research. This would take longer to cement because of the legislative hurdles but it made the IRBMs problems, such as its liquid fuelled engines and long readiness time, less of an issue. Other NATO nations would not receive assurances of future cooperation in weapons research, primarily because of nonproliferation concerns. The two-tier NATO alliance determined which nations benefitted the most from the expansion of the American nuclear umbrella in Western Europe. It would make Britain more powerful, in relation to other non nuclear member states.

The United Kingdom's Permanent Representative to the North Atlantic Council (NAC), Frank Roberts, discussed the agreement between the U.S. and the U.K. concerning IRBMs in his statement about the upcoming British defense white paper to be published in February of 1958. The NAC was the senior political body inside of NATO. He told the council that the agreement between the two nations would be complete soon. He then alluded to the possibility that Britain

³³⁷ Stephen Twigge and Len Scott, *Planning Armageddon: Britain, the United States and the Command of Western Nuclear Forces, 1945-1964* (Amsterdam: Harwood Academic Publisher, 2000),111.

would develop its own IRBM system. This demonstrated the importance of American cooperation in the field of missile development.³³⁸

The promise of IRBMs, although they were of the liquid fuelled type, provided some breathing room for the British government. Having the missile under British control would also provide their scientists the ability to research and learn from them. Ambassador Roberts communicated to the council the British desire to maintain proficiency in the nuclear field. Eisenhower's New Look defense policy influenced British planning for national defense, as the white paper of April 1957, "Defence: An Outline for Future Policy", implied by putting more emphasis on atomic weapons and deemphasizing the importance of ground troops.

Roberts attempted to defuse some the criticism about Britain's withdrawal of soldiers from NATO defense forces by stating that the majority of the United Kingdom's defense allocations still supported conventional forces. However, Roberts told the council that strategic deterrent forces were the "decisive factor" in stopping a war with the Soviet Union. Although the British still supported conventional forces, if strategic weapons were the critical element in preventing a global war, it detracted from the assurances about the importance of the conventional forces.³³⁹

One reason Roberts gave for the necessity of nuclear weapons was the overwhelming superiority of Soviet manpower in relation to that of NATO. Conventional forces, according to Roberts, could only hold the line until a nuclear retaliatory strike stopped a Soviet advance.

³³⁸ Frank Roberts, "North Atlantic Council British White Paper Statement Prior to Publication 12 February 1958", DDE Library, Norstad Papers, box 78, Folder Sir Frank Roberts (3) Hereafter Frank Roberts Statement to NAC, 2.

³³⁹ Frank Roberts Statement to NAC, 2.

Without a large nuclear arsenal, there was little hope for the U.K. and its allies to defeat the Soviet Union in a future force-on-force conflict.³⁴⁰

Again, this undercut Roberts' assertion of the importance of ground forces in the defense of Western Europe. If the role of conventional troops was simply to hold the line until nuclear weapons stopped the Soviet horde in its tracks, then it would be increasingly distasteful for the British to commit their ground forces to such a mission. If Britain had the ability to substitute nuclear armed units, with fewer soldiers, in lieu of large conventional ground forces, there was little reason not to. Indeed, that was the rationale for the substitutions and withdrawals outlined in the previous white paper of April 1957.

Although Roberts tried to dampen concerns about the British withdrawals, the white paper he referenced did little to allay such fears. The white paper discussed the British view of the proper alignment of responsibility in manning the defenses of Western Europe. According to the United Kingdom each nation should contribute its most effective assets to the consolidated defense of NATO. Instead of trying to have each member nation contribute similar forces and then create a unified force out of the disparate units. The U.K, in the white paper, proposed assigning specific areas of contribution to each nation according to its capability. This would provide a more efficient way to create a defense force for Western Europe, according to the British.³⁴¹

Of course, if the British proposal became NATO policy it would allow the British to shift the burden of providing conventional forces to other member states. This would further cement

³⁴⁰ Frank Roberts Statement to NAC, 2.

³⁴¹ "Report on Defence: Britain's Contribution to Peace and Security," DDE Library, Norstad Papers, Box 50, Folder UK 56-59 (5), Hereafter Report on Defence: Britain's Contribution to Peace and Security, 4.

the two-tier element of the alliance. This would mean that the two nuclear powers in the alliance could dictate to the rest of the alliance their contributions to the defense of Western Europe. It would also put the United Kingdom in the same position as the United States. After the Suez Crisis, Britain's role on the international stage was diminishing. Redefining its contribution to NATO to focus on strategic weapons would increase the prestige of the United Kingdom and allow it to decrease defense spending as well.

The effect of the Soviet launch of its artificial satellite, *Sputnik*, also received mention in the white paper of February 1958. It referenced the satellite but stated that its advent did not upset the status quo. The white paper cited the guided missile capability of the United States as well as its strategic bomber force in deterring a Soviet attack. The benefit of missile attacks, according to the white paper, was that no effective counter to stop such an assault existed. The white paper implied that the most important part of the defense of NATO came from nuclear weapons, supplied mainly from the United States.³⁴²

In fact the white paper endorsed the use of nuclear weapons for preventative purposes. It stated that such a nuclear deterrent could continue for the foreseeable future, since the nuclear deterrent was such an effective way to control war. No political end was worth going to war when a nuclear conflict was a certainty. This was similar to Eisenhower's reasoning in justifying the policy of Massive Retaliation that was the foundation of the New Look defense policy.³⁴³

³⁴² Report on Defence: Britain's Contribution to Peace and Security, 1.

³⁴³ Report on Defence: Britain's Contribution to Peace and Security, 1.

Soviet power was also part of the discussion, not just the development of *Sputnik*. The Soviet Union had 200 active divisions, according to British estimates. This was an astounding sum when the British recently had to make the case to NATO to reduce its troop commitment by 10,000 because of financial constraints. The Soviet Union's superiority in soldiers, as interpreted by the Western allies, put the alliance in dire straits and made any conventional battle out of the question.³⁴⁴

Since the defense of NATO, at least in the perception of the United Kingdom, relied on the United States and its nuclear arsenal, it was important to organize the other member nations efficiently to balance with conventional assets the U.S. nuclear contribution. The paper stated that the alliance had to form a closer network of individual states. This would require Britain to balance its NATO obligations with its requirements for securing its empire. Maintaining equilibrium would require Britain to prioritize its commitments.³⁴⁵

While seeming to make the case for increased cooperation in security matters, the white paper also laid the foundation for a move away from intense coordination as well. Several pages later the white paper stated that Britain needed to work with the United States closely to use its independent nuclear force most effectively. This was a departure from the need to work together with NATO nations. The Prime Minister and his government wanted to move the U.K. from a dependent nation that relied on the U.S. to a partner nuclear power that coordinated with the United States. In reality, as noted earlier, Britain had no other option. The Soviet nuclear capability was too large for Britain to deter war alone.³⁴⁶

³⁴⁴ Report on Defence: Britain's Contribution to Peace and Security, 2.

³⁴⁵ Report on Defence: Britain's Contribution to Peace and Security, 4.

³⁴⁶ Report on Defence: Britain's Contribution to Peace and Security, 6.

In relation to the growing nuclear capability of the United Kingdom, the white paper continued by stating recent advances in British atomic weapons. It cited the increasingly large number of kiloton warheads that Britain owned. The Royal Air Force also started making megaton, or thermonuclear, bombs after successful testing at Christmas Island. The United Kingdom, as described in the white paper, was a nuclear power similar in type to the United States.³⁴⁷

Frank Roberts, in explaining the recently released white paper, told the North Atlantic Council that Britain would continue to reassess its defense contributions. He referred generally to new technological developments and said that this would allow the British government to take a “fresh appreciation and a new approach” to its defense policy. Roberts emphasized that these changes were not new. He reminded the council that the white paper released the previous year set the stage for these changes.³⁴⁸

This again revealed the influence of Eisenhower’s interpretation of war in the nuclear age and the New Look defense policy on the British defense strategy. The white paper released in April of 1957, communicated the ground forces cuts but promised to reinforce smaller units with larger atomic weapons. This would mitigate or eliminate any supposed weakness of the smaller units. Arming smaller units with more powerful weapons was similar to U.S. Army experiments with the Pentomic division in the late 1950s.³⁴⁹

Although the white paper was optimistic about nuclear cooperation between the United States and the United Kingdom, there were some issues concerning the IRBMs that remained

³⁴⁷ Report on Defence: Britain’s Contribution to Peace and Security, 5.

³⁴⁸ Frank Roberts Statement to NAC, 2.

³⁴⁹ Andrew Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam* (Washington D.C: National Defense University Press, 1986)

unresolved. Prime Minister Macmillan sent a letter to the President on 16 February 1958, concerning the IRBM agreement between the two nations. He wrote that he thought the agreement would become final in the next week. However, Macmillan did have some reservations about the agreement. He worried about the possibility that American personnel would operate the missiles instead of Royal Air Force personnel. He cautioned Eisenhower that if that were the case, the British people might not be enthusiastic about the deployment of the weapons. Neither leader brought up how these stipulations would translate to other European nations, such as France.³⁵⁰

In order to clear up any confusion about who would crew the missiles, the Prime Minister proposed the following text for the agreement, “The missiles would be manned and operated by the United Kingdom personnel, who will be trained by the United States Government for the purposes of this project at the earliest feasible date.” This proposed change, Macmillan thought, would make it unmistakable that the United Kingdom personnel would be in charge of the missiles.³⁵¹

Another concern Macmillan had concerned that of launch of the missiles in the event of an attack on a NATO ally. He worried that the current wording could mean that the weapons would be part of a retaliatory attack with no input by the British government. Macmillan’s proposed wording specifically stated that the United States and the United Kingdom alone would determine when and how to use the IRBMs covered under the agreement. He included references to Article V of the NATO treaty. This article covered any attack on a member nation. It stated

³⁵⁰ LaFantasie, 803.

³⁵¹ LanFantasie, 803.

that any member nation would consider an attack on an alliance state as an attack on itself.³⁵² However, Macmillan's proposed text stated that the U.S. and U.K. would interpret their joint decision in light of the requirements of Article V and did not say that the IRBMs would automatically be a part of any retaliatory attack. Again, neither Eisenhower nor Macmillan discussed how this interpretation of the role of IRBMs in defense of Western Europe would translate to the other nations in NATO.³⁵³

Until there was an operational squadron deployed, much of the concern about additional nuclear forces in NATO, and the IRBMs specifically, was speculative. In February of 1958, Secretary of State Dulles sent a proposed response to President Eisenhower answering questions that Prime Minister Macmillan raised about the IRBM agreement. Dulles had concerns about the political ramifications if U.S. Air Force personnel manned the missiles initially. Although the agreement fleshed out at the Bermuda Conference stated that Royal Air Force personnel would crew the missiles, they did not have the proper training and resolving their deficiencies push back any operational date. Dulles proposed telling the Prime Minister that the U.S. would tamp down any speculation that this was the case.³⁵⁴

Dulles continued his proposed response to the Prime Minister by stressing the need to get the missiles ready as soon as possible. He wanted the President to stress to Macmillan that both of their governments shared the desire to speed up the operational employment as much as possible. He continued that if this meant having U.S. personnel crew them temporarily it would not change the terms of the agreement concerning their use. Dulles referenced previous

³⁵² North Atlantic Treaty Organization, "The North Atlantic Treaty," http://www.nato.int/cps/en/natolive/official_texts_17120.htm (accessed 21 JAN 2012)

³⁵³ LaFantasie, 803.

³⁵⁴ John Foster Dulles, "Proposed Response to Prime Minister MacMillan 21 FEB 1958," DDE Library, Dulles Herter Series, Box 10, Folder February 1958 (1), Dulles Proposed Response to MacMillan 1.

agreements between the U.S. and the U.K. concerning Strategic Air Command bases. He suggested reminding the Prime Minister that the U.S. could not unilaterally launch the missiles even if U.S. personnel, not R.A.F. personnel manned them.³⁵⁵

The following day the President sent a reply to Macmillan. He agreed to the Prime Minister's proposed changes to the IRBM agreement. He reminded Macmillan that the U.S. and the U.K. maintained joint control over the weapons, as they did over Strategic Air Command bombers in the United Kingdom.³⁵⁶

Prime Minister Macmillan wanted no confusion about who controlled the IRBMs in Britain, this was he worried about British citizens' reaction to the temporary manning of IRBMs by American personnel. If U.S. personnel manned the missiles it would call into question the authority that the British exercised over the use of the missiles. However, if British personnel operated them from the beginning, even if the U.S. controlled the warheads, no launch could occur without British agreement.

Prime Minister Macmillan came to the United States for a meeting with President Eisenhower in June of 1958. Eisenhower expressed to Macmillan the importance of the Anglo-American relationship. He said that the two nations should work as closely together as was possible. Eisenhower told the Prime Minister that it was not always best that this cooperation be public. In fact, Eisenhower told him that, in some cases, the U.S. might have to take an opposing position publicly but that this did not indicate any real separation between the two nations.³⁵⁷

³⁵⁵ Dulles Proposed Response to MacMillan 21 FEB 58, 1-2;

³⁵⁶ LaFantasie, 805.

³⁵⁷ LaFantasie, 811-12.

Eisenhower, Dulles, and Macmillan discussed how the U.S. and U.K. should deal with France and General de Gaulle on 21 February 1958. Secretary Dulles summarized the position of the President and Prime Minister by saying that the two nations would deal with France in a three-party forum where there was precedent for this. In other areas, where there was no precedent, the U.S. and U.K. would deal with France through NATO with bilateral accords.³⁵⁸

This would have significant implications as France pursued nuclear weapons and the U.S. expanded the IRBM offer to other NATO nations. It meant that France would have to agree to NATO authority over any nuclear weapons agreement. Unlike similar accords with the British that fell outside of NATO authority. This put France in the second-tier of the alliance, mainly because it did not have an independent nuclear capability and neither the U.S. nor the British were keen that de Gaulle should realize his atomic aspirations.

The McMahon Act came up later in the afternoon. Secretary Dulles gave a report to the President and the Prime Minister concerning amendments to the legislation that would allow sharing of nuclear weapons research information. Dulles communicated that such joint action in atomic weapons research was critical to the United States. He said that the Joint Congressional Committee was able to secure adequate changes to the legislation, although not everything that the administration hoped for. Dulles encouraged the President and Prime Minister that the two nations should not wait for legislation to officially become law before linking British and American scientists together so they could start work as soon as possible.³⁵⁹

³⁵⁸ LaFantasie, 815.

³⁵⁹ LaFantasie, 816.

In August of 1958, prior to the deployment of IRBMs to Britain but after Eisenhower's offer of them to the U.K, Macmillan proposed the purchase of Thor missiles. These missiles would have British warheads and would provide a completely independent IRBM asset to the United Kingdom. Ray Thurston, the political advisor to General Norstad, wrote to Robert McBride, the State Department European Affairs Specialist, concerning the sale of Thor missiles to Britain. Thurston communicated to McBride that Norstad was uneasy about the purchase because it violated the spirit of the NATO IRBM program his command tried to begin in December of 1957.³⁶⁰

Although Eisenhower's offer of IRBMs to Britain meant that the U.K. did in fact own the missiles themselves, the warheads used on these particular missiles would be American. This meant that the U.S. would have a veto over whether or not the British fired the missiles and vice versa. However, the new proposal for the United Kingdom to buy Thor missiles was dramatically different. It would give the British an independent guided missile with no American control over its use. These weapons would not fall under any bilateral agreement concerning the employment of nuclear weapons that applied to restrictions of such weapons. The British would have to notify the U.S, in some cases, about the potential use of such weapons but that would be out of a courtesy and would not delay the actual firing of any British nuclear weapons.

General Norstad's doubted that the benefits of such a sale would be worth the costs of giving the United Kingdom such a capability with no America ability to check its use. The addition of guided missiles under independent British control was contradictory to Norstad's proposal to bring IRBMs deployed in Europe under NATO control. This was one of the

³⁶⁰ Ray Thurston, "Memo concerning British offer to buy IRBMs 28 AUG 1958," DDE Library, Norstad Papers, Box 89, IRBM (3), 1

differences between the Anglo-American agreement covering IRBMs and other bilateral agreements that Eisenhower offered to other NATO nations for IRBMs. The bilateral agreement between the U.S. and U.K. did not include NATO controls over the missiles. Other NATO agreements, although still in formative stages, would have some connection to NATO as a whole, even if this connection were only through their association with SHAPE headquarters.

General Norstad not only objected to the sale of Thor missiles to Britain, he also objected to the sale of Corporal missile warheads to the British. B.E.L. Timmons, the Director of the Office of European Regional Affairs, discussed this sale in a memo to Major General John Guthrie, Director of the European Regional section of the International Security Affairs in the Department of Defense. According to Timmons, Norstad's concern about the sale was that it would be bilateral and not involve NATO. General Norstad wanted to freeze the correspondence between the two nations about this issue until the U.S. had a final position on the sale. He did not think that sale fit Norstad's vision of a NATO atomic stockpile.³⁶¹

The U.S. delegation to NATO sent its assessment of the proposal to the U.S. State Department. Joseph Wolf, U.S. representative to NATO, wrote the communiqué. He first described U.S. policy concerning atomic weapons in Europe. He wrote that the position of the United States was to increase nuclear capability under Supreme Allied Commander Europe (SACEUR), who was General Norstad. This, according to Wolf, prevented any uncoordinated use of these weapons.³⁶²

³⁶¹ Benson Timmons, "Memorandum Concerning Transfer of Corporal Warheads 5 SEP 1958," DDE Library, Box 85, Folder Nuclear Policy 57-59 (2), 1.

³⁶² Joseph Wolf, "Regarding Deptel 775 UK Proposal to Purchase Thors and ALO 834," DDE Library, Box 89, IRBM (3), Hereafter Memo Concerning U.K. Proposal to Purchase Thors, 1.

Wolf continued to criticize the British proposal by discussing the problematic strategic implications. He wrote that if the U.K. attained these missiles it would create an independent thermonuclear capability. The fact that the British did not yet support the broader NATO program of researching a solid fuelled IRBM was an indication of its lack of commitment to the NATO atomic stockpile.³⁶³

The problem with Britain setting itself above other European NATO states because of its nuclear status is clear in this memorandum. Other European nations, in Wolf's words, would feel that they were "second class citizens" if the U.S. supported the sale of missiles to Britain. The NATO IRBM project needed to be the top priority, selling Britain its own fleet of IRBMs would imply that this was not the case.³⁶⁴

The IRBM agreement between the U.S. and the U.K. received specific mention in the memo. Wolf said that this agreement did not represent a viable model for broadening the scope of the IRBM deployment to other NATO nations. Citing the Anglo-American agreement about IRBMs exposed that the two-tier character of the organization, although informal, was already causing tensions in the alliance. The British possession of nuclear weapons was a large part of its status in the alliance. No other NATO nation would receive the unique type of bilateral agreement offered to Britain. It is important to understand that the agreement only offered the missiles, the warheads would remain in U.S. custody until firing. This was similar in structure to other NATO agreements offered later. However, these subsequent agreements would always come under NATO control.³⁶⁵

³⁶³ Memo Concerning U.K. Proposal to Purchase Thors, 1.

³⁶⁴ Memo Concerning U.K. Proposal to Purchase Thors, 1.

³⁶⁵ Memo Concerning U.K. Proposal to Purchase Thors, 1.

The communication also referenced the decrease in British contributions to NATO shield forces, the name for conventional ground forces used to deter Soviet attack. The British white paper of April 1957, explained the need to withdraw some troops from the shield forces for financial reasons. However, the British continued to increase the amount of money dedicated to strategic weapons, more than required under SHAPE agreements. Wolf argued that Britain's reluctance to contribute to the shield forces in favor of the strategic forces would inhibit other nations from meeting their requirements.³⁶⁶

In the 1950s, as well as today, nuclear weapons were prestige weapons. They bestowed great power status on any nation that possessed them. Hence, the pursuit of these weapons was not always logical or cost effective. Nuclear weapons, in some sense, made Britain less secure because the U.S.S.R. had to target these weapons once they knew of them. However, this did not detract from the prestige being one of the few nations in the world to have them.

Britain's focus on strategic weapons did have an impact on the larger questions of European security. However, from the British perspective, focusing on strategic weapons was what nuclear powers did. President Eisenhower made that clear through his New Look defense policy and his reliance on Massive Retaliation. President Eisenhower's policies demonstrated that nuclear weapons provided a more efficient way to defend the interests of a nation. Britain was the only other independent nuclear power in NATO, it was only reasonable that it followed the lead of the most powerful atomic nation in the alliance and not other non-nuclear states. Continuing down this path would increase tensions in the alliance, particularly between France, the United States, and the United Kingdom, as it became clear that nuclear weapons offered a

³⁶⁶ Memo Concerning U.K. Proposal to Purchase Thors, 2.

nation admission to the upper-tier of the NATO alliance. This made it appear that the British and Americans were denying France and de Gaulle great power status, this was intolerable.

There were other problems with the sale of Thor missiles to Britain that gave American policy makers pause. Wolf worried about the precedent that such a purchase would set. He called attention to other agreements in early stages with the governments of France, Greece, and Italy. Each of these agreements did not include bilateral controls over the IRBMs; these offers fell under NATO authority. If the British bought IRBMs, it would exacerbate any complications with other nations agreeing to the deployment of these missiles. Wolf brought up the French case specifically. He wrote that the French government sought an independent nuclear capability and the French could see the Anglo-American agreement and the sale of missiles as a model for future discussions. Allowing Britain more freedom by selling it missiles would encourage the French to demand similar concessions in its agreement concerning IRBMs, which as he already explained in the memorandum, the Anglo-American accord was not an acceptable framework for other European nations, including France.³⁶⁷

Wolf ended his memo with a warning about the overall effect on the entire NATO stockpile. He advocated that selling the British IRBMs for their independent use would inspire more emphasis on independent possession of atomic weapons in Europe. This would remove much of the enthusiasm for the stockpile idea. If this happened tensions in the alliance would increase.³⁶⁸

³⁶⁷ Memo Concerning U.K. Proposal to Purchase Thors, 2

³⁶⁸ Memo Concerning U.K. Proposal to Purchase Thors, 2.

Eisenhower and General Norstad intended the NATO stockpile to give European nations some control over the use of atomic weapons on the continent. Building an atomic arsenal was an expensive proposition, which only a few nations could hope to afford. If the situation in Europe devolved to an assembly of independent nuclear arsenals it would remove much of the resources that went to funding NATO shield forces. This devolution would fracture Eisenhower's attempts to build a unified European defense alliance. It would also set up a series of competing nuclear weapons programs by those few nations that could afford it. Those that could not afford an independent program would have to do that best they could. This would not be a recipe for a close and cooperative alliance.

In December of 1958, General Norstad alerted the Standing Group of NATO that Thor and Jupiter missiles would soon be available to Allied Command Europe. In light of the arrival of these weapons, Norstad encouraged NATO nations to start the production of advanced missiles. Norstad's call for a combined research program declared the American dedication to limiting the proliferation of nuclear weapons in Europe.³⁶⁹

In addition to the introduction of IRBMs to NATO, in April of 1959 General Norstad said that other atomic weapons programs were also coming that would improve the defense system of Western Europe. He told the North Atlantic Council that the Heads of Government meeting in 1957 approved multiple systems including Honest John rockets, aircraft, as well as the IRBMs. Each of these required separate agreements with each nation that agreed to accept them. However, each of these new agreements would still fall under the broader NATO defense

³⁶⁹ Lauris Norstad, "Statement to North Atlantic Council Concerning General Operational Requirement for ACE IRBM Weapon System," DDE Library, Norstad Papers, Box 89, IRBM (3) Hereafter Norstad Statement to NAC Concerning IRBM, 1.

system. He told the NAC that Allied Command Europe would have a stock of warheads for use irrespective of nationality.³⁷⁰

Although the U.S. would provide the warheads for different NATO nations to use in their defense, only the approval of President Eisenhower could release these warheads. This was an important distinction between the Anglo-American agreement and the NATO stockpile agreement. The British, with their own nuclear stockpile, had their own independent retaliatory capability outside of the IRBMs offered by the U.S. Also, the British, at this time, sought to develop their own IRBM system, either through purchase or research and development. Britain was in a league of its own concerning atomic capability in Western Europe.

General Norstad explained to the NAC how these weapons would come to the individual member states and what agreements would cover their use and deployment. He said that each nation would enter into two different bilateral agreements. The first would agree to the stockpile placement or weapons deployment in the territory of the nation. The second would allow for the release of some atomic data from the U.S. to the subject nation. This data was technical in nature and more for planning purposes, not research information, or specific weapons design information.³⁷¹

The release of this type of data would help the nation plan to use the atomic weapons. It did not require a change in the McMahon act as the research and development agreement with

³⁷⁰ Norstad Statement to NAC Concerning IRBM, 1.

³⁷¹ Norstad Statement to NAC Concerning IRBM, 2-3

the U.K. required. Norstad told the NAC that the second agreement allowed for the nation to have “full atomic capability.”³⁷²

The problem with Norstad’s characterization of the second agreement lay in its intention. Since the release of the technical data did not require changes in the McMahon act, it did not fall under the restrictions placed on scientific development information concerning nuclear weapons. This meant that this data, although helpful in planning purposes, was not effective in developing future nuclear weapons. In this light, Norstad’s offer of nuclear weapons, to include IRBMs to Allied Command Europe, was a move to limit nuclear weapons proliferation. General Norstad as the senior American commander would still be the primary authority for releasing the weapons to individual nations, although officially it would come from President Eisenhower.³⁷³

Again this was different in character than the British agreement. President Eisenhower had to communicate personally with the Prime Minister in order to give approval. Since the weapons discussed by General Norstad would fall under NATO control, the President could authorize General Norstad to give approval for their use. This was not just a technicality. It represented Britain’s level of importance in the alliance. The President had to explain his case directly to the Prime Minister in the event of a nuclear attack. This was not the case in the other agreements presented to NATO. Of course, if the individual nations disagreed with the decision to launch an atomic strike there is little doubt that President Eisenhower would then have had to discuss this issue with the head of state the urgency of the situation, but only if required.

³⁷² Norstad Statement to NAC Concerning IRBM, 3.

³⁷³ Norstad Statement to NAC Concerning IRBM, 3.

Another important difference Norstad discussed was that of financing the infrastructure and development of nuclear weapons for NATO. In his address, he commended the NAC for their respective nations taking the responsible path of sharing the burden of paying for building nuclear storage sites. He hoped that this would continue as NATO started to develop its own IRBM program. Norstad said that he believed such weapons should provide protection for all of Western Europe and not just individual nations in the region.³⁷⁴

This raised another issue concerning the European IRBM program. Paying for something implied a certain amount of ownership or at least an interest in the use of a weapon system. Only Britain and the United State paid for the IRBMs stationed in the United Kingdom. This meant that there was little leverage any other European nation could use in controlling such weapons. On the other hand, with the NATO IRBM program if every Western European nation in the alliance paid for a portion of the weapon system it would be impossible to exclude any paying nation completely from discussions about their use.

Norstad did reference the Anglo-American IRBM agreement in his statement to the NAC. He implied that the agreement was similar in terms to what he was offering the other NATO nations. He explained that the U.S. was now negotiating agreements of the same kind with member states in the alliance. As shown above, this was not the case. There were striking differences between the type of agreement offered to Britain and those offered to the rest of the NATO alliance.³⁷⁵

³⁷⁴ Norstad Statement to NAC Concerning IRBM, 4-5

³⁷⁵ Norstad Statement to NAC Concerning IRBM, 4.

Much of the differences between the two types of agreements stemmed from the British possession of an independent nuclear capability. This allowed them certain exemptions from the political agreements that covered the deployment of IRBMs. The unique terms of the British agreement allowed subsequent cooperative nuclear weapons research between the U.S. and the U.K. Nuclear weapons provided not only military benefits but also political and psychological benefits when it came to control of nuclear weapons deployed in Western Europe and nuclear weapons research cooperation with the United States.

The introduction of IRBMs to NATO caused concern in Britain. Walworth Barbour, Deputy Chief of the U.S. Mission in London, sent a telegraph to the State Department on 14 August 1959 outlining some of these issues. Richard Powell, the Permanent Secretary in the Ministry of Defense, brought up the main concern of Prime Minister Harold Macmillan, which was the expansion of nuclear weapons on the European continent. Powell reminded Barbour that the U.S. and U.K. agreed “at Bermuda to ‘drag feet’ as effectively as possible on the creation of a fourth country nuclear capability.” Secretary Powell wanted to ensure that the U.S. was still standing by this policy. Powell communicated that Macmillan worried that the NATO IRBM program would erode the proliferation policy agreed to in Bermuda.³⁷⁶

The agreement between Eisenhower and Macmillan did not lead to any overt action. The consensus did influence how Eisenhower approached the issue of France and nuclear weapons. The offer of IRBMs under American ownership would not meet the conditions the de Gaulle set for deploying nuclear weapons on French territory. However, Eisenhower, in the spirit of limiting nuclear proliferation, did not want to offer to France key technology or weapons that

³⁷⁶ Walworth Barbour, “Telegraph to State Department 14 August 1959,” DDE Library, Norstad Papers, Folder Atomic Nuclear Policy 57-59 (1), Hereafter Barbour Telegraph to State Department, 1.

would bring about an independent French nuclear program. Eisenhower did not seem to anticipate what this rejection would do to de Gaulle's perception of France's position in the alliance.

Powell cautioned Barbour that the possession of missiles could possibly lead to clamoring for ownership of warheads as well. The Prime Minister, according to Powell, did not want to have to explain the independent possession of nuclear weapons by France or Germany to his people. Powell wrote that, in the British estimation, the NATO IRBM program exacerbated the proliferation problem in Western Europe, which would cause problems with the Soviet Union as well if it expanded to West Germany.³⁷⁷

Macmillan and other senior British leaders understood the problem of possessing the missiles but not the warheads. In the Prime Minister's estimation, as communicated by Richard Powell, missiles would eventually open the door to warheads, which would then beget independent nuclear nations in Western Europe. Any expansion of the nuclear weapons, especially outside of the NATO framework offered by General Norstad, stood to undercut the British position of being the only other independent nuclear nation in the alliance, except the U.S. Although France had a nuclear weapons program, it did not yet have a successful test. As seen by the British Permanent Secretary's position concerning the NATO IRBM agreement, the Prime Minister wanted to delay this as long as possible.

Powell told Barbour that the Prime Minister would support the U.S. and its position. However, Macmillan thought that the best course of action was to choose either to delay the expansion of nuclear weapons, including the NATO IRMB program, or to put as much emphasis

³⁷⁷ Barbour Telegraph to State Department, 1.

behind the program as possible to ensure its success. The Prime Minister preferred to push back the expansion of IRBMs to Western Europe but in the end would fall in line with the American decision.³⁷⁸

Macmillan communicated his reservations to Powell concerning France and nuclear weapons. The Prime Minister did not think that the French would be amenable to the NATO program. Instead he argued that the French would demand a joint decision making process between the senior alliance members, including the U.S. This would mean that France, if the British Minister was correct, wanted to impose its authority on the employment of IRBMs in Britain and not just IRBMs deployed to France under NATO control. This would put France in the same league as Britain, although France did not have a successful independence nuclear weapons program. However, as General Norstad explained, the NATO IRBM program did not impact the Anglo-American IRBM agreement. The situation would change in 1960 when France had its first successful nuclear test but it would still take until the middle of the 1960s until France had a viable nuclear arsenal.³⁷⁹

Macmillan's concerns about France betrayed the differences between the NATO IRBM program and the bilateral agreement with the United Kingdom. Macmillan did not want de Gaulle to pressure Eisenhower into agreeing to a joint decision making agreement concerning nuclear weapons. This would remove Franco-American IRBMs from NATO control and put them in the same category as the Anglo-American IRBMs. Again, the possession of nuclear weapons had political ramifications. The Prime Minister did not want to expand the joint decision making process concerning atomic weapons to include any other nation.

³⁷⁸ Barbour Telegraph to State Department, 2.

³⁷⁹ Barbour Telegraph to State Department, 2.

Nuclear weapons provided political leverage. Possession of an independent atomic arsenal, as well as Eisenhower's affinity for the United Kingdom and its Prime Minister, allowed Britain to move into the top-tier of NATO. The two-tier system in NATO raised tensions in the alliance. It conveyed the importance of a state having its own nuclear arsenal. Britain and the United States created policies to limit the proliferation of nuclear weapons and cement the split nature of NATO in the late 1950s. By 1959, there was some sense in NATO, from General Norstad's staff, that the special relationship between the U.S. and the U.K. was problematic. The IRBM agreement between the two nations, which the British unsuccessfully tried to expand to include the purchase of an independent Thor force for the R.A.F, carried a heavy political price.

Chapter 7: Unintended Consequences

After World War II, French leaders faced similar problems as British leaders. Post war French premiers, Vincent Auriol, Rene Coty, and Charles de Gaulle, had to contend with a crumbling empire and a diminishing role on the global stage. Almost immediately after the cessation of hostilities in World War II, French soldiers deployed to Indochina to restore French hegemony in the region. They were not received warmly and so France was the one of the first NATO nations to spill blood in the Cold War.

As the Cold War continued and Arab nationalism began to expand through North Africa, the conflicts moved closer to France. By 1954, Algeria rose up in rebellion. Putting down this conflict required substantial effort in manpower and material, it also cost France much in the public eye. However, this was not the only problem that Coty and de Gaulle struggled with through the 1950s.

Gamal Abdel Nasser threw gasoline on the fire of decolonization with his nationalization of the Suez Crisis. As shown previously, France desperately wanted to stop Nasser from succeeding in his attempts to dictate terms to the European powers. Coty, the French president during the crisis, learned how the lack of nuclear weapons deprived him of the ability to deal with the United States on equal terms. Due to the Algerian war and popular unrest about French actions in quelling the uprising, Coty would not have the opportunity to remedy the problem.³⁸⁰

General Charles de Gaulle picked the torch from Rene Coty and led France in the wake of the political turbulence that unseated the Fourth Republic. De Gaulle took the pursuit of independent French nuclear weapons to a new level. These weapons were not just for national

³⁸⁰ Kenneth Perkins, "Pressure and Persuasion in the Policies of the French Military in Colonial North Africa." *Military Affairs*. Vol. 40 Iss. 2, April 1976, 1226.

defense, they would be part of the French national identity. A powerful nuclear arsenal would show that France was worthy of great nation status. France detonated its first nuclear weapon in 1960 on a test range in Algeria. Although the test was successful it was clear that time was running out on France's desert testing facilities. General Ailleret, commander of the Special Weapons Section, reported two years earlier that the Algerian site was too problematic for long-term use.³⁸¹

Domestic and colonial concerns were not the only thing that hamstrung de Gaulle in his rush to develop an independent French nuclear force. His allies, Eisenhower and Macmillan, worked to passively frustrate French nuclear efforts. At the Bermuda Conference in 1958, the American and British leaders agreed to delay French efforts to gain nuclear weapons in order to stem the proliferation of atomic arsenals in Europe.

During the planning of the deployment of IRBMs to Britain, Eisenhower made the decision to expand the program to other NATO nations. His intent was to ensure that all of America's allies had access to the security of America's nuclear umbrella. The problem with the expansion of this program was that the framework of the Anglo-American agreement offered little guidance. The U.S.-U.K. IRBM agreement provided for concessions that would not be available to other NATO nations. This was particularly galling to de Gaulle who did not think that his nation deserved such second-class status.

President Eisenhower made the offer of IRBMs to Britain in the wake of the Suez Crisis. This was a bilateral agreement that put the missiles directly under British control but the warheads remained under American control. It required the approval of both the British Prime

³⁸¹ Perkins, 1228.

Minister and the President of the United States in order to launch the missiles. This was fundamentally different from the offer of IRBMs made to the NATO alliance in 1958. This agreement put the missiles under the authority of NATO, specifically SACEUR, with bilateral agreements with each nation that agreed to accept the weapons. The weapons offered to NATO would be part of the joint defense plan for the alliance; the missiles offered to the British did not fall under NATO authority.

In early 1958, the United States offered to NATO nations the ability to cooperate in the defense of the alliance by housing atomic material in their nations. This would be under the atomic stockpile agreement. The nations would not actually own the warheads. They would operate under the broader defense plans of NATO, headed by SACEUR General Lauris Norstad. France, under Rene Coty, seemed receptive to such an agreement.³⁸²

Intermediate Range Ballistic Missiles were a part of the overall stockpile policy. The intent was to get these weapons deployed to European nations in order to bring the alliance closer together and prepare it for a combined nuclear weapons program. General Norstad's judgment of the French position, as described in a telegram by John Tuthill the Minister for Economic Affairs at the American Embassy, was largely positive. Tuthill conveyed to John Foster Dulles that Norstad looked for France to set the example for deploying IRBMs to Allied Command Europe (ACE). After the French agreements moved through the approval process in the North Atlantic Council, the U.S. would discuss IRBMs with Italy and other willing NATO

³⁸² John Tuthill, "Telegram from Thurston to SECSTATE," DDE Library, Norstad Papers, box 87, folder France Problems 58-59 (3), 1. Hereafter Telegram from Thurston to SECSTATE

nations. At the time, General Norstad referenced the Anglo-American bilateral agreement as a possible framework for a Franco-American agreement but made no promises about this.³⁸³

At the time of General Norstad's talks about deploying IRBM to France, President Coty was receptive to including his nation in the larger NATO defense framework. The Anglo-American agreement did not incorporate the IRBMs in Britain into the broader NATO defense. They were de facto a part of the defense structure, in that they did help provide some deterrent value for Western Europe. However, these weapons fell under British and American joint command, with specific requirements for their deployment. Specifically, in order to launch these weapons, the United States President and the British Prime Minister had to communicate and agree on their use.

In a meeting between Ambassador Crouy-Chanel, General Norstad, and General Ely concerning the proposed IRBM deployment to France, the discussion shifted to who would own the missiles. Ambassador Crouy-Chanel communicated that the French position was that France would eventually want some ownership over the stockpile. However, the French government did not want to make this a serious issue at the time. General Norstad agreed that the U.S. and France would have to come some understanding about how these weapons would fall into a defense plan, whether through NATO or failing that a bilateral agreement covering the weapons between the two nations.³⁸⁴

General Ely asked how France would control these weapons. Norstad said that, under his plan, two or three squadrons would fall under French authority. There would be an American

³⁸³ Telegram from Thurston to SECSTATE, 1-2.

³⁸⁴ John Tutill, "Telegram 10 Jan 58" DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (3), 1. Hereafter Telegram 10 Jan 58

officer on the French staff who would be the liaison between the two governments. This was a similar arrangement to that of the Anglo-American agreement.³⁸⁵

General Ely continued by discussing the production of future weapons by Europe as a whole. These more advanced IRBMs would use solid fuel. General Norstad told Ely that the American position was that a European IRBM program was the best solution. He reminded Ely that the United Kingdom already had a lead in that particular technology.³⁸⁶

What General Norstad did not say was that the British were hesitant to abandon their own solid fuel IRBM for a combined European program. As discussed earlier, the British possession of an independent nuclear weapons program allowed the nation to have greater prestige in the alliance. If it abandoned its own independent program for a pan-European nuclear program it would have to lose some of its prestige and admit it could not continue to improve its independent nuclear program without European support due to the increased fiscal strain of improving its nuclear arsenal.

Another issue with using the Anglo-American IRBM agreement for a framework for a French accord was that it was still under development. Dulles, in response to Tuthill's telegram on 10 January 1958, reminded him that the U.S.-U.K. agreement was not final. The Secretary told Tuthill that the Anglo-American IRBM agreement, because it was not final, would not be a good framework for a Franco-American pact. However, Dulles was in general agreement with Norstad's proposals concerning the developing situation concerning IRBMs in France.³⁸⁷

³⁸⁵ Telegram 10 Jan 58, 1

³⁸⁶ Telegram 10 Jan 58, 1

³⁸⁷ John Foster Dulles, "Telegram from Dulles to Paris," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (3), 1

By the end of January 1958, France made its position clear about the IRBMs. French Ambassador Crouy-Chanel said his government wanted the IRBMs deployed to France. He told General Norstad that the government wanted to start to lay out specifics of an agreement the following week.³⁸⁸

French cooperation in the Allied Command Europe IRBM program in early 1958 came with few conditions. The government did not state any specific needs or concessions on the part of the United States in order to get the approval for deploying these missiles inside of France. President Coty and Ambassador Crouy-Chanel wanted to conclude the agreement to deploy IRBMs as soon as possible and did not want to set up any roadblocks that delayed this.

Although the discussions concerning the NATO atomic stockpile and the deployment of IRBMs to France seemed to be going smoothly, there were some signs of trouble. The First Secretary of the French Embassy, Russell Fessenden, wrote to General Norstad about his concerns with the proposal. The French National Defense Committee had to meet to approve any agreements concerning the atomic stockpile or IRBMs. In order to accept the proposed NATO plan, the committee would have to reverse its previous stance on this issue. Fessenden wrote that the French Foreign Office hoped that the committee would adopt a helpful policy concerning atomic issues. The office wanted to encapsulate the stockpile and IRBM proposals into one document in order to make this easier. However, the National Defense Committee still had the approval authority; nothing could proceed until it gave its ascent.³⁸⁹

³⁸⁸ Amory Houghton, "Telegram to SECSTATE 23 Jan 58," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (3), 1.

³⁸⁹ Russell Fessenden, "Fessenden Memorandum for Record 31 Jan 58," DDE Library, Box 87, folder France Problems 58-59 (3), 1. Hereafter Fessenden Memorandum for Record 31 Jan 58

Another unsettling issue Fessenden brought up in his memo was an Associated Press story reporting that some members of the defense committee wanted to slow down the proposed atomic agreements between NATO and France. The news story claimed that some inside the committee hoped to get some concessions from the United States or NATO in order to grant approval of the atomic agreements. If this were true, the French IRBM program would not receive unanimous approval inside the defense committee and could end up dividing a fragile government in France.³⁹⁰

The process for getting French approval would not be free of obstructions. Adding to this trouble was the fact that the National Defense Committee would have to go against precedent in approving the deployment of foreign weapons to France. Getting approval from the entire French Government would not be as easy as it seemed. France, during this time, was working on its own nuclear weapon. As this project advanced, it would make getting an agreement between NATO and France concerning IRBMs more difficult. Since the NATO framework differed fundamentally from that of the Anglo-American agreement concerning IRBMs, getting France to agree to a second-class status in NATO would become impossible if the metric for determining status in the alliance became possession of an independent nuclear weapon.

The French atomic program was making steady progress in 1958. A group of French military officers led by General Buchalet came to the United States in February of that year. The group intended to study how to conduct atomic test, measure the data, and effectively analyze the results. The commission witnessed an American nuclear test at the Nevada testing site. Buchalet told Horace Torbet, Director of Western European Affairs for the State Department, that his visit

³⁹⁰ Fessenden Memorandum for Record 31 Jan 58, 1.

would save the French Government millions of dollars. Buchalet continued by stating that France would be able to use procedures developed by the Americans instead of having to research and create the same techniques on their own.³⁹¹

Atomic testing was not the only subject Buchalet discussed with Torbet. According to the general's conversation, Torbet believed that the French would have a successful atomic test soon, although he did not specify a date. One thing holding up the French testing was the lack of plutonium. Buchalet conveyed to Torbet that the weapons testing had to take a backseat to nuclear testing for energy purposes, since this did not destroy the radioactive material the way that testing bombs did.³⁹²

If France's atomic weapons program was successful, it would give French leaders more leverage in promoting France as a leading member of NATO. It would possibly improve France's ability to craft bilateral agreements similar to the Anglo-American pact concerning atomic weapons, assuming cooperation from the United States. An independent nuclear weapons program would give France more strength in arguing for concessions that were the same as the Anglo-American IRBM agreement in its bilateral agreement with the U.S. However, this would mean that the weapons would not fall under NATO directly, detracting from the NATO stockpile plan that Eisenhower championed. It would also make clearer the power of independent nuclear weapons programs in determining status in the alliance. This could possibly lead other nations to want an independent weapons program of their own. However, as long as France did not have its

³⁹¹ Ronald Landa, general editor, *Foreign Relations of the United States*, (Washington: United States Government Printing Office, 1993), 3 (Hereafter FRUS)

³⁹² FRUS, 3.

own atomic weapons, it could not hope to be in the top-tier of the NATO alliance, unless the metric for judging within the alliance power changed.

While the French government seemed stable and cooperative, under President Coty, the U.S. offer of IRBMs received a positive reception. Through the beginning of 1958, the French government accepted the proposal as it came. It did not offer many amendments, although there were rumors of problems for the agreement in the National Defense Committee, the French President, at the time, wanted to make this agreement final as soon as possible. However, the coming instability of the French government would change American enthusiasm for the deployment of IRBMs to France. The rise of Charles de Gaulle to lead the new government would destroy any hopes of including France in the ACE IRBM deployment.

In addition to concerns about the impending successful test of a French atomic weapon, there were other concerns about France's position in the international arena. John Foster Dulles, in a telegram to the West German Chancellor, Konrad Adenauer, covered some of the Secretary's chief worries. He wrote that the ability of the French government to maintain its influence in North Africa worried him. Dulles compared France's position in North Africa to that of its predicament in Vietnam in 1954. He did not think that the France would be able to summon the will to continue to forcefully impose its will in the Maghreb. This would mean France would have to accept its status as a post-colonial power.³⁹³

Dulles continued with his telegram by discussing the possible implications of French war weariness from its North African conflicts. If they continued to fight such a conflict, Dulles worried that that it would lead to political instability in France. The possibility that the ruling

³⁹³ FRUS, 4-5

French government would have to reach out to French Communists for support to remain in power disturbed him because it would make communism more powerful in an influential Western European nation. This, Dulles feared, could undermine NATO in Western Europe. He compared the threat of a Communist resurgence in France to the left-wing of the government bringing down the European Defense Community during the Indo-China conflict earlier in the decade.³⁹⁴

France, although a democracy and a part of NATO, struggled with an influential Communist political party in the nation and any instability could provide enough opportunity for it to become more powerful. Dulles' worries about the stability of the Coty government were indicative of the doubts about the possibility that soon American and French interests would diverge. This would call into question the advisability of giving France nuclear weapons or storing them there under any agreement. If France did come under a Communist government, or a government that included a significant Communist presence, the rest of NATO would then face a French nation armed with atomic weapons that was possibly sympathetic to the Soviet Union. Communist could have functioned in the French political system just as other parties did. In the 1950s, Americans were paranoid about Communism, making any possibility of a communist electoral victory a serious security concern.

This fear of instability in France came to fruition of April of 1958. Prime Minister Felix Gaillard resigned after the bombing of a Tunisian village, which part of the French effort to secure its colonial holdings in North Africa. Christian Pineau, the French Foreign Minister, invited Armor Houghton and other State Department officials to a discussion about the

³⁹⁴ FRUS, 4-5

implications of the recent fall of Gaillard's government. Pineau told the U.S. delegation that many in the French government felt that the U.S, after the Suez Crisis, abandoned the nation. Pineau continued by telling Houghton that Eisenhower's recent visit to Paris did help heal the rift somewhat but that there was still some resentment.³⁹⁵

Armory Houghton described the turmoil in France with the lack of a government in a telegram to the State Department on 14 May 1958. Houghton described the problems both domestically and in the colonial areas of North Africa. In the Maghreb, the Algerian situation, according to Houghton, could inflame support for the Communists. If the French were unable to bring the conflict to a quick resolution, it would give to the communist party, the Labor Union Popular Front, an opportunity to increase its political influence. He wrote that the Communists continued to try to turn every event to their profit and continued to be a threat.³⁹⁶

During this turmoil Charles de Gaulle seemed to draw ahead of those jockeying for control of France. According to Houghton, de Gaulle's path to leadership in France became clearer every day. He continued to gain support as many began to see him as the only viable person to lead the Republic. Houghton closed his telegram with a serious warning. He cautioned Dulles that the struggle in France had high consequences. The winner in this conflict would lead the nation.³⁹⁷

By May of 1958 it was clear that de Gaulle would be the new French Prime Minister. Houghton sent a telegram to the Secretary of State describing the initial steps de Gaulle wanted to take to restore stability. He would dismiss the French Assembly for six months, with the

³⁹⁵ FRUS, 6.

³⁹⁶ FRUS, 8-9

³⁹⁷ FRUS, 8-9.

option to extend it to a year, and would rule by committee until there was a new Assembly. Regarding NATO, de Gaulle would accept that the alliance was a part of the defense of Western Europe. However, he believed that France should play a larger role. De Gaulle wanted France to have a bigger part in planning and organizing the defense of Western Europe; he did not want France to only act at the behest of the United States. Ideally, de Gaulle wanted to build a community of European nations around France. He did not see France's role as a partner nation, rather he thought it should lead Europe. This claim about the importance of France in Europe was one that French leaders have made for centuries and was one of the causes for continuous war in Europe.³⁹⁸

De Gaulle's intentions for France domestically were not too troubling, at least as it concerned U.S. interests in the region. But the French leader's designs for NATO and reorganizing the alliance required a shift away from the two-tier structure established by the Anglo-American IRBM agreement. De Gaulle wanted a more prestigious position in the alliance for France. He did not think that NATO, in its contemporary form, adequately accounted for France's importance to the defense of Europe.

The problem was that the two-tier structure centered on nuclear cooperation and independent atomic arsenals. France, while it did have an atomic program, did not have an atomic weapon yet. Eisenhower and Macmillan did not want France to join the atomic tier of NATO. Both concluded that they could not actively stop France from pursuing nuclear weapons but neither should their nations help France attain an independent atomic capability. De Gaulle's

³⁹⁸ FRUS, 21.

intentions for NATO, specifically France's role in the alliance, conflicted with Eisenhower and Macmillan's appraisal of French importance in the alliance.

This issue came up in a preparatory memorandum for John Foster Dulles in advance of his meeting with de Gaulle in July of 1958. Burke Elbrick advised Dulles that the primary purpose of his upcoming discussion should be to declare the importance of de Gaulle in the relationship between the France and the U.S. He told the Secretary that restoring personal contact and improving the relationship between the two men was a vital part of bettering the Franco-American alliance. Elbrick cautioned Dulles that de Gaulle's focus on French prestige and his "anti-Americanism" were potential obstacles he needed to be aware of.³⁹⁹

Next on Elbrick's list of concerns was the impact of an atomic France. He outlined the two issues that formed the foundation for de Gaulle's atomic designs. Elbrick wrote that the French premier wanted to make sure that America treated France as an equal nation relative to the U.K. Another problem that would result if France did have a successful nuclear test was how it would influence nuclear cooperation with Britain. De Gaulle, in Elbrick's estimation, would want to ensure that France received similar concessions like national ownership of missiles and the promise of technical and scientific cooperation in atomic weapons research. He continued by writing that the French leader would want France to return as a member of the "three-power club" and have a leadership role in the alliance.⁴⁰⁰

This would have been a radical change in the relations between the U.S. and France concerning nuclear matters but one that should have been anticipated. In late 1957 and early

³⁹⁹ FRUS, 40-41.

⁴⁰⁰ FRUS, 40-41.

1958, a nuclear agreement seemed imminent between the two nations. The proposed agreement would fall under the NATO structure and introduce IRBMs under the auspices of Allied Command Europe. However, with de Gaulle leading France and wanting to increase what he perceived as the diminished prestige of the nation by joining the nuclear club, such an agreement seemed ill-suited to either American or French interests. As the French Empire collapsed so did its power and prestige. Nuclear weapons were a means to regain some of this lost dignity.

As the July meeting between Dulles and de Gaulle grew closer, both American and French diplomats worked out the agenda. In a meeting between the French Ambassador, Herve Alphand, and Assistant Secretary for European Affairs Burke Elbrick, the two tried to set the scope of topics for the discussion. The French Ambassador proposed a discussion of IRBMs and nuclear arms for the meeting. This item, according to the Alphand, was important to his government. Another area of concern was the McMahon Act, which controlled atomic information. The French Ambassador was eager for Dulles and de Gaulle to discuss how to change the legislation in order to facilitate cooperation between the two nations on atomic matters. Regarding the IRBMs, the Ambassador stated that de Gaulle wanted the missiles. However, he wanted them under an agreement similar in nature to the Anglo-American understanding. De Gaulle did not want these weapons to fall under the control of SACEUR.⁴⁰¹

Again de Gaulle's interpretation of the status of France in the alliance represented quite a change from the proposed agreement under SACEUR. The original offer of IRBMs to Allied Command Europe intended the missiles to be part of a unified defense effort controlled by SACEUR. This would allow General Norstad to ensure that these missiles fulfilled NATO

⁴⁰¹ FRUS, 42, 44.

defense requirements as well as met U.S. security needs. If the French did not agree to the missiles under the framework of SACEUR then it would make it more difficult to get other NATO nations to agree to the Allied Command Europe program. De Gaulle, as communicated by his ambassador, did not intend France to be the example for deploying IRBMs under NATO authority. National sovereignty was no small matter for the French leader. De Gaulle was not about to give up France's prerogative in European affairs to an American general.

Prior to leaving for his meeting with de Gaulle, Dulles and the President discussed some potential difficulties with the upcoming talks. The Secretary told the President he felt that the U.S. should assist the French wherever possible. De Gaulle, according to Dulles, could be the only thing keeping a lid on instability in France and he wanted to help maintain some normalcy in that nation if possible. Dulles understood that the new French leader presented some problems for the administration but he was still important.⁴⁰²

Of particular concern for Dulles was de Gaulle's focus on French nationalism. The Secretary worried that with de Gaulle leading the French people he would demand a greater role for it and himself on the international stage. Dulles said that the French premier's concern for the prestige of France manifested itself in two distinct forms. The first was a desire for an independent French nuclear arsenal. The second was a belief that the U.S, U.K, and France should work as one to lead global affairs. Eisenhower did not agree with the idea of this shared leadership role. Concerning any atomic issues, the President told Dulles to be clear about what the U.S. was willing to do. Possibly the administration would push for a sympathetic interpretation of present regulations relating to such issues. It is important to note that

⁴⁰² FRUS, 51

Eisenhower did not discuss altering legislation at this time, as he wanted to do and was able to do for the British IRBM agreement.⁴⁰³

The conversation between the Secretary of State and the President uncovered the serious concerns both had about how de Gaulle's leadership changed the relationship between America and France. De Gaulle's perception of French importance on the global stage continued to be a sore point. Nuclear issues, because they were one manifestation of French inferiority, also continued to be a problem between the U.S. and France during the late 1950s.

Secretary Dulles arrived in France to meet with de Gaulle on 5 July 1958. Dulles opened the meeting cordially by reminding de Gaulle of France's assistance to the United States in gaining its independence. He also reminded the General of the high regard that the President had for de Gaulle and France. Dulles wanted to repair the problems between the two nations and he told de Gaulle that he hoped the General would be able to return France to its former status as a world power.⁴⁰⁴

One of the first defense issues discussed after the opening statements was NATO's role in securing Western Europe. Dulles told de Gaulle that he believed that NATO was the reason that the West could provide a defense against the Soviet Union. The Secretary voiced his frustration with how NATO worked, especially as member nations continued to advocate for a broader range of issues to the Council. He still thought that it was a vital organization. Dulles told the

⁴⁰³ FRUS, 51.

⁴⁰⁴ FRUS, 53.

General that, although inefficient, the expansion of NATO to a political body allowed it to continue to remain relevant to the nature of the Soviet threat.⁴⁰⁵

Dulles, with this statement, started to lay the foundation for the American position against any three-member world leadership group. By stressing the importance of NATO as both a military and political body in the defense of Western Europe he was also implying to de Gaulle that this was the primary alliance that the U.S. intended to use to counter the Soviets in Western Europe. Although Dulles sympathized with the General about some of the problems of the alliance, he made it clear that de Gaulle's hope of subverting the organization was a nonstarter for President Eisenhower. Dulles told de Gaulle that "Great Powers had always had and would continue to have special responsibilities." The Secretary said that such power should not be overpowering but implied. He stated that the, "formalization of groupings for directing the free world would be resented, but there was no reason why this should not exist in fact."⁴⁰⁶

The irony of this conversation was that de Gaulle wanted to create a formal three-power group within NATO because France was outside the informal power structure that included Britain and the United States. Dulles offered little comfort to de Gaulle concerning his need to see France invited into the inner circle of NATO. Although nuclear weapons were not the only reason France was not in the upper echelon of NATO, it was representative of the junior status of France relative to the U.K. and the U.S.

The next subject was that of nuclear weapons and their role in the defense of Western Europe. Dulles said that the U.S. did not have an operational ICBM program at the time but that

⁴⁰⁵ FRUS, 54.

⁴⁰⁶ FRUS, 57.

its long-range bomber force compensated for any disparities between the Soviets and Americans in force projection. Another important advancement of American technology was the IRBM. The Secretary told the General that these missiles would provide security against the Soviet ICBM capability until the American ICBM was online. Dulles reminded de Gaulle that President Eisenhower directed that the U.S. put emphasis on ICBMs five years ago and that prior to that it was not a high priority project for the American defense community. He also told the General that it was important to be able to effectively deploy the IRBMs in order to make the most of their capability.⁴⁰⁷

Secretary Dulles' point about the necessity to deploy the IRBMs correctly communicated the importance of France to this program. Prior to the fall of the previous government there was a general understanding that the new IRBMs would come to France first, although under a NATO framework. Afterwards, they would go to other NATO member states. Bringing up the subject of these missiles announced to de Gaulle that the U.S. still had an interest in getting France involved in the broader NATO defense. The problem was crafting an agreement that de Gaulle would approve of.

Another issue covered was the willingness of the United States to use nuclear weapons in the defense of its allies. One problem with offering U.S. allies a nuclear umbrella was that they had to trust that the American political leadership would agree to their use in the event of a Soviet attack on a member nation. Dulles told de Gaulle that the President was beginning to outline a project that would give NATO control over nuclear weapons. The Secretary told the General that with this program NATO member states could be confident that nuclear weapons

⁴⁰⁷ FRUS, 55.

would be part of any defense structure. Dulles extended an offer to train French personnel in using such atomic weapons. This was going to be a NATO program that aligned with NATO plans.⁴⁰⁸

Again, Dulles' proposal intended to assuage de Gaulle's interest in making France more important in the alliance. The Secretary told him that the U.S. was willing to train French personnel in the use of atomic weapons. He also expressed to de Gaulle, Eisenhower's ambition to create a plan that would remove the decision to use certain atomic weapons from Washington D.C. and place it in the hands of NATO. Of course, delegating more decision-making authority to NATO did not raise France to the same level as Great Britain in the alliance. Although Dulles hoped to alleviate some of de Gaulle's frustration with this delegation, the proposal did not have the intended effect. Britain's independent nuclear program seemed to offer a more senior position in the alliance.

As part of the NATO nuclear initiative, Dulles told the de Gaulle that the U.S. hoped to limit nuclear proliferation. He hoped that France could help start such a project and then it would expand to other NATO nations. The Secretary told de Gaulle that, although he was not suggesting that France desist from its independent nuclear program, it was wasteful for other European nations to start trying to create individual atomic arsenals, when NATO could provide a unified deterrent. This would allow smaller states in the alliance to have the ability to trust in a nuclear deterrent that they otherwise could not independently create.⁴⁰⁹

⁴⁰⁸ FRUS, 55.

⁴⁰⁹ FRUS, 56

Although Dulles did not ask de Gaulle to stop trying to create an independent French nuclear arsenal he made it clear that the U.S. wanted to stop the expansion of atomic weapons in Europe. He offered de Gaulle the ability to be the first nation in the alliance to agree to this policy and then help spread it. This would provide France a leadership role in a sense, but not on de Gaulle's terms. However, this would require that de Gaulle accept the fact that France, although it might produce a successful nuclear test, was not capable of creating an independent nuclear deterrent. Further, it would require de Gaulle to acquiesce to combining France with the rest of the non-nuclear NATO nations into one nuclear cooperative. Britain, of course, would not have to face this choice. Even if it joined such a program, it still retained special agreements with the United States that accorded it the ability to continue to improve its independent nuclear deterrent.

De Gaulle then took over control of the meeting and began describing his vision of France and its role in world affairs. First, de Gaulle felt that France's role in the alliance and in world affairs did not correlate to its actual prominence. He wanted this expanded to reflect the part that France already played on the international stage. De Gaulle reminded the Secretary that France would soon be a nuclear power, although it would take many years until it could have an effective deterrent.⁴¹⁰

Regarding Dulles' proposal of a NATO controlled atomic deterrent, de Gaulle told the Secretary that France would be willing to agree to this with some concessions. De Gaulle would accept such a program, if the U.S. gave France nuclear weapons or provided atomic technology

⁴¹⁰ FRUS, 59-60

in order for France to manufacture its own weapons. According to de Gaulle, this would allow the alliance to use its resources more efficiently.⁴¹¹

De Gaulle's counter proposal did not support the intention of the planned expansion of atomic weapons, specifically IRBMs, to NATO. The intent of this, as explained in chapters five and six, was to give NATO nations some control as a collective group over atomic weapons. The U.S. could not give France nuclear weapons because of limitations placed on the government by legislation. It also could not give France atomic information to allow for the production of nuclear weapons again because of legislative restrictions. Even if these transfers were possible, they would not result in an expanded NATO nuclear capacity but an increased French deterrent. In any event, Eisenhower would have never agreed with de Gaulle's requests.

In connection with de Gaulle's proposal for nuclear weapons he discussed how he envisioned controlling their use. He did not think that having SACEUR involved was good for France. If atomic weapons would be in France, de Gaulle wanted to have control and custody of them. He agreed that such weapons could support a broader NATO defense plan but only if their use also supported French interests.⁴¹²

De Gaulle did not want atomic weapons or material under a NATO agreement. He wanted atomic weapons given to France alone. Then and only if it fit French interests, would de Gaulle agree to their use in order to support NATO plans. This was drastically different from the IRBM agreement or NATO stockpile agreement presented to Allied Command Europe by General Norstad. It was also different from what Eisenhower offered to Macmillan. The U.S.,

⁴¹¹ FRUS, 59-60

⁴¹² FRUS, 60.

due to legislative roadblocks, could not give nuclear weapons directly to any nation. De Gaulle's estimation of French prestige and his laser-like focus on French interests drove him to policy conclusions that ran counter what President Eisenhower wanted to accomplish in Europe.

Another problem de Gaulle brought up to Dulles was the organization and scope of NATO itself. The General did not think that NATO was broad enough. He suggested it should include North Africa and the Middle East. De Gaulle told Dulles that since NATO did not adequately address securing the Mediterranean, French security suffered from the alliance's restricted geographic focus. The General told the Secretary that France had security needs in Europe and Africa and NATO had to reflect such concerns.⁴¹³

Again de Gaulle's central focus on French prestige came through clearly. No alliance will necessarily answer every security concern of each individual member state. Each sacrifices the focus on their unique security needs because there is a greater security threat facing them. De Gaulle, by suggesting that the entire NATO alliance dramatically change in order to answer French concerns, placed the needs of France above the alliance as a whole. He wanted to shift the paradigm for determining the relative power of nations and deemphasize the influence of independent nuclear deterrents. De Gaulle wanted the alliance to focus on a perimeter defense oriented on North Africa, with less emphasis on deterring a Soviet attack with nuclear weapons. He would have a difficult time convincing Eisenhower and Macmillan that this was a more effective way to defend Western Europe.

In closing the meeting, de Gaulle rephrased his main concerns. He wanted France to play an important role in the defending the West. While he did not demand any formal agreements to

⁴¹³ FRUS, 60

codify this, he wanted it made clear in practice during summits and strategy sessions. Concerning nuclear weapons, de Gaulle said, that any such weapons deployed in France, including missiles or warheads, would fall directly under French control with some U.S. assistance. Finally, he reminded Dulles of the necessity to reorganize the command structure and scope of NATO in order to include Africa and the Middle East to align with French security needs.⁴¹⁴

General Norstad brought up the issue of the lack of French cooperation in nuclear issues in October of 1958 when he met with the new French Permanent Representative to NATO, Ambassador Geoffrey de Courcel. He asked the new representative what the obstacles for getting French agreement to the deployment of IRBMs were. De Courcel said that if NATO agreed to institute some of de Gaulle's ideas concerning its organization and granted France a more prominent role in the alliance, then the nuclear issues could find some resolution. De Courcel also blamed American intransigence concerning the atomic stockpile but offered no details for this point of tension. Norstad replied that he would not approach France about anything regarding the IRBMs or the atomic stockpile unless the French brought the issue to him. If France could not agree to the atomic stockpile, Norstad told the French representative that the U.S. would have difficulty maintaining its air assets in the nation. If France rejected the deployment of any nuclear weapons in its borders it meant that U.S. aircraft deployed to French bases would be less secure. If these aircraft did not have access to nuclear weapons it was problematic to keep them in France because they lacked the ability to execute their mission. They would only be targets and not weapons.⁴¹⁵

⁴¹⁴ FRUS, 61.

⁴¹⁵ Cecil Lyon, "Telegram to SECSTATE from Paris," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (3), 1.

General de Gaulle's views about NATO, as related by de Courcel, were troubling. They did not find much support from other member nations and only impeded the expansion of the NATO nuclear program. Norstad's response to the French representative revealed that the U.S. did not have any intention of increasing France's role in the alliance to align with de Gaulle's estimation of its importance. Nuclear weapons became a bargaining chip in this discussion. De Gaulle hoped that Norstad and the U.S. would agree to his demands in order to get French participation in these programs. However, this assumed that President Eisenhower agreed with de Gaulle's judgment about French prestige and its position in the alliance.

These issues came up again when the Permanent Representative de Courcel left his position in January of 1959. De Courcel and General Norstad discussed common ground between France, Great Britain, and the United States. Africa was one area where the two agreed that there was some consensus. De Courcel said that de Gaulle did not need any formal agreement and that he wanted to deal with the U.S. and U.K. in good faith. Norstad reminded de Courcel that the problems between NATO and France had more to do with the heavy-handed manner that de Gaulle used in allied relations. These measures alienated France from the rest of the alliance and would not endear de Gaulle to Eisenhower or Macmillan.⁴¹⁶

This communicated that Eisenhower and Macmillan did not share de Gaulle's estimation of the strategic situation. Although all nations agreed that securing Africa was important, the problem was how best to do this. De Gaulle continued to press for direct French involvement through its traditional colonial centers of power. In order for the U.S. and the U.K. to support this meant that these nations would have to concede to French colonial holdings in North Africa. This

⁴¹⁶ Armory Houghton, "Washington 2479: Conversation between Outgoing Permrep and Amory Houghton," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (3), 1. Hereafter Washington 2479

would prevent President Eisenhower from supporting nationalist Arab groups in the region in favor of an imperial power imposing its rule on a subject people.

The NATO stockpile and atomic weapons also came up in this conversation. Norstad reminded the French representative that other NATO nations agreed to the deployment of atomic weapons under NATO control as well as the NATO atomic stockpile agreement but France continued to resist this proposal. General Norstad told de Courcel that if the French did not reverse their position, he would recommend the withdrawal of the 9 U.S. Air Force squadrons deployed to France. In response, de Courcel told Norstad that France would not accept nuclear weapons deployed inside the nation without being in direct control of them. According to de Courcel this was especially true since France still lacked atomic weapons of its own. He told the general that France was “a Great Power” and “not Benelux.”⁴¹⁷

De Courcel’s position evinced the importance of nuclear weapons in determining the position of a nation in the alliance. He implied that the deployment of nuclear weapons outside of French control was galling, particularly because France did not have such weapons under its own control. The only nation in Europe with that capability was Great Britain. De Courcel’s description of France as a superior nation was also telling. He used the term Benelux when referring to Belgium, Netherlands, and Luxemburg, implying that allowing NATO to deploy nuclear weapons in its territory would relegate France to subordinate status in the alliance. The two-tier informal structure of the alliance in place in the late 1950s clearly frustrated de Gaulle. However, he did not have the leverage to change France’s status in the organization. French

⁴¹⁷ Washington 2479, 1.

prestige continued to suffer as the French President struggled to convince Eisenhower and Macmillan that a nonnuclear France was a vital member state.

Hugh Gaitskill, the leader of the opposition in the British House of Commons, and the British Ambassador to France, Hubert Jebb, discussed several security and NATO related topics with de Gaulle in January of 1959. De Gaulle again brought up the structure of NATO. He said that the small states had too much influence; he wanted to reorganize it so that the large states, i.e. France, the U.S. and the U.K, would have a prominent role in directing the alliance. De Gaulle said that the three large powers were the only ones who truly had global responsibilities and that the alliance organization should reflect that.⁴¹⁸

De Gaulle's sense of French prestige determined his outlook on the alliance. The two-tier structure accorded importance in relation to nuclear capability and not to territorial holdings or responsibility. He chastised the U.S. in his conversation when he said that America acted as if it were able to go to war unilaterally. De Gaulle sought to expand NATO's role in order to force the U.S. to face what he considered the reality that it could not go to war alone. By expanding NATO into North Africa and the Middle East, de Gaulle wanted to make the alliance a "strategic instrument."⁴¹⁹

One consistent problem between de Gaulle, Eisenhower, and Macmillan was the different perceptions of the strategic importance of Africa. De Gaulle continued to argue that Africa, particularly French holdings in the north, were vital to any defense of Western Europe. This interpretation, if accepted by Eisenhower and Macmillan, would mean that holding France in the

⁴¹⁸ Cecil Lyon, "Hugh Gaitskill Interview with Charles de Gaulle," DDE Library, Box 87, folder France Problems 58-59 (3), 1. Hereafter Gaitskill, De Gaulle Interview.

⁴¹⁹ Gaitskill, De Gaulle Interview 1-2.

alliance was vital to its effectiveness. De Gaulle looked to increase French prestige by creating a reason for a larger role in the alliance for France. However, this required that Eisenhower and Macmillan agreed with his perception of the strategic situation and France's importance in that framework.

Military cooperation came up later in the discussion, particularly SHAPE's role in the defense of Western Europe. SHAPE, with General Norstad in charge, was the main proponent for coordinating the defense of Western Europe. De Gaulle stated that war was an important act and one that had to harness national will. He felt that the U.S. concentration on SHAPE deprived nations inside the alliance of an independent identity in their own defense. He did not think that an American officer should be in charge of defending Europe.⁴²⁰

One nation that prospered under the SHAPE system, in de Gaulle's estimation, was Great Britain. He felt that it was only proper that the French fleet and its bomber force would be independent, similar to that of the U.K.⁴²¹ The problem with de Gaulle's analogy between France and Great Britain came down to the possession of nuclear weapons. Great Britain, as an independent nuclear power, could maintain its deterrent outside of NATO. However, for France, any nuclear weapons it used would have to come from the U.S. or a common European program. No agreement proffered to a NATO member state without its own nuclear arsenal provided for those weapons to be outside of the alliance's control. Again possession of an independent nuclear deterrent offered Great Britain a unique place in the organization. Something de Gaulle felt was due to France.

⁴²⁰ Gaitskill, De Gaulle Interview, 3.

⁴²¹ Gaitskill, De Gaulle Interview, 3.

Ambassador Jebb asked de Gaulle about his position on nuclear weapons and their use for defending NATO. The French leader said that he did not think that the alliance should use these weapons unless there were a unanimous consent from the U.S, U.K, and France. De Gaulle admitted that his positions regarding nuclear weapons stemmed from the French lack of such weapons. The only exception to the unanimous decision making, in his judgment, could come in cases of self-defense when the Soviet Union attacked one of the nuclear powers.⁴²²

Nuclear weapons or the lack thereof, played a critical the power struggles in the alliance during the late 1950s. De Gaulle did not feel that, under the proposed agreement, France could prevent the launch of nuclear weapons from its territory. Ambassador Jebb pressed him on this issue by stating that France would have a veto over any nuclear attack in the NATO proposed IRBM and stockpile agreements. However, de Gaulle argued that he could not prevent any plane from flying out of France armed with nuclear weapons. He also could not stop President Eisenhower from using atomic warheads if he thought it was necessary.⁴²³

Although the issue of possessing nuclear weapons was important, a corollary of this was also an important problem. De Gaulle did not see in the agreement the ability for France to ensure that an atomic strike carried out from France would not further jeopardize its security situation. As shown earlier, de Gaulle's proposed solution to this problem was French control over U.S. warheads, which was an impossible and unreasonable policy position. By taking such a radical position, there was little room for Norstad to negotiate in good faith. It was impossible for him, or Eisenhower, to agree to give the French control over atomic warheads. Not even the Anglo-American IRBM agreement allowed this.

⁴²² Gaitskill, De Gaulle Interview, 2.

⁴²³ Gaitskill, De Gaulle Interview, 2.

The American ambassador to France, Cecil Lyon referenced this interview in a conversation with the French Minister of State, Louis Jacquinot. Lyon said that de Gaulle was mistaken concerning the lack of a French veto. The French minister asked who held the authority to use such weapons. Lyon replied that the Supreme Commander held the authority, but he suggested de Gaulle get an official brief on such matters from NATO officials. However, Lyon assured the minister that France had a veto over the use of such weapons.⁴²⁴ Lyon was right, France did have a veto. However, the decision to use such weapons rested with General Norstad as SHAPE commander. This streamlined the decision making process but it also put NATO nations under the authority of an American general.

The problem of control of nuclear weapons came up again when the French Ambassador presented a series of proposed discussion points that de Gaulle wished to cover in an upcoming meeting between the U.S, the U.K, and France. De Gaulle thought it important to discuss a cooperative approach to world strategy and how a nuclear deterrent factored into it. Dulles replied that the U.S. held “its nuclear deterrent in trust for the free world.”⁴²⁵

One of the first manifestations of de Gaulle’s frustration with NATO was the removal of the French Mediterranean Fleet from NATO. In early 1959, de Gaulle decided to take direct control of the fleet and end its affiliation with the alliance. General Norstad did not think that this detracted from the military power of the NATO naval presence; rather he thought that the French lost more in the fleet’s removal. He believed that the political ramifications to the alliance would be more troubling. One thing Norstad did not want to do was to beg de Gaulle to bring his fleet

⁴²⁴ Cecil Lyon, “Conversation between Lyon and Jacquinot,” DDE Library, Norstad Papers, Box 87, folder France Problems (3), 1-2.

⁴²⁵ John Foster Dulles, “Telegram by Dulles about conversation with U.S. Ambassador to France,” DDE Library, Norstad Papers, Box 87, France Problems 58-59 (3), 1.

back to NATO. General Norstad argued that the French needed NATO's assistance in the naval realm more than the alliance needed their contribution.⁴²⁶

General Ely, President of the French Chiefs of Staff Committee, met with General Norstad on 6 March of 59, to discuss the decision to remove the Mediterranean Fleet from NATO. Norstad told Ely that there were other remedies; he suggested that the French fleet could be put in the same status as the U.S. Sixth Fleet or operate directly under SACEUR. General Ely did not respond positively to these suggestions and told Norstad that the decision to remove the fleet was not going to change.⁴²⁷

A subsequent conversation on 11 Mar 59, between the officers covered a broad range of NATO related topics, particularly de Gaulle's frustration with the alliance. One of the first topics that came up was the French position in North Africa. General Ely communicated de Gaulle's position. He stated that the French believed that if they left the region it would invite Communist influence into it. Ely noted that such a decision would likely bring open revolt against the government in France and this would only help the Communists. De Gaulle, according to Ely, saw the French withdrawal from Algeria as the beginning of the end for the free world. The differences in the strategic outlooks between de Gaulle and Eisenhower influenced their inability to come to an agreement about the IRBMs and nuclear cooperation between the two nations.⁴²⁸

General Norstad knew of the Gaitskill interview, he received a copy of the interview and referenced it in a conversation with General Ely in March of 1959. Norstad explained that

⁴²⁶ Randolph Burgess, "Telegram to SECSTATE about removal of French Fleet from NATO 28 FEB 59," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (2), 1. Hereafter Telegram to SECSTATE 28 FEB 59.

⁴²⁷ Cecil Lyon, "Telegram SECSTATE concerning French removal of fleet from NATO, 6 Mar 59," DDE Library, Norstad Papers, Box 87, folder France Problems 58-59 (2), 1.

⁴²⁸ Nauris Norstad, "Conversation between Generals Norstad and Ely," DDE Library, Norstad Papers, Box 87, France Problems 58-59 (2), 2. Hereafter Conversation between Norstad and Ely

America's policy for North Africa supported the creation of an Arab alliance. He told General Ely that by supporting independent Arab states the U.S. would stop Soviet influence in the region. Norstad continued by stating that this position clashed with the French interpretation of the situation both in Algiers and previously in Suez.⁴²⁹

The differences between the French and American positions concerning France's status in the alliance were stark. De Gaulle saw his nation as fighting for the security of the West in North Africa. Any concessions in Algiers would only weaken the West and the alliance. De Gaulle believed that North Africa was a vital area of concern for the alliance. This position did not win over General Nortsad or President Eisenhower. The disagreement about French contributions to the security of Western Europe exhibited why de Gaulle was so aggravated about the secondary position of France in the alliance. His estimation of France's importance came, not from its military power, but its strategic importance. However, the alliance's two-tier structure centered on the presence of an independent possession of a nuclear deterrent, which France did not yet possess.

Another issue implied in this conversation was that of decolonization. De Gaulle wanted to retain some influence in French colonies. Although he couched his argument, as presented by General Ely, purely in defense terms, French prestige was the foundational issue. France, De Gaulle argued, was important because of its position in North Africa. Its colonial holdings, or its continued ties to former colonies, gave it a unique position in NATO. However, as Norstad explained, President Eisenhower did not think that focusing on colonial ties was an effective policy. Rather, newly independent Arab states would make more viable partners in creating a

⁴²⁹ Conversation between Norstad and Ely, 2.

group to resist Soviet incursion if they were truly independent. This undercut French prestige because it discounted France's colonial presence and power in the Middle East and within NATO.

General de Gaulle's resistance to the NATO atomic stockpile program and the Allied Command Europe IRBM program came largely as a result of the lack of concessions from President Eisenhower to align his view of French prestige with that of de Gaulle. Although Eisenhower was correct not to accommodate de Gaulle, he did not anticipate the obvious negative French reaction. De Gaulle argued that France deserved more importance in the alliance; it did not deserve to be told what would happen inside its own borders, especially in terms of atomic warfare. De Gaulle argued that France was a vital member of alliance because of its strategic importance in North Africa. He argued that this overrode the absence of a lack of French nuclear deterrent. The lack of a deterrent was also a problem that France was working on but would not be able to compete with Britain for years to come.

Neither Eisenhower nor Macmillan wanted France to become a nuclear power. But there was little either could do to stop this from occurring. Eisenhower never offered the amount of technical help to De Gaulle that he offered to United Kingdom. He also did not agree to give IRBMs to France outside the NATO framework, as he did with the U.K. Nuclear weapons acted as a barometer for status in the alliance at this time. Although de Gaulle tried to convince the U.S. and U.K. of his nation's importance the alliance, he could not sway their interpretation of the strategic threat or the need to reorganize NATO to suit French needs.

Conclusion

The deployment of IRBMs to Western Europe, although a military issue, influenced the political realm of the NATO alliance. President Eisenhower's use of two different frameworks to deploy the missiles created a two-tiered structure in the alliance. First, from the fact that both Britain and the U.S. nuclear powers, and second this tiered configuration came from the disparate terms offered to NATO nations by Eisenhower. The Anglo-American agreement did not incorporate the IRBMs into SACEUR in a formal manner. The offer to other NATO nations provided the missiles only through SACEUR and the NATO atomic stockpile. The deployment of Thor missiles to Britain helped heal the rift between the United Kingdom and the United States in the wake of the Suez Canal Crisis. The same agreement also alienated France and influenced de Gaulle's decision to remove France from the military alliance. These weapons also revealed the influence of the New Look defense policy. Although Eisenhower never removed a significant amount of American troops from Europe, he clearly saw the addition of missiles to Europe as part of the groundwork for such an event in the future. The deployment of IRBMs demonstrated that the perceived military value of a weapons system could make up for any perceived deficiencies in its military effectiveness.

Judged by their political influence and efficacy the IRBMs, both Jupiter and Thor, were a success. The deployment of these weapons helped bring the Anglo-American alliance closer. The unexpectedly quick development of the ICBM and advances in solid-fuel rockets soon made the Thor and Jupiter missiles obsolete. Although the weapons only remained operational for five years they were an effective part of the early Cold War period.

Eisenhower's deployment of IRBMs to Western Europe was a small part of the Cold War. However, this event demonstrated the importance of a nation possessing an independent

deterrent or other strategically important asset. Although in the specifics of the IRBM issue, the vital issue was possession of nuclear weapons. The fact that the British had their own atomic weapons program meant that Prime Ministers Eden and Macmillan could use their position to leverage an advantageous agreement. It also meant that the U.K. could operate as a more equal partner in the alliance than the French, who did not possess an independent strategic deterrent.

The New Look defense policy established atomic weapons and Massive Retaliation as the paramount form of national defense for both economic and defense reasons. Although the usual interpretation of the New Look defense policy focuses mainly on its economic rationale, there were significant military assumptions and reasons that formed the foundation of the defense policy. The Solarium Conference was not an economic forum; it was a defense oriented discussion. This meeting established the broad outlines of the New Look policy. Although Eisenhower certainly focused on the economic aspects of national defense, fiscal concerns did not eclipse the need to defend the United States from the threat of the Soviet Union.

President Eisenhower did worry about the economic implications of defense spending but he did not think that it was prudent to sacrifice national defense in order to realize economic outcomes. His defense program was able to reduce defense spending, primarily through reductions in Army force levels and Army budget reductions. This led to a mid-decade low in defense spending to approximately \$30 billion dollars. However, Eisenhower was unable to sustain such a relatively low defense budget. By the end of his administration, defense allocations rose to \$40 billion dollars. Much of this increase came in the Air Force budget, which by the end of the decade was almost half of the total defense budget.

The reason for the increased defense spending was another focus of the New Look policy. In order to reduce the burden of securing the nation from the Soviet Union, the Air Force, with its strategic force projection capability, took over the primary role in security. This made economic sense because it would allow Eisenhower to reduce the amount of money America spent funding large ground divisions deployed to Europe. However, this required spending more on Air Force assets, particularly atomic weapons, diminishing much of Eisenhower's defense savings. As a result of the supremacy of the Air Force, nuclear weapons formed the basis for the New Look defense policy. The doctrine of Massive Retaliation was one example of the reliance on atomic weapons. President Eisenhower understood that atomic weapons fundamentally changed how the U.S. would fight future conflicts; the introduction of such destructive weapons changed his conception of future conflicts. The U.S. had to have the ability to fight on the atomic battlefield and the Air Force had the capability to do this most effectively.

Eisenhower's conception of atomic warfare also explains the problems that the Army faced during the 1950s. Since the Army focused on deploying large ground forces to contentious regions in order to deter conflicts it was an expensive means of preventing conflicts. This made it difficult for Army leaders, such as General Maxwell Taylor, to justify a prominent role for their service in Eisenhower's construct of atomic warfare. Another problem the Army faced in making the case for a larger role in national defense was the issue of casualties in a nuclear war.

The atomic battlefield, in Eisenhower's understanding, would not be a friendly place for densely organized ground units. This is what made the Air Force such an attractive option. With Strategic Air Command and then guided missiles, the U.S. could effectively deter any conflict with the Soviet Union without deploying and sustaining large ground units around the Soviet

Union. If a conflict did break out with the Soviet Union, Eisenhower had no doubt that it would require a large nuclear barrage. This again played to the strengths of the Air Force. The Air Force could strike targets deep inside the Soviet Union and purportedly, though not probably, destroy much of the Soviet war making capability quickly. The promise of immediate efficacy contributed to the Air Force's budget success under the New Look.

Through the 1950s Eisenhower's conception of atomic warfare influenced defense policy. This, in turn, affected foreign policy as well. As the U.S. continued to increase its reliance on atomic weapons in deterring conflicts, it shifted the burden of fighting smaller-scale wars to its allies. The premise of the New Look defense policy's economic savings relied on America not getting involved in another limited conflagration, like the Korean War. The concentration on nuclear weapons and their subsequent prominence in defense issues made them a barometer of political importance in the NATO alliance.

By the middle of the 1950s there were only two nations with an independent nuclear capability in the NATO alliance, Great Britain and the United States. This created a de facto two-tier structure within the association that would influence how the U.S. interacted with the U.K. and other non-nuclear nations, particularly France. The Suez Canal Crisis put tension upon the alliance between France, Great Britain, and the United States. Although significant for its ramifications in the Middle East, its impact on the European alliance was also important.

The Bermuda Conference, hosted in March of 1957, was an effort for the U.S. and the U.K. to repair the relations between the two nations. President Eisenhower and Prime Minister Harold Macmillan met on the Caribbean island to discuss how to bring the two states closer together. Part of this rapprochement was Eisenhower's offer of IRBMs to the United Kingdom.

Along with this promised deployment was the agreement to work for alterations in U.S. law concerning cooperation on atomic weapons technology.

The agreement between Eisenhower and Macmillan did affect the change in relations between the U.S. and the U.K. Left out of this agreement was France, which did not have its own nuclear weapons program. This was one of the instances where possession of nuclear weapons was crucial to the status of a nation inside the NATO alliance. The independent British nuclear deterrent was not the only reason for the IRBM program; it also impacted the character and form of the agreement that regulated the deployment of the missiles and the future nuclear Anglo-American cooperation.

Although the Bermuda agreement established the deployment of IRBMs, these missiles were not ready for full-scale production at the time of the accord. When Eisenhower made this offer in March of 1957, he did not expect to expand the program to other NATO nations. The Soviet launch of *Sputnik* increased the intensity of the research and manufacture of guided missiles, particularly the ICBM and IRBM. At the time of the launch there was only one system that could hit Soviet military and industrial targets from Western Europe, the IRBM. ICBMs, according to estimates at the time, would not come online until the middle of the 1960s. This made IRBMs the only weapon system that could quickly establish the United States and, by extension, its allies as formidable powers in the missile age.

In light of the *Sputnik* launch, President Eisenhower agreed to expand the deployment of IRBMs to any NATO nation willing to accept them. This raised the question of how to broaden the scope of the deployment of these missiles to the rest of Europe. The framework of the Anglo-American agreement would create a series of bi-lateral agreements with each nation in NATO, in

effect negating much of the power of the alliance. President Eisenhower offered the weapons through the North Atlantic Council and the warheads through SACEUR. This would ensure that the missiles would continue to work within alliance to secure the broader security of Western Europe, and insured that nuclear weapons remained under American control.

This concern about protecting the power of the alliance exposed Eisenhower's hesitation to encourage the proliferation of independent nuclear programs throughout Europe. This would detract from economic resources that the European nations could dedicate to building conventional forces, which would allow the U.S. the ability to withdraw some of its ground troops. The President did not see U.S. troops in Europe as part of the permanent American force structure. Rather, he wanted them to assume some of the duties of defending America's allies until those states could provide for their own defenses. Once this occurred, the United States could drawdown some of its ground forces and maintain its strategic defense of Western Europe by using its nuclear weapons in the region and its ICBMs and strategic bomber force from the continental United States.

One of the nations affected by the expansion of the IRBM program to NATO was France. Although initially receptive to the deployment of IRBMs to its nation, the situation changed when Charles de Gaulle came to power. He wanted France to assume a larger role in the affairs of the alliance. Specifically regarding the IRBMs, he wanted an agreement that was similar to the Anglo-American pact concerning the weapons and future nuclear cooperation. De Gaulle would not accept the proposed agreement that came through the auspices of SACEUR and the NATO Atomic Stockpile, because he felt it would require France to acquiesce its sovereignty.

Much of the disagreement concerning the proposed deployment of IRBMs came from disparate evaluations of the France's position in the alliance. De Gaulle argued that France was vital to the organization because of its position in North Africa. French colonies in the Maghreb, according to de Gaulle, would be able to stop any Soviet incursion that looked to retrace the route of Nazi Germany in World War II. This made France a key part of securing Western Europe, at least according to French leaders.

Neither President Eisenhower nor Prime Minister Macmillan shared de Gaulle's estimation of French importance to the security of Europe. The differences between the two strategic assessments were one of the reasons that France did not receive the same consideration when it came to deploying IRBMs to Britain. In addition to the conflict over strategic importance was the possession of nuclear weapons. In this situation, de Gaulle again overestimated his position.

The French nuclear weapons program successfully tested its first nuclear weapon in 1960; it would not have a viable weapons program until the middle of that decade. At the time of the initial IRBM deployment the French nuclear weapons program was an unknown entity. Both Eisenhower and Macmillan knew of its existence but were uncertain of how soon it would come to fruition. Neither wanted France to become a nuclear nation but both understood that there was little they could do to stop such an event. One important thing that Eisenhower could withhold from France was technical assistance.

President Eisenhower did not want France to spend its resources building its own nuclear arsenal, which he saw as redundant because of the presence of an American deterrent. He did not want to offer technical help because this would only encourage de Gaulle to continue to divert

his efforts from building a common European defense. Altering the command and control agreement of the IRBM agreement from the model used by the Anglo-American form was another way Eisenhower sought to use the IRBM deployment to realize a larger policy goal.

The Anglo-American agreement was outside of NATO command and control. The Thor's deployed to Britain would complement and coordinate with SACEUR but the Prime Minister and the President would have to agree to fire the missiles. For the missiles offered under SACEUR, President Eisenhower could delegate the decision to launch the missiles to the American commander in Europe. De Gaulle would not accept France being placed in a subordinate position relative to Great Britain, or to giving up its sovereignty on issues of security. The changes in the IRBM agreement alienated France and set the stage for its eventual withdrawal from the military side of the NATO alliance.

The deployment of IRBMs to Europe had two important goals. The first was to affect a rapprochement between the United States and the United Kingdom in the wake of the Suez Canal Crisis. The second was to answer the domestic security concerns in light of *Sputnik* by expanding the deployment of IRBMs throughout Western Europe in order to increase America's missile capability. Although the weapons left operational service by 1963, they had a dramatic impact on the relationship between France, the United Kingdom, and the United States. These weapons, although not militarily important, were significant because of their impact on the NATO alliance. This is indicative of how peacetime military deployments can have second and third order effects that are outside the intended policy end state.

Bibliography

Abbreviations

DDE- Dwight David Eisenhower

DDEL- Dwight David Eisenhower Library

WHO- White House Office

DoD- Department of Defense

Manuscripts

Atomic Energy Commission. *Program Status Report*. Atomic Energy Commission, December 31, 1954. WH Office NSC Staff Papers, Ex Sec Sub series, box 1, 1 misc (2). DDEL.

Barbour, Walworth. "Telegraph to State 14 Aug 59", 14 AUG 59. Norstad papers box 85 atomic nuclear policy 57-59 (1). DDEL.

Baruch, Bernard. "Memorandum", October 23, 1957. DDE Diary Series Box 27, folder Oct 57. DDEL.

Brook, Norman. "British Cabinet Meeting Conclusion/ Including Confidential Annex". British Government, 7 Jul 54. CAB/128/27. British National Archives.

Bureau of Budget. "Possible Adjustments in Fiscal Year 1957 Budget for Defense", December 5, 1955. WHO of the Staff Secretary: records of Paul Carroll, Subject series, DoD subseries, Box 2, Budget, mil (1) DEC 53-Mar 56. DDEL.

Burgess, Randolph. "Telegram to SECSTATE About Removal of French Fleet from NATO", 28 FEB 59. Norstad Papers, Box 87, France Problems 57-59 (2). DDEL.

Burke, Arleigh. "The Impact of New Weapons on National Defense", July 19, 1957. WHO, Office of Staff Sec sub series, DoD sub series, box 6, mil planning 56-57 (1). DDEL.

CHMAAG Paris FR. "Memo from United States European Command Concerning Deployment of IRBMs to France in 1959", March 4, 1959. Naurstad Papers, Policy Papers series, atomic nuclear policy, box 85. DDEL.

"Chronology of Significant Events in IRBM and ICBM Programs", November 8, 1957. WHO, Office of Staff Sec sub series, DoD subseries, box 7, mis and sat report on sig events. DDEL.

CINCUSAREUR. "Message from US European Command", March 6, 1959. Naurstad Papers, Policy Papers series, atomic nuclear policy, box 85.DDEL.

Clark, J.E. "Memorandum for Admiral Radford", March 16, 1956. Digital National Security Archive. <http://nasarchive.chadwyck.com/nsa/documents/NH/00559/all.pdf>.

Command and General Staff College. "Organization of the Infantry Division". U.S. Army, academic year -58 1957. CGSC Courses, Academic Year 1957-58, Infantry Division ROCID 2000. Combined Arms Library Archive.

Cutler, Robert. "Memo for Lewis Strauss, Chairman, AEC", October 24, 1957. WHO, Office of Special Assistant for National Security Affairs, records, Special Asst. series, Subject subseries, box 1, AEC gen 6. DDEL.

"Defence: Outline of Future Policy", April 1957. Norstad Papers, Box 78, Sir Frank Roberts (3). DDEL.

Dillion. "Atomic Stockpile", August 20, 1949. Naurstad Papers, Policy Papers series, atomic nuclear policy, box 85. DDEL.

Dillon, Douglas. "Atomic Stockpile Memo", August 20, 1959. Norstad Papers, Box 85, atomic nuclear policy 57-59 (1). DDEL.

Dulles, John Foster. "Memorandum of Conversation with the President", March 7, 1955. John Foster Dulles Papers, WH Memo Series, Box 3, Meetings with the President 55 (7). DDEL.

———. "Outgoing Telegram from US State Dept to US Embassy Paris", 29 oct 56. John Foster Dulles Papers, JFD Chronological Series, Box 14,. Dwight D. Eisenhower Presidential Library.

———. "Phone Call with Mike Pearson, Canadian Sec State for External Affairs", 30 Oct 56. John Foster Dulles Papers, Telephone Conversations Series, Box 5. DDEL.

———. "Proposed Response to Prime Minister Harold MacMillan", February 21, 1958. Dulles Herter Series, Box 10, Feb 58 (1). DDEL.

———. "Telegram by Dulles About Conversation with US Ambassador to France", 23 Jan 59. Norstad Papers, Box 87, France Problems 57-59 (3). DDEL.

———. "Telegram from Dulles to Paris", 22 Jan 58. Norstad Papers, Box 87, France Problems 57-59 (3). DDEL.

- . “Telegram from SEC Dulles to AMB Dillon About Suez Issues”, 3 Oct 56. Dulles Herter Series, Box 7.DDEL.
- Elliott, William. “The Translation of NSC Polic Directives from the President into Guidelines for the Allocation of Budgetary Resources and Administrative Support to Specific National Security Programs”, August 27, 1956. WH Office, Office of Staff Secretary, sub series, DoD subseries, Box 1, DoD vol II (1) aug 57. DDEL.
- Eisenhower, Dwight D. “Acceptance of the Republican Party Nomination”. Eisenhower Memorial Commission, August 23, 1956.
<http://www.eisenhowermemorial.org/speeches/19560823%20Address%20at%20the%20Co%20Palace%20on%20Accepting%20the%20Nomination%20of%20the%20Republican%20National%20Convention.htm>.
- . “Draft of Letter to Mrs. Robert Patterson, Wife of Former Secretary of War”, June 15, 1953. DDE Diary Series, Box 3, DEC 52-JUL53 (2). DDEL.
- . “Diary 10 Jan 56”, DDE Diary Series, Box 12, Jan 56 Diary. DDEL.
- . “Diary 11 Jan 56”, DDE Diary Series, Box 12, Jan 56 Diary. DDEL.
- . “Diary 23 Jan 56”, 23 Jan 56. DDE Diary Series, Box 12, Jan 56 Diary. DDEL.
- . “Diary 30 March 56, Conversation with Bernard Baruch”, March 30, 1956. DDE Diary Series box 13 folder Mar 56. Dwight D. Eisenhower Presidential Library.
- . “Diary Entry Dwight D Eisenhower”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/78.cfm>.
- . “Diary Entry Dwight D Eisenhower”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/60.cfm>.
- . “Diary Entry Dwight D Eisenhower”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/23.cfm>.
- . “Diary Entry Dwight D Eisenhower”. John Hopkins University Press, 1996.
 Eisenhower, Dwight D. To Percival Flack Brundage, 31 January 1957. In *The Papers of Dwight David Eisenhower*, ed. L. Galambos and D. van Ee, doc. 14. World Wide Web facsimile by The Dwight D. Eisenhower Memorial Commission of the print edition; Baltimore, MD: The Johns Hopkins University Press, 1996,
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/14.cfm>.
- . “Diary Entry Dwight D Eisenhower”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/13.cfm>.

- . “Document 1765: To Nikolai Aleksandrovich Bulganin: The Papers of Dwight David Eisenhower Vol XVI Part IX”. Eisenhower Memorial Commission: Baltimore: the Johns Hopkins University Press, 1996, March 1, 1956.
<http://www.eisenhowermemorial.org/presidential-papers/first-term/documents/1765.cfm>.
- . “Document 1796 To Charles Erwin Wilson: The Papers of Dwight D. Eisenhower Vol XVI Part IX”. Eisenhower Memorial Commission: Baltimore: the Johns Hopkins University Press, 1996, March 20, 1956. <http://www.eisenhowermemorial.org/presidential-papers/first-term/documents/1795.cfm>.
- . “Eisenhower Doctrine Speech, Special Message to Congress 5 Jan 57”, January 5, 1957. Miller Center for Public Affairs.
<http://millercenter.org/scripps/archive/speeches/detail/3360>.
- . “Letter to CAPT Hazlett”, 18 Nov 57. DDE Diary Series Box 28 Folder Diary Nov 57. Dwight D. Eisenhower Presidential Library.
- . “Letter to Dr. Ginzberg”, November 5, 1956. Papers as President, Diary Series, Box 20. Dwight D. Eisenhower Presidential Library.
- . “Eisenhower Letter to Eden 5 Nov 56”, 5 Nov 56. DDE Papers as President International Series, Box 22. Dwight D. Eisenhower Presidential Library.
- . “Letter to Eden Concerning Announcement of Nuclear Cooperation”, 12 OCT 56. Eisenhower Papers as President/ DDE Diary Series/ box 15/ april 56 Goodpaster. Dwight D. Eisenhower Presidential Library.
- . “Letter to Herbert Hoover”, 8 Oct 56. Eisenhower, Dwight D. Secret To Herbert Clark Hoover, Jr., 8 October 1956. In *The Papers of Dwight David Eisenhower*, ed. L. Galambos and D. van Ee, doc. 2014. World Wide Web facsimile by The Dwight D. Eisenhower Memorial Commission of the print edition; Baltimore, MD: The Johns Hopkins University Press, 1996, <http://www.eisenhowermemorial.org/presidential-papers/first-term/documents/2014.cfm>. <http://www.eisenhowermemorial.org/presidential-papers/first-term/documents/2014.cfm>.
- . “Letter to Lewis Douglas, Chair of Southern Arizona Bank and Trust Company”, 20 Jan 56. DDE Diary Series Box 12 folder Jan 56 Misc (4). Dwight D. Eisenhower Presidential Library.
- . “Letter to Mr. Douglas”, November 3, 1956. Papers as President, Diary Series, Box 20. Dwight D. Eisenhower Presidential Library.
- . “Memo to George Humphrey”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/90.cfm>.

- . “Note to Edgar Eisenhower”. John Hopkins University Press, 1996.
<http://www.eisenhowermemorial.org/presidential-papers/second-term/documents/1.cfm>.
- . “Phone Call to SEC DEF Wilson”, 11 Jan 56. DDE Diary Series Box 13 folder Diary Mar 56. Dwight D. Eisenhower Presidential Library.
- . “Phone Call with Secretary Dulles”, 30 OCT 56. DDE Diary Series Box 18 folder phone calls. Dwight D. Eisenhower Presidential Library.
- . . “Phone Call to Admiral Strauss Nov 57”, DDE Diary Series Box 28 Nov 57 Phone calls. Dwight D. Eisenhower Presidential Library.
- . . “Phone Call 21 Nov 57”, DDE Diary Series Box 29 Folder Phone Calls nov 57. Dwight D. Eisenhower Presidential Library.
- . “Policy Regarding Use of Atomic Weapons”, 9 April 56. WH Office NSC Staff Papers Ex SEC Series box 5 folder policy re use of atomic weapons 2. Dwight D. Eisenhower Presidential Library.
- . “Remarks at Dinner of Cleveland Aviation Club April 11, 1946”, April 11, 1946.
<http://www.eisenhowermemorial.org/pages.php?pid=116>.
- . “State of the Union January 5, 1956”. Eisenhower Memorial Commission, January 5, 1956.
<http://www.eisenhowermemorial.org/speeches/19560105%20State%20of%20the%20Union.htm>.
- . “State of the Union Message 6 JAN 55”. Eisenhower Memorial Commission, January 6, 1955.
www.eisenhowermemorial.org/speeches/19550101%20State%20of%20the%20Union.htm.
- . “Statement to the Geneva Convention”. Eisenhower Memorial Commission, July 18, 1955.
<http://www.eisenhowermemorial.org/speeches/19550718%20Opening%20Statement%20at%20the%20Geneva%20Conference.htm>.
- . *Transcription Made for National War Fund September 11, 1945*; n.d.
<http://www.eisenhowermemorial.org/pages.php?pid=99>.

- Eisenhwoer, John. "Memorandum of Conversation with the President 16 August 1957", August 20, 1957. WH Office, office of staff sec, sub series, dod subseries, box 1, folder DoD Vol. II (1) Aug 57. DDE Presidential Library.
- . "Summary of Conference on Army Missile Program", 12 Aug 57. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat AUG 57 Vol. i (2). DDE Presidential Library.
- Feary, Timmons, and Farley. "Working Group on NATO: Political Authority for Use of Atomic Weapons", December 16, 1957. Norstad Papers, Box 85, Folder Atomic Nuclear policy 57-59 (2). DDE Presidential Library.
- Franks, Robert. "Statement on Defence White Paper by Sir Robert Franks", April 4, 1958. Norstad Papers, Box 78, Sir Frank Roberts (2). DDE Presidential Library.
- Gleason, S. Everett. "251st Meeting of NSC", June 9, 1955. Eisenhower Papers as President, NSC Series, box 7. DDE Presidential Library.
- . "253rd Meeting of NSC", July 1, 1955. Eisenhower Papers as President NSC Series, box 7. DDE Presidential Library.
- . "255th Meeting of NSC", July 14, 1955. Eisenhower Papers as President NSC Series box 7. DDE Presidential Library.
- . "287 Meeting of NSC", June 7, 1956. National Security Council, June 7, 1956. Papers as President, NSC Series, box 7. DDE Presidential Library.
- . "288th Mtg of the NSC" June 15, 1956. National Security Council, Papers as President, box 7. DDE Presidential Library.
- . "289th Meeting of the NSC 29 JUN 56", June 29, 1956. Eisenhower Papers as President, NCS Series, Box 8, folder 289 meeting of NSC 29 JUN 56. DDE Presidential Library.
- Goodpaster, Andrew. "Conference Between the Joint Chiefs of Staff and the President", 10 FEB 56. Document Number NH 00360. Digital National Security Archive.
http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00360.
- . "Conference with the President after NSC 5 DEC 57", DDE Diary Series, box 29, folder DEC Staff Notes 57. Dwight D. Eisenhower Presidential Library.
- . "Conference with the President 14 March 1956", March 14, 1956. DDE Diary Series, box 13. DDE Presidential Library.

- . “Conference with the President 16 March 1956”, March 16, 1956. DDE Diary series, box 13. DDE Presidential Library.
- . “Memo of Conversation with the President”, 29 Oct 56. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, 30 Oct 56. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 3, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 4, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 5, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 6, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 9, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, November 7, 1956. Papers as President, Diary Series, Box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, 5 Nov 56. Papers as President, Diary Series, Box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Record”, November 6, 1956. Papers as President, Diary Series, box 19. Dwight D. Eisenhower Presidential Library.
- . “Memo of Conversation with the President”, October 8, 1957. WHO, Office of the Staff Secretary, Sub Series, DoD subseries, box 1, folder DoD vol II, Aug-Oct 57. DDE Presidential Library.
- . “Memorandum of Conference with the President”, October, 1957. DDE Diary Series, box 27, folder October 1957 Staff Notes (1). DDE Presidential Library.

- . “Memorandum of Conference with the President”, October 25, 1957. DDE Diary Series, box 27, folder October Staff Notes (1). DDE Presidential Library.
- . “Memorandum for Record”, November 6, 1957. DDE Diary Series, box 28, folder Staff Notes Nov 57. DDE Presidential Library.
- . “Memorandum of Conference with the President”, November 11, 1957. DDE Diary Series, box 28 folder Staff Notes Nov 57. DDE Presidential Library.
- . “Memorandum of Conference with the President 21 January 58”, January 21, 1958, DDE Diary Series, box 30, folder Staff Notes Jan 58. DDE Presidential Library.
- . “Memorandum of Conference with the President 22 Nov 57”, November 22, 1957. DDE Diary Series Box 28 Folder Staff Notes Nov 57. DDE Presidential Library.
- . “Memorandum of Conference with the President 24 May 56”, May, 24 1956. Nh00088. Digital National Security Archive. http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00088.
- . “Memorandum of Conference with the President 4 November 1957”, November 4, 1957. DDE Diary Series, box 28, folder Nov 57 Staff Notes. DDE Presidential Library.
- . “Memorandum of Conference with the President 7 Nov 57”, November 7, 1957. DDE Diary Series, box 28, folder Nov Staff Notes57. DDE Presidential Library.
- . “Memorandum of Conference with the President, 8 Oct 57”, October 8, 1957. DDE Diary Series, box 27, folder Staff Notes Oct 57 (2). Dwight D. Eisenhower Presidential Library.
- . “Memorandum of Conference with the President on 30 October 1957”, October 31, 1957. DDE Diary Series, box 27, folder October 1957. DDE Presidential Library.
- . “Memorandum of Conversation with the President”, October 28, 1957. DDE Diary Series, box 27, folder Oct 57. DDE Presidential Library.
- . “Memorandum of Conversation with the President 11 October 57”, October 11, 1957. DDE Diary Series, box 27, folder Staff Notes Oct 57 (2). DDE Presidential Library.
- . “Memorandum of Conversation with the President 22 October 1957”, October 22, 1957. DDE Diary Series, box 27, folder October 57 Staff Notes (1). DDE Presidential Library.
- . “Memo for SECSTATE, SECDEF, and CJCS Concerning Meeting on 8 DEC 54 at 1400”, December 8, 1954. Ann Whitman Diary Series, box 3, folder DEC 54(4). DDE Presidential Library.

- . “Memo of Conference with President”, May 24, 1956. DDE Diary Series, box 15, folder May 56 Goodpaster. DDE Presidential Library.
- . “Memorandum of Conversation”, December 7, 1955. WH Office of the Staff Secretary: Records of Paul Carroll, Andrew Goodpaster, 1952-61, subject series, DoD subseries, box 2, folder Budget, mil (1) DEC 53-Mar 56. DDE Presidential Library.
- . “Memorandum of Conversation with the President”, November 3, 1954. Ann Whitman Diary Series, box 3, ACW Diary Series Nov 54 (5). DDE Presidential Library.
- . “Summary of Conversation in Governor Adam’s Office”, November 26, 1957. WH office, Office of the Staff Secretary for National Security Affairs, sub series, DoD subseries, box 6, folder Missiles and Satellite September through December 1957 vol I (3). DDE Presidential Library.
- Griggs, David. “Space Technology”, December 6, 1957. Document number NH 00600. Digital National Security Archive.
<http://nsarchive.chadwyck.com/nsa/documents/NH/00600/all.pdf>.
- Gutherie, J.R. “Memo Concerning the Modernization of the REDSTONE Program”, August 2, 1957. WH office, Office of the Staff secretary for National Security Affairs sub series, DoD subseries, box 6, folder Missiles and Satellite August 1957 Volume I (2). DDE Presidential Library.
- Hagerty, James. “Press Release 5 Jan 1955”, January 5, 1955. WH Office of the Staff Secretary, DoD subseries, box 6, folder Military Planning 54-55 (1). DDE Presidential Library.
- Haskins, Charles. “Memo for General Cutler”, October 23, 1957. WHO, Office of the Special Assistant for National Security Affairs, Subject sub series, box 7, Science Advisory Committee (3). DDE Presidential Library.
- Henderson. “Telegram to Moscow Concerning the MRBM Offer to NATO”, December 13, 1960. Naurstad Papers, Policy Papers series, Atomic Nuclear Policy, box 85. DDE Presidential Library.
- Herbert Hoover, jr. “Memo for President from Mr. Hoover, Acting SEC State”, October 12, 1956. Dulles Herter Series, box 7. DDE Presidential Library.
- Herter, Christian. “From Herter to Dulles”, March, 3 1959. Norstad Papers, box 87, folder France Problems 57-59 (2). DDE Presidential Library.

- . “Telegram from State Department to USRO Europe”, December 11, 1959. Norstad Papers, box 106, folder MRBM IRBM 57-59 (1). DDE Presidential Library.
- Hoover, Herbert. “Memo for President Concerning Prime Minister Eden’s Proposal for Publicity on United States-UK Cooperation in Military Atomic Field”. October, 12 1956. DDE Diary Series, box 15, folder April 1956 Goodpaster. DDE Presidential Library.
- Houghton, Amory. “Memo from Houghton to SECSTATE”, August 8, 1958. Naurstad Papers, Policy Papers series, Atomic Nuclear Policy, box 88. DDE Presidential Library.
- . “Memo to SECSTATE Concerning Atomic Infrastructure in Europe Under NATO Control”, April 4, 1958. Naurstad Papers, Policy Papers series, Atomic Nuclear Policy, box 85. DDE Presidential Library.
- . “Outgoing Telegram: Limit Distribution”, n.d. Laustad Papers, Policy Papers, box 85, Atomic Nuclear Policy 57-59. DDE Presidential Library.
- . “Telegram from Paris to SECSTATE”, December 6, 1958. Norstad Papers, box 87, folder France Problems 57-59 (3). DDE Presidential Eisenhower Library.
- . “Telegram from American Embassy Paris Concerning IRBM Deployment”, February 11, 1958. Naurstad Papers, Policy Papers series, Atomic Nuclear Policy, box 88. DDE Presidential Library.
- . “Telegram from US Embassy Paris”, February 11, 1958. Norstad Papers, box 89, folder IRBM (3). DDE Presidential Library.
- . “Telegram to SECSTATE”, January 24, 1958. Norstad Papers, box 87, folder France Problems 57-59 (2). DDE Presidential Library.
- . “Washington 2479: Conversation Between Outgoing Permanent Representative to NATO and Amory Houghton”, 8 Jan 59. Norstad Papers, box 87, folder France Problems 57-59 (3). DDE Eisenhower Library.
- “House of Commons, London Foreign Affairs Debate”, May 30, 1960. Norstad Papers Box 78 Sir Frank Roberts (1). Dwight D. Eisenhower Presidential Library.
- Joint Atomic Energy Intelligence Committee. *National Intelligence Estimate Number 11-2-55: Soviet Atomic Energy Program to Mid 1958*, April 26, 1955. WHO, NSC Staff Papers Executive Secretary series, box 11, folder NIE SNIE (1). DDE Presidential Library.
- Kistiakowsky, George. “Progress Report for Dr. Killian on the State of Guided Missile Programs”, April 22, 1959. WHO, Office of the Special Assistant for National Security

Affairs, Subject sub series, box 8, folder sci and tech asst to pres (2). DDE Presidential Library.

Kohler, Foy. "Memo Concerning Second Generation IRBM-MRBM", 23 Nov 59. Norstad Papers Box 106 Folder IRBM MRBM (1). Eisenhower Library.

Lay, James. "257th Meeting of the NSC 4 AUG 55", August 4, 1955. Eisenhower Papers as President, NSC Series, box 7. DDE Presidential Library.

Lay, James. "NSC 151/2 Note by the Executive Secretary to the National Security Council on Disclosure of Atomic Information to Allied Countries", December 4, 1953. White House office, off of spec asst for nat sec affairs, records spec asst series, pres subseries, box 1, folder pres papers 1953(2). Dwight D. Eisenhower Presidential Library.

———. *NSC 5501 Basic National Security Policy*. Folder NSC (3). Washington D.C.: National Security Council, January 6, 1955. Dwight D. Eisenhower Presidential Library.

———. *Consultation with the U.K. on Use of Atomic Weapons*. Washington D.C., June 6, 1953. Wh Office NSC Staff Papers Ex Sec Sub series box 2 #3-4 Cons. w/ UK. Dwight D. Eisenhower Presidential Library.

———. "Memo Declaring Policy of US Regarding Atomic Weapons", 15 March 56. WH Office NSC Staff Papers Ex Sec Series box 5 folder policy re atomic wpns 2. Dwight D. Eisenhower Presidential Library.

———. "Policy Regarding Use of Atomic Weapons", 12 Jun 56. WH Office NSC Staff Papers Ex Sec series box 5 folder policy re nukes 3. Dwight D. Eisenhower Presidential Library.

Legere, Laurence. "SACEUR Views on UK Troop Reductions and Support Costs", March 12, 1958. Norstad Papers, Box 50, UK 56-59 (4). Dwight D. Eisenhower Presidential Library.

Le May, Curtis. "Remarks by Curtis Le May at the Commander's Conference at Wright Patterson Air Force Base", January 1956.

[Http://gateway.proquest.com/openurl?url_ver=Z39.88-](http://gateway.proquest.com/openurl?url_ver=Z39.88-)

2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00086. Digital National Security Archive.

———. "Remarks General Curtis Le May at Commander's Conference at Wright Patterson AFB January 1956", April 3, 1956. WH Office of the Staff Secretary: records of paul carroll, andrew goodpaster, l. arthur Minnich, and christopher russle, 1952-61/ subject series/ DoD subseries//Box 2/ folder Budget, Military (3) Apr 56. Dwight D. Eisenhower Presidential Library.

Loper, Herbert. "Authorization for Expenditure of Atomic Weapons", 23 Nov 56. WH Office NSC Staff Papers Ex SEC Series Box 5 folder policy re atomic weapons 3. Dwight D. Eisenhower Presidential Library.

Lyon, Cecil. "Conversation Between Lyon and Jacquinet, Minister of State of France", 23 Jan 59. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.

———. "From Lyon to SECSTATE Concerning French Removal of Fleet from NATO", 6 Mar 59. Norstad Papers Box 87 France Problems 57-59 (2). Dwight D. Eisenhower Presidential Library.

———. "Interview with Gaitskell and De Gaulle", 15 Jan 59. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.

———. "Telegram to SECSTATE from Paris", 10 Oct 58. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.

Lyon. "Telegram to SecState from Norstad", November 13, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.

MacMillan, Harold, and Antony Head. "Guided Weapons for the Army: Memorandum by the MInister of Defense and the Secretary of State for War", 2 mar 55. CAB/129/74. British National Archives.

MacMillan, Harold. "Letter to Rab in Ministry of Defense Concerning Expenditures", March 21, 1955. CAB/21/4053. British National Archives.

McElroy, Niel. "Memo on Progress of IRBm", 3 DEC 57. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat sep thru dec 57 vol i (3). Dwight D. Eisenhower Presidential Library.

"Memo Concerning UK Canada US Atomic Relations", n.d. WH Office NSC Staff Papers Ex Sec Subseries Box 2 UK Canada Folder. Dwight D. Eisenhower Presidential Library.

Minnich, L.A. "Additional Staff Notes 7 January 58", n.d. DDE Diary Series Box 30 Folder Staff Notes Jan 58. Dwight D. Eisenhower Presidential Library.

———. "Bi Partisan Congressional Meeting", 3 DEC 57. DDE Diary Series Box 29 Folder Staff Notes Dec 57. Dwight D. Eisenhower Presidential Library.

———. "Cabinet Meeting Minutes 11 October 1957", October 11, 1957. DDE Diary Series Box 27 Folder October 57 staff notes (2). Dwight D. Eisenhower Presidential Library.

- Murphree, E., J. Medaris, W. Raborn, and B. Schriever. "Presentations on the U.S. Ballistic Missiles Program Before the National Security Council", January 11, 1957. DN NH00568. Digital National Security Archive. http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00568.
- Murphy, Robert, and Patrick Dean. "Report to the President and Prime Minister: Procedure for the Committing to the Attack of Nuclear Retaliatory Forces in the United Kingdom", June 7, 1958. Dulles Herter Series Box 10 Folder June 58. Dwight D. Eisenhower Presidential Library.
- Nolting. "Response to TOPOL 316", August 21, 1959. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.
- Norstad, Lauris. "Conversation Between Generals Norstad and Ely", 11 mar 59. Norstad Papers Box 87 France Problems 57-59 (2). Dwight D. Eisenhower Presidential Library.
- . "For Colonel Doyle, SHAPE Liaison Officer from General Schuyler", June 4, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.
- . "General Operational Requirement for ACE IRBM Weapon Systems", 9 DEC 58. Norstad Papers Box 89 IRBM (3). Dwight D. Eisenhower Presidential Library.
- . "Memorandum for Record 31 Jan 58", 31 Jan 58. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.
- . "Memorandum for Record from Norstad Concerning France", 12 Mar 59. Norstad Papers Box 87 France Problems 57-59 (2). Dwight D. Eisenhower Presidential Library.
- . "SACEUR's Statement to the Council of Western European Union Concerning U.K. Planned Reduction in Forces", February 1957. White House Office, Office of the Staff Secretary, Subject Series, DoD subseries, box 6, mil planning 56-57 (1). Dwight D. Eisenhower Presidential Library.
- . "SACEUR's Remarks to NAC", April 20, 1959. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.
- . "SACEUR's Remarks to NAC 30 April 59", n.d. Norstad papers box 85 atomic nuclear policy 57-59 (1). Dwight D. Eisenhower Presidential Library.

Perrone-Capano, Carlo, and Russell Fessenden. "Independent Nuclear Deterrent for Europe", October 20, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.

Perrone-Capano, Signor, and Russell Fessenden. "Memorandum of Conversation", October 20, 1958. Norstad Papers Box 85 Folder Atomic Nuclear policy 57-59 (2). Dwight D. Eisenhower Presidential Library.

Petite. "Memorandum of Conversation Between General Petit, John N. Irwin, Max Krebs, and an Unnamed Individual", April 30, 1959. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.

Radford, Arthur. "Memorandum for the Secretary of Defense", 12 March 56. White House Office, Office of the Staff Secretary, Subject Series, DoD subseries, box 6, mil planning 56-57 (2). Dwight D. Eisenhower Presidential Library.

———. "Memo for SEC DEF from JCS Concerning 500 Mile Missile for Army", 2 AUG 57. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat aug 57 vol i (2). Dwight D. Eisenhower Presidential Library.

Roberts, Frank. "Letter to General Norstad Concerning", 13 DEC 58. Norstad Papers Box 78 Sir Frank Roberts (2). Dwight D. Eisenhower Presidential Library.

———. "North Atlantic Council British White Paper Statement Prior to Publication", 12 FEB 58. Norstad papers box 78 sir frank roberts (3). Dwight D. Eisenhower Presidential Library.

Schriever, B.A. "Memorandum for General Norstad", November 12, 1957. Norstad Papers Box 106 folder MRBM IRBM 57-59 (6). Dwight D. Eisenhower Presidential Library.

Simmons, B.E.L. "Corporal Warheads --- UK", September 5, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.

Smith, Bromley. "256th Mtg of NSC", 28 JUL 55. Eisenhower Papers as President NSC Series Box 7 Folder 256 mtg of NSC. Dwight D. Eisenhower Presidential Library.

Special to *the New York Times*. "Device Is 8 Times Heavier Than One Planned by U.S." *New York Times*. New York, October 5, 1957. Retrieved Oct 29, 2011, from ProQuest Historical Newspapers New York Times (1851-2007) w/Index (1851-1993). (Doc ID 84769361).

- Special to *The New York Times*. "7 Astronauts Watch Space Capsule Shot: MERCURY CAPSULE SOARS INTO SPACE." *New York Times*. New York, N.Y., United States, December 20, 1960.
- Stanley, T. "Report on the Soviet Budget and Manpower Decisions Through 1957", n.d. DDE Diary Series Box 29 Folder Toner Notes Jan 58. Dwight D. Eisenhower Presidential Library.
- Strath, William. "The Defense Implications of Fall-Out From a Hydrogen Bomb: Note by the Home Defense Committee", March 22, 1955. CAB/21/4053. The United Kingdom National Archives.
<http://www.nationalarchives.gov.uk/documentsonline/DoLUserDownload/gatesbrown@usarmymil/cab/21/4053/0/1.pdf>.
- Strauss, Lewis. "Information on Operation Hardtack". United States. Atomic Energy Commission, August 2, 1957. Document number NP00327. Digital National Security Archive. http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=Xri:dnsa:article:CNP00327.
- . "Memo for Ex Sec of NSC: Report of Status of Atomic Energy Program on June 30, 1955". National Security Council, June 30, 1955. WH Office NSC Staff Papers, Ex Sec Sub series, box 1. Dwight D. Eisenhower Presidential Library.
- Taylor, Maxwell. "Address by General Maxwell D. Taylor Chief of Staff, United States Army at Symposium-National School Boards Ass. Sep 30, 1955", September 30, 1955. National Defense University Library.
<https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/taylor&CISOPTR=272&REC=10>.
- . "Extracts from an Address by General Maxwell D. Taylor, Chief of Staff of the Army, Before Quantico Conference of Defense Leaders, Quantico, Virginia, Saturday, 16 July 1955", July 16, 1955. National Defense University Library.
<https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/taylor&CISOPTR=341&REC=9>.
- . "I'm Glad to Be in the Army". Speech, Fort Benning, Georgia, October 22, 1955.
<https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/taylor&CISOPTR=125&REC=6>.
- . "Memo for the SEC DEF Concerning the Army Redstone Modernization Program", August 2, 1957. WH Office, office of the staff sec, sub ser, dod sub series, box 6, miss and sat 57 (2). Dwight D. Eisenhower Presidential Library.

- . “Remarks by General Maxwell D. Taylor at His First Meeting with the Army Staff After Assuming the Duties of Chief of Staff, United States Army Thursday, 7 July 1955”, July 7, 1955. Online. National Defense University Library.
<https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/taylor&CISOPTR=367&REC=7>.
- . “The Army--Deterrent to War”. Speech, Executives’ Club of Chicago, October 7, 1950.
<https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/taylor&CISOPTR=233&REC=2>.
- Thurston, Ray. “Memo Concerning British Offer to Buy IRBMs”, 28 Aug 58. Norstad papers box 89 IRBM (3). Dwight D. Eisenhower Presidential Library.
- . “Memo Concerning British Purchase of Thor Missiles”, August 28, 1958. Norstad Papers/ Policy Papers series/ atomic nuclear policy/ box 88. Dwight D. Eisenhower Presidential Library.
- Timmons, B.E.L. “UK Corporal Warheads”, 5 Sep 58. Norstad Papers Box 85 Folder Atomic Nuclear policy 57-59 (2). Dwight D. Eisenhower Presidential Library.
- Tuthill, John. “Telegram 10 Jan 58”, 10 Jan 58. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.
- . “Telegram from Thurston to SECSTATE”, 9 Jan 58. Norstad Papers Box 87 France Problems 57-59 (3). Eisenhower Library.
- Unknown. “Draft of NATO Nuclear Stockpile”, June 10, 1959. Norstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.
- USRO Paris. “Summary of NAC Meeting 30 APR 59 Re NATO Draft Statement on Atomic Arms and 144B Agreements”, August 30, 1959. Norstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.
- United Kingdom, “Report on Defence: Britain’s Contribution to Peace and Security”, February 1958. Norstad Papers Box 50 Folder UK 57-59 (5). Dwight D. Eisenhower Presidential Library.

Wagoner, Alvin. "Minutes of 34th Meeting OSD Ballistic Missiles Committee on 10 July 1957 in Room 3E131 at 1400 Hours", July 10, 1957. Digital National Security Archive. http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH00580.

Waverly, Viscount (John Anderson). "Report of the Committee on the Future Organisation of the Atomic Energy Project". United Kingdom, July 23, 1953. CAB/129/62. British National Archives. <http://www.nationalarchives.gov.uk/documentsonline/DoLUserDownload/gmb@kuedu/CAB/129/62/0/0008.pdf>.

Wilson, Charles. "IRBM Program", August 13, 1957. Digital National Security Archive. http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH01058.

———. "Memo for JCS Concerning Readjustment of IRBM Program", June 26, 1957. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat aug 57 vol i (2). Dwight D. Eisenhower Presidential Library.

———. "Memo for Sec Army Concerning Land Based IRBM", 13 Aug 57. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat aug 57 vol i (2). Dwight D. Eisenhower Presidential Library.

———. "Memo from SEC DEF to Pres Concerning Army Missile Program", 2 AUG 57. WH office, office of staff secretary for nat sec aff, sub series, dod subseries, box 6, missiles and sat aug 57 vol i (2). Dwight D. Eisenhower Presidential Library.

———. "Military and Other Requirements for Our National Security", 2 Feb 56. White House Office, Office of the Staff Secretary, Subject Series, DoD subseries, box 6, mil planning 56-57 (2). Dwight D. Eisenhower Presidential Library.

———. "General Guidelines for FY 1956 and 1957", October 14, 1955. WH Office of the Staff Secretary: records of paul carroll, andrew goodpaster, l. arthur Minnich, and christopher russle, 1952-61/ subject series/ DoD subseries//Box 2/ folder Budget, mil (1) DEC 53-Mar 56. Dwight D. Eisenhower Presidential Library.

———. "Memo for the President Supplemental Appropriations for FY 57", March 29, 1956. WH Office of the Staff Secretary: records of paul carroll, andrew goodpaster, l. arthur Minnich, and christopher russle, 1952-61/ subject series/ DoD subseries//Box 2/ folder Budget, Military (2) April 56. Dwight D. Eisenhower Presidential Library.

———. "Remarks as Delivered by the Secretary of Defense Before the North Atlantic Council of Ministers Paris, France 15 Dec 1955", December 15, 1955. WH Office of the staff

secretary DoD subseries/ box 6/ folder mil planning 54-55 (5). Dwight D. Eisenhower Presidential Library.

Wolf, Joseph. "Reply to Deptel 775 UK Proposal to Purchase Thors and ALO 834", 12 SEP 58. Norstad papers box 89 IRBM (3). Dwight D. Eisenhower Presidential Library.

———. "Statement Concerning SACEUR Position on Sale of Thors to UK", September 12, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 88. Dwight D. Eisenhower Presidential Library.

———. "December NAC Meeting: Use of Nuclear Weapons", Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 85. Dwight D. Eisenhower Presidential Library.

Zellerbach. "Memo from Embassy in Rome Concerning IRBM Deployment in Italy", September 3, 1958. Naurstad Papers/ Policy Papers series/ atomic nuclear policy/ box 88. Dwight D. Eisenhower Presidential Library.

Dissertations and Thesis

Greenwald, Bryon. "Scud Alert!: The History, Development, and Military Significance of Ballistic Missiles on Tactical Operations". Command and General Staff College, 1995.

Jussel, Paul. "Intimidating the World: The United States Atomic Army, 1956-1960". Ohio State University, 2004.

Skelton, John. "The Forbidden Weapon-- The Employment of Army Tactical Nuclear Weapons". Command and General Staff College, 1990.

Appleby, Charles. "Eisenhower and Arms Control, 1953-1961: A Balance of Risks." Ph.D. Diss., Johns Hopkins University, 1987.

Army Information Digest (AID)

"One round Won't win the Fight" AID April (1949); 64-64.

Brucker, Wilber, Secretary of the Army "Determined Deterrence—America's Best Safeguard Against Aggression." AID June 59 : 13.

Clark, Bruce. "Combat Readiness is our Job." AID March (59): 3-13

Collins, Lawton. "Modern Weapons for Today's Army" AID June (50) 3-9

---- "New Approaches to World Peace" Aid Jan 51 3-9

Spaatz, Carl "The world of Strategic Air Force" AID Oct 48 17-19

Storke, H/P. "Speaking Up for the Army" AID July July 59 2-9

Symington, Stuart "Facing Realities" AID May (50) 38-42

Taylor, Maxwell. "The Army Role in the Future" Aid Jan 58 4-11

Kissginer, Henry. "Military Policy and Defense of the Gray Areas" FA 33 no.3 April 55 416-28

Published Primary Documents

Boyle, Peter, ed. *The Eden-Eisenhower Correspondance, 1955-1957*. Chapel Hill: University of North Carolina Press, 2005.

Eisenhower, Dwight D. *Mandate for Change: The White House Years*. New York: Doubleday, 1963

Ferrell, Robert, ed. *The Eisenhower Diaries*. New York: W.W. Norton and Company, 1981.

Glennon, John, and Madeline Chi, eds. *Foreign Relations of the United States, 1955-57: Suez Crisis July 26-December 31, 1956*. Vol. XVII. Washington D.C.: United States Government Printing Office, 1992.

Glennon, John, and Nina Noring, eds. *Foreign Relations of the United States, 1955-57: Suez Crisis July 26-December 31, 1956*. Vol. XVI. Washington D.C.: United States Government Printing Office, 1990.

Foreign Relations of the United States. Washington D.C.: GPO, 1986-.

Books

Allen, Craig. *Eisenhower and the Mass Media: Peace, Propserity, and Prime-Time TV*. Chapel Hill: University of North Carolina Press, 1993.

Ambrose, Stephen *The Military and American Society*_New York: Free Press 1972

----. *Eisenhower: Soldier, General of the Army, and President Elect*. New York: Simon and Schuster, 1983.

----. *Eisenhower: The President*. New York, Simon and Schuster, 1984

Amme, Carl. *NATO Without France: a Strategic Appraisal*. Stanford: Hoover Institute on War, Revolution, and Peace, 1967.

Anderson, Patrick. *The Presidents' Men: White House Assistants of Franklin D. Roosevelt, Harry S. Truman, Dwight D. Eisenhower, John F. Kennedy, and Lyndon B. Johnson*. [Anchor Books ed.]. Doubleday, 1969.

Baar, James. *Combat Missilemen*. New York: Harcourt, Brace and Company, 1960.

———. *Polaris!* New York: Harcourt, Brace and Company, n.d.

Beede, Benjamin R. *Military and Strategic Policy: An Annotated Bibliography*. Greenwood Press, 1990.

Biddle, Tami Davis. *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945*. Princeton University Press, 2004.

Bischoff, Gunter and Stephen Ambrose. *Eisenhower: A Century Assessment*. Baton Rouge: Louisiana State University Press, 1995.

Brewer, Susan A. *Why America Fights: Patriotism and War Propaganda from the Philippines to Iraq*. Reprint. Oxford University Press, USA, 2011.

Brodie, Bernard, and Fawn M. Brodie. *From Crossbow to H-Bomb: The Evolution of the Weapons and Tactics of Warfare*. Revised and Enlarged ed. Indiana University Press, 1973.

------. *Strategy in the Missile Age* Princeton, Princeton U. Press, 1965 R

Brennan, Donald, ed. *Arms Control, Disarmament, and National Security*. New York: George Braziller, 1961.

Brownlee, James F. *The Defense We Can Afford*. Committee for Economic Development, 1958.

Center for Military History. *History of Strategic Air and Ballistic Missile Defense*. Washington D.C.: Center for Military History, U.S. Army, 2009.

Cleave, William R. Van. *Tactical Nuclear Weapons: An Examination of the Issues*. Crane Russak & Co, 1978.

Cook, Don. *Charles De Gaulle*. New York: G.P. Putnam's Sons, 1983.

Condit, Doris M. *History of the Office of the Secretary of Defense, V. 2, The Test of War, 1950-1953*. First. Office of the Secretary, Historical Offi, 1988.

Crevelde, Martin Van. *The Art of War (Smithsonian History of Warfare) : War and Military Thought*, 2005.

Divine, Robert. *The Sputnik Challenge: Eisenhower's Response to the Soviet Satellite*. New York: Oxford University Press, 1993. R

Eisenhower, David. *Going Home To Glory: A Memoir of Life with Dwight D. Eisenhower, 1961-1969*. 1ST ed. Simon & Schuster, 2010.

Eisenhower, Dwight. *At Ease Stories I Tell To Friends* 1ST Edition. DOUBLEDAY & CO INC, 1967.

Eisenhower, Dwight David. *Crusade in Europe*. Johns Hopkins Ppbk Ed. 1997. The Johns Hopkins University Press, 1997.

———. *Eisenhower: The Prewar Diaries and Selected Papers, 1905-1941*. Edited by Daniel D. Holt and James Leyerzapf. annotated ed. The Johns Hopkins University Press, 1998.

Eisenhower, John. *General Ike: A Personal Reminiscence*. Free Press, 2004.

Fairchild, Byron *History of the Joint Chiefs of Staff: the Joint Chiefs of Staff and National Policy 1957-1960* Vol. 7, Washington D. C. Office of Joint history, 2000.

Gat, Azar. *A History of Military Thought: From the Enlightenment to the Cold War*. 1st ed. Oxford University Press, USA, 2002.

———. *War in Human Civilization*. Oxford University Press, USA, 2008.

Gavin, James M. *War and Peace in the Space Age*. 1st ed. Harper, 1958.

Gaddis, John Lewis. *George F. Kennan: An American Life*. First ed. Penguin Press HC, The, 2011.

Giglio, James N. *The Presidency of John F. Kennedy*. 2 Revised. University Press of Kansas, 2006.

Gooch, John ed. *Airpower: Theory and Practice* London: Frank Cass, 1995.

Greenstein, Fred. *The Hidden-Hand Presidency: Eisenhower as Leader*. New York: Basic, Books, 1982.

Halberstam, David. *The Fifties*. First Ballantine Edition, Jun 1994. Ballantine Books, 1994.

Hagerty, James C. *The Diary of James C. Hagerty: Eisenhower in Mid-course, 1954-1955*. First. Indiana University Press, 1983.

Herspring, Dale R. *The Pentagon and the Presidency: Civil-Military Relations from FDR to George W. Bush*. University Press of Kansas, 2006.

Hogan, Michael J., and Thomas G. Paterson, eds. *Explaining the History of American Foreign Relations*. 2nd ed. Cambridge University Press, 2004.

Hunt, Prof. Michael H. *Ideology and U.S. Foreign Policy*. 2nd ed. Yale University Press, 2009.

Huntington, Samuel. *The Soldier and the State: the Theory and Politics of Civil Military Relations*. Cambridge: Belknap Press, 1985.

Jansson, Bruce S. *The Sixteen-Trillion-Dollar Mistake*. Columbia University Press, 2002.

Kissinger, Henry. *Nuclear Weapons and Foreign Policy*. New York: Harper, 1957.

Knorr, Klaus ed. *NATO and American Security*. Princeton: Princeton University Press, 1959.

Latham, Michael. *Modernization as Ideology: American Social Science and "Nation Building" in the Kennedy Era*. The University of North Carolina Press, 2000.

Leighton, Richard. *Strategy, Money, and the New Look: 1953-1956*. Washington D. C.: Historical Office of the Secretary of Defense, 2001.

Lewis, Adrian R. *The American Culture of War: A History of US Military Force from World War II to Operation Iraqi Freedom*. 2nd ed. Routledge, 2007.

Mahnken, Thomas. *Technology and the American Way of War Since 1945*. Columbia University Press, 2010.

McDougall, Walter A. *The Heavens and the Earth: A Political History of the Space Age*. ACLS Humanities E-Book, 2008.

Moskin, J. Robert. *M r. Truman's War: The Final Victories of World War II and the Birth of the Postwar World*. Lawrence: University Press of Kansas, 2002.

Neufeld, Jacob. *The Development of Ballistic Missiles in the United States Air Force, 1945-1960*. Washington: Office of Air Force History, 1990.

Newhouse, John. *De Gaulle and the Anglo-Saxons*. New York: Viking Press, 1970.

Pach, Chester, and Elmo Richardson. *The Presidency of Dwight D. Eisenhower*. Lawrence: University Press of Kansas, 1991.

Paret, Peter. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton, Princeton University Press, 1986.

Schnabel, Jones. *History of the Joint Chiefs of Staff: The Joint Chiefs of Staff and National Policy, 1945-1947*. Washington D.C. Office of the Chairman of the Joint Chiefs of Staff, 1996.

Sigal, Leon. *Nuclear Forces in Europe: Enduring Dilemmas, Present Prospects*. Washington D.C.: Brookings Institution, 1984.

Smith, Bruce L. R. *American Science Policy Since World War II*. Washington: Brookings Institution Press, 1990.

Stocker, Jeremy. *Britain and Ballistic Missile Defence, 1942-2002*. New York: Routledge, 2004.

Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton: Princeton University Press, 1999.

Wigley, Russel. *The American War of War: A History of U.S. Military Strategy and Policy*. Bloomington: Indiana University Press, 1973.

Williamson, Murray. *Military Innovation in the Interwar Period*. New York: Cambridge University Press, 1996. R

Cold War

Acheson, Dean. *Present at the Creation: My Years at the State Department*. New York: W.W. Norton, 1969. R

Adan, Avraham. *On the Banks of the Suez*. San Francisco: Presidio Press, 1980.

Aliano, Richard. *American Defense Policy from Eisenhower to Kennedy*. Columbus: Ohio State University, 1975.

Ambrose, Stephen E., Caleb Carr, Thomas Fleming, and Victor Hanson. *The Cold War: A Military History*. Edited by Robert Cowley. 2006th ed. Random House Trade Paperbacks, 2006.

Armacost, Michael. *The Politics of Weapons Innovation: The Thor-Jupiter Controversy*. New York: Columbia University Press, 1969. R

Baucom, Donald R. *The Origins of SDI, 1944-1983*. University Press of Kansas, 1992.

Bacevich, Andrew. *The Pentomic Era*. Washington D.C.: National Defense University Press, 1986. R

Barnaby, Frank and Douglas Holdstock. *The British Nuclear Weapons Programme, 1952-2002*. New York: Routledge, 2003.

Baylis, John. *Ambiguity and Deterrence: British Nuclear Strategy 1945-1964*. New York: Oxford University Press, 1996.

Bowie, Robert. *The North Atlantic Nations: Tasks for the 1960s—A Report to the Secretary of State August 1960, Nuclear History Program Occasional Paper # 7*. Baltimore: University of Maryland, 1991.

Carpenter, Charles A. *Dramatists and the Bomb: American and British Playwrights Confront the Nuclear Age, 1945-1964. Contributions in Drama and Theatre Studies no. 91*. Westport, Conn: Greenwood Press, 1999.

Clark, Ian, and Nicholas J. Wheeler. *The British Origins of Nuclear Strategy 1945-1955*. New York: Oxford University Press, USA, 1989.

Condit, Doris. *History of the Office of the Secretary of Defense: The Test of War, 1950-1953*. Washington D.C. : Historical Office, Office of the Secretary of Defense, 1988.

Cordle, Daniel. *States of Suspense: The Nuclear Age, Postmodernism and United States Fiction and Prose*. Manchester: Manchester University Press, 2008.

Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*. New York: Columbia University Press, 1998. R

--- and Fredrick Logevall. *America's Cold War: The Politics of Insecurity*. Cambridge: Belknap Press of Harvard University, 2009 .

--- and Sergey S Radchenko. *The Atomic Bomb and the Origins of the Cold War*. Yale University Press, 2008.

Deibel, Terr ed. *Containment: Concept and Policy Vols. 1 and 2* Washington D.C. National Defense University Press, 1986.

Dickson, Paul. *Sputnik: The Shock of the Century*. New York: Walker, 2001.

Dockrill, Saki. *Eisenhower's New Look National Security Policy, 1953-1961*. New York: St. Martin's Press, 1992. R

Ee, Daun van. "From the New Look to Flexible Response," in *Against All Enemies: Interpretations of American Military History from Colonial Times to the Present*, ed. Hagan, Kenneth. Westport: Greenwood Press, 1986.

Fursenko, Aleksandr, and Timothy Naftali. *Khrushchev's Cold War: The Inside Story of an American Adversary*. W. W. Norton & Company, 2007.

Fox, William T. R. *NATO and the Range of American Choice*. New York: Columbia University Press, 1967.

Gaddis, John Lewis. *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy*. New York: Oxford University Press, 1992. R

----. *We Now Know: Rethinking the Cold War History*. New York: Oxford University Press, 1998. R

Gantz, Kenneth F. ed. *The United States Air Force Report on the Ballistic Missile: Its Technology, Logistics, and Strategy*. Garden City: Doubleday and Co., 1958.

Garthoff, Raymond. *Assessing the Adversary: Estimates by the Eisenhower Administration of Soviet Intentions and Capabilities*. Washington D. C.: Brookings Institute, 1991.

Gellhoed, Bruce. *Charles E. Wilson and Controversy at the Pentagon, 1953-1957*. Detroit: Wayne State University Press, 1979.

Herf, Jeffrey. *War by Other Means: Soviet Power, West German Resistance, and the Battle of the Euromissiles*. New York: Free Press, 1991.

Inglis, Fred. *The Cruel Peace: Everyday Life in the Cold War*. New York: Harper, 1991.

Institute, Stockholm International Peace Research. *Tactical Nuclear Weapons: European Perspectives*. distributed in the U.S.A. by Crane, Russak, 1978.

Jansen, Bruce. *Sixteen Trillion Dollar Mistake: How the U.S. Bungled Its National Priorities from the New Deal to the Present*. New York: Columbia University Press, 2001.

Kahn, Herman. *On Thermonuclear War*. Princeton: Princeton University Press, 1961

Kaplan, Lawrence S. *NATO 1948: The Birth of the Transatlantic Alliance*. Lanham, Md: Rowman & Littlefield, 2007.

———. *NATO and the Policy of Containment. Problems in American Civilization*. Boston: Heath, 1968.

Kingseed, Cole C. *Eisenhower and the Suez Crisis of 1956*. Louisiana State Univ Pr, 1995.

Kintner, William and Reinhardt, George. *Atomic Weapons in Land Combat*. Harrisburg: Military Service Publishing Company, 1953.

Knorr, Klaus. *NATO and American Security*. Princeton, N.J: Princeton University Press, 1959.

Kolodziej, Edward. *The Uncommon Defense and Congress, 1945-1963*. Columbus: Ohio State University Press, 1966. R

Lafeber, Walter. *America, Russia, and the Cold War, 1945-2002 9th edition*. Boston: McGraw Hill, 2002.

Launius, Roger, and Dennis Jenkins ed. *To Reach the High Frontier: A History of U.S. Launch Vehicles*. Lexington: University Press of Kentucky, 2002.

Ledbetter, James. *Unwarranted Influence: Dwight D. Eisenhower and the Military-Industrial Complex*. New Haven: Yale University Press, 2011.

Leffler, Melvyn. *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. Stanford: Stanford University Press, 1992.

---. *For the Soul of Mankind: The United States, the Soviet Union, and the Cold War*. New York: Hill and Wang, 2008.

Maddox, Shane. *Nuclear Apartheid: the Quest for American Atomic Supremacy From World War II to the Present*. Chapel Hill: University Press of North Carolina, 2010. R

Mahnken, Thomas. *Technology and The American Way of War Since 1945*. New York: Columbia University Press, 2008.

Mastny, Vojtech. *A Cardboard Castle? An Inside History of the Warsaw Pact, 1955-1991*. Budapest: Central European University, 2005.

Mataxis, Theodore. *Nuclear Tactics: Weapons, and Firepower in the Pentomic Division, Battlegroup, and Company*. Harrisburg: The Military Service Publishing Company, 1958. R

Mayer, Michael. *The Eisenhower Presidency and the '50s*. New York: Houghton Miffling, 1998.

McClenahan, William. *Eisenhower and the Cold War Economy*. The Johns Hopkins University P, 2011.

Nash, Philip. *The Other Missiles of October: Eisenhower, Kennedy, and the Jupiters, 1957-1963*. Chapel Hill: University of North Carolina Press, 1997. R

Nichols, David. *A. Eisenhower 1956: The President's Year of Crisis--Suez and the Brink of War*. Simon & Schuster, 2011.

Osgood, Robert Edicott. *Limited War, the Challenge to American Strategy*. University of Chicago, 1958.

Osgood, Kenneth. *Total Cold War: Eisenhower's Secret Propaganda Battle at Home and Abroad*. Lawrence: University Press of Kansas, 2006.

Patterson, Gardner, and Edgar S. Furniss, Jr. *NATO: A Critical Appraisal*. Princeton: Princeton University Press, 1957.

Paterson, Robert H. *Britain's Strategic Nuclear Deterrent: From Before the V-Bomber to Beyond Trident*. 1st ed. Routledge, 1997.

Peeters, Paul. *Massive Retaliation: The Policy and Its Critics*. First ed. Chicago: Henry Regnery Co, 1959.

Pierre, Andrew J. *Nuclear Politics: British Experience with an Independent Strategic Force, 1939-70*. Oxford University Press, 1972.

Podvig, Pavel, ed. *Russian Strategic Nuclear Forces*. Cambridge: Massachusetts Institute of Technology Press, 2004.

Polmar, Norman, and Robert S. Norris. *U.S. Nuclear Arsenal: A History of Weapons and Delivery Systems Since 1945*. Washington: Naval Institute Press, 2009.

Rearden, Steven. *History of the Office of the Secretary of Defense: The Formative Years, 1947-1950*. Washington D.C. 1984

Reese, David. *The Age of Containment: The Cold War*. New York: St. Martin's Press, 1967.

Ritter, Scott. *Dangerous Ground: America's Failed Arms Control Policy, from FDR to Obama*. New York: Nation Books, 2010.

Roberts, Geoffrey. *Stalin's Wars: From World War to Cold War, 1939-1953*. New Haven: Yale University Press, 2008.

Rose, John. *The Evolution of U.S. Army Nuclear Doctrine, 1945-1980*. Boulder, Westview Press, 1980.

Sagan, Scott D. *Moving Targets. Nuclear Strategy and National Security*. Princeton University Press, 1989.

Scott, Len and Stephen Twigge. *Planning Armageddon: Britain, the United States and the Command of Nuclear Forces, 1945-1964*. Newark: Harwood Academic Press, 2000.

Schwartz, David N. *Nato's Nuclear Dilemmas*. Washington: Brookings Inst Pr, 1983.

Sheehan, Neil. *A Fiery Peace in a Cold War: Bernard Schriever and the Ultimate Weapon*. New York: Random House, 2009.

Snead, David. *Gaither Committee: Eisenhower & Cold War*. Columbus: Ohio State University Press, 1998.

Stares, Paul B. *The Militarization of Space, U.S. Policy, 1945-1984*. 1st Edition, 2nd Printing. Ithaca: Cornell University Press, 1985.

Trachtenberg, Marc. *History and Strategy*. Princeton: Princeton University Press, 1991.

--- *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton: Princeton University Press, 1999.

Ward, Bob. *Dr. Space: The Life of Wernher Von Braun*. Annapolis: Naval Institute Press, 2009.

Watson, Robert J., Historical Office, and Office of the Secretary of Defense. *History of the Office of the Secretary of Defense, Volume IV: Into the Missile Age 1956-1960*. Military History Publishing, 2011.

Wolfers, Arnold, ed. *Alliance Policy in the Cold War*. Baltimore: Johns Hopkins Press, 1959.

Zaloga, Steven. *The Kremlin's Nuclear Sword: The Rise and Fall of Russia's Strategic Nuclear Forces, 1945-2000*. Washington: Smithsonian Books, 2002.

Zubok, Vladislav and Contantine Pleshakov. *Inside the Kremlin's Cold War: From Stalin to Khrushchev*. Cambridge: Harvard University Press, 1996. R

Foreign and Nuclear Policy

Botti, Timothy. *The Long Wait: The Forging of the Anglo-American Nuclear Alliance, 1945-1958*. New York: Greenwood Press, 1987.

Cirincione, Joseph. *Bomb Scare: The History & Future of Nuclear Weapons*. New York: Columbia Press University, 2007.

Kissinger, Henry. *Nuclear Weapons and Foreign Policy*. W.W. New York: W.W. Norton & Company, 1969.

Kroenig, Matthew. *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons*. Ithaca: Cornell University Press, 2010.

Marks, Fredrick. *Power and Peace: The Diplomacy of John Foster Dulles*. Westport: Praeger, 1993.

Paul, T.V. *The Tradition of Non-Use of Nuclear Weapons*. Stanford: Stanford Security Studies, 2009.

Powell, Robert. *Nuclear Deterrence Theory: The Search for Credibility*. New York: Cambridge University Press, 2008.

Rublee, Maria Robin. *Nonproliferation Norms: Why States Choose Nuclear Restraint*. Athens: University Press of Georgia, 2009.

Taylor, Maxwell. *The Uncertain Trumpet*. New York: Harper & Brothers, 1959.

Tudda, Chris. *The Truth is our Weapon: The rhetorical Diplomacy of Dwight D. Eisenhower and John Foster Dulles*. Baton Rouge: Louisiana State University, 2006.

Williams, Appleman. *Tragedy of American Diplomacy*. New York: W.W. Norton, 2009.

Zeman, Scott and Michael Amundson. *Atomic Culture: How We Learned to Stop Worrying and Love the Bomb*. Boulder: University Press of Colorado, 2004.

Articles

Abbott, Philip. "King Utopus, and the Fifties Decade in America." *Presidential Studies Quarterly* 32, no. 1 (March 2002): 7-29.

Armstrong, Hamilton Fish. "Postscript to E. D. C." *Foreign Affairs* 33, no. 1 (October 1954): 17-27.

Ball, S. J. "Military Nuclear Relations Between the United States and Great Britain Under the Terms of the McMahon Act, 1946-1958." *The Historical Journal* 38, no. 2 (June 1, 1995): 439-454.

Brands, Henry. "Johnson and Eisenhower: The President, the Former President, and the War in Vietnam." *Presidential Studies Quarterly* 15, no. 3 (Summer 1985): 589-601.

Brandt, Willy. "The Means Short of War." *Foreign Affairs* 39, no. 2 (January 1961): 196-207.

Brodie, Bernard. "Nuclear Weapons: Strategic or Tactical?" *Foreign Affairs* 32, no. 2 (January 1954): 217-229.

———. "Military Demonstration and Disclosure of New Weapons." *Foreign Affairs* 5, no. 3 (April 1953): 281-301.

- Buchan, Alastair. "The Reform of NATO." *Foreign Affairs* 40, no. 2 (January 1962): 165–182.
- Coffman, Edward. "The Course of Military History in the United States Since World War II." *The Journal of Military History* 61, no. 4 (October 1997): 761–775.
- Collins, J. Lawton. "NATO: Still Vital for Peace." *Foreign Affairs* 34, no. 3 (April 1956): 367–379.
- Cox, Donald. "A Dynamic Philosophy of Airpower." *The Journal of Military History* 21, no. 3 (Autumn 1957): 132–138.
- Croft, Stuart. "European Integration, Nuclear Deterrence and Franco-British Nuclear Cooperation." *International Affairs* (Royal Institute of International Affairs 1944-) 72, no. 4 (October 1, 1996): 771–787.
- Cuddy, Edward. "Mr. Johnson's War. Or Mr. Eisenhower's?" *The Review of Politics* 65, no. 4 (Autumn 2003): 351–374.
- Damms, Richard. "James Killian, the Technological Capabilities Panel, and the Emergence of President Eisenhower's 'Scientific-Technological Elite.'" *Diplomatic History* 24, no. 1 (2000): 57–78.
- DeWeerd, H. A. "Britain's Changing Military Policy." *Foreign Affairs* 34, no. 1 (October 1955): 102–116.
- Dingman, Roger. "Atomic Diplomacy During the Korean War." *International Security* 13, no. 3 (winter, -1989 1988): 50–91.
- Donnelly, William. "The Best Army That Can Be Put in the Field in the Circumstances: The U.S. Army, July 1951- July 1953." *The Journal of Military History* 71, no. 3 (July 2007): 809–847.
- Duchin, Brian. "The Most Spectacular Legislative Battle of That Year: President Eisenhower and the 1958 Reorganization of the Department of Defense." *Presidential Studies Quarterly* 24, no. 2 (Spring 1994): 243–262.
- Fautua, David. "The 'Long Pull' Army: NSC 68, the Korean War, and the Creation of the Cold War U.S. Army." *The Journal of Military History* 61, no. 1 (January 1997): 93–120.
- Gallois, Pierre M. "New Teeth for NATO." *Foreign Affairs* 39, no. 1 (October 1960): 67–80.
- Hamburg, Roger. "Massive Retaliation Revisited." *The Journal of Military History* 38, no. 1 (February 1974): 17–23.

Hoag, Malcolm W. "NATO: Deterrent or Shield?" *Foreign Affairs* 36, no. 2 (January 1958): 278–292.

Howard, Michael. "Britain's Defenses: Commitments and Capabilities." *Foreign Affairs* 39, no. 1 (October 1960): 81–91.

Humphrey, Hubert H. "The Senate in Foreign Policy." *Foreign Affairs* 37, no. 4 (July 1959): 525–536.

Jackson, Michael. "Beyond Brinkmanship: Eisenhower, Nuclear War Fighting, and Korea, 1953-1968." *Presidential Studies Quarterly* 35, no. 1 (March 2002): 52–75.

Kennan, George F. "Peaceful Coexistence: A Western View." *Foreign Affairs* 38, no. 2 (January 1960): 171–190.

Khrushchev, Nikita S. "On Peaceful Coexistence." *Foreign Affairs* 38, no. 1 (October 1959): 1–18.

King, James E. Jr. "Nuclear Plenty and Limited War." *Foreign Affairs* 35 (Winter, 1957): 238.

Kinnard, Douglas. "Eisenhower and the Defense Budget." *The Journal of Politics* 39, no. 3 (August 1977): 596–623.

Kissinger, Henry A. "Force and Diplomacy in the Nuclear Age." *Foreign Affairs* 34, no. 3 (April 1956): 349–366.

———. "Military Policy and Defense of the 'Grey Areas'." *Foreign Affairs* 33, no. 3 (April 1955): 416–428.

———. "Missiles and the Western Alliance." *Foreign Affairs* 36, no. 3 (April 1958): 383–400.

———. "Nuclear Testing and the Problem of Peace." *Foreign Affairs* 37, no. 1 (October 1958): 1–18.

———. "Reflections on American Diplomacy." *Foreign Affairs* 35, no. 1 (October 1956): 37–56.

———. "The Search for Stability." *Foreign Affairs* 37, no. 4 (July 1959): 537–560.

Knorr, Klaus. "Nuclear Weapons: 'Haves' and 'Have-Nots'." *Foreign Affairs* 36, no. 1 (October 1957): 167–178.

Maddock, Shane. "The Fourth Country Problem: Eisenhower's Nuclear Nonproliferation Policy." *Presidential Studies Quarterly* 28, no. 3 (Summer 1998): 553–572.

Marchio, James. "Risking General War in Pursuit of Limited Objectives: U.S. Military Contingency Planning for Poland in the Wake of the 1956 Hungarian Uprising." *The Journal of Military History* 66, no. 3 (July 2002): 783–812.

Mosely, Philip E. "Soviet Foreign Policy: New Goals or New Manners?" *Foreign Affairs* 34, no. 4 (July 1956): 541–553.

Neufeld, Michael. "The End of the Army Space Program: Interservice Rivalry and the Transfer of the Von Braun Group to NASA, 1958-1959." *The Journal of Military History* 69, no. 3 (July, 2005).

Nitze, Paul H. "Atoms, Strategy and Policy." *Foreign Affairs* 34, no. 2 (January 1956): 187–198.

Patterson, Bradley. "Teams and Staff: Dwight Eisenhower's Innovations in the Structure and Operations of the Modern White House." *Presidential Studies Quarterly* 24, no. 2 (Spring 1994): 277–298.

Pearson, Lester B. "After Geneva: A Greater Task for NATO." *Foreign Affairs* 34, no. 1 (October 1955): 14–23.

Pieterse, Jan. "The Development of Developmental Theory: Towards Critical Globalism." *Review of International Political Economy* 3, no. 4 (Winter 1996): 541–564.

Pleven, René. "France in the Atlantic Community." *Foreign Affairs* 38, no. 1 (October 1959): 19–30.

Przeworski, Adam, and Fernando Limongi. "Modernization: Theories and Facts." *World Politics* 49, no. 2 (January 1997): 155–183.

Rockefeller, Nelson A. "Purpose and Policy." *Foreign Affairs* 38, no. 3 (April 1960): 370–390.

Roland, Alex. "Technology, Ground Warfare, and Strategy: The Paradox of American Experience." *The Journal of Military History* 55, no. 4 (October 1991): 447–468.

Slessor, John. "British Defense Policy." *Foreign Affairs* 35, no. 4 (July 1957): 551–563.

Spaak, Paul-Henri. "New Tests for NATO." *Foreign Affairs* 37, no. 3 (April 1959): 357–365.

Strang, Lord. "Germany Between East and West." *Foreign Affairs* 33, no. 3 (April 1955): 387–401.

Strauss, Franz-Josef. "Soviet Aims and German Unity." *Foreign Affairs* 37, no. 3 (April 1959): 366–377.

Vernon, Raymond. "Foreign Trade and National Defense." *Foreign Affairs* 34, no. 1 (October 1955): 77–88.

Wallace, William. "British Foreign Policy After the Cold War." *International Affairs* (Royal Institute of International Affairs 1944-) 68, no. 3 (July 1, 1992): 423–442.

Wohlstetter, Albert. "Nuclear Sharing: NATO and the N+1 Country." *Foreign Affairs* 39, no. 3 (April 1961): 355–387.

———. "The Delicate Balance of Terror." *Foreign Affairs* 37, no. 2 (January 1959): 211–234.

Wolfers, Arnold. "Superiority in Nuclear Weapons: Advantages and Limitations." *Annals of the American Academy of Political and Social Science* 29 (November 1953): 7–15.

Zuckerman, Solly. "Judgment and Control in Modern Warfare." *Foreign Affairs* 40, no. 2 (January 1962): 196–212.