

THE AIR FORCE AND GRAND STRATEGY

BY

MAJOR NELSON D. ROULEAU

UNITED STATES AIR FORCE

A THESIS PRESENTED TO THE FACULTY OF
THE SCHOOL OF ADVANCED AIR AND SPACE STUDIES
FOR COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIR AND SPACE STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

MAY 2013

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2013		2. REPORT TYPE		3. DATES COVERED 00-00-2013 to 00-00-2013	
4. TITLE AND SUBTITLE The Air Force And Grand Strategy				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School Of Advanced Air And Space Studies,,Air University,,Maxwell Air Force Base,,AL				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This study examines the implementation of American grand strategy and the Air Force???s contributions to it during periods of constrained national resources. First, the writer investigates grand strategy in general and American grand strategy in particular. The results provide a working definition of grand strategy and explain the essence of American grand strategy, thereby delivering a framework with which the evidence can be judged. Next, the author assesses two examples of American grand strategy during periods of constrained national resources. These periods are the years between World War I and II (1919-1939) and President Eisenhower???s Administration years (1953-1960). These assessments pay particular attention to two main points: how the Air Force contributed to American grand strategy and how airminded leaders articulated that contribution. The writer then evaluates the emerging foreign and domestic challenges, as well as the opportunities facing the United States in the early twenty-first century. The final section of the study applies the insights gained from the two historical examples to the likely future. The current strategic environment demands two things: the responsible, economic provision of airpower???s unique contributions to national defense and the effective articulation of those contributions by inspired, airminded leaders.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 135	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

PROF. HAROLD R. WINTON, PhD

21 May 2013

COL. JEFFREY SMITH, PhD

21 May 2013

DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

ABOUT THE AUTHOR

Major Nelson Rouleau is an Air Battle Manager qualified in three command and control (C2) major weapons systems: E-8C JSTARS, E-3C AWACS, and Control and Reporting Center (CRC). He initially enlisted and served four years as a weather observer. Major Rouleau then attended Officer Training School and received his commission in 2000. As a First Lieutenant, he was a part of the largest Air Force convoy to traverse through a combat zone during Operation IRAQI FREEDOM. Major Rouleau has operational experience in South America as well as combat tours in Operations SOUTHERN WATCH, IRAQI FREEDOM and ENDURING FREEDOM. He has also served as the Director of Operations for a combat flying squadron. Before attending SAASS, Major Rouleau served as a military assistant to Andrew Marshall in the Secretary of Defense's Office of Net Assessment and as a strategist in Checkmate, Washington, DC, as an Air Force Fellow. He holds a bachelor's and master's degree from Troy University.

ACKNOWLEDGMENTS

I am of two minds when considering my time writing this thesis. Though my heart yearns to fight our nation's wars with my brothers and sisters, I am forever grateful to the nation for the privilege of spending one year in solitude, reading, writing, and thinking. It is a gift that I will never be able to repay.

I am surrounded by the very best of humanity. My wife humbled me beyond expression as she thought and wrote with me while her more eloquent pen weaved her dissertation in isolation. She never once asked for my help and always offered hers. There is no better life companion. My daughter and son provided unending inspiration with their every breath. Their sacrifice to the nation is at once too much to ask for and the very thing the nation requires. My dear friends offered their ears when they knew I could not do the same. My Fellowship colleagues were a never-ending reservoir of encouragement.

Many others have supported my research, thinking, and writing. Dr. Harold R. Winton challenged my every word and every thought. My writing and thinking is better because of his teaching pedagogy. Dr. Andrew W. Marshall taught me to pursue and discover the right questions while simultaneously marinating the mind in original thought. This paper will serve its purpose if a single thought emerges that will eventually lead to a question worth asking. The Net Assessment team opened their minds to me in way few could imagine. They are as humble as they are visionary. JR Reid showed me doors I never knew existed. The results of his generosity are visible throughout my work. Secretary of the Air Force James G. Roche helped me connect Air Force issues that are normally invisible to a novice researcher. My classmates are peerless. I am forever in their debt.

I have spent the last two years of my life studying and thinking with the very best the nation can offer a citizen. If any thoughts in this work are good, it is because of their efforts with me. The errors belong to me alone.

ABSTRACT

This study examines the implementation of American grand strategy and the Air Force's contributions to it during periods of constrained national resources. First, the writer investigates grand strategy in general and American grand strategy in particular. The results provide a working definition of grand strategy and explain the essence of American grand strategy, thereby delivering a framework with which the evidence can be judged. Next, the author assesses two examples of American grand strategy during periods of constrained national resources. These periods are the years between World War I and II (1919-1939) and President Eisenhower's Administration years (1953-1960). These assessments pay particular attention to two main points: how the Air Force contributed to American grand strategy and how air-minded leaders articulated that contribution. The writer then evaluates the emerging foreign and domestic challenges, as well as the opportunities facing the United States in the early twenty-first century. The final section of the study applies the insights gained from the two historical examples to the likely future. The current strategic environment demands two things: the responsible, economic provision of airpower's unique contributions to national defense and the effective articulation of those contributions by inspired, air-minded leaders.

CONTENTS

DISCLAIMER	ii
ABOUT THE AUTHOR	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
1. INTRODUCTION	1
2. GRAND STRATEGY AND ITS AMERICAN MANIFESTATION	7
3. AIRPOWER AS AN EMERGING ELEMENT OF GRAND STRATEGY	29
4. THE ECONOMY OF AN AIR-CENTRIC GRAND STRATEGY	65
5. A PROSPECTIVE AMERICAN GRAND STRATEGY	92
6. CONCLUSIONS: AN AIRPOWER-INFORMED GRAND STRATEGY	114
BIBLIOGRAPHY	

Chapter One

Introduction

*We can't solve problems by using the same kind of thinking
we used when we created them.*

- Albert Einstein

*. . . the authority of a thousand is not worth the humble
reasoning of a single individual.*

- Galileo Galilei

The two passages above illuminate the topic of so-called “super-wicked problems” and the difficult thinking and communicating that is required to solve them.¹ Einstein's idea was that peoples’ understanding is predicated on and limited to their experiences. Einstein was making the case for the advancement of knowledge, which frequently requires new solutions to existing problems. He reminds us that today’s answers will not endure forever. In fact, evolution of thought is mandatory if one seeks to answer tomorrow’s questions. Similarly, Galileo’s words warn of the tensions that arise between long-standing institutions with

¹ Horst W. J. Rittel & Melvin M. Webber first introduced the term “wicked problem” in 1973. They used the term to describe the nature of social policy problems. Generally speaking, the term has to come to mean a problem that is complex and difficult to solve because in an effort to solve one part of the problem, another may be introduced. Wicked problems often have several interdependencies. Healthcare is considered to be a wicked problem. Years later, Richard Lazarus introduced the term “super-wicked problem.” These problems are even more complex than wicked problems. Unlike, a wicked problem, a super-wicked problem lacks a single authority figure for its solution. The same individuals who are attempting to solve the problem are the same individuals whom are causing the problem in the first place. For a more complete understanding of super-wicked problems see the introductory chapter in Richard Lazarus, “Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future,” *Cornell Law Review* no. 94, 2008, 3-7.

entrenched positions and individuals who have the perspicacity and courage to challenge those positions. In light of the multiple problems it faces over the next quarter century, the United States Air Force must consider both Einstein's and Galileo's words carefully. America needs new solutions and humble reasoning.

The nation is currently recovering from a traumatic economic recession and two wars that have cost roughly 1.4 trillion dollars. The federal budget in general and the Department of Defense budget in particular are facing significant reductions. America has not yet made the hard choices required to prepare for tomorrow. In light of these realities, the country will, over the next few years, probably have to alter the way it implements its grand strategy. In his third address to the nation, President Barack Obama spoke frankly about the impact of the economic recession on Americans:

The world has changed. And for many, the change has been painful. I've seen it in the shuttered windows of once booming factories, and the vacant storefronts of once busy Main Streets. I've heard it in the frustrations of Americans who've seen their paychecks dwindle or their jobs disappear – proud men and women who feel like the rules have been changed in the middle of the game. That world has changed. And for many, the change has been painful . . . In a single generation, revolutions in technology have transformed the way we live, work and do business. Steel mills that once needed 1,000 workers can now do the same work with 100.²

² Barack H. Obama, President of the United States of America. State of the Union Address. United States House of Representatives, Washington, DC, 25 January 2011. <http://www.whitehouse.gov/state-of-the-union-2011>

Though Obama's words focus on paychecks and jobs, the underlying message is that the nation must change, as the world changes. The economic challenges not only affect paychecks, they also directly affect national defense. To serve its nation well during this period of transition, the Air Force must think rigorously about how it should contribute to the implementation of American grand strategy and how it should communicate that contribution, particularly in today's media-driven policy arena.

This study thus asks two questions. First, it asks how the Air Force should contribute to American grand strategy in the early twenty-first century. Second, it asks how Air Force leaders should articulate that contribution. Answering these questions well should be beneficial for both the nation and the Air Force.

The Air Force's role in American grand strategy is important for both strategic and policy reasons. If the Air Force can, over the next quarter century, properly align its capabilities with American grand-strategic interests, the nation will profit in at least two ways. First, the nation will gain time to recover from the second-deepest recession in American history. The next few years are vital for the financial recovery effort already under way. Second, the nation will maintain its global credibility. Potential threats will not, however, wait for an American economic recovery. In fact, threats are emerging across the globe.

Studying the Air Force's role in American grand strategy is also relevant to policy. One of the Air Force's unique capabilities is that it has the ability to do the nation's bidding without the need to occupy large geographic areas. The Air Force's ability to conduct operations quickly, sometimes within hours, without a large strategic footprint provides American policy makers significant flexibility. Policy makers can choose to widen or narrow a conflict based on the adversary's response to an Air Force use or threat of force. Further, the Air Force provides policy makers with the ability to address the nation's problems without the need to commit the full resolve of the American people.

The focus of the study is American grand strategy and the Air Force's contributions to it during periods of reduced national resources. Initially, I will investigate the essence of grand strategy and American grand strategy. This examination will lead to a working definition of grand strategy and a conceptual framework with which to examine particular examples thereof. Next, I will analyze two examples of American grand strategy during periods of constrained national resources. Each period is studied by asking five logically connected questions: What were the major foreign and domestic factors that shaped American grand strategy? How did American grand strategy adapt to these factors? How effectively did airpower contribute to the strategy? How effectively did airpower leaders articulate that contribution? What insights emerge from this investigation? This analysis should illuminate

common patterns that may have applicability in today's period of constrained national resources. The author's hope mirrors that of Thucydides, i.e., that "these words of mine will be judged useful by those who want to understand clearly the events which happened in the past and which will, at some point or other and in much the same ways be repeated in the future."³

The overarching goal of this study is to present several well-grounded propositions about how the Air Force should contribute to American grand strategy and how Air Force leaders should articulate that contribution. The thesis is divided into six chapters. This chapter frames the question and articulates the purpose of the thesis. The remaining chapters provide definitions, historical examples, and a framework with which to examine a prospective American grand strategy for the early twenty-first century. In the next chapter, the reader will gain an understanding of grand strategy in general and American grand strategy in particular. Chapters Three and Four analyze two similar episodes in American history of airpower's contributions during periods of constrained national resources. Chapter Three studies the years between World War I and II (1919-1939). President Eisenhower's implementation of his Massive Retaliation policy is examined in Chapter Four (1953-1960). These chapters will pay particular attention to two main points: how the Air Force contributed to American grand strategy

³ Robert B. Strassler, ed., *The Landmark Thucydides*. Revised ed., (New York: Free Press, 2008), 38.

and how air-minded leaders articulated that contribution. Chapter Five examines the emerging foreign and domestic challenges, as well as the opportunities facing the United States in the early twenty-first century. It also asks how American grand strategy should adapt to meet these challenges and opportunities. Chapter Six applies the insights gained from the two historical examples to the likely future and offers recommendations on how the Air Force can contribute to American grand strategy and how Air Force leaders should communicate that contribution.

This study has three limitations: time, the amount of evidence reviewed, and classification. It only examines how the Air Force should contribute to American grand strategy in the early twenty-first century, i.e., from 2013 to 2025. The research is also limited by the amount of evidence reviewed. A more thorough examination of American grand strategy would analyze every presidential administration since the Wright brothers made the first powered flight in 1903. This study reviews only two. While the historical examples were selected based on the economic realities of constrained resources that resemble contemporary circumstances, the unexamined evidence does not have a voice in this study. Finally, this study uses only unclassified evidence.

Despite these limitations, this study has the potential to be useful for the nation and the Air Force. This analysis is important because the nation is grappling with the super-wicked problem of implementing its

grand strategy at a time of significant budget reductions and a particularly vexing mix of potential external threats. As a result, many questions will be asked of the armed services' capabilities in general and the Air Force's capabilities in particular. The Air Force must stand ready to contribute meaningfully to the emerging American grand strategy and to articulate that contribution persuasively.

Experience provides a light that is required to go on any journey into the future of more than a few paces. This journey is long and not yet traveled, and so we start with history and the hope it will light the way at least one step at a time. The most difficult task of course, is to ask the right questions.⁴ Good answers to the right questions may allow a few more lighted paces. The wrong question, regardless of its articulation, almost certainly leads to a path not worthy of the steps. Our intellectual journey starts with the following questions: What is the essence of grand strategy? What is the essence of American grand strategy?

⁴ I am forever indebted to Andrew Marshall and J.R. Reid for this lesson. Unfortunately many of so-called strategists are forced to walk in the dark.

Chapter Two

Grand Strategy and its American Manifestation

At the strategic level, the campaign replaces the engagement, and the theater of operations takes the place of the position. At the next stage, the war as a whole replaces the campaign, and the whole country the theater of operations.

- Carl von Clausewitz

Why is contemplating grand strategy important for Air Force leaders? Just as any air mission demands a runway for takeoff, to think clearly about how the Air Force should contribute to American grand strategy in the early twenty-first century, air-minded leaders require a mental departure point for thinking about the future. That point should be a profound understanding of grand strategy in general and American grand strategy in particular. The most profitable path to such knowledge begins with a mastery of past events. Williamson Murray offered the following counsel, “A perceptive understanding of the present based on historical knowledge is the essential first step for thinking about the future.”⁵ This study then takes as its first step the analysis of grand strategy. This chapter addresses two issues. First, it defines and explains the basic, and arguably invariable, nature of grand strategy. Second, it explores the essence of American grand strategy.

Grand Strategy

⁵ Williamson Murray, “History and the Future” in *War, Strategy, and Military Effectiveness*, ed. Williamson Murray, (Cambridge, MA: Cambridge University Press, 2011), 16.

Simply beginning this analysis with a definition of grand strategy will not suffice for several reasons. First, there is no agreed-upon definition of the term.⁶ J.C. Wylie stated “there are probably more kinds of strategy, and more definitions of it, than there are varieties and definitions of economics or politics.”⁷ Second, any definition of grand strategy would be opaque without an understanding of its origins. It would be the equivalent of trying to gaze through darkened glass. In light of these realities, this section examines the etymology of the term grand strategy. It explores its origin and development by tracing its meaning through the lenses of the important thinkers who sought to grasp its essence. It considers several contemporary definitions of grand strategy and humbly offers an alternate definition.⁸

The concept of grand strategy originates in antiquity and matures to contemporary times. The ancient Greeks used the term “strategos,” which they defined as “the art or skills of the general.”⁹ Essentially, strategy was the way the general went about his business of winning both battles and wars. The Greeks believed that strategy should be framed on the foundation of accurate appraisals of one’s own and one’s

⁶ John T. Kuehn, “Talking Grand Strategy,” *Military Review* 90, no. 5 (2010): 74-78.

⁷ J. C. Wylie, *Military Strategy: A General Theory of Power Control* (Annapolis, MD: Naval Institute Press 1976), 14.

⁸ I am reminded of Everett Dolman’s counsel that it is presumptuous to offer a new definition in light of the previous grand masters of strategy. I do so only because I believe, like Dolman, no single attempt captures the aim.

⁹ Beatrice Heuser, *The Evolution of Strategy: Thinking War from Antiquity to the Present* (New York, NY: Cambridge University Press 2010), 4.

adversary's strengths and weaknesses.¹⁰ This remained the basic understanding of the term until the first quarter of the nineteenth century. Until that time, central authority figures ruled states with policy, while military leaders fought wars using strategy and tactics. The French Revolution and Napoleonic Wars changed the way people thought about war and about the term strategy.

The Prussian military theorist Carl Clausewitz elasticized the term strategy in 1832 by clearly articulating the purpose of war in his posthumous publication *On War*. This masterpiece that, according to Azar Gat, “offered a most sophisticated formulation of the theory of war,” was based on Clausewitz’s personal experience of fighting in war.¹¹ The French Revolution demonstrated that states must embrace the full energy of their people. Clausewitz’s experience of fighting for Prussia and Russia provided a first-hand look at this phenomenon. Clausewitz attributed Prussia’s loss at Auerstedt to the notion that Prussia did not use its population efficiently or even work to obtain allies. This policy of isolation led to an un-winnable war. Clausewitz, frustrated with existing thoughts and theories, profoundly established a clear relationship between politics and war with his definition of war as “an act of force to compel our enemy to do our will,” later amending that construct to “war

¹⁰ For an example of these issues see Pericles’ speech urging the Athenians not to submit to Spartan demands on the eve of the Peloponnesian War. For another, see Alcibiade’s speech articulating a flawed rationale for the Sicilian expedition. Strassler, *The Landmark Thucydides*, Revised Ed., (New York, NY: New York Free Press, 2008), 123 and 368

¹¹ Azar Gat, *The Origins of Military Thought: From the Enlightenment to Clausewitz* (New York, NY: Oxford University Press 1989), 253.

is nothing but the continuation of policy with other means.”¹² The latter definition drew attention to the reality that victory on the battlefield was insufficient without a victory in political terms. Clausewitz elaborated upon his paradigmatic concept when he elasticized the term strategy to mean, “the use of an engagement for the object of the war.”¹³ Strategy was no longer simply the art or skill of the general. Clausewitz left little room for doubt that the objective of war changed from battlefield victory to achieving the ends of state policy.

Though the term grand strategy did not emerge until the early twentieth century, Clausewitz provided the intellectual framework for its use and provided a way for thinkers to conceptualize it. He observed, “at the strategic level, the campaign replaces the engagement, and the theater of operations takes the place of the position. At the next stage, the war as a whole replaces the campaign, and the whole country the theater of operations.”¹⁴ Though Clausewitz would go on to call the latter perspective “War Plans,” or what strategists today call national military strategy, Clausewitz’s “next stage” arguably represents a precursor to grand strategy. I do not suggest Clausewitz coined the term grand strategy; however, I do put forward the concept that Clausewitz’s intellectual act of connecting policy to the battlefield was an essential step in leading to the eventual birth of the term grand strategy. Further,

¹² Clausewitz, *On War*, 40 and 69.

¹³ Clausewitz, *On War*, 177.

¹⁴ Clausewitz, *On War*, 165.

Clausewitz argued that War Plans did not represent a static plan; rather, they required refinement and alignment as the world changed. This refinement and alignment is how contemporary strategists think about grand strategy.

Antoine-Henri, Baron de Jomini, Clausewitz's contemporary and rival, believed strategy to be something concrete, something strategists could hold in their hand. Like Clausewitz, Jomini was deeply influenced by the transition to total war brought about during the French Revolution and continued during the Napoleonic Wars. This shared experience led him to the same conclusion as Clausewitz concerning the ends of war. In full agreement with Clausewitz on this point, Jomini submitted, "a government goes to war to reclaim certain rights or to defend them¹⁵." Though both theorists understood the connection of war's ends with its ways and means, Jomini believed the study of warfare could be scientific, even prescriptive. Jomini famously opined that strategy was, "the art of making war upon the map."¹⁶ Further, Jomini stated, "strategy, particularly, may indeed be regulated by fixed laws resembling those of the positive science."¹⁷

The informed reflections of the Prussian Helmuth von Moltke and the Industrial Revolution would lead to the next step in the etymology of strategy. Moltke, a student of Clausewitz, contributed to the evolution of

¹⁵ Antoine-Henri Baron De Jomini, *The Art of War*, Mineola, NY: Dover Publications, 2007), 12.

¹⁶ Jomini, *The Art of War*, 62.

¹⁷ Jomini, *The Art of War*, 293.

strategy by tying strategy to policy before war broke out. The developments of the Industrial Revolution, particularly the railroad, facilitated his thinking. The Industrial Revolution expanded war geographically, and state leaders eventually realized they could not begin to prepare for war when it started. Moltke was one of the first to realize this. According to Daniel Hughes, “Moltke began to study railroads before a single line had been built in Germany.”¹⁸ Moltke grasped that the railroad provided significant prospects for quickly moving troops and equipment over great distances. Certainly, a state that had a sophisticated rail system could gain and maintain significant advantages even before war began. Hajo Holborn explained the strategic significance of the railroad, “the timetable of mobilization and assemblage, together with the first marching orders, formed in the future the very core of the strategic plans drawn up by military staffs in expectation of war.”¹⁹ Moltke understood that military strategy had to adapt to new realities and that all means available to the state must be considered when preparing for war. Clausewitz’s new realities were driven by political and social changes. Moltke’s were driven by technological evolution.

Though Clausewitz, Jomini, and Moltke alluded to the idea of grand strategy, it was naval historian, Julian Corbett, who deserves

¹⁸ Helmuth von Moltke, *Moltke of the Art of War*, ed. Daniel J. Hughes (New York, NY: The Random House Ballantine Publishing Group, 1993), 154.

¹⁹ Hajo Holborn, “The Prusso-German School: Moltke and the Rise of the General Staff,” in *Makers of Modern Strategy From Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton, NJ: Princeton University Press, 1986), 287.

credit for the original articulation of the term. In his 1906 paper, “Strategical Terms and Definitions used in Lectures on Naval History,” he used the terms major strategy and minor strategy.²⁰ His concept of major strategy went a step further than the “next stage” to which Clausewitz was referring. Corbett defined major strategy as “. . . in its broadest sense has also to deal with the whole resources of the nation for war . . . it also has to keep in view constantly the politico-diplomatic positions of the country, and its commercial and financial position. The friction of these two considerations is inherent in war.”²¹ It was as though Corbett wrote using Clausewitz’s pen. The whole resources or the means in strategic parlance have recently been aggregated into four categories, diplomatic, informational, military, and economic. According to Peter Layton, the actual use of the term grand strategy was deleted from Corbett’s paper to avoid confusion.²² Ironically, this deletion has led to a significant confusion as to the etymology of the term grand strategy.

Many academics erroneously credit J.F.C. Fuller and his protégé, Basil Henry Liddell Hart, with the term’s genesis. The mistake is understandable because Fuller and Liddell Hart elaborated significantly upon Corbett’s little-known usage. There are those who believe Liddell

²⁰ Julian S. Corbett, *Some Principles of Maritime Strategy*, (Annapolis, MD: Naval Institute Press, 2006), 307.

²¹ Corbett, *Some Principles of Maritime Strategy*, 307.

²² Peter Layton, “*The Idea of Grand Strategy*.” (Preliminary Paper for the RUSI Conference, Finding a Better British Way to Make Strategy, 27 October 2011).

Hart attempted to capitalize on Corbett's relatively obscure work. Azar Gat suggests that, "from 1924-5 on [Liddell Hart's] work betrays the unmistakable, distinctive mark of Corbett's ideas."²³ In *The Foundations of the Science of War*, Fuller observed "that a government is concerned with [unsurprisingly] three primary duties; namely, to maintain the domestic machinery of the nation; to set in motion the political machinery; and to control the military machinery."²⁴ He also noted that all three of these activities must be aligned and that the domestic machinery is the base of the nation, followed by the political and finally the military. Liddell Hart clearly understood the teachings of his mentor and articulated the role of grand strategy quite eloquently in his work, *Strategy*.

. . .the role of grand strategy is to coordinate and direct all the resources of a nation towards the attainment of the political objective of the war: the global defined by the national policy. Grand strategy should both calculate and develop the economic resources and manpower of the nation in order to sustain the fighting services. So also with the moral resources, for to foster and fortify the will to win and to endure is as important as to possess the more concrete forms power. . . It should take account of and apply the power of financial pressure, diplomatic pressure, commercial pressure, and not least, ethical pressure to weaken the opponent's will . . . Furthermore, while the horizon of strategy is bounded by the war, grand strategy looks beyond the war to the subsequent peace.²⁵

²³ Azar Gat, "The Hidden Sources of Liddell Hart's Strategic Ideas," *War in History* no.3 (Jul 1996): 293-308.

²⁴ J.C.F. Fuller, *The Foundations of the Science of War* (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1993), 105.

²⁵ B. H. Liddell Hart, *Strategy* (New York, NY: Penguin Group, 1991), 322.

Liddell Hart's words illuminate the separation of grand strategy from strategy. The former is about the refinement and alignment of finite national resources, or means, in strategic parlance. The latter is about connecting the ends, ways, and means. Though many consider Liddell Hart's definition of grand strategy to be definitive, for our journey it represents a departure point from which to investigate several contemporary definitions.

Contemporary uses and definitions of the term grand strategy are ambiguous. Grand strategy now denotes different ideas to different people or groups of people. Today, individuals as well as corporations have grand strategies. Furthermore, grand strategy's usage has become convoluted and confused in modern language: grand strategy, business strategy, study strategy, sales strategy, or shopping strategy. According to the RAND Corporation, in 2011 alone, more than eighty major journal articles and twenty books from reputable publishers have examined the concept of grand strategy.²⁶ Modern theorists such as Adam Grissom and Everett Dolman define grand strategy. Grissom posits grand strategy as "the alignment of national ends, ways, and means."²⁷ Conversely, in his book, *Pure Strategy*, Dolman developed the concept that, "grand strategy is the process by which all the means available to

²⁶ Adam R. Grissom, "What is Grand Strategy? Reframing the Debate on American Ends, Ways, and Means" (working paper, RAND Project Air Force April 2012).

²⁷ Grissom, "What is Grand Strategy?"

the state are considered in pursuit of a continuing political influence.”²⁸ For Dolman successful grand strategy produces a condition of continuous advantage and never has an end in mind.²⁹ Another strategic thinker, Steven Wright, defines grand strategy as, “a plan that applies all of the means of national power to achieve conditions of continuous advantage.”³⁰ My thoughts more closely align with Grissom’s, although his definition lacks imagination.³¹ Dolman’s and Wright’s definition are closely linked to Jomini and Liddell Hart, in that they envision an actual plan and link the instruments of national power to continuous advantage. Arguably, a grand strategy is not encompassed in a finite plan. Rather, it is a nation’s pattern of behavior that continuously adjusts even when an advantage is lost. Quite simply, a good argument can be made that grand strategy is a state’s way of life.

In order to give structure to this argument, I will provide an example of what I consider to be an effective grand strategy. Pericles’ famous funeral oration meets this criterion. In that speech, Pericles told the Athenians “our constitution does not copy the laws of neighboring states: we are rather a pattern to others than imitators ourselves . . . we

²⁸ Everett Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (New York, NY: Frank Cass, 2005), 26-27.

²⁹ Dolman, *Pure Strategy*, 26-27.

³⁰ Steve Wright (School of Advanced Air and Space Studies, Maxwell AFB, AL), interview by the author, 14 January 2013.

³¹ For a discussion of creativity in strategy, Paul Maykish, “Strength in Ways: Finding Creativity in Routine Strategy Development” (MPhil. thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL 2011).

are the school of Hellas.”³² Pericles harmonized two separate thoughts for a single purpose. Praising Athens as a model for other nations to follow and worthy of allegiance, he at once brought the Athenians together and reminded his countryman that they acted as they chose to act, not as others compelled them to act. To be truly effective, grand strategy must be harmonic, that is it must flow like verse in iambic pentameter.

Though the account of Pericles’ funeral oration brings us near an understanding of the essence of grand strategy, the Athenian debate concerning the invasion of Sicily, during the Peloponnesian War provides even deeper insights. In the seventeenth year of the Peloponnesian War, word came to Athens that Egesta, one of its minor allies in Sicily, was at war with Selinus, an ally of Syracuse. The people of Syracuse shared their Dorian ethnicity with Sparta, while the Athenians and the Egestans were both Ionian. The decision over whether to aid their ally was debated between two Athenian statesmen, Nicias and Alcibiades. Nicias, advocating what I consider good grand strategy, argued against the invasion, while Alcibiades argued for an invasion. An analysis of Nicias’ argument follows. Nicias understood that Athens should align resources appropriately, a requisite for a good grand strategy. He argued that Sicily was too far away to pose a real threat to the Athenians and that it was unwise to use national resources abroad while Athens was still

³² Strassler, *The Landmark Thucydides*, 111-114.

fighting the Spartans at home. “And yet the latter, if brought under might be kept under; while the Sicilians, even if conquered, are too far off and too numerous to be ruled without difficulty.”³³ Nicias also accounted for an appropriate balance of future risk, while connecting the ends, ways, and means of his present and his future, both attributes of good grand strategy. He further counseled his countryman with these words, “and it is only too probably that if they found our power divided . . . They would attacks us vigorously”³⁴ Nicias’ thoughts provided a sense that the world was constantly changing and, in light of limited resources, a certain degree of prioritization was required.³⁵ The refinement and adaptation of resources to meet the particular challenges of one’s time is central to grand strategy. Such adaptation is the soul of this study. If strategists can understand what caused adaptation to occur in the past, perhaps they can begin to anticipate the adaptations needed for the future. Nicias also warned the Athenians not to be manipulated by younger, less experienced men who sought fame and fortune. He urged his people to make a deliberate decision based on experience, not a quick decision based on passion of the youth with these words, “. . . remember how rarely success is gained by wishing and how often by forecast, to leave to them the mad dream of conquest.”

³³ Strassler, *The Landmark Thucydides*, 368.

³⁴ Strassler, *The Landmark Thucydides*, 367.

³⁵ If resources were not an issue, grand strategy would be easy; and it would not require alignment with means.

³⁶ Nicias' demand for intellect is another essential ingredient of grand strategy. Here Nicias shared Clausewitz's requirement for genius. Clausewitz observed "average intelligence may recognize the truth occasionally, and exceptional courage may now and then retrieve a blunder: but usually intellectual inadequacy will be shown up by in different achievement."³⁷ Developing an effective grand strategy is a super-wicked problem, and the only way to solve a super-wicked problem is to think about it deeply. Tragically, Athens did not heed Nicias' sage counsel; and it was significantly weakened by the losses suffered in its disastrous expedition to Sicily.

Through the masters of strategy I have attempted to illuminate the essence of grand strategy. I have come close, but I am at a dead end without offering my own additional criteria. The contemporary definitions of grand strategy fall short for two reasons. They miss the true essence of a nation, and they do not consider the development of future resources. To that end, I offer two additional criteria for effective grand strategy. The first is from the sum total of my life's work in war and peace; the second is from a master thinker.

I submit two final attributes of good grand strategy: a nation's enduring beliefs, and imagination. Arguably, the most important aspect of grand strategy is a nation's sustained pattern of behavior. A nation's grand strategy is what it chooses to do or not do over a long period of

³⁶ Strassler, *The Landmark Thucydides*, 368.

³⁷ Clausewitz, *On War*, 101.

time. These decisions are based on a nation's enduring beliefs and values. The alignment of a nation's means should never compromise its enduring beliefs. For the second, I turn to Einstein's oft-quoted phrase, "imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution. It is, strictly speaking, a real factor in scientific research."³⁸ Adaptation of grand strategy can and should drive innovation. New resources or new ways to utilize resources widen the strategist's aperture and allow the discovery of new paths to implement grand strategy.

Drawn from the knowledge offered from past events, grand strategy thus *is a nation's sustained behavior pattern as it intellectually and harmonically refines and adapts the possible for the purposes of the imaginable*. This definition of grand strategy is comprehensive, useful, and accurately descriptive. It accounts for the balance of future risk, while connecting the ends, ways, and means of today with the requirements, challenges, and opportunities of tomorrow.

With the above as a working definition of grand strategy, we can take the next step in the study: determining the essence of American grand strategy.

American Grand Strategy

³⁸ Albert Einstein, *Einstein on Cosmic Religion and other Opinions and Aphorisms* (New York, NY: Dover Publications, INC., 2009), 97.

What then is the essence of American grand strategy? The answer is not written or explained in any single place. Thus, it must be discovered. Though some argue that beginning with National Security Council Memorandum 68 of 1950 and continuing with each National Security Strategy document thereafter, America's grand strategy can be found. I maintain that grand strategy in general and American grand strategy in particular cannot be read in a book or held in a strategist's hand. I'll will, however, submit that some enduring American ideas are evident in these documents. However, what a strategist discovers in these papers is not American grand strategy. These documents explain *how* the United States adapts and implements its grand strategy in light of the current events. American grand strategy is a set of enduring beliefs, visible only through an examination of America's pattern of behavior, i.e., what it chooses to do or not do. These behaviors may be rearticulated in founding documents. The task of this section is thus very simple: to examine the American Revolution, the United States Constitution, President Lincoln's Gettysburg address, and President Wilson's Fourteen Points for evidence of a behavior pattern of enduring American beliefs. The author's hope is that these patterns of behavior will lead to the essence of American grand strategy.

America's behavior during the American Revolution illuminates the idea that, when given a choice, its citizens will choose liberty over oppression. The American Revolution was a people's war in which

individuals joined together, first in small groups, then communities, then colonies to reject British governance and eventually demand independence, or liberty. John Shy explains the role of the small groups, or American militia, and the extent to which they would go to ensure their eventual liberty. "The militia became the infrastructure of revolutionary government. It controlled its community whether through indoctrination or intimidation; it provided on short notice large numbers of armed men and for brief periods of emergency service; and it found or persuaded, dragged or bribed, the small number of men needed each year to keep the Continental army alive.³⁹ Shy's point is that the power of the American rebellion was derived from individuals and their quest for liberty. To illustrate the point further, I turn to Shy's idea that the large size of the United States, combined with the decentralized militia, created an impossible situation for the British. Shy argued that the British could not possibly quash the rebellion as long as the American's were willing to fight.⁴⁰ And enough Americans were willing to fight until one of two things occurred: freedom or death. This idea is best understood within the framework of Patrick Henry's famous line delivered in a speech arguing for Virginia to join the Revolutionary War. "Give me Liberty, or Give me Death!" Those were America's two choices. If grand strategy is based on what a nation chooses to do or not do, then

³⁹ John Shy, *A People Numerous and Armed: Reflections on the Military Struggle for American Independence* (New York, NY: Oxford University Press, 1976), 177.

⁴⁰ Shy, *A People Numerous and Armed*, 212.

American grand strategy is indeed based upon the value of liberty; and this idea is based on America's experience.⁴¹

This enduring belief was further codified with the signing of the United States Constitution. Good evidence of American grand strategy is located in the Preamble to the United States Constitution. The Preamble articulates the Constitution's guiding principles, and its words evoke a pattern of behavior first exhibited on the battlefield of the American Revolution. Those words are "We the People of the United States, in order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America."⁴² Though the Preamble mentions several other enduring beliefs such as the general welfare of its people, its treatment of liberty is remarkable. The founding fathers specifically utilized the word posterity to signal that all future generations should understand the absolute requirement of liberty.

The sustained behavior pattern of the United States was not lost on America's sixteenth president. President Abraham Lincoln's Gettysburg address, once again, illuminates the idea that when the United States is

⁴¹ Shy, *A People Numerous and Armed*, 212.

⁴² James Madison, Charles F. Stamper, *The Constitution of the United States of America, With All of the Amendments; the Declaration of Independence; and the Articles of Confederation*, (New York, NY: Create Space Independent Publishing Platform, 2010), 17.

confronted with a choice, it will choose liberty. The phrase "Fourscore and seven years ago," alludes to the fact that Lincoln built the framework of his speech around the 1776 Declaration of Independence.⁴³ According to Garry Wills, Lincoln's position was that the Declaration of Independence's immortal statement, " . . . all men are created equal" represented the true American ideal and that it was necessary to go back to that ideal to heal the country. Wills argued that Lincoln believed all American citizens required liberty because all men are created equal. The words that follow further elucidate America's enduring belief in liberty, " . . . our fathers brought forth upon this continent a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal."⁴⁴ When confronted with a crisis that divided the country, American harkened back to its enduring belief in liberty in order to move forward. While the actions of ordinary Americans demanded liberty during the American Revolution, Lincoln's decisions during the American Civil War, particularly in his Gettysburg address, firmly established liberty as an enduring American belief.

President Woodrow Wilson's Fourteen Points provide additional evidence of America's enduring beliefs. In January 1918 President Wilson delivered the speech in which he laid out his vision for the post World War I world. According to Akira Iriye, Wilson wanted to make

⁴³ Garry, Wills, *Lincoln At Gettysburg: The Words That Re-Made America*, (New York, NY: Simon & Schuster, 1992), 261.

⁴⁴ Wills, *Lincoln At Gettysburg*, 261.

certain that World War I was defined not as a struggle between ambitious countries, rather, the Great War was a war to “make the world a safe place for democracy.”⁴⁵ Wilson envisioned a United States with “Democracy at home and peace abroad.”⁴⁶ Iriye explains Wilson’s rationale as follows: “the underlying assumption was that so long as antidemocratic or nondemocratic governments existed, they would always be interested in wars of conquest, whereas democracies would never engage in such warfare.”⁴⁷ With the spread of democracy, Wilson also pressed for access to free and open markets. “ . . . Individuals should be free to pursue their activities with as little interference as possible.”⁴⁸ Wilson’s idea was that greater access to goods and services would generate greater wealth. Wilson’s concepts bring to light five American beliefs: liberty, concern for the long-term health and welfare of the country's citizens, the defense of allies and partners, the access to free markets, and the spread of democracy.

The evidence from the American Revolution, the United States Constitution, President Lincoln’s Gettysburg address, and President Wilson’s Fourteen Points suggest that the essence of American grand strategy is based upon liberty as its most significant foundational value.

⁴⁵ Akira, Iriye, *The Cambridge History of American Foreign Relations: Volume 3, the Globalizing of America, 1913-1945* (New York, NY: Cambridge University Press, 1995), 45.

⁴⁶ President Wilson’s concept of democracy was that nations should be free to determine their own fate. This idea came to be known as national self-determination. Iriye, *American Foreign Relations: Volume*, 46

⁴⁷ This would come to be called the Democratic peace theory. Iriye, *American Foreign Relations: Volume*, 45.

⁴⁸ Iriye, *American Foreign Relations: Volume*, 46.

Liberty, of course, is the ability to speak and act according to the principles of one's own agency. Though American grand strategy is made up of other attributes, liberty for its citizens is the single enduring belief that America has not surrendered in the past and arguably will not surrender in the future. Four other central beliefs are paramount to the American way of life, though America may not always act when these are compromised. They are concern for the long-term health and welfare of its citizens, defense of allies and partners, access to free markets, and the spread of democracy.⁴⁹

Throughout its history, the United States has always acted when American liberty was at risk. At times, it has acted when one of the four other beliefs has been challenged. Of the four other beliefs, is one more important to Americans than the other? Will America attempt to spread democracy at the expense of the health and welfare of its citizens? Will America bankrupt the nation at the expense of national security? I stated earlier that the adaptation of America's resources is at the soul of this study. It is possible to maintain the integrity of America's enduring beliefs by constantly refining and aligning the available and the imaginable national resources. It is, however, a super-wicked problem to do so.

⁴⁹ I am indebted to Steven Wright for this concept. Though I believe the evidence suggests liberty is the higher and enduring belief, these four additional attributes of American grand strategy originated from Dr. Wright's mind. John Gaddis has similar thoughts on American grand strategy and his work, *Strategies of Containment*, offers a good explanation.

I have provided a working definition of grand strategy and explained the essence of American grand strategy. With this framework, we take the next step. The next component of the study consists of an examination of grand strategy in two similar episodes in American history during periods of reduced national resources. These chapters will pay particular attention to two main points: how the Air Force contributed to American grand strategy, and how air-minded leaders articulated that contribution. Specifically, Chapter Three studies the years between World War I and II.

Chapter Three

Airpower as an Emerging Element of Grand Strategy

I have loved but one flag and I can not share that devotion and give affection to the mongrel banner invented for the League of Nations.

- Henry Cabot Lodge

We are participants, whether we would or not, in the life of the world . . . We are partners with the rest. What affects mankind is inevitably our affair as well as the nations of Europe and Asia.

- Woodrow Wilson

The Treaty of Versailles and the Great Depression

Following World War I and leading up to the start of World War II, two major factors shaped the formulation and implementation of American grand strategy. These two factors were America's ambivalence about its role as a world power, manifested in its rejection of the Treaty of Versailles, and the collapse of the global economy in 1929.

The Versailles Peace Treaty

The refusal of the US Congress to ratify the 1919 Versailles Peace Treaty played a significant role in molding American grand strategy during the inter-war period. This section of the study explains how the Versailles Peace Treaty negotiations illustrated America's desire for military isolationism. First, it examines the Treaty's key points and framework, as agreed to during the Paris Peace Conference. This analysis includes areas of the framework on which President Wilson

compromised. Next, it explores why the US Congress did not ratify the Treaty.

The Versailles Peace Treaty resulted from a five-month negotiation in which European and non-European nations determined the terms to be imposed upon the nations that had lost World War I. Prior to the conference, President Woodrow Wilson had delivered his "Fourteen Points" speech.⁵⁰ Wilson's words laid out a liberal world policy and introduced the notion that the war had been fought to ensure the future peace of Europe. His ideas about the world order shaped the conference.⁵¹ Though the framework of the treaty incorporated some of Wilson's ideas about establishing a stable post-war world, the Versailles Treaty was ultimately held together by the central goal of punishing Germany.⁵² The punishment would consist of three components: German loss of territory, German military disarmament, and German reparations.⁵³

The Treaty of Versailles called for Germany to cede land on its eastern and western borders. In the west, Germany was required to return Alsace-Lorraine to France.⁵⁴ On its east border, Germany was to cede

⁵⁰ "President Woodrow Wilson's Fourteen Points," President Woodrow Wilson's Fourteen Points (January 9, 2001) <http://web.ebscohost.com.aufric.idm.oclc.org/ehost>.

⁵¹ Alan Sharp, "The 'Big Four' -- peacemaking in paris in 1919," *History Review* no. 65 (December 2009): 14-19.

⁵² Alan Sharp, "The 'Big Four,' 16.

⁵³ Alan Sharp, "The 'Big Four,' 16.

⁵⁴ Germany had taken Alsace-Lorraine from France in the aftermath of the Franco-Prussian War 1870-71.

land to the newly created states of Poland and Czechoslovakia.⁵⁵ Poland also received land to the south of Danzig, commonly referred to as the "Polish Corridor." Danzig's status as a "Free City" administered by the League of Nations provided Poland with access to the Baltic but divided Germany into two separate areas. Poland's access to the crucial seaport was Wilson's idea. Wilson had insisted, "An independent Polish State should be erected which should include the territories inhabited by indisputably Polish populations, which should be assured a free and secure access to the sea, and whose political and economic independence and territorial integrity should be guaranteed by international covenant."⁵⁶ Wilson's insistence on Polish access to the sea made the restructured state of Poland economically viable but compromised Wilson's principle of national self-determination for the Germans in Danzig. In other words, Poland's acquisition of Danzig represented the essence of Wilson's vision of national self-determination.

The Treaty of Versailles also required Germany to disarm its armed forces. It prohibited the possession of armed aircraft, once a source of great German pride. Akira Iriye, an American diplomatic historian, noted that, "Germany was allowed specified numbers of men and weapons; for instance up to 100,000 men were permitted in the German Army, with a maximum of 4,000 officers, 102,000 rifles and carbines, 1,134 light

⁵⁵ Though not an independent state during the war, Poland's geographic location between Germany and Russia meant much of the fighting took place on Polish territory.

⁵⁶ "President Woodrow Wilson's Fourteen Points," (January 9, 2009).

machine guns, and 792 navy machines guns. The German navy was restricted to 6 battleships, 6 light cursers, 12 destroyers, with a maximum of 15,000 men and 1,500 officers.”⁵⁷ In sum, the treaty severely constrained Germany’s armed forces.

The treaty also required Germany to pay war reparations. These war reparations were among the treaty’s most controversial provision.⁵⁸ Initially, Wilson had opposed the requirement for war reparations; however, he was forced to compromise on the issue in light of firm British and France insistence.⁵⁹ Wilson was not the only one who thought the reparations were a bad idea. The British economist John Maynard Keynes resigned from the British Treasury in protest over them.⁶⁰ In his famous publication, *The Economic Consequences of the Peace*, Keynes argued, “The policy of reducing Germany to servitude for a generation, of degrading the lives of millions of human beings, and of depriving a whole nation of happiness should be abhorrent and detestable, even if it were possible, even if it enriched ourselves, even if it did not sow the decay of the whole civilized life of Europe.”⁶¹ Keynes'

⁵⁷ Akira Iriye, *The Cambridge History of American Foreign Relations Volume III: The Globalizing of America, 1913-1945*, (New York, NY: Cambridge University Press, 1993), 76.

⁵⁸ Ruth Henig, *Versailles and After 1919-1933*, (New York, NY: Routledge, 1995), 62.

⁵⁹ Wilson was opposed to the reparations for at least two reasons. He knew that the payment of sizable war reparations would retard Germany’s ability to financially recover from the war; and ultimately, Europe’s recovery would have to include a German recovery. The second reason Wilson was against the reparations was due to the fact that by forcing Germany to pay reparations, the Treaty was placing the entire blame for the war on one country.

⁶⁰ For a detailed account of Keynes see Alan Sharp, “The ‘Big Four,’ 14-19.

⁶¹ John Keynes, *The Economic Consequences of the Peace*, (New York, NY: Clack Press, 2011), 44.

counsel was ignored. Article 231 of the Peace Treaty assigned sole responsibility for the war to Germany and demanded 132 billion gold marks in reparations.⁶²

Though Wilson was not in favor of the war reparations, he compromised on this issue because he felt that the remaining ideas of the treaty were sound, especially those regarding the League of Nations.⁶³ The League of Nations proposed an alternative to the conventional world order; and, according to Iriye, Wilson was convinced without such an international governing structure world order could only be maintained by force.⁶⁴ Wilson was in favor of such a world order and hoped that the League of Nations would replace dangerous arms races and wars of imperialism with “world public opinion.”⁶⁵

The US Senate, however, disagreed. As a consequence of the deep-seated military isolationist ideology that prevailed among many Americans, the Senate refused to ratify the Treaty of Versailles. The Senate debated the treaty for longer than the entire Paris Peace Conference spent on its creation.⁶⁶ Though not all the members of Congress opposed the Treaty for the same reason, the amount of time spent deliberating its ratification illustrated the tensions and the resolve of the opponents.

⁶² In fact, Germany was only required to pay 50 billion gold marks. Germany made its final payment in 2010.

⁶³ Henig, *Versailles and After*, 9.

⁶⁴ Iriye, *The Globalizing of America*, 68.

⁶⁵ David Stevenson, “Reading History: The Treaty of Versailles,” *History Today* 36, no. 10 (October 1986): 50 and Iriye, *The Globalizing of America*, 68.

⁶⁶ Henig, *Versailles and After*, 12.

Senate Republicans who refused to compromise on any part of the treaty were referred to as "the irreconcilables."⁶⁷ The irreconcilables were against the United States becoming a member of any external organization. They believed that joining an organization such as the League of Nations would compromise America's independence and sovereignty. They also opposed the League of Nations because they feared it would bring perpetual American involvement in international affairs.⁶⁸ The irreconcilables were not alone in their opposition.

Another congressional group not supporting the treaty were the so-called reservationists. The reservationists were a bipartisan group led by Wilson's Republican rival, Henry Cabot Lodge, who chaired the Senate Foreign Relations Committee. The reservationists did not entirely reject the treaty; rather, they had concerns about specific aspects of the treaty.⁶⁹ They would not vote to ratify the treaty unless the president addressed those concerns. In an effort to illuminate those concerns, Lodge penned a series of reservations. The first reservation called for America to be able to withdraw from the Treaty at any time and to decline to participate in any military action proposed by the League of Nations.⁷⁰ This proposal represented an objection to the treaty's Article

⁶⁷ Iriye, *The Globalizing of America*, 69.

⁶⁸ "Defeat of the League of Nations." Military & Government Collection, (January 2009) <http://web.ebscohost.com.aufric.idm.oclc.org/ehost>.

⁶⁹ Lincoln Colcord, "The Fight in the Senate," *Nation* 109, no. 2840 (December, 1919): 711-712.

⁷⁰ Henry Cabot Lodge, *The Senate and the League of Nations*. C. Scribner's sons, 1925.<http://scholar.googleusercontent.com/scholar?q=cache>.

10, which stated that members of the League must assist when another member of the League experienced external aggression.⁷¹

Article 10 proved to be the main source of contention between the reservationists and those who thought America should join the League of Nations, particularly the president. Wilson viewed Article 10 as being absolutely necessary to maintain the new world order. Not everyone viewed Article 10 the same way. According to Iriye, Lodge offered a compromise that would require “congressional authorization for each act that the nation might undertake.”⁷² Adoption of Lodge’s modification would mean Congress would decide if America went to war, not the League. This was unacceptable to Wilson. Ultimately, this impasse led to the rejection of the Treaty. In the end, Congress did not ratify the Treaty because it did not want America to be obligated to send its military forces to a foreign land at someone else’s behest.

The congressional refusal to ratify the treaty illuminated America’s desire to isolate itself from foreign entanglements during the inter-war years. The Great Depression further impelled the tendency for Americans to turn inward and focus on their own welfare.

The Great Depression

The collapse of the American economy in 1929 powerfully influenced America's grand strategy during the inter-war period. In the years leading up to the Great Depression, the United States had experienced

⁷¹ Henry Cabot Lodge, *The Senate and the League of Nations*.

⁷² Iriye, *The Globalizing of America*, 70.

extraordinary economic growth. This growth was based in loose part on the US economy's role in global markets. This section examines the events surrounding the depression and some of their implications. First, it reviews the events that preceded and followed the Great Depression; it then explores several ramifications of the depression for American grand strategy.

The Great Depression struck the United States on 24 October 1929, precipitated by the crash of the American stock market.⁷³ The market had experienced several problems during the previous month, foreshadowing its precipitous decline. On the day before the crash, 23 October, the New York Stock Exchange had stayed open an hour-and-a-half late and closed with widespread and significant losses. Panic selling ensued the next morning, and the market collapsed.⁷⁴

Though the crash itself was significant, events on either side of “Black Tuesday” illuminate the essence of the Great Depression. Prior to the crash, American capital had been lured out of foreign investment by the low interest rates being offered on home purchases. These low interest rates made it very attractive for individuals and corporations to borrow record amounts of money. Equally concerning was the advent of perpetual individual debt set in motion during the 1920s. Americans

⁷³ October 24, 1929 is referred to as Black Tuesday. There exists a scholarly debate as to whether the stock market crash was one of the results of the failing global economy or the stock market crash led to the collapse of the global economy.

⁷⁴ Warren Cohen, *Empire Without Tears America's Foreign Relations 1921-1933* (Philadelphia, PA: Temple University Press, 1987), 100. See also Akira Iriye, *The Cambridge History of American Foreign Relations* 3, “The Globalizing of America, 1913–1945” (Cambridge: Cambridge University Press, 1993)

began borrowing money simply to buy goods they needed for everyday life. Consequently, when the stock market crashed and a massive recall of debt was required, many Americans did not have the resources with which to pay. Individuals, as well as corporations, went bankrupt. Unemployment skyrocketed. The 3.2 percent unemployment rate of 1929 increased to 15.9 percent by 1931.⁷⁵ With little business capital to invest in foreign markets and record low numbers of jobs for individuals, the American economy began a downward spiral that would touch much of the globe before it was over. Over the next two years, America's gross domestic product decreased by over twenty-five percent, from \$103.6 billion in 1929 to \$76.5 billion.⁷⁶ Though Black Tuesday was an economic shock, it was the high level of unemployment, and the large amount of consumer debt that set the stage for the domestic and global events that followed.

Prior to the stock market's crash, the world had become dependent on American resources. Thus, when the US economy collapsed, the global economy followed suit. In Iriye's words, "World trade shrank from \$30.3 billion in 1929 to \$20.3 billion in 1931; Germany's capital imports fell from \$967 million in 1928 to only \$482 million in 1929, and further to \$129 million in 1930. By 1932 the United States, the major provider of capital not only to Germany but to most other countries, had virtually

⁷⁵ Hamid Shomali and Gwendolyn R. Giblin, "The Great Depression and the 2007-2009 Recession: The First Two Years Compared," *International Research Journal Of Finance & Economics* no. 59 (2010): 15-22.

⁷⁶ Shomali, "The Great Depression," 17.

stopped investing its funds overseas.”⁷⁷ Under these circumstances, the practice of “managed currency” began.⁷⁸ Managing currency was the way in which countries attempted to manipulate their flows of imports and exports. Many countries inflated the values of their currencies to make their products more competitive on the global market. To combat this practice, recipients of such imports increased tariff rates.⁷⁹ Gold, the linchpin of the global economy, was also affected by the depression.⁸⁰ Nations were not willing to pay their debts for fear that reducing their supply of gold would result in lower consumer confidence.⁸¹

The collapse of the world economy turned America’s focus inward. Americans were suffering. In light of this suffering, the United States became preoccupied with domestic issues. President Hoover understood the situation clearly. He knew he had to restore confidence in the American economy. One of the best ways to do that, he reasoned, was to avoid foreign complications.⁸²

The Great Depression further limited America’s military capabilities. This was a deliberate decision. In his description of America's foreign policy after the Great War, Warren Cohen contended that President

⁷⁷ Iriye, *The Globalizing of America*, 118.

⁷⁸ Robert Samuelson, "Revisiting the Great Depression," *Wilson Quarterly* 36, no. 1 (Winter 2012): 36-43.

⁷⁹ Iriye, *The Globalizing of America*, 118.

⁸⁰ Every major currency left the gold standard during the depression. See Samuelson, "Revisiting the Great Depression," 36-38.

⁸¹ Barry Eichengreen and Peter Temin, "The Gold Standard and the Great Depression," *Contemporary European History*, (June 2006), 185.

⁸² Samuelson, "Revisiting the Great Depression," 39 and Iriye, *The Globalizing of America*, 140.

Hoover was displeased with the way America was spending its treasure. Cohen noted that “Hoover was particularly displeased by the enormous sums the United States [Navy] continued to spend on warships.”⁸³ Cohen went on to argue that Hoover “was at war with the Navy League.”⁸⁴ A good example of Hoover’s conflict with the Navy is evident in the outcome of the 1930 Naval Conference between the United States, Britain, and Japan. The conference left the US Navy with a smaller lead in tonnage than Navy leadership had expected.⁸⁵ Not surprisingly, Navy leaders were furious. Under these circumstances, American military forces, as constrained by Hoover, could not compete globally. The American inability to stop Japanese aggression against China represented just one of the effects of Hoover’s decisions. As Cohen notes,

American military forces were not adequate to protect the empire. Throughout the 1920s, in the absence of any serious threats to the overseas interests of the United States, its military power seemed superfluous. The will to preserve the empire by peaceful means seemed sufficient to preclude the need for force. The 1930s had begun on a different note. In this darker world the United States could not preserve its security and its broader interests without the willingness to enter into collective security commitments, without creating and using military power.⁸⁶

Given these realities, Hoover’s legacy to his successor, Franklin Delano Roosevelt, was a constabulary military force incapable of fighting any major power.

⁸³ Cohen, *Empire Without Tears*, 104.

⁸⁴ Cohen, *Empire Without Tears*, 104.

⁸⁵ Iriye, *The Globalizing of America*, 123.

⁸⁶ Cohen, *Empire Without Tears*, 126.

In sum, the Senate's decision to not ratify the Versailles Treaty, combined with the collapse of the international economy brought about by the American stock market crash, significantly shaped the formulation and implementation of American grand strategy. These seminal events caused America to look inward. The next section examines how America implemented its grand strategy in light of these realities.

Adaptation of American Grand Strategy

In light of the two influential events following the Great War, America prioritized its resources to ensure the health and welfare of its own citizens and to ensure open access to free markets.⁸⁷ During this period of peace, America was, as the saying goes, Janus-faced.⁸⁸ On one side, America turned its attention to the suffering of its people, while on the other, it remained mindful of its emerging role as the world leader and the importance of access to global markets.⁸⁹ In the inter-war years the United States was continuously engaged in international matters, particularly international financial matters. The spread of democracy

⁸⁷ In Chapter Two I argued that America will always prioritize the liberty of its citizens first. Here I am examining how America balanced the tension between the four remaining aspects of American grand strategy, i.e., concern for the long-term health and welfare of its citizens, the defense of allies and partners, the access to free markets, and the spread of democracy.

⁸⁸ Merriam Webster defines Janus-faced as "having two contrasting aspects."

⁸⁹ America's priorities during this period are often misunderstood. Many suggest America became isolationist during the inter-wars years. This line of thinking is understandable in light of the discussions surrounding the Treaty of Versailles and the brutal memories of trench warfare during the Great War. Arguably, following World War I, the United States became at once, *military* isolationists and a potential international juggernaut in terms of power and wealth.

and the defense of its allies, however, received much less attention and fewer resources.

The New Deal

The New Deal was a series of government economic programs, designed by Hoover's successor, Franklin Delano Roosevelt, to provide government relief for the unemployed and poor and to reform the American financial system to prevent future economic downturns. The New Deal also led to significant federal regulation of the economy and the establishment of government social programs.⁹⁰ The precursor to Roosevelt's New Deal was the Emergency Banking Act. Following the financial crisis, all 48 states shut down their banks.⁹¹ Almost immediately after taking office, the Roosevelt Administration drafted the Emergency Banking Act, which provided a mechanism by which the banks could reopen. The law allowed the Treasury Department to reopen the banks when the banks had demonstrated they were financially stable.⁹² As soon as the banks were reopened, Roosevelt began implementing additional aspects of the New Deal. The New Deal is generally divided into two separate time periods, the First New Deal (1933) and the Second New Deal (1935-1938).

⁹⁰ William Leuchtenburg, *Franklin D. Roosevelt and the New Deal, 1932-1940*, (New York, NY: Harper & Row, 1963. 120.

⁹¹ Hawaii and Alaska were not yet states. Alaska became the 49th state in January 1959 and Hawaii joined the union in August of the same year.

⁹² Adam Cohen, "The First 100 Days," *Time* 173, no. 26 (July 6, 2009): 32-34.

The First New Deal was a series of programs that Roosevelt implemented with the assistance of Congress during his first one-hundred days in office.⁹³ The goal of the First New Deal was to provide immediate, but temporary, assistance to Americans still recovering from the Great Depression. Roosevelt's team drafted a bill to alleviate the financial suffering of American farmers. With few people able to purchase fruits and vegetables during the depression, many farms became overcrowded with unsold crops. The subsequent overabundance of produces caused the price of farm crops to drop below the point at which farmers could make a profit. Consequently, family farmers lost money and went bankrupt. The Farm-Relief Bill therefore incentivized farmers not to plant crops.⁹⁴ Roosevelt's idea was that if the supply of crops decreased, the prices of crops would increase.

The creation of the Public Works Administration (PWA) further demonstrated how American resources were allocated inward. The genesis of the PWA was the Civilian Conservation Corps (CCC). The CCC used national resources to put 250,000 Americans to work planting trees and cleaning national parks.⁹⁵ In light of the program's success, the CCC evolved into a much larger organization. Eventually, the program became known as the Public Works Administration (PWA); in a two-year

⁹³ Roosevelt's accomplishments during his first hundred days in office set the benchmark for which all American Presidents are judged.

⁹⁴ Cohen, "The First 100 Days," 34.

⁹⁵ Melissa Bass, "The Success and Contradictions of New Deal Democratic Populism: The Case of the Civilian Conservation Corps," *Good Society Journal* 21, no. 2, 252.

span, the PWA injected \$3 billion into the American economy. The PWA funded projects such as the construction of government offices, airports, hospitals, schools, and roads.⁹⁶

The Second New Deal provided the most significant example of how America's resources prioritized the health and welfare of its citizens. The Second New Deal was implemented to provide for the *long-term* care of the American people.⁹⁷ In 1935 Congress passed the Social Security Act, making a financial commitment to take long-term responsibility for its elderly, disabled, and orphaned.⁹⁸ The Second New Deal enacted a federal minimum wage and established a National Labor Relations Board.⁹⁹ The minimum wage and the Nation Labor Relations Board were created to protect the rights of American workers.

There was, however, a countervailing tendency. During the inter-war years, the United States also allocated resources to ensure its success in the free market and its access to global markets. The United States was continuously engaged in international matters, particularly international financial matters. America slowly became a creditor nation and a manufacturing gargantuan.

America made significant financial loans to the international community. Thus, New York replaced London as the financial capital of

⁹⁶ Bruce Nelson, "Give us Roosevelt - Workers and the New Deal Coalition," *History Today* 40, no. 1: 40.

⁹⁷ Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, 141.

⁹⁸ Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, 131.

⁹⁹ Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, 283.

the world; and the United States transformed itself from debtor to a creditor nation.¹⁰⁰ Cohen noted this conversion, "In 1914 the United States was a debtor nation, owing foreign investors \$3.7 billion more than was owed to American investing abroad. By 1919, a sharp reduction in foreign investment in the United States and wartime loans to the Allies had transformed the United States into a creditor nation, with a favorable loan balance of approximately \$3.7 billion."¹⁰¹

By the end of the 1930s, America was the world's largest exporter.¹⁰² American manufacturing was one of the chief reasons responsible for America's new role. The manufacture of automobiles, machinery, iron, steel, and rubber accounted for the bulk of export surge. Cohen pointed out that, "By 1929 American automobiles and the parts accounted for \$541 million in exports."¹⁰³ This represented an increase of over \$500 million from 1914. The sales of American machinery increased from "\$168 million in 1914 to \$607 million in 1929."¹⁰⁴ The exporting of rubber increased 600 percent increase as the result of the manufacturing of American tires.¹⁰⁵

Following the World War I and leading up to World War II, America's grand strategy gave priority to the health and welfare of its citizens and

¹⁰⁰ Cohen's argument is that America was not an isolationist state. Rather, America was an international financial powerhouse usurping Britain. Cohen, *Empire Without Tears*, xii.

¹⁰¹ Cohen, *Empire Without Tears*, 6.

¹⁰² America was responsible for 15.6 percent of the world's total exports in 1929. See Cohen, *Empire Without Tears*, 24.

¹⁰³ Cohen, *Empire Without Tears*, 24.

¹⁰⁴ Cohen, *Empire Without Tears*, 24.

¹⁰⁵ Cohen, *Empire Without Tears*, 24.

to the access to free markets. In light of these resource-allocation decisions, American military capability decreased. The United States Army personnel numbers fell to 136,547 personnel in 1933, while the Air Corps personnel numbers stagnated in 1932.¹⁰⁶ Furthermore, as Cohen noted, “not a single new ship was authorized during the Hoover Administration.”¹⁰⁷ In light of the limited resources, the US Armed Forces were incapable of fighting any major power. These developments provided an opportunity for airpower to do the nation’s bidding.

Airpower’s Contribution to American Grand Strategy

The phenomenon of airpower has consumed the imagination of humankind for generations. Since the formal beginnings of military aviation, when the US Army Signal Corps ordered a Wright airplane in 1908, airpower’s progressive potential and possible parameters perplexed people.¹⁰⁸ Even before English novelist H. G. Wells warned nations of the prospective perils of air warfare, people attempted to restrict its use. At an international conference in 1899, the Russians pleaded to ban permanently the discharge of explosives from balloons.¹⁰⁹ Ironically, it was an American, Captain William Crozier, who successfully argued for a five-year temporary ban.¹¹⁰ But states experimented with airpower and

¹⁰⁶ Cohen, *Empire Without Tears*, 100.

¹⁰⁷ Cohen, *Empire Without Tears*, 102.

¹⁰⁸ Lee Kennett, *The First Air War*, (New York, NY: Free Press, 1999), 7.

¹⁰⁹ Kennett, *The First Air War*, 2.

¹¹⁰ Kennett, *The First Air War*, 2.

realized its potential to change warfare.¹¹¹ Fifteen years later, airpower played a relatively minor role in the World War I. Although airpower did not play a major role in the outcome of World War I, virtually all of its contemporary roles were demonstrated in embryonic form. The airpower seed had been planted.¹¹² The long, gruesome slaughter that took place in the trenches during World War I provided the fertile ground required for airpower to grow. The way in which the US implemented its grand strategy provided an opportunity for airpower to demonstrate how it could contribute to national security in an era of constrained national resources. This section surveys how effectively airpower contributed to the adaptation of American grand strategy during the inter-war period. First, it explores the transition from an auxiliary service to an independent organization. It then examines the concept of strategic bombardment.

The Army Air Corps

In light of the way America chose to align its resources during the inter-war years, and in light of the potential capabilities of an emerging technology, a new approach to military thinking was required. Air-minded advocates had to think rigorously about how airpower could contribute to the implementation of American grand strategy. If airpower were going to serve its nation well during an era of constrained national

¹¹¹ The first use of military aircraft for bombing was in 1911. Italian pilots bombed Libyan ground forces. For a complete summary of airpower history see Robin Higham, *Air Power: A Concise History*, (New York, NY: St. Martin's Press, 1972).

¹¹² Kennett, *The First Air War*, 220.

resources, it would have to transition from being an auxiliary service toward becoming an independent organization. The transition would not be easy.

Not surprisingly, those who fight with their boots on the ground and those who fight from the heavens look at airpower's capabilities differently. To many Soldiers, airpower is something that aids Soldiers as they fight the nation's wars. To an Airmen, airpower provides an opportunity to fly over and completely avoid the fighting on the earth's surface. Thus, airpower potentially avoids the costly loss of blood and treasure a ground or sea engagement entails.¹¹³ During the inter-war years, the Soldier's concept of airpower's utility was the dominant perspective. Indeed, the idea that airpower's role was to support the nation's Army was firmly established in the minds of many influential Americans, particularly national defense leaders. These leaders viewed airpower as an auxiliary arm for ground operations and little else. This was certainly the view of the Secretary of War, Newton Baker. According to historian Tami Davis Biddle, when Baker was asked whether America required a separate air arm, the Secretary responded with a one-word

¹¹³ Though it may be true that a soldier depends on airpower, the reciprocal is not normally the case. For an understanding on the asymmetrical dependence see Harold R. Winton's essay in Chapter 11 of *The Paths of Heaven*. Harold Winton, "An Ambivalent Partnership: US Army and Air Force Perspectives on Air-Ground Operations, 1973-90," in *The Paths of Heaven: The Evolution of Airpower Theory*, ed. Phillip Meilinger, (Maxwell AFB, AL: Air University Press, 1998), 88.

answer: No!¹¹⁴ Further illuminating the lack of appetite for an independent air organization, Major William Sherman, who had been Chief of Staff for the Army Air Service, appeared to share Secretary Baker's thoughts when he wrote, "The final decision in war must be made by the man on the ground, willing to come hand to hand with the enemy . . . it is, therefore, the role of the Air Service . . . to aid the chief combatant: the infantry."¹¹⁵ The dominant idea was simple enough: the men on the ground required air support; thus, aviation should be restricted to battlefield support.¹¹⁶

Here it is helpful to recall Galileo's warning concerning the tensions that arise between long-standing institutions with established positions and individuals who have the perspicacity and courage to challenge those positions. Airpower advocates, aware of these tensions, carefully began to plan a transition. Their plan was both gradual and methodical.¹¹⁷ Logically, if aviators moved too quickly they risked complete failure. Other reasons existed that did not permit Airmen to challenge the status quo quickly. For instance, Biddle suggested that one of the reasons for the cautious approach was that many Air Service

¹¹⁴ Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945*, (New York, NY: Princeton University Press, 2004), 133.

¹¹⁵ Biddle, *Rhetoric and Reality in Air Warfare*, 132.

¹¹⁶ The Army Air Service was officially formed in 1920, with the passage of the National Defense Act. The service's mission was to act as a combat arm of the Army, to fight against enemy aircraft in defense of US coastlines, and to serve as a combatant arm against enemy ships attacking the United States.

¹¹⁷ Clearly, General Mitchell did not envision a slow transition. General Mitchell's vision and articulation of that vision is examined separately.

members achieved their leadership status by accepting Army constraints.¹¹⁸ Though senior Air Service members may have owed their positions to this bargain, junior air officers did not. They were of a different mind. Junior air-minded thinkers believed air forces should be separate from the Army.

Airpower advocates understood if they were going to serve the nation well, airpower required a unity of command not possible under the existing structure. This proposition was not well received by those who believed airpower to be an auxiliary service. Army General James McAndrew was one such Soldier. General McAndrew stated, "It is therefore directed that these officers be warned against any idea of independence and that they be taught from the beginning that their efforts must be closely coordinated with those of the remainder of the Air Service and those of the ground Army."¹¹⁹ Though acknowledged publicly, this direct warning, and many others like it were privately ignored.

In 1921, the Army Air Service School of Application was established at Langley Field, Virginia. The school was chartered to train and standardize air tactics. Though tactics and standardization were taught, the Army Air Service School of Application served as a breeding ground

¹¹⁸ Biddle, *Rhetoric and Reality*, 135.

¹¹⁹ Mark Clodfelter, "Molding Airpower Convictions: Development and Legacy of William Mitchell's Strategic Thought," in *The Paths of Heaven: The Evolution of Airpower Theory*, ed. Phillip Meilinger, (Maxwell AFB, AL: Air University Press, 1998), 88.

in which Airmen could cultivate and develop broader ideas. Five years later, it became the Air Corps Tactical School.

The breeding ground led to the 1926 compromise between those who believed aviation should exclusively support ground troops and those who argued for an independent Air Force. Public Law 69-446, dated 2 July 1926 stated: "An act for making further and more effectual provision for the national defense, and other purposes, approved June 3, 1916, as amended, be, and the same is hereby, amended so that the Air Service referred to in that Act and all subsequent Acts of Congress shall be known as the Air Corps." In July 1926, the US Congress renamed the Air Service the Army Air Corps.¹²⁰ This change gave Airmen equal standing with other Army branches and signaled that they were an integral part of the combined arms team.

The new Air Corps, combined with the existence of the Air Corps Tactical School, created a productive environment for air-minded thinking. Though still under the purview of the Army, the Air Corps Tactical School provided its air-minded practitioners with an opportunity to think beyond the confines of existing doctrine.¹²¹ Biddle noted, "The Air Corps Tactical School's curriculum paid lip service to the official constraints while it offered insights into broader thinking among

¹²⁰ Alan Stephens, *The War in the Air, 1914-1994* (Maxwell AFB, AL: Air University Press, 2001), 34.

¹²¹ Biddle, *Rhetoric and Reality*, 135.

airman."¹²² Taking advantage of the school's existence, Major Thomas Milling, one of the lead faculty members, divided the school into two distinct categories.¹²³ The first category, Air Service, taught many of the ground-support functions, such as observation. The second category, Air Force, focused on bombardment, pursuit, and attack.¹²⁴ By 1930, the school's emphasis had almost completely shifted from observation to bombardment operations.¹²⁵

The Air Corps Tactical School relocated to Maxwell Field, Alabama in July 1931.¹²⁶ The new location reinforced its air-minded propositions. At Maxwell Field, the bombing advocates' voices grew louder and more pointed. The motto of the Air Corps Tactical School, *Proficimus More Irretenti* or "We Make Progress Unhindered by Custom," illuminates the tensions between the Army's established positions and the newly emerging "Bomber Mafia".¹²⁷ The Air Corps Tactical School thus served as a safe haven for air-minded thinkers. As Air Force Colonel Howard Belote pointed out in 1999, "Officers at the Air Corps Tactical School created the theory and doctrine which would undergird the air strategies

¹²² Biddle, *Rhetoric and Reality in Air Warfare*, 134.

¹²³ After General Mitchell's court-martial in 1925, evidence suggests that some instructors at ACTS felt it irresponsible to endorse openly Mitchell's views. For additional insight see, Robert Finney, *History of the Air Corps Tactical School, 1920-1940*, 57.

¹²⁴ Biddle, *Rhetoric and Reality in Air Warfare*, 134.

¹²⁵ Bombardment operations in 1930 existed mainly in theory and was certainly depended on technology that had yet to be developed.

¹²⁶ Howard Belote, "Warden and the Air Corps Tactical School," *Airpower Journal* 13, no. 3 (Fall 1999), 39-47.

¹²⁷ The members of the so-called Bomber Mafia, were Robert Olds, Kenneth Walker, Donald Wilson, Harold Lee George, Odas Moon, Robert Webster, Haywood Hansell, Laurence Kuter, and, Muir S. Fairchild.

practiced in World War II."¹²⁸ The Air Corps Tactical School fostered new ideas, and those new ideas would be implemented during America's next war.

Strategic Bombardment

Having achieved equal standing with the other branches of the Army and created a venue for airminded thinking, reform-minded Airmen began to conceptualize how airpower could constructively contribute to American grand strategy. Could airpower be utilized to protect the United States from attack? Would this approach be more effective and less costly than using naval ships? If America were drawn into a military confrontation on foreign soil, could airpower offer an alternative to the slaughter experienced in the trenches of World War I? Airmen thought about these questions and many more. The results of this thinking emerged in two concepts: airpower as a means of strategic defense, and airpower as a means of strategic attack.

Many Airmen argued that it was less expensive for an air force to protect the nation than it was for a navy. Brigadier General William “Billy” Mitchell’s book, *Winged Defense: The Development and Possibilities of Modern Air Power-Economic and Military*, was written to illuminate this concept.¹²⁹ The clever title was not an accident. Mitchell pointed out that airpower was being used to protect many nations. He noted that

¹²⁸ Belote, “Warden and the Air Corps Tactical School,” 37-49.

¹²⁹ William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power-Economic and Military*, (Tuscaloosa, AL: The University of Alabama Press, 2010), 21.

airpower in Great Britain was “designated by law as the first line of defense.”¹³⁰ Furthermore, Mitchell claimed “that the sea service provided minimum defense for maximum price.”¹³¹

Mitchell's argument was two-fold: a bomber was both less expensive than a ship, and more effective. Thus, the nation should no longer count on the Navy's surface vessels for protection. He further argued, “Surface navies have entirely lost their mission of defending a coast because aircraft can destroy or sink any sea craft coming within their radius of operation.”¹³² Mitchell also noted, “The proof submarines can cover any part of the seas, have diminished the importance of surface sea-craft . . . interior [American] cities are now subject to attack as those along the coast.”¹³³ In sum, Mitchell's idea was that the United States could no longer rely on the Navy for protection.¹³⁴

If airpower could be used to protect American lives on American soil more cheaply and more effectively than the Navy, could also it be utilized to fight the nation's foreign wars at less cost in blood and treasure than could the Army?

The answer to this question in the minds of Airmen was clearly “yes,” and the mechanism of that answer was strategic bombardment. This idea of strategic bombardment was the result of new thinking.

¹³⁰ Mitchell, *Winged Defense*, 21.

¹³¹ Mitchell, *Winged Defense*, 21.

¹³² Mitchell, *Winged Defense*, xvi.

¹³³ Mitchell, *Winged Defense*, xiv.

¹³⁴ Mitchell, *Winged Defense*, xiv.

RAND analyst Carl Builder described the men who advanced the proposition of strategic bombing as frontiersmen.¹³⁵ As Builder noted, “Some courageous [A]irmen began to explore the frontier by pursuing the doctrinal and tactical issues in an air force for strategic bombardment. They were frontiersmen—out of the Army mainstream, anticipating the future.”¹³⁶ This idea of anticipating the future was sown by the seeds of two Italian pioneers, Gianni Caproni and Giulio Douhet. In 1921, Douhet offered the following counsel: “Victory favors upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the change occurs.”¹³⁷ Douhet’s idea was similar to Einstein’s: new thinking is required to solve new problems.

The evolution of strategic bombardment can be traced back to the 1917 Gorrell Plan.¹³⁸ Drawing from the original Gorrell Plan, the Air Corps Tactical School began to advance two propositions. First, bombardment was the most important role for airpower.¹³⁹ Second, any potential adversary’s economy was vulnerable to aerial attack. Armed with these two concepts, instructors at the Air Corps Tactical School believed “that attacking a few critical targets would disrupt an enemy’s

¹³⁵ Carl Builder, “Doctrinal Frontiers,” *Airpower Journal* 9, no. 4 (winter 1995): 10.

¹³⁶ Carl Builder, “Doctrinal Frontiers,” 10.

¹³⁷ Giulio Douhet, *The Command of the Air*, 30

¹³⁸ Written in 1917, the Gorrell Plan, named for Edgar S. Gorrell, was the Air Service’s strategic bombing plan. The plan was never executed. For a complete account of the Gorrell Plan, see Mark Clodfelter, “Pinpointing Devastation: American Air Campaign Planning before Pearl Harbor,” *Journal Of Military History* 58, no. 1: 75-101.

¹³⁹ John R. Glock, “The Evolution of Air Force Targeting,” *Airpower Journal* 8, no. 3 (fall 1994): 17.

economy.”¹⁴⁰ Logically, the results of attacking these targets would yield a two-fold effect. “First, the enemy's industrial complex could not sustain its fielded forces. Second, the effect on the day-to-day lives of the civilian population would be so disruptive that they would lose faith with their government and military and force the national leadership to sue for peace.”¹⁴¹ In sum, strategic bombardment meant that airpower could defeat an enemy nation by incapacitating its war-making potential. This idea was contagious.

By the mid-1930s, many air-minded thinkers at the Air Corps Tactical School believed airpower could achieve decisive victory by breaking the enemy's will and capability to fight. Toward the end of the 1930s, this idea was transformed into a theory. The theory was codified and given a name: the industrial web theory.

The industrial web theory suggested that an air force operating independently was capable of fighting and winning its nation's wars by targeting an enemy's vital centers. It also suggested that a war waged with an independent air force would also reduce the amount of blood and treasure a nation would have to pay to win the war.

The concept of the industrial web theory was precisely the prescription the United States yearned for during the inter-war years. At a time when the nation's resources were scarce and the nation's appetite

¹⁴⁰ Glock, “The Evolution of Air Force Targeting,” 17.

¹⁴¹ Robert Finney, *History of the Air Corps Tactical School: 1920-1940*, (Maxwell AFB, AL: Air University Press, 2011), 31.

for military conflicts was practically nonexistent, air-minded theorists advanced a proposition the nation could not easily ignore. The industrial web theory meant the United States could avoid the killing fields of trench warfare altogether and save national treasure in future conflicts. The next section examines how two Airmen in particular articulated airpower's contribution to American grand strategy.

The Articulation of Airpower's Contribution to American Grand Strategy

General William "Billy" Mitchell and General "Hap" Arnold were the most significant Airmen to articulate airpower's contribution to American grand strategy during the inter-war period. Though their message was nearly the same, they chose different audiences. Mitchell articulated airpower's contribution directly to the American people. Arnold, on the other hand, communicated airpower's connection to national security primarily from within the War Department.

General William "Billy" Mitchell

General Mitchell, a distinguished veteran of World War I, articulated airpower's contribution to American grand strategy directly to the American people.¹⁴² Mitchell's was direct and confrontational. His main propositions were the need for an independent air force, the dominance of bombardment, and the requirement for aggressive advocacy. Mitchell believed passionately that only by possessing its own independent

¹⁴² Mitchell received the Distinguished Service Cross, the Distinguished Service Medal, and several foreign decorations.

bomber fleet would the United States be able to remain safe at home and protect its interests abroad.

Mitchell advanced his propositions by penning numerous newspaper articles and books. His publications reached the highest levels of government. According to R. Earl McClendon, senior members of the executive branch were fully aware of Mitchell's arguments.¹⁴³ Mitchell's articles "swell[ed] the mailbags of members of Congress, thus producing indirectly flurries of what President Calvin Coolidge contemptuously called Mitchell Resolutions."¹⁴⁴ In a 1924 article for the *Saturday Evening Post*, Mitchell argued "that a powerful air force could make war a briefer, more humane, and cheaper affair by obliterating an enemy's industrial centers."¹⁴⁵ Disgusted with what he viewed as establishment thinking by the Navy and Army, he wrote *Winged Defense: The Development and Possibilities of Modern Air Power—Economic and Military*. *Winged Defense* is filled with emotional attacks, particularly against the Navy. Penned after Mitchell's retirement, his next book, *Skyways: A Book on Modern Aeronautics*, further developed his ideas on the decisiveness of strategic bombing and the diminishing importance of surface craft.¹⁴⁶ Mitchell's articulation of airpower's ability to assist the

¹⁴³ R. Earl McClendon, *Autonomy of the Air Arm* (University Press of the Pacific, New York, NY: 2005), 48.

¹⁴⁴ McClendon, *Autonomy of the Air Arm* 48.

¹⁴⁵ Alfred Hurley, *Billy Mitchell: Crusader for Air Power*, (New York, NY: Indiana University Press, 2006), 93.

¹⁴⁶ William Mitchell, *Skyways: A Book on Modern Aeronautics* (New York, NY: J.B. Lippincott company, 1930).

nation did not halt with his pen. He also staged demonstrations to convey his message. These efforts were quite confrontational.

Mitchell publicly challenged the Navy's role as America's first line of defense. To anyone who would listen, Mitchell claimed that the airplane had made the Navy's battleship obsolete.¹⁴⁷ He set out to prove his idea to the American people with a series of demonstrations in 1921 and 1923.¹⁴⁸ The first demonstration was an aerial bombing of a stationary naval target. Mitchell's advocacy of airpower's promise was rigorously challenged. Secretary of War Newton Baker, did not believe an aircraft could sink a battleship and requested a front row seat.¹⁴⁹ He further declared, "That idea is so damned nonsensical and impossible that I'm willing to stand on the bridge of a battleship while that nitwit tries to hit it from the air."¹⁵⁰ To the consternation of the Navy and many others, Mitchell's publicity stunt worked. His bombers sank the German battleship *Ostfriesland* in July 1921. The tests results were not supposed to be publicized, but Mitchell had other ideas.¹⁵¹ After the aircraft sank the ship, Mitchell took to the public and announced the results to anyone who would listen. This infuriated the Navy's

¹⁴⁷ Hurley, *Billy Mitchell: Crusader for Air Power*, (New York, NY: Indiana University Press, 2006), 58.

¹⁴⁸ Hurley, *Billy Mitchell: Crusader for Air Power*, (New York, NY: Indiana University Press, 2006), 83.

¹⁴⁹ Robert Futrell, *Ideas, Concepts, Doctrine; Basic Thinking of the United States Air Force, 1907-1960*, (Maxwell AFB, AL: Air University Press, 1989), 35-36.

¹⁵⁰ Roger Thompson, *Lessons Not Learned: The U.S. Navy's Status Quo Culture*, (New York, NY: Naval Institute Press, 2007), 64.

¹⁵¹ Futrell, *Ideas, Concepts, Doctrine*, 36.

leadership.¹⁵² His direct and confrontational articulation of airpower's emerging capabilities would come at a cost.

The Court Martial

Having reverted to the rank of Colonel and been reassigned to Fort Sam Houston, Texas, Mitchell could not hold his tongue in the aftermath of two significant air accidents. The first incident occurred on 3 September 1925, when the Navy dirigible *USS Shenandoah* crashed in Ohio, killing fourteen crewmembers.¹⁵³ The second accident, which actually occurred first but was reported after the Shenandoah crash, involved a Navy P-9. The aircraft was enroute to Hawaii when it crashed as a result of an engine failure. It was not the accidents that drew Mitchell's ire, but the public reaction of Secretary of the Navy Curtis D. Wilbur.¹⁵⁴ Wilbur suggested that the accidents highlighted the limitations of airpower. Seemingly baiting Mitchell, Wilbur stated, "Some people, make extravagant claims for aviation."¹⁵⁵ Taking the bait, Mitchell responded with vitality, directly to the American public. Two days after the accidents Mitchell gave a lengthy statement to the press:

These accidents are the direct result of the incompetency, criminal negligence and almost treasonable administration of the national defense by the Navy and War departments.

In their attempts to keep down the development of aviation into an independent department, separate from the Army and Navy and handled by aeronautical experts, and to maintain the existing systems, they have gone to the utmost lengths to carry their point. All aviation policies, schemes and systems are

¹⁵² Futrell, *Ideas, Concepts, Doctrine*, 35.

¹⁵³ Airmen assigned to Mitchell's new post still referred to him as General Mitchell

¹⁵⁴ The Blast From Billy Mitchell, *Air Force Magazine* 89, No. 7, July 2006.

¹⁵⁵ John T. Correll, The Billy Mitchell Court-Martial, *Air Force Magazine* 95 No. 8, August 2012.

dictated by the non-flying officers of the Army or Navy who know practically nothing about it. The lives of the airmen are being used merely as pawns in their hands.

As far as I am personally concerned, I am looking for no advancement in the service. I have had the finest career that any man could have in the armed service of our United States. . . . As a patriotic American citizen, I can stand by no longer and see these disgusting performances by the Navy and War departments, at the expense of the lives of our people, and the delusion of the American public. The bodies of my former companions in the air molder under the soil in America, and Asia, and Europe and Africa—many, yes, a great many, sent there directly by official stupidity. We all may make mistakes but the criminal mistakes made by armies and navies, whenever they have been allowed to handle aeronautics, show their incompetence. We would not be keeping our trust with our departed comrades were we longer to conceal these facts.¹⁵⁶

Four days after his initial statement, Mitchell dared the War Department to challenge his position when he stated, "If the department does not like the statement I made, let them take disciplinary action as they see fit, according to their judgment, court-martial or no court-martial . . . the investigation that is needed is of the War and Navy Departments and their conduct in the disgraceful administration of aviation."¹⁵⁷ Mitchell was immediately summoned to Washington, DC, and subsequently court-martialed and convicted of insubordination. Mitchell was suspended from active duty for five years without pay.¹⁵⁸

Mitchell articulated airpower's contribution to American grand strategy during the inter-war years by directly talking to the American people and by provoking the military establishment to discipline him. His legacy is mixed. On one hand, Mitchell is as an airpower prophet; and his courage to stand up to the *authority of a thousand* should be

¹⁵⁶ The Blast From Billy Mitchell, *Air Force Magazine* 89, No. 7, July 2006.

¹⁵⁷ Correll, *The Billy Mitchell Court-Martial*, August 2012.

¹⁵⁸ Mitchell elected to resign as of 1 February 1926.

respected.¹⁵⁹ On the other, Mitchell's relentless attacks against the Navy and the War Department were controversial and arguably dysfunctional. His revolutionary zeal and deliberate insubordination tarred the reputations and standing of more responsible Airmen

General Henry "Hap" Arnold

General Henry "Hap" Arnold, who was Commanding General, Army Air Forces in 1943, was one of the first airpower leaders to articulate airpower's connection to national security. But, unlike Mitchell, he grasped the value of presenting airpower's capabilities in a non-confrontational manner. Arnold also understood the requirement to obtain War Department support.

Arnold worked within the Army to apply airpower solutions to problems of national security. Unlike Mitchell, his vision of airpower was unifying, rather than divisive. In a January 1926 article for the *Cavalry Journal*, Arnold argued for a close relationship between the Air Corps and Cavalry.¹⁶⁰ His idea was that both the Cavalry and the Air Corps would benefit from a mutual understanding of the other's missions. Arnold illuminated airpower's particular capabilities without using extreme rhetoric or confrontational terms. In his memoir *Global Mission*, written with the assistance of William Laidlaw, Arnold again argued for cooperation with the Army. He stated that, "In addition to strategic

¹⁵⁹ My emphasis

¹⁶⁰ George Hofmann, *Through Mobility We Conquer: The Mechanization of U.S. Cavalry* (Lexington, KY: The University Press of Kentucky, 2006) 102.

bombing, we must carry out tactical operations in cooperation with ground troops. For that purpose we must have fighters, dive bombers, and light bombers for attacking enemy airfields, communications centers, motor convoys, and troops.”¹⁶¹ In short, Arnold was cleverly advancing the requirement for additional airpower resources in the context of cooperation with ground forces.

Like Mitchell, Arnold connected airpower to national security. Unlike, Mitchell, Arnold did not attack the other services. In his 1936 book, *This Flying Game* he argued that, “The aerial defense of the US should be predicated on a bomber.”¹⁶² Arnold’s idea was the same as Mitchell’s: the bomber could counter any attack levied against the US. He believed that the defense of the US was the responsibility of every flying cadet and every aviator.¹⁶³ In his 1926 publication, *Airmen and Aircraft: An Introduction to Aeronautics*, he stated that, “surface vessels as well as large areas on land can be made untenable by dropping gas bombs from planes.”¹⁶⁴ In short, Arnold was suggesting that airpower may have the ability to spare the nation a long war without insulting surface or naval forces.

In the end, Arnold sought increasing roles for airpower primarily through action rather than rhetoric. Arnold articulated airpower’s

¹⁶¹ Henry Arnold, *Global Mission* (New York, NY: Harper and Row, 1949) 291.

¹⁶² Henry Arnold and Ira Eaker, *This Flying Game* (New York, NY: Funk & Wagnalls, 1936) 128.

¹⁶³ Arnold and Eaker, *This Flying Game* 121.

¹⁶⁴ Henry Arnold, *Airmen and Aircraft: An Introduction to Aeronautics* (New York, NY: Ronald Press, 1926) 152.

contribution to American grand strategy during the inter-war years by working within the War Department. The legacy of Arnold's articulation of airpower is consistent. He was very successful. Though he retired without an independent Air Force, a separate service was imminent when he did so. His non-confrontational articulation of airpower's contribution to American grand strategy was not as flamboyant as Mitchell's, but in the long run it was more effective.

Summary Insights

This chapter has endeavored to answer two questions about American grand strategy in the inter-war years. Those questions were how airpower contributed to the strategy, and how Airmen articulated that contribution. During the inter-wars years, two major factors shaped the implementation of American grand strategy as the United States emerged as the world's leader. America's refusal to be a signatory to the Treaty of Versailles illuminated its desire to isolate itself militarily from the rest of the world. The second influential event was the Great Depression. In light of these two formative events, the United States prioritized its resources to ensure the health and welfare of its citizens and open access to free markets. Airpower's contribution to this alignment can be viewed as a potential success. The industrial-web theory offered a way of conducting war more economically than it had been in the past, though it would have to be amended in execution. At a time when the nation's resources were scarce and the nation's appetite for military conflicts was

practically nonexistent, the industrial-web theory would allow the United States to fight a war against two major adversaries with fewer ground and naval resources than would have otherwise been required. In its zeal to separate itself from the Army, the Air Corps failed to cooperate and integrate responsibly with ground forces. The effects would be obvious in the first few years of World War II. To the question of how effectively General Mitchell and General Arnold articulated airpower's contribution, the evidence is mixed. In the end, during the inter-war years, Air Force leaders effectively articulated airpower's contribution to American grand strategy. Their message was clear and consistent. Mitchell and Arnold both argued for strategic airpower. Both connected Airmen, airpower, and national security. Arnold communicated primarily within the Department of Defense while Mitchell communicated directly to the American people. Mitchell, for better and for worse, was very confrontational; and for that reason his legacy is mixed. He had the courage to stand up to the *authority of a thousand* and his legacy should reflect that courage.¹⁶⁵ Conversely, Mitchell's persistent confrontations with the War Department in general and the Navy in particular were very controversial. His legacy should also reflect that divisiveness. Arnold, on the other hand, was able to articulate potentially revolutionary ideas with a balance and moderation that in the long run made him a more effective advocate than Mitchell.

¹⁶⁵ Author's emphasis

Chapter Four

The Economy of an Air-Centric Grand Strategy

Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. This is not a way of life at all in any true sense. Under the cloud of threatening war, it is humanity hanging from a cross of iron.

- President Dwight Eisenhower

Economic Prosperity and Communism

In November 1952, with the Korean War armistice negotiations drawing to a close and Cold War tensions between the United States and the Soviet Union escalating, Dwight D. Eisenhower defeated Illinois Governor Adlai Stevenson II, to become the thirty-fourth President of the United States.¹⁶⁶ Eisenhower was almost immediately confronted with major policy issues. He had inherited from his predecessor, Harry Truman, an unrestrained budget and a global communist threat.¹⁶⁷ The central issue facing Eisenhower's Administration was, how America could remain the world's leader using fewer financial resources. To

¹⁶⁶ The incumbent Democratic President, Harry Truman, did not seek re-election. President Eisenhower's landslide victory ended the Democrat's twenty-year reign of the Presidency. See "Whose Adlai?," *Time* 60, no. 18 (October 27, 1952), 32.

¹⁶⁷ Dwight Eisenhower, *Mandate for Change, 1953-1956: The White House Years, a Personal Account*, (New York, NY: Doubleday & Co., 1963), 221.

address this issue, the Eisenhower Administration altered the way it implemented American grand strategy.

Economic Prosperity

During the Eisenhower presidency, the American people in general, and the American middle class in particular, achieved an unprecedented level of prosperity. Though European and Pacific nations struggled to rebuild following World War II, Americans saw their standard of living surpass what previous generations had only dreamed about. In a sense, they were living the American dream. America's role as an economic powerhouse during the 1950s played a significant role in shaping the adaptation of American grand strategy. This section explores the US economy in the 1950s. It begins by examining several factors that produced the economic boom of the 1950s; it then surveys the rise of consumerism in America during that decade.

America's role as an economic power in the 1950s was partially the result of fiscal responsibility. The Eisenhower Administration believed that the federal budget should be balanced. According to Douglas Kinnard, Eisenhower, while campaigning for the 1952 presidency made two promises: to end the Korean War, and to reduce the federal budget.¹⁶⁸ He accomplished both goals within his first three years in office. The federal budget was reduced from \$74 billion in Eisenhower's first year to \$70 billion in his second and was further reduced to \$60

¹⁶⁸ Douglas Kinnard, "President Eisenhower and the Defense Budget," *The Journal of Politics* Vol. 39, No. 3 (August 1977): 597.

billion in his third year.¹⁶⁹ Moreover, from 1953-1955 the Eisenhower Administration ran a 1.7 percent, 3 percent, and .8 percent deficit-to-GDP ratio. The federal budget registered a surplus in 1956 and 1957. Though the administration allowed the deficit to grow slightly in 1958 and 1959, three years later, in 1960, the budget again registered a surplus.¹⁷⁰

The economic boom of the 1950s may also be attributed to productive government investments. The GI Bill and the construction of the federal highway system stand as exemplars. The introduction of thousands of educated military veterans into the workforce played a significant role in the economic prosperity of the 1950s.¹⁷¹ The Servicemen's Readjustment Act of 1944, informally known as the GI Bill, provided servicemen and women returning from World War II affordable access to college education.¹⁷² According to Keith Olsen, these service members took advantage of the opportunity; and their academic efforts quickly influenced the economy. Olsen noted that, "2,232,000 veterans attended college . . . For half a decade following the war veterans dominated the nation's campuses by their numbers and their academic superiority over nonveteran classmates."¹⁷³ Thus, the GI Bill injected a large number of well-educated employees into the market. The timing of

¹⁶⁹ Kinnard, "Eisenhower and the Defense," 597.

¹⁷⁰ Kinnard, "Eisenhower and the Defense," 602.

¹⁷¹ Michael Bennett, *When Dreams Came True: The GI Bill and the Making of Modern America*, Washington DC, Potomac Books Inc., 1999), 2.

¹⁷² Bennett, *When Dreams Came True*, 3.

¹⁷³ Keith Olsen, "The G.I. Bill and Higher education: Success and Surprise," *American Quarterly* , Vol. 25, No. 5 (December 1973): 596.

their entry into the workforce was propitious. In an expanding economy, American business owners were willing and able to compensate generously for these peoples' skills, particularly their management and leadership skills.¹⁷⁴

The Federal Highway Act of 1956 also contributed to economic prosperity. The original bill carried the name "The Highway Revenue Act," and it increased the gasoline tax from two to three cents per gallon. The bill also included credited revenue from highway user taxes to a highway trust fund for future use.¹⁷⁵ The bill enjoyed overwhelming support, with the Senate approving it by a vote of 89 to 1.¹⁷⁶ Eisenhower was well aware of the economic potential an expanded interstate system could have on the economy.¹⁷⁷ In his memoir, *Mandate for Change 1953-1956*, he commented, "More than any single action by the government since the end of the [second world] war, [the federal Highway Act] would change the face of America . . . its impact on the American economy-the jobs it would produce in manufacturing and construction, the rural areas it would open up-was beyond calculation."¹⁷⁸ The positive effect on the economy was immediate. The inter-connected highways allowed vehicles to move at greater speeds than they had previously. Therefore, consumer goods could be shipped

¹⁷⁴ Bennett, *When Dreams Came True*, 5.

¹⁷⁵ Richard Weingroff, "Creating the Interstate System," U.S. Department of Transportation, *Public Roads* 60, no. 1 (Summer 1996), 3.

¹⁷⁶ Senator Russell Long of Louisiana voted "no" out of opposition to the gas tax increase. See Richard Weingroff, "Creating the Interstate System," 12.

¹⁷⁷ Eisenhower, *Mandate for Change*, 221.

¹⁷⁸ Eisenhower, *Mandate for Change*, 222.

longer distances, expanding the reach of farmers and manufacturers.¹⁷⁹ Similarly, factories could be built in cities with lower production costs, thus reducing costs and ultimately increasing net profits.

The rise of consumerism, especially in the middle class, also contributed to the 1950s' economic boom. In the 1950s, America changed from a production to a consumer economy.¹⁸⁰ Though the older generation of Americans saved and reused goods, the 1950s gave rise to a generation of Americans that would dispose of the goods their parents had saved. Americans yearned for new and better things. This insatiable appetite fueled the American economy.

Prior to the 1950s, Americans were careful with personal finances. Older generations of Americans were still haunted by the realities of the Great Depression. They were also cognizant of the rationing required just a decade before. The abundant resources created a paradigmatic shift in spending habits. For the first time in their history, many Americans borrowed money to purchase consumer goods. This new style of consumerism in the 1950s led to the invention of credit card. Purchasing on credit was to the economy what kindling is to a fire.

The Communist Threat

¹⁷⁹ George Quester, "Was Eisenhower a Genius," *International Security*, Vol. 4, No. 2 (Autumn, 1979), 169.

¹⁸⁰ For an explanation of a production economy, and a consumer economy see James Wintman, "Consumerism Versus Producerism: A Study in Comparative Law," *Yale Law Journal*, 117 no. 3 (January, 2007), 340-406.

If the expanding American economy was the main domestic factor that influenced American grand strategy during the Eisenhower presidency, then the threat of communism was the dominant external factor during the same period. As the Cold War between the Soviet Union and the United States intensified, anxiety over the perceived communist threat became known as the Second Red Scare.¹⁸¹ The global threat of communism dominated 1950s politics and played a significant role in shaping the adaptation of American grand strategy during this time.

The threat of communism was based on the so-called domino theory. Though President Eisenhower did not use this term, he first articulated the concept. In a 1954 news conference, Eisenhower contended, “Finally, you have broader considerations that might follow what you would call the 'falling domino' principle. You have a row of dominoes set up, you knock over the first one, and what will happen to the last one is the certainty that it will go over very quickly. So you could have a beginning of a disintegration that would have the most profound influences.”¹⁸² Thus, Eisenhower suggested that if one country fell under the influence of communism, a strong probability existed that the surrounding countries would follow. Specifically, Eisenhower argued

¹⁸¹ The term “Red Scare” originates from the allegiance to the red Soviet flag. In the United States, the First Red Scare occurred in the 1920s and was about socialism. The Second Red Scare was specifically about the Soviet Union and its potential influence on society. The Second Red Scare had enduring effects on the United States.

¹⁸² Dwight Eisenhower, “Domino theory principle,” *Domino Theory Principle* (January 16, 2009). 1.<http://web.ebscohost.com/aufric.idm.oclc.org/ehost>.

that if communist states succeeded in taking over the Vietnam, other countries with any communist movement would be encouraged, and thus attempt, to overthrow their own government.¹⁸³

Eisenhower also advanced the proposition that if the dominoes began to fall, ultimately American trading partners would have no alternative but to trade with the communists.¹⁸⁴ He concluded, “Finally, the geographical position achieved thereby does many things . . . It takes away, in its economic aspects, that region that Japan must have as a trading area or Japan, in turn, will have only one place in the world to go—that is, toward the Communist areas in order to live.”¹⁸⁵ In other words, if one country fell to communism, the consequences could quickly affect America’s access to trade. Eisenhower’s final words at the podium summarized the seriousness with which his administration perceived the communist threat. Eisenhower predicted, “The possible consequences of the loss [of United States trading partners] are just incalculable to the free world.”¹⁸⁶ The president was thus making the case that communism was a threat to American prosperity. The Soviet Union's ability to do harm to the United States was real and palpable.

The Eisenhower Administration believed the Cold War to be a confrontation between two governmental systems with completely

¹⁸³ Dwight Eisenhower, *"Domino theory principle,"* 1.

¹⁸⁴ Dwight Eisenhower, *"Domino theory principle,"* 1.

¹⁸⁵ Dwight Eisenhower, *"Domino theory principle,"* 1.

¹⁸⁶ Dwight Eisenhower, *"Domino theory principle,"* 1.

different mentalities.¹⁸⁷ Eisenhower defined the Cold War as “a contest between two visions, two ways of life.”¹⁸⁸ Three years later, in another address to the American people, Eisenhower articulated additional potential consequences of a communist expansion. Eisenhower admonished:

We must recognize that whenever any country falls under the domination of communism, the strength of the free world--and of America- is by that amount weakened and Communism strengthened. If this process, through our neglect or indifference, should proceed unchecked, our continent would be gradually encircled. Our safety depends upon recognition of the fact that the Communist design for failing to acknowledge Diem's increasing dependence on [US] support. Such encirclement must be stopped before it gains momentum--before it is again too late to save the peace...We must maintain a common worldwide defense against the menace of International Communism. And we must demonstrate and spread the blessings of liberty.¹⁸⁹

In other words, the global balance was fragile; and any future communist expansion would jeopardize that balance.

Though the communist threat was real, Eisenhower understood that America could not afford to confront each and every communist action, as the Truman Administration had attempted to do. One of his basic goals was to ensure “that the US can trade freely, in spite of anything Russia may do, with the areas from which we obtain raw materials that

¹⁸⁷ Steven Rearden, "Reassessing the Gaither Report's Role," *Diplomatic History* 25, no. 1 (Winter 2001), 4.

¹⁸⁸ Bowie and Immerman, *Waging Peace*, 51.

¹⁸⁹ Senator Mike Gravel, *The Pentagon Papers, The Defense Department History of United States Decision Making on Vietnam*, Volume 1. (Boston, MA: The Beacon Press, 1971), 66.

are vital to our economy,”¹⁹⁰ Eisenhower demonstrated his administration was going to think differently about the problem. Wary of asking the American people for an indefinite sacrifice, Eisenhower, with the assistance of his Secretary of State, John Foster Dulles, set out to align the nation’s resources with its interests in a new way.

Adaptation of American Grand Strategy

In order to avoid deficit spending in the face of a global communist threat, Eisenhower’s Administration prioritized America’s resources to ensure the long-term health and welfare of its citizens and ensure access to free markets. Though the spread of democracy and the defense of allies were important aspects of his policy, these ideas received the fewest national resources. Even before he took office, Eisenhower made clear his intent to disengage from the Korean War and to avoid future brushfire wars. The president was concerned that the nation’s budget, particularly the Department of Defense’s share of the budget, would eventually bankrupt the nation.¹⁹¹ Eisenhower’s believed was that America should prepare for the long-haul.

Eisenhower’s New Look strategy sought to elevate America’s economic power. Eisenhower was aware of the drastic shift in government spending, beginning with the New Deal in the 1930s.¹⁹² He

¹⁹⁰ John Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security During the Cold War*, New York, NY: Oxford University Press, 1982), 130.

¹⁹¹ Eisenhower, *Mandate for Change*, 22.

¹⁹² From 1932-1952, the federal budget had grown by 80 billion dollars, from around \$4 billion to \$85 billion.

believed that uncontrolled federal spending would place the American economy in danger. He insisted that “the relationship between economic and military strength is intimate and indivisible.”¹⁹³ From these beliefs, he developed what he called the Great Equation.¹⁹⁴ His definition of this term is as simple as it is clear: “Spiritual force, multiplied by economic force, multiplied by military force, is roughly equal to security.”¹⁹⁵ Eisenhower further explained the calculus in more detail when he pointed out, “If one of these factors falls to zero, or near zero, the resulting product does likewise.”¹⁹⁶

Implementing the budget reductions of the New Look was not easy. The military service chiefs objected to his propositions.¹⁹⁷ The Joint Chiefs of Staff stated that Eisenhower’s plans for reductions amounted to “a progressive and cumulative loss of positions of importance, which, in turn, eventually reduce the United States, short of general war, to an isolated and critically vulnerable position.”¹⁹⁸ To combat the opposition

¹⁹³ Walter McDougall, . . . *the Heavens and the Earth: A Political History of the Space Age*, (Baltimore, MD: Johns Hopkins University Press, 1985), 113.

¹⁹⁴ McDougall, . . . *the Heavens and the Earth*, 113.

¹⁹⁵ Robert Bowie and Richard Immerman, *Waging Peace: How Eisenhower Shaped an Enduring Cold War Strategy*, (New York, NY: Oxford University Press, 2000), 44-45.

¹⁹⁶ Eisenhower actually came up with the term the Great Equation while still in uniform. For greater detail see, Robert Bowie and Richard Immerman, *Waging Peace: How Eisenhower Shaped an Enduring Cold War Strategy*, (New York, NY: Oxford University Press, 2000), 44-45.

¹⁹⁷ For an interesting argument advocating the need for government spending, particularly defense spending, see Bernard Brodie, *Strategy in the Missile Age*, (Santa Monica, CA: RAND Corporation), 368.

¹⁹⁸ Eisenhower was in full agreement, and that is exactly why he wanted to reduce the budget. He did not want the United States involved in every local conflict that erupted. Bowie and Immerman, *Waging Peace*, 102.

of the nation's military leaders, on April 16, 1953 Eisenhower brought his proposition to the American people.

Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed.

This world in arms is not spending money alone.

It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children.

The cost of one modern heavy bomber is this: a modern brick school in more than 30 cities.

It is two electric power plants, each serving a town of 60,000 population.

It is two fine, fully equipped hospitals.

It is some 50 miles of concrete highway.

We pay for a single fighter with a half million bushels of wheat.

We pay for a single destroyer with new homes that could have housed more than 8,000 people.

This, I repeat, is the best way of life to be found on the road the world has been taking.

This is not a way of life at all, in any true sense. Under the cloud of threatening war, it is humanity hanging from a cross of iron.

Eisenhower was determined to balance military capability with a strong American economy, and he fervently believed strongly that these reductions would not jeopardize national security. He told his speechwriters that "He knew better than [anyone] about the waste in the Pentagon and about how much fat there is to be cut."¹⁹⁹ Eisenhower was clearly determined to prevail in the argument that reductions in the defense budget would not, in fact, compromise the nation's security.

On January 17 1961, Eisenhower once again brought his economic concerns to the American people. He warned the nation about the economic consequences of an arms race with Russia. He labeled the

¹⁹⁹ Bowie and Immerman, *Waging Peace*, 98.

services and defense contractor companies a “military industrial complex”. He further warned that the military industrial complex's growing power and insatiable appetite for new and better weapons could be difficult to manage in the future. In Eisenhower’s words, “Until the latest of our world conflicts, the United States had no armaments industry. American makers of ploughshares could, with time and as required, make swords as well. But we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions.”²⁰⁰

The New Look

During the 1952 presidential campaign, Eisenhower outlined his adaptation to American grand strategy. His concept was called "The New Look". According to Campbell Craig, the policy was significantly different than Truman’s containment policy.²⁰¹ Eisenhower’s policy would continue to take cognizance of the Cold War threat, but he would ask less of American taxpayers to meet it. The New Look was based on a central theme: meeting the Cold War military threat within the limits of America’s resources, while also calculating that the threat of a nuclear response deter other potential threats. This grand-strategic formulation had two elements. First, containment would be replaced by deterrence. Second, the prominent use of nuclear capability would reduce the need for large conventional forces.

²⁰⁰ Bowie and Immerman, *Waging Peace*, 98.

²⁰¹ Craig, *Destroying the Village*, 41.

Eisenhower codified his New Look policy in October 1953 with National Security Council Memorandum 162/2.²⁰² This document replaced President Truman's strategic approach, embodied in the 1950 National Security Council Memorandum 68.²⁰³ The most significant difference between the two policies was in the treatment they gave to the Soviet threat. Truman's belief was that the Soviets' capabilities would reach their pinnacle in the next few years, and the Cold War would turn hot. Eisenhower embodied the idea that the United States should maintain a constant level of preparedness and that that preparedness had to be aligned with the long-term health of the American economy. In short, Eisenhower believed that the Cold War was going to remain cold.

Massive Retaliation

Eisenhower also believed that the nation should change from a containment strategy to a deterrence strategy. The New Look led to a military strategy called Massive Retaliation. Massive Retaliation's main goal was to avoid war by threatening the use of nuclear weapons. Essentially, it was an all-or-nothing nuclear strategy.²⁰⁴ Campbell Craig suggested that Massive Retaliation meant the United States would threaten to use nuclear weapons to avoid war.²⁰⁵ In Craig's words, "the

²⁰² McDougall, . . . *the Heavens and the Earth*, 113.

²⁰³ "NSC-68" in *Foreign Relations of the United States 1950*, Vol. 1. (Washington D.C.: Government Printing Office, 1977): 279.

²⁰⁴ Campbell Craig, *Destroying the Village: Eisenhower and Thermonuclear War*, (New York, NY: Columbia University Press, 1983), 58

²⁰⁵ Craig, *Destroying the Village*, 44.

West should launch a nuclear attack where it hurts in the event of any significant communist aggression.”²⁰⁶ The thought was that a country not wanting to risk a nuclear strike by the United States would not act in a way the United States would deem aggressive.²⁰⁷ Furthermore, if small-scale wars could be avoided, the United States could place its efforts and resources elsewhere.²⁰⁸ In his book, *Strategies and Containment*, John Gaddis stated, "The United States might deploy a few Marine battalions or Army units for one or at most two brushfire wars, but if it grew to anything like Korea proportions, the action would become one for the use of atomic weapons. Participation in small wars . . . is primarily a matter for the Navy and Air."²⁰⁹ In other words, Eisenhower had little interest in committing the country to a prolonged war. If such a conflict reemerged, the president would utilize nuclear weapons. Where would the United States draw the line between a conflict that warranted a nuclear strike and one that did not? This question proved difficult to answer.

Massive Retaliation was not well received by the service chiefs.²¹⁰ The administration would not commit to using nuclear weapons in any specific scenario. This reluctance perplexed the military leaders. Given the all-or-nothing nuclear response, Massive Retaliation did not allow

²⁰⁶ Craig, *Destroying the Village*, 44.

²⁰⁷ Craig, *Destroying the Village*, 46.

²⁰⁸ Craig, *Destroying the Village*, 43.

²⁰⁹ Gaddis, *Strategies of Containment*, 165.

²¹⁰ The Air Force was the exception. The Air Force fared well under Massive Retaliation. This relationship is examined in the next section.

military leaders an option to respond to minor or intermediate crises. Eisenhower's ambiguity forced the service chiefs into an intellectual corner. Craig accurately portrays their frustration: "The Joint Chiefs' attitude toward the President in 1956 and thereafter can best be described as suspicious. Charged with planning for war, the chiefs wondered with increasing exasperation why Eisenhower refused to say exactly under what circumstances he would authorize the use of thermonuclear weapons."²¹¹ How could military leaders plan to contain a limited Soviet aggression, if the president insisted on ambiguity? Eisenhower was deliberate in his ambiguity about the precise circumstance under which he would authorize the use of nuclear weapons. He would not let the JCS get involved in small crises because he knew small crises tended to escalate into major crises.

Eisenhower's New Look strategy achieved some of the economic benefits realties sought. He reduced Truman's 1954 defense budget request from \$41 billion to \$35 billion.²¹² The following year, Eisenhower only submitted a \$30 billion budget.²¹³ This adaptation of American grand strategy altered the construct of the American armed forces.

Eisenhower's New Look stressed the role of nuclear technology, while reducing the nation's reliance on conventional forces. The Army

²¹¹ Craig, *Destroying the Village*, 59.

²¹² Department of Defense, "Overview-United States Department of Defense Fiscal Year 1954 Budget," April 2013.

²¹³ Department of Defense, "Overview-United States Department of Defense Fiscal Year 1955 Budget," April 2013.

was thus on the receiving end of many of the reductions.²¹⁴ According to Gaddis, the Army "shrank from 1.5 million to 1 million [personnel] between December 1954 and June 1955."²¹⁵ Conversely, the number of strategic bombers and intermediate-range ballistic missiles significantly increased. Furthermore, Massive Retaliation led to the dispersal of strategic-bomber bases around the globe and the deployment of intermediate-range ballistic missiles to Europe.²¹⁶

In the end, the New Look achieved some of the successes Eisenhower envisioned and prepared the United States for a confrontation with the Soviet Union that could potentially last years, if not decades. The adoption of a deterrence-based strategy provided an ideal opportunity for airpower to do the nation's bidding.

Airpower's Contribution to American Grand Strategy

Secretary of Defense Charles Wilson applied Eisenhower's concept of economy in government to the defense department. Wilson reduced the defense budget by \$6.8 billion during his first year in office. If the Air Force were going to serve its nation well during an era of constrained national resources, it would have to develop a strategy that addressed two national concerns: strategic deterrence and limited wars fought under tight fiscal constraints.

Peace is our Profession

²¹⁴ Gaddis, *Strategies of Containment*, 182.

²¹⁵ The Army would have become smaller as a result of the Korean Armistice. See Gaddis, *Strategies of Containment*, 169.

²¹⁶ Gaddis, *Strategies of Containment*, 182.

The Air Force wholeheartedly embraced the transition from a containment strategy to a deterrent strategy. The service believed that an always ready nuclear force-in-being was the answer. It therefore, focused its efforts on building up its bomber and missile forces.

General Curtis LeMay's Strategic Air Command (SAC) was the epitome of strategic deterrence. LeMay understood what the nation demanded of its Air Force.²¹⁷ Strategic Air Command's motto, "Peace is our Profession," demonstrated the intense focus the Air Force adopted to deter nuclear war.²¹⁸ Before the Air Force could contribute effectively to the new strategy, however, it had to overcome several limitations.

The Air Force had a range problem. American bombers did not have the ability to fly from the United States to the Soviet Union without refueling.²¹⁹ Though the Air Force had overseas bases in England and aircraft deployed in Alaska, these bases were either vulnerable to Soviet attack or too far from the Soviet Union to be helpful.²²⁰ To correct this deficiency, the Air Force sought bases in more effective locations.²²¹ Soon SAC's bombers found temporary homes in Greenland, North Africa,

²¹⁷ For an account of LeMay's thoughts see Tillman's chapter 7, SAC: Forging the Weapon. Barrett Tillman, *LeMay (Great Generals)*, (New York, NY: Palgrave Macmillan, 2007).

²¹⁸ "Peace through Strength" is also linked to LeMay. See Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay*, (Washington DC, Regency Publishing, 2009), 268.

²¹⁹ George Lemmer, *The Air Force and Strategic Deterrence: 1951-1960*, USAF Historical Division Liaison Office, (December 1967), 26.

²²⁰ Lemmer, *The Air Force and Strategic Deterrence*, 24.

²²¹ Barrett Tillman, *LeMay (Great Generals)*, (New York, NY: Palgrave Macmillan, 2007), 125.

and Spain.²²² With these new bases, LeMay created a ring of air bases that both limited the USSR's Russia's ability to strike US aircraft simultaneously and also positioned American nuclear capabilities to within striking distance of Moscow.

As the USSR developed new capabilities, the Air Force matched them. On 4 October 1957, the Soviet Union launched a satellite named Sputnik 1, into Earth's low orbit.²²³ This demonstrated the USSR's capability to send a nuclear warhead anywhere in the world. In response, Strategic Air Command instituted twenty-four-hour alert crews and airborne alert crews.²²⁴ At the outset, LeMay placed about ten percent of his bombers and tankers on alert.²²⁵ Instituting airborne alert provided a force that could plausibly deter a Soviet attack and retaliate immediately if deterrence failed.

Limited Wars

Though the Air Force was primed to deter nuclear war, it was not prepared to respond effectively in the event of non-nuclear, limited war. Until the late 1950s, this was not a problem. The Air Force was certain it would respond to any conflict, conventional or limited, with nuclear weapons. The Air Force organized, trained and equipped its forces based upon that proposition. The Air Force insisted that if it were prepared for

²²² Tillman, *LeMay*, 125.

²²³ Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay*, (Washington DC, Regency Publishing, 2009), 327.

²²⁴ Lemmer, *The Air Force and Strategic Deterrence*, 32.

²²⁵ Kozak, *LeMay*, 282.

conventional war, it was also prepared for limited ones.²²⁶ In other words, limited wars were just smaller wars, but wars nonetheless. This concept was adequate for national security throughout most of the Eisenhower Administration. But by the end of the mid-to-late 1950s, the Soviet incursion into Czechoslovakia and the defeat of the French at the hands of the Vietnamese irregular army began to undermine its validity.

Despite these anomalies, the Air Force completely embraced the US decision to transition from a containment strategy to a deterrence strategy. The Massive Retaliation strategy gave the Air Force significantly more resources and influence than the Army and Navy. Massive Retaliation was a military strategy that had the potential to use nuclear weapons across the entire spectrum of war, and not just in total war. The US Air Force, with its long-range heavy bombers and intercontinental ballistic missiles, flourished under this military strategy. The next section examines how two Airmen in particular articulated airpower's contribution.

The Articulation of Airpower's Contribution to American Grand Strategy

Throughout the Eisenhower Administration, Air Force leaders insisted that nuclear deterrence must be the nation's top priorities. The main proposition was that the nation was placing too little focus on airpower and too much emphasis on large ground forces. This section traces how

²²⁶ Lemmer, *The Air Force and Strategic Deterrence*, 44.

Generals Hoyt Vandenberg and Curtis LeMay articulated airpower's contribution to American grand strategy during the Eisenhower Administration.²²⁷ Though their messages were very similar, they chose different audiences. Vandenberg, like Arnold, articulated airpower's contribution primarily within the national security establishment. LeMay, like Mitchell, articulated airpower's contribution primarily to the American people.

General Hoyt Vandenberg

General Hoyt Vandenberg, who became the second Chief of Staff, USAF, in 1948, continued the policies established by his predecessor, General Carl Spaatz. Under Spaatz, the Air Force had concluded that a mission-ready force in-being was a strategic imperative. In an article for *Morning Bulletin*, Spaatz called the Army plans to deploy ground troops to Europe a "wall of flesh" strategy.²²⁸ He argued that Soviet aircraft would decimate American troops on the ground and that air superiority was vital.

Vandenberg advanced Spaatz's ideas and argued for additional resources for the Air Force.²²⁹ Like Arnold, Vandenberg argued his ideas mostly within the National Security establishment. Also like Arnold,

²²⁷ During the Eisenhower Administration, the Air Force had different two Chiefs of Staff. General Hoyt Vandenberg served in this capacity from April 1948 through June 1953, while General Nathan Twining served as chief from June 1953 until June 1957. General Twining became the Chairman of the Joint Chiefs. He was the first Air Force officer to serve in this capacity.

²²⁸ Carl Spaatz, "Warning on Red Air Power 'Wall of flesh' useless in Europe," *Morning Bulletin* (March 29 1951), <http://nla.gov.au/nla.news-article57072501>

²²⁹ Hoyt S. Vandenberg. "This Is Your New Air Force." *Flying*. May 1951. 33.

Vandenberg, was politically astute.²³⁰ He worked proficiently and systematically to garner resources for the Air Force. During a testimony before a Senate committee, Vandenberg referred to the “shoestring [A]ir [F]orce”.²³¹ His idea was that the Air Force was being held together on a shoestring budget. The term would pay dividends, as Vandenberg went on to use it to illuminate what he saw as his services’ inadequate funding.

Vandenberg also argued within the Department of Defense for a revised war plan. The services were not in agreement about how best to protect the nation or how to win the nation’s wars. Vandenberg insisted that the survival of the United States depended on a robust strategic-deterrent force. He further maintained that the deterrent force should be on alert status. Army and Navy leaders argued that airpower alone in a future war would not be decisive and that American victory could not be guaranteed without securing the sea lines of communication and gaining control of territory taken by the USSR. This fundamental disagreement manifested itself in disputes over the national war plan, known as the Joint Strategic Capabilities Plan (JSCAP).

Vandenberg maintained that the 1952 JSCAP was deeply flawed.²³² Essentially, the 1952 plan called for absorbing a Soviet land

²³⁰ He was also the nephew of Arthur H. Vandenberg, a former U.S. Senator from Michigan.

²³¹ Vandenberg. “This Is Your New Air Force.” 33.

²³² The Joint Strategic Capabilities Plan provides guidance to the combatant commanders and the Joint Chiefs of Staff to accomplish tasks and missions based on military capabilities.

assault and countering that attack with an air-ground attack, supported by sea power. Vandenberg believed that if the Soviets attacked; the US should answer with both strategic and tactical nuclear weapons.²³³ In a meeting with the service chiefs, he articulated that belief as follows: “If sufficient nuclear [airpower] were made available at the outset, and protected from the initial enemy assault, the air offensive would be decisive and large balanced forces unnecessary.”²³⁴ In other words, a US nuclear strike would defeat the Soviets without the requirement of significant ground forces.²³⁵ Vandenberg believed that the nation's priority was on deterring war, not in mobilizing large numbers of ground troops. As Air Force historian George Lemmer noted, “[Air Force leaders] did not believe there could be a ‘World War II type’ conflict following the nuclear phase.”²³⁶ Essentially, Vandenberg argued that if deterrence failed, future conflicts would be decided by the opening salvo.

Vandenberg’s ability to articulate airpower’s contribution to American grand strategy delayed the publication of another land-centric JSCAP.²³⁷ This delay represented a huge success for the Air Force. It set the stage for Vandenberg’s successor, General Nathan Twining, to persuade the

²³³ Bowie and Immerman, *Waging Peace*, 14.

²³⁴ George Lemmer, “The Air Force and Strategic Deterrence: 1951-1960,” USAF Historical Division Liaison Office, (December 1967), 26.

²³⁵ Bernard Brodie, *Strategy in the Missile Age*, (Santa Monica, CA: Rand Publishing, 2007), 166.

²³⁶ Lemmer, “The Air Force and Strategic Deterrence,” 26.

²³⁷ The JCS adopted a plan so vulnerable to different interpretations that two plans emerged: the Air Force plan assumed the use of nuclear weapons at the beginning of any conflict and the other postponed nuclear use indefinitely. Twining continued to work within the Department of Defense and argued that the latter plan was a “March to Moscow”. The president would ultimately reconcile these diverging ideas in the Air Force’s favor.

president to rule in the Air Force's favor. According to Lemmer, "[Eisenhower] ruled that nuclear weapons would be used from the outset of a general war."²³⁸ Based on Eisenhower's guidance, Chairman of the Joint Chiefs of Staff, Admiral Arthur W. Radford, approved an air-centric JSCAP on 27 June 1956. In large part due to Vandenberg's forceful, persistent articulation of an air-centric strategy, the 1956 plan did not include a conventional war strategy.

General Curtis LeMay

LeMay articulated airpower's contribution to American grand strategy directly to the American people. Under the purview of Eisenhower's New Look, strategic attack was the cornerstone of national security, and LeMay made significant efforts to ensure that Americans understood that fact. LeMay's main proposition was that "the best way to maintain peace was to build the strongest and most professional [strategic] force the world had ever seen to be ready, by God, today to fight in case we had to; not tomorrow or next month, right now."²³⁹ In short, his goal was to build SAC into a military instrument that was so strong that no nation would attempt to attack the US. LeMay was convinced that the preponderance of America's defense resources should go to his Strategic Air Command.²⁴⁰ He turned to Hollywood to assist him in articulating that message.

²³⁸ Lemmer, *The Air Force and Strategic Deterrence*, 27.

²³⁹ General Curtis E. LeMay, interview by Robert M. Kipp and John T. Bohn, 16 November 1972, transcript, 6, K239.0512-1774, AFHRA.

²⁴⁰ Kozak, *LeMay*, 329.

In 1954, LeMay contacted screenwriter Bernie Lay and requested that they “make a movie about SAC.”²⁴¹ LeMay saw Hollywood as a venue through which to convince the American people that SAC was its ultimate guarantor of national security. The opening scene of the 1955 film *Strategic Air Command* clearly articulates that message. During the opening credits, the SAC patch appears and across that patch emerge the following words: “America today is watching her skies with grave concern. For in these skies of peace, the nation is building its defenses.”²⁴² One of the first scenes depicts how the leading character, Robert “Dutch” Holland, is recalled to active duty to fly B-36 and B-47 nuclear-armed bombers for SAC.²⁴³ Dutch is approached while playing baseball for the St Louis Cardinals and told the nation needs him to fly. Somewhat taken aback, Dutch does not completely understand why he is needed. The film uses this opportunity to articulate airpower’s main contribution to American grand strategy. Dutch is told, “Do you realize [the Air Force] is the only thing that is keeping the peace. By staying combat ready, [SAC] can prevent a war.”²⁴⁴ Many other lines of dialogue in *Strategic Air Command* serve to illuminate both SAC’s culture and the connection between Airmen, airpower, and national security. One in

²⁴¹ Lawrence H. Suid, *Guts & Glory : The Making of the American Military Image in Film*, Rev. and expanded ed. (Lexington: University Press of Kentucky, 2002), 221.

²⁴² Anthony Mann, “Strategic Air Command,” (Hollywood, CA: Paramount Pictures, 1955).

²⁴³ Robert “Dutch” Holland was on reserve status for over six years since the end of World War II. “Dutch” was played by James Stewart.

²⁴⁴Anthony Mann, “Strategic Air Command,” (Hollywood, CA: Paramount Pictures, 1955).

particular stands out: “Every day is a war, colonel,” “We may never know when the other fellow may start something. We have to be ready twenty-four hours a day, seven days a week.”²⁴⁵ *Strategic Air Command* closes with Dutch suffering a career-ending injury that renders him unable to fly. Dutch is now confronted with a decision: he must either accept a desk job or leave SAC. He selects the latter. The movie’s point was that service as a front-line SAC warrior demanded America’s best. The potentially adverse consequences were too great to settle for anything else.

LeMay also used car racing to articulate airpower’s contribution to the American people. During the 1950s, open-road auto racing was under close scrutiny. LeMay seized the moment. He allowed sanctioned auto races to be conducted on SAC runways.²⁴⁶ This idea proved widely popular with racing fans and LeMay even fielded his own racing team.²⁴⁷

LeMay also used celebrity relationships to articulate airpower’s contribution and gain favor for those contributions. LeMay first approached Senate Majority Leader Lyndon Johnson to argue for a pay raise for his Airmen. Johnson was aware of airpower’s contribution to the nation, but nevertheless rejected the idea of a pay raise. The Congressman warned that such a bill would not pass the house or

²⁴⁵ Mann, “Strategic Air Command,” (Hollywood, CA: Paramount Pictures, 1955).

²⁴⁶ Barrett Tillman, *LeMay: Great General Series* (New York, NY: Palgrave MacMillan, 2007), 135.

²⁴⁷ Tillman, *LeMay: Great General Series*, 135.

Congress.²⁴⁸ Without hesitation, LeMay sought a solution outside the defense establishment. LeMay used his relationship with Arthur Godfrey, American radio and television broadcaster, to press the issue. In light of airpower's contribution to the nation, Godfrey took to the airwaves to argue for a pay raise. Eisenhower signed a 6.5 percent pay raise for the Air Force and by default the rest of the US military raise several months later.²⁴⁹

In sum, Vandenberg and LeMay articulated a consistent message, though they chose different audiences. Vandenberg articulated airpower's contribution primarily within the national security establishment. LeMay, on the other hand, articulated airpower's contribution directly to the American people. The two approaches were complementary.

Summary Insights

This chapter has examined the implementation of American grand strategy during the Eisenhower years, how airpower contributed to the strategy, and how Airmen articulated that contribution. Two major factors shaped the implementation of American grand strategy at this time: a purposely limited defense budget and a global communist threat. In light of these two factors, Eisenhower developed a grand strategy to ensure the health and welfare of American citizens and open access to free markets. This strategy achieved some of the successes Eisenhower

²⁴⁸ Tillman, *LeMay: Great General Series*, 143.

²⁴⁹ Tillman, *LeMay: Great General Series*, 143.

envisioned and placed the United States on solid footing for a confrontation with the Soviet Union that lasted for three decades after Eisenhower left office. The deterrence-based strategy provided a golden opportunity for airpower to do the nation's bidding. The Air Force completely embraced the strategy of deterrence. The Massive Retaliation strategy made the newly formed Air Force the clear winner in the budgetary battles with the Army and Navy. The US Air Force, with its long-range bombers and intercontinental ballistic missiles, flourished under this strategy. But the Air Force under Eisenhower was not perfect. Although airplanes and missiles are less expensive than ground forces, the latter can better protect the nation in an irregular war. During the Eisenhower Administration, Air Force leaders effectively articulated airpower's contribution to American grand strategy. Their message was clear and consistent. Vandenberg and LeMay argued for strategic airpower. Both generals connected Airmen, airpower, and national security with each other. They communicated both within the Department of Defense and directly to the American people. LeMay discovered new and creative mediums in which to articulate that message. In short, for better and for worse, they gave President Eisenhower exactly the instrument he wanted; and they convinced both the national defense establishment and the American people that, airpower was the most vital element of national security.

Chapter Five

A Perspective American Grand Strategy

Everything in strategy is very simple, but that does not mean that everything is very easy. Once it has been determined, . . . It is easy to chart its course. But great strength of character, as well as great lucidity and firmness of mind, is required in order to follow through steadily, to carry out the plan, and not to be thrown off course by thousands of diversions.

- Carl Clausewitz

Emerging Challenges and Opportunities

The nation's means are contracting, while its ends are expanding. The federal budget in general and the Department of Defense budget in particular are facing significant constraints at precisely the moment the complex world requires greater US involvement. America is recovering from a traumatic economic recession and two wars that have cost in excess of one trillion dollars. Potential challenges will not, however, wait for an American economic recovery. Indeed, challenges are emerging on American soil as well as across the globe. The US economic recovery requires the greatest amount of healing in the shortest amount of time. Resolving the ongoing debate between eliminating federal deficits and reducing the inequality among Americans represents another domestic challenge. China's expansion in the Pacific represents what many see as

the most significant foreign policy threat.²⁵⁰ The US must also consider the challenges presented by a potentially nuclear-capable Iran, a more assertive Russia, European economic instability, and Islamic Takfirism. If the United States is to remain a global power, it must adapt its grand strategy to solve both its domestic and its international problems.

Domestic Challenges

Nearly five years removed from the start of the Great Recession of October 2008, the American economy remains fragile. In some ways, the American economy is stronger today than it was four years ago. Many businesses have started to hire again. Home prices are rising at the fastest pace in over six years.²⁵¹ Home sales have increased nearly 50 percent from their lowest point in 2007.²⁵² Likewise, not only is new home construction on the rise, but mortgage rates are at their lowest in a generation.²⁵³

The ongoing debate about the significance of the national debt and the cause of significant economic inequality among Americans represents another substantial domestic challenge, the resolution of which is central to the nation's long-term health and welfare. Americans are generally

²⁵⁰ Edward Friedman, *China's Rise, Taiwan's Dilemma's and International Peace*, (New York, NY: Routledge, 2005), 14.

²⁵¹ Amrita Jayakumar, "Home Prices rise at Highest Rate in 7 Years," *The Washington Post*, 30 April, 2013, http://articles.washingtonpost.com/2013-04-30/business/38918794_1_home-prices-case-shiller-corelogic.

²⁵² Jayakumar, "Home Prices rise at Highest Rate in 7 Years," *The Washington Post*, 30 April, 2013, http://articles.washingtonpost.com/2013-04-30/business/38918794_1_home-prices-case-shiller-corelogic.

²⁵³ "Six Years of Low Interest Rates in Search for some Growth," *The Economist*, 6 April 2013, <http://www.economist.com/news/briefing/21575773-central-banks-have-cushioned-developed-worlds-economy-difficult-period-they-have-yet>

divided on the issue. On one side is the idea that the growing inequality in America is responsible for the slow economic recovery and that the federal government should spend more. The extreme end of this argument states that if this problem is not solved, America may no longer be a place where “anyone with hard work and talent can make it.”²⁵⁴ Essentially, the argument is that inequality is based on the greed of America’s wealthy, the so-called 1 percent. On the other hand, is the idea that consumer debt is the result of long-standing financial indiscretion by consumers, high taxes, and government over spending. In short, individuals and families must make changes in their spending and saving habits, and that the US role in the solution should be minimal.

Joseph Stiglitz, a Noble Prize economist, argues that the growing inequality, caused by an imperfect economic system, is suppressing the nation’s economic recovery.²⁵⁵ According to his analysis, inequality is responsible for low social mobility and the predicament of the nation’s poor. Stiglitz states that the America’s middle class is too financially weak to continue the consumer spending that is the traditional force behind the nation’s economic growth. In a *New York Times* article, he points to the fact that the middle class has a lower household income

²⁵⁴ Joseph Stiglitz, “Inequality Is Holding Back the Recovery,” *The New York Times*, 19 January 2013, <http://opinionator.blogs.nytimes.com/2013/01/19/inequality-is-holding-back-the-recovery>.

²⁵⁵ Stiglitz, “Inequality Is Holding Back the Recovery,” *The New York Times*, 19 January 2013, <http://opinionator.blogs.nytimes.com/2013/01/19/inequality-is-holding-back-the-recovery>.

today than it did fifteen years ago. This lower income level prevents the middle class from being able to contribute robustly to economic growth. The wealthy save and invest their earnings, rather than spend. Essentially, Stiglitz argues that the middle class is under consuming. Further, the middle class has limited options for upward mobility. Today's middle class cannot invest in the future. Its members require every dollar they earn for daily living. No money remains to seek education or to start a business. A third reason that the middle-class is suppressing the nation's economy is that they pay an unfairly large share of the federal taxes. Middle-class Americans often pay at a higher rate than do members of the upper class. Stiglitz points out that, "Returns from Wall Street speculation are taxed at a far lower rate than other forms of income."²⁵⁶

Representing the contrasting viewpoint, Congressman Paul Ryan argues that inequality is not the main issue. Instead, individual Americans must make changes in their financial lifestyles and that the nation should ease regulations, not increase them. In short, the American government is standing in the way of a faster recovery. Ryan's "Path to Prosperity" seeks to foster a smaller national government and individual fiscal responsibility. Ryan argues that the cost of government safety nets are out of control and that the nation cannot afford to

²⁵⁶ Stiglitz, "Inequality Is Holding Back the Recovery," *The New York Times*, 19 January 2013, <http://opinionator.blogs.nytimes.com/2013/01/19/inequality-is-holding-back-the-recovery>.

maintain these programs at their current levels. He points out that the Supplemental Nutritional Assistance Program has grown from an \$18B program in 2001 to an \$80B program in 2013. He believes that these programs “lack incentives to make sure that able-bodied adults on food stamps are working, looking for work, or enrolled in job training.”²⁵⁷

The US economy and national security are indivisible. Over the next several years Americans must come to a resolution on this debate. The solution is central to the nation’s long-term health and welfare.

International Challenges

China’s expansion in the Pacific represents what many see as the most significant foreign policy threat. The US must also consider the challenges presented by a potentially nuclear capable Iran, a more assertive Russia, European economic instability, and Islamic Takfirism.

Chinese Expansion. China’s emerging role in the Pacific is a threat to US global influence. China’s economic rise over the last decade has subtly shifted the balance of power in the Pacific. Diplomatic visits by government leaders indicate shifting norms in the region. As Jain Yand notes, “It is now accepted routine that the first official overseas visit by a new head of government from the region is made to Beijing, not to Canberra, Washington or Wellington.”²⁵⁸ The former American Secretary

²⁵⁷ Mark Trumball, “Obama vs. Ryan: Five ways their Debt Plans Differ,” The Christiamn Science Monitor, October 2012, <http://www.csmonitor.com/USA/Politics/2011/0413/Obama-vs.-Paul-Ryan-five-ways-their-debt-plans-differ/Medicaid>

²⁵⁸ Jain Yang, “China in the South Pacific: Hegemon on the Horizon?” *Pacific Review* 22 no. 2 (May 2009): 140.

of State, Hillary Clinton, broke with US tradition and visited China on her first official overseas trip.²⁵⁹ Her destination was not accidental — it demonstrated the seriousness with which the US is committed to the region.²⁶⁰ Three areas illustrate the complexity of the threat. They are first, an apprehension over Taiwan's sovereignty; second, the tension surrounding the Korean peninsula; and third, the sensitivity that orbits around the American and Japanese alliance. Though these challenges can better be described as enduring rather than emerging, the tensions are so tight and the sensitivities so fragile, that a misalignment of American resources could jeopardize global power.

Taiwan Sovereignty. The disagreement over Taiwan's sovereignty requires some historical perspective.²⁶¹ A good place to start is with Japan's acquisition of Taiwan from China. This acquisition occurred in 1895 under the Treaty of Shimonoseki, following the first Sino-Japanese war. This Treaty humiliated China. During the Second World War, China not only denounced all treaties previously agreed to with Japan, it also made Taiwan's return a fundamental wartime objective.²⁶² Following the Japanese surrender, Taiwan was given back to China.²⁶³

²⁵⁹ Robert Kaplan, "Hillary's Road Trip," *The Atlantic*, (February 2009): 2.

²⁶⁰ Robert Kaplan, "Hillary's Road Trip," *The Atlantic*, (February 2009): 2.

²⁶¹ Friedman, *China's Rise*, 158.

²⁶² Under the Treaty of Shimonoseki following China's defeat by Japan in the First Sino-Japanese War, Taiwan and the P'eng-hu Islands were ceded to Japan. Tokyo saw Taiwan as a source of raw materials for Japan's industries, a colonial market for Japanese goods, and a model for economic growth. Edward Friedman, *China's rise, Taiwan's dilemmas and international peace*, (New York, NY: Routledge Press, 2006), 217.

²⁶³ Daniel Twining, "The Taiwan Linchpin." *Policy Review* no. 177 (February 2013), 43-58.

This did not settle the issue. Though the 1951 Treaty of Peace officially ended the World War II and Japan's status as an imperial power, it only added to the confusion concerning China's government.²⁶⁴ China's two competing parties, the Republic of China and the People's Republic of China, could not agree on which was the legitimate government. Due to disagreements by other countries as to which Chinese regime was legitimate, neither was invited to the treaty conference.²⁶⁵ Thus, Japan signed a separate peace treaty with the Republic of China.²⁶⁶ The People's Republic of China predictably refused to recognize the treaty.²⁶⁷

The United Nations recognized the Republic of China as the legitimate government of China until the early 1970s. In 1971, the United Nations changed its position and recognized the People's Republic of China as China's legitimate government.²⁶⁸ As a compromise, the United Nations offered the Republic of China dual representation.²⁶⁹ In protest, Chiang Kai-shek, the Republic of China's leader, demanded a seat on the United Nations Security Council.²⁷⁰ Unsurprisingly, Chiang

²⁶⁴ The 1951 Treaty of Peace is commonly referred to as the Treaty of San Francisco.

²⁶⁵ Ivy Lee, "Probing the Issues of Reconciliation More than Fifty Years after the Asia-Pacific War," (*East Asia: An International Quarterly*, (2001): 39.

²⁶⁶ Japan's separate treaty was formally called the Sino-Japanese Peace Treaty and informally referred to as the Treaty of Taipei.

²⁶⁷ Jonathan Spence, *The Search for Modern China*, (New York, NY: W. W. Norton & Company, 1990), 45.

²⁶⁸ Spence, *The Search for Modern China*, 45.

²⁶⁹ Spence, *The Search for Modern China*, 45.

²⁷⁰ Chiang Kai-shek delivered his well-known speech in which he used the phrase, "The sky is not big enough for two suns."

Kai-shek's demand proved unacceptable to the People's Republic of China.²⁷¹

The United States ultimately came to the same conclusion as the United Nations.²⁷² In 1979 the United States formally acknowledged the People's Republic of China.²⁷³ In Bruce Gilley's words, "The United States, which had merely acknowledged Beijing's claim to Taiwan, was slow to recognize the People's Republic of China due to Washington's historical ties with the KMT, dating back to World War II and its conflict with the People's Republic of China during the Korean War. The strategic position of Taiwan, astride western Pacific sea and air lanes gave it added importance."²⁷⁴ In other words, Taiwan's location in the Pacific was a significant factor for the United States.

To compensate for America's change in position, the US Congress passed the Taiwan Relations Act.²⁷⁵ Phillip Hsu summarized the impact of the Act as follows: "The Taiwan Relations Act laid out the core principles of the US security commitment to Taiwan by stating that any effort to determine the future of Taiwan by other than peaceful means would be of 'grave concern' to the [US]."²⁷⁶ Without saying so explicitly, the Taiwan Relations Act obligated the US to support Taiwan should it be

²⁷¹ Spence, *The Search for Modern China*, 45.

²⁷² Spence, *The Search for Modern China*, 45.

²⁷³ Bruce Gilley, "Not so Dire Straits," *Foreign Affairs* 89, no. 1 (2010): 44-60.

²⁷⁴ Gilley, "Not so Dire Straits," 44-60.

²⁷⁵ Shirley Kan and Wayne Morrison, "U.S.-Taiwan relationship: Overview of Policy Issues," Congressional Research Service, (January 2013), 11.

²⁷⁶ Philip Hsu, "Reappraising the debate and practice of US strategic ambiguity/clarity in cross-strait relations," *The Pacific Review*, (May 2010): 139.

attacked.²⁷⁷ China and the US are of two different minds when it comes to Taiwan. Though America is clear that it will not allow China to seize Taiwan forcefully, the US does support not a Taiwanese declaration of independence.²⁷⁸

China will not cede its claim to Taiwan for at least two reasons. First, acknowledging Taiwan's independence would offend the PRCs' honor and potentially lead to a domino effect with other countries including Tibet and Xinjiang.²⁷⁹ Second, permanently ceding the PRC's claim to Taiwan would degrade China's ability to develop and project naval power.²⁸⁰

While China's position involves prestige and honor, the American position is based on credibility and interest. Though the Taiwan Relations Act does not explicitly demand that the United States defend Taiwan if attacked, the adverse consequences of non-action would be significant and enduring.²⁸¹ Robert Art correctly pointed out that "the [US] would lose significant and perhaps irreparable credibility with its allies in the region, specifically Japan if they did not defend Taiwan."²⁸² America's influence is an essential component of its role as a global

²⁷⁷ Hsu, "Reappraising the debate," 144.

²⁷⁸ Kan "U.S.-Taiwan relationship: Overview of Policy Issues," 3.

²⁷⁹ China still teaches the failures of Li Hongzhang and many Chinese textbooks refer to Hongzhang as a national traitor. Hongzhang was a leading statesman in the Qing Empire when he penned his name to several treaties that surrendered Chinese land under extremely humiliating conditions. Any politician who lost Taiwan under this rule would undoubtedly be compared to Hongzhang.

²⁸⁰ Gilley, "Not so Dire Straits," 49.

²⁸¹ Robert Art, "The United States and the Rise of China: Implications for the Long Haul," *Political Science Quarterly* 125, no. 3 (2010), 374.

²⁸² Art, "The United States and the Rise of China, 374.

power. The disagreement over Taiwan's sovereignty between the United States and China represents only one area in the Pacific where America's influence is threatened. The tension on the Korean peninsula is another.

The Korean Peninsula. The tension on the Korean Peninsula threatens to undermine US global influence. Again, some historical understanding is helpful. From 1910 until the end of the World War II, the Korean Peninsula was ruled by Japan.²⁸³ Since 1945, Korea has been divided at the 38th Parallel.²⁸⁴ The US occupied the area south of that line, while the USSR occupied the area to its north. The Democratic People's Republic of Korea (DPRK) was formed in the north, while the Democratic People's Republic of Korea (ROK) was formed in the south. The two governments fought a war against each other from 1950 until an Armistice agreement was signed in July 1953.²⁸⁵ Following the Armistice, all foreign fighters left North Korea.²⁸⁶ Though the Armistice halted the daily bloodshed over sixty years ago, the tension between the two countries remains high.²⁸⁷ In fact, North and South Korea conduct daily military patrols on the Korean Demilitarized Zone.

²⁸³ Mark Manyin and Emma Chanlett-Avery, "U.S.-South Korea Relations," Congressional Research Service, (February 2013), 7.

²⁸⁴ Manyin, "U.S.-South Korea Relations," 7.

²⁸⁵ Manyin, "U.S.-South Korea Relations," 7.

²⁸⁶ Gordon Chang, "Fatal Attraction," *World Affairs*, (May/June 2001): 44.

²⁸⁷ Barry Schneider, *Future War and Counterproliferation: U.S. Military Responses to NBC Proliferation Threats*, (Westport, CN: Praeger Publishers, 1999), 24. Also Wayne Kiyosaki, *North Korean's Foreign Relations: the politics of accommodation, 1945-75*, (New York, NY: Praeger Publishers, 1976).

The DPRK considers the US military presence in South Korea to be an occupation of sovereign territory. It also deems the ROK to be a puppet of the United States. These positions cause significant tension on both sides of the peninsula. North Koreans take great pride in autonomy. The former president of North Korea, Kim Jong Il, based his entire rule on the Korean word *Juche*, which means self-reliance.²⁸⁸ Essentially, Kim Jong Il put forth the proposition that a nation without self-reliance is not a nation at all. Unsurprisingly, North Korea has gone to considerable lengths to guarantee its sovereignty. The DPRK's possession of nuclear weapons since 2006 adds to the tension.²⁸⁹

The DPRK's nuclear capability is based on its need for security and survivability. After World War II, North Korea relied on the Soviet Union for its security.²⁹⁰ Two events combined to change North Korea's security calculus. The Cuban missile crisis in 1962 led the DPRK to believe it could no longer depend on the USSR.²⁹¹ Three years later Japan and the ROK formed a security alliance. This left North Korea with China as its only reliable security partner.

²⁸⁸ Chang, "Fatal Attraction," 44.

²⁸⁹ Mark Manyin and Emma Chanlett-Avery, U.S.-South Korea Relations," Congressional Research Service, (February 2013), 31.

²⁹⁰ Mark Manyin and Emma Chanlett-Avery, U.S.-South Korea Relations," Congressional Research Service, (February 2013), 31.

²⁹¹ For the best account of the Cuban missile crisis see, Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, (New York, NY: Pearson, 1999).

The tensions surrounding North Korea's nuclear program represent a significant challenge to the United States.²⁹² Kurt Campbell, Assistant Secretary, Bureau of East Asian and Pacific Affairs, clearly articulated America's wariness of North Korea.²⁹³ Campbell stated, "One country stands out as an outlier, and in fact an impediment, to the region's promising future: [North Korea]. [North Korea's] brazen attack on [South Korea's] corvette *Cheonan* in March of last year, its recent disclosure of a uranium enrichment program, its shelling of Yeonpyong Island that resulted in the tragic loss of South Korean lives, and its ongoing human rights violations underscore the threat that the DPRK's policies and provocations, including its nuclear and ballistic missile programs and proliferation activities, pose to regional stability and global security."²⁹⁴ In other words, North Korean actions represent a threat to regional stability.

One of the challenges for the United States is the possibility that North Korea will sell or trade its nuclear capabilities to terrorists.²⁹⁵ American apprehension regarding the sale of nuclear technology is not without substance. According to experts at the International Atomic

²⁹² Suzanne Buono, "Demystifying Nuclear Proliferation: Why States Do What They Do," (PhD diss., John Hopkins University, 2011), 221.

²⁹³ Kurt Campbell, "U.S. Policy Toward North Korea," Senate Foreign Relations Committee Hearing, Washington DC, 2011. <https://aapress.com/ethnicity/korean/u-s-policy-toward-north-korea/>

²⁹⁴ Campbell, "U.S. Policy Toward North Korea,"

²⁹⁵ Although North Korea's willingness to use its nuclear weapons in self defense cannot be ignored, it is less of a threat. Bonnie Glasser and Wang Liang, "North Korea: The Beginning of a China-U.S. Partnership," *The Washington Quarterly*, (2008): 174.

Energy Agency, North Korea sold 1.87 tons of uranium hexafluoride to Libya.²⁹⁶ David Sanger and William Broad reported the following:

International inspectors have discovered evidence that North Korea secretly provided Libya with nearly two tons of uranium in early 2001, which if confirmed would be the first known case in which the North Korean government has sold a key ingredient for manufacturing atomic weapons to another country, according to American officials and European diplomats familiar with the intelligence. In recent weeks the International Atomic Energy Agency has found strong evidence that the uranium came from North Korea, basing its conclusion on interviews of members of the secret nuclear supplier network set up by Abdul Qadeer Khan, the former head of Pakistan's main nuclear laboratory.²⁹⁷

China has an ambivalent relationship with North Korea.²⁹⁸ On one hand, China and North Korea are partners with mutual security interests. China provides North Korea with ninety percent of its oil, eighty percent of its consumer goods, and forty-five percent of its food.²⁹⁹ A healthy North Korea is in China's best interests. North Korea's collapse could cause a huge influx of North Koreans into China. North Korea also represents a geographical barrier between itself and South Korea. China recently stood behind North Korea during two overt military acts against South Korea in 2010.³⁰⁰ Although, China considers

²⁹⁶ David Sanger and William Broad, "Evidence is cited linking Koreans to Libya uranium," *New York Times*, 3 May 2004.

²⁹⁷ Sanger, "Evidence is cited linking Koreans to Libya uranium," *New York Times*, 3 May 2004.

²⁹⁸ Yoon Seung-Hyun and Lee Seung-Ook, "From old comrades to new partnerships: dynamic development of economic relations between China and North Korea," *Geographical Journal* 179, no. 1 (March 2013): 19-31.

²⁹⁹ Chang, "Fatal Attraction," 46.

³⁰⁰ The DPRK sunk a ROK frigate killing forty-six and later in the same year shelled Yeonpyong Island, a South Korean island killing an additional four South Koreans. See Bill Gertz, "New details point to sinking by N. Korean torpedo: South Korea disputes U.S. professors' claims of 'fabrication'," *The Washington Times*, <http://www.washingtontimes.com/news/2010/jul/29/new-details-point-to-sinking-by->

the Korean Peninsula to be part of its sphere of influence, the North Koreans are suspicious of China's intent.³⁰¹ While the North Koreans are intrigued by China's recent success, they do not admire its people.³⁰² China openly wonders why North Korea will not follow its economic model.³⁰³ Gordon Chang assessed China's interpretation of the peculiar relationship as follows: "We have some influence, but we don't have the kind of relationship where we can tell them what to do . . . If we tell [the DPRK] to do something, [the DPRK] does not listen. If we threaten [the DPRK], [the DPRK] listens even less."³⁰⁴

The Alliance Between the United States and Japan. The United States-Japanese relationship poses both a challenge and an opportunity for the United States. This section first explains Japan's contradictory nuclear policy. Next, it studies the importance of the power-projection capability the alliance provides.

In the late nineteenth century, Japan considered Korea to be a significant threat. This perceived threat led to Japan's war with China, and later Russia. The Russo-Japanese War of 1905 set the balance of

torpedo/?page=all. See also T. Christopher, "South Korean Patrol Boat Torpedoed by North Korea: Confirmed by Gates," Republican Redefined, <http://republicanredefined.com/2010/05/20/south-korean-patrol-boat-torpedoed-by-north-korea-confirmed-by-gates/>

³⁰¹ Seung-Hyun, "From Old Comrades to New Partnerships," 24.

³⁰² Seung-Hyun, "From Old Comrades to New Partnerships," 22.

³⁰³ Seung-Hyun, "From Old Comrades to New Partnerships," 23.

³⁰⁴ Chang, *Fatal Attraction*, 48 Chang, Gordon G. "Fatal Attraction," *World Affairs*, (May/June 2001): 43-50.

power in the Pacific for the next century.³⁰⁵ The Treaty of Portsmouth ended the war and gave Japan control of Korea in exchange for American control of the Philippines.³⁰⁶ Japan fought with the Allies during the World War I. Following the war, Japan expanded its influence in Asia. Japan went to Versailles in 1919 as one of the great powers. Twenty-two years later, in 1941, Japan attacked the United States. After the ensuing American victory, the balance of power in the Pacific was again altered. Japan lost three million lives in the World War II and was struck by the world's first, and so far only, atomic attacks. Japan signed the Instrument of Surrender in 1945. Under the terms of the capitulation, Japan was stripped of its overseas possessions and allowed to retain only its home islands.³⁰⁷ Six years later, the United States, and forty-five other nations, signed the Treaty of Peace with Japan. Under the terms of the treaty, Japan regained its sovereignty. Japan's reliance on the United States for its primary security began at that time.

The alliance between the United States and Japan draws some criticism from both sides. Many Americans view the treaty as being one sided, and accuse Japan of free-riding.³⁰⁸ Though the United States is obligated to defend Japan, Japan is not required to reciprocate. Japan's

³⁰⁵ The Treaty of Portsmouth marked the decline of Russian power in the Pacific and the emergence of Japan. See "Treaty of Portsmouth," Columbia Electronic Encyclopedia, 6th Edition (February 2013): 1. Military & Government Collection, <http://web.ebscohost.com/aufric.idm.oclc.org/ehost/detail?vid=28&sid=12624738-ffd0-46bc-acb4>.

³⁰⁶ "Treaty of Portsmouth," 1.

³⁰⁷ George Packard, "The United States-Japan Security Treaty at 50," *Foreign Affairs*, 89 no. 2, (Mar-Apr 2010): 97.

³⁰⁸ Packard, "The United States-Japan Security Treaty at 50," 95.

only obligation comes if it is directly attacked.³⁰⁹ Conversely, many Japanese suggest that the United States utilizes Japan “as an unsinkable aircraft carrier to carry out its forward strategy in East Asia.”³¹⁰ These critics point out that Japan hosts the only American Carrier Battle Group outside of the United States.³¹¹ The United States maintains approximately 38,000 troops on Japanese soil.³¹² Inappropriate off-duty behavior by American military service members, particularly on the island of Okinawa, also causes consternation among the Japanese.

Japan’s contradictory nuclear policy further complicates matters in the alliance. On the one hand, Japan supports nuclear non-proliferation, while, on the other, it desires nuclear protection. Although Japan’s constitution does not forbid the possession of nuclear weapons, as a matter of policy, the country has chosen not to possess any.³¹³ Some scholars argue that Japan has had the financial and technological ability to develop and maintain nuclear weapons since “at least 1959.”³¹⁴

³⁰⁹ Packard, “The United States-Japan Security Treaty at 50,” 95.

³¹⁰ Packard, “The United States-Japan Security Treaty at 50,” 96.

³¹¹ The Treaty of Mutual Cooperation and Security agreed to by the U.S. and Japan allows a Carrier Battle Group, the III Marine Expeditionary Force, the 5th Air Force, and Army’s I Corps to be hosted by Japan. See Packard, “The United States-Japan Security Treaty at 50,” 96.

³¹² Chester Dawson, “U.S. Troops in Japan Told to ‘Buddy Up’,” Wall Street Journal, <http://blogs.wsj.com/japanrealtime/2012/11/30/u-s-troops-in-japan-told-to-buddy-up/>

³¹³ Tsuyoshi Sunohara, “The Anatomy of Japan’s Shifting Security Orientation,” *Washington Quarterly* 33 no.4 (Autumn 2010) 49.

³¹⁴ Stephen Meyer, *The Dynamics of Nuclear Proliferation*, (Chicago, IL: University Of Chicago Press, 1986), 41. See also Suzanne Buono, “Demystifying Nuclear Proliferation: Why States Do What They Do,” (PhD diss., John Hopkins University, 2011), 94.

Nevertheless, in 1976, Japan ratified the Nuclear Non-Proliferation Treaty, forswearing nuclear armament.³¹⁵ Furthermore, Japan's domestic law, the Atomic Energy Basic Law, requires Japan's nuclear activities to be conducted only for peaceful purposes.³¹⁶ Though Japan's current policy and behavior point to non-proliferation, Japan requires US nuclear weapons for its security protection.³¹⁷

Japan affords the United States a significant power-projection capability in the Pacific region. The United States is clearly troubled by China's sophisticated anti-access/area-denial (A2/AD) strategy.³¹⁸ The essence of China's strategy is to prevent US access to China proper and to limit US power projection capability in the Western Pacific region.³¹⁹ China's geographic depth allows it the ability to place ballistic missiles well inside its borders, while simultaneously counting on its sophisticated A2/AD network to complicate attacks against it.³²⁰ China will attempt to deny the US access to air over Taiwan and will threaten US Navy aircraft carriers before they are within striking distance.³²¹ Thus, Japan provides the US with access to some bases and waters that are instrumental in countering China's A2/AD posture.

³¹⁵ The Nuclear NonProliferation Treaty was signed in 1970, then again in 1976. See Buono, "Demystifying Nuclear Proliferation, 102.

³¹⁶ Kurt Campbell, Robert Einhorn, and Mitchell Reiss, eds., *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices*, (Washington DC: Brookings Institution Press, 2004), 220.

³¹⁷ Sunohara, "The Anatomy of Japan's Shifting Security Orientation," 39.

³¹⁸ Andrew Marshall, interview by the author, March 2013.

³¹⁹ Gertz, *China's High Tech*, 12

³²⁰ Andrew Marshall, interview by the author, March 2013.

³²¹ Andrew Marshall, interview by the author, March 2013.

The consequences of breaking the alliance between the United States and Japan would be severe. Absent its faith in the US nuclear umbrella, Japan would have two options, both of which would destabilize the region. First, without the US nuclear shield, Japan would immediately become vulnerable to a Chinese or North Korean attack.³²² Alternatively, if Japan lost faith in America's commitment, Japan could choose to abandon its non-nuclear position and manufacture its own nuclear weapons. A nuclear-equipped Japan would significantly escalate tensions in the region.³²³

A Nuclear-Capable Iran. It now seems certain that Iran will either develop nuclear weapons or develop the technological capability with which to do so in the very near future. Over the next quarter century, a nuclear-capable Iran would threaten an already unstable Middle East. With nuclear weapons, Iran would be more assertive in the region. Further, Iran would be more likely to influence actions in Iraq and Afghanistan. Likewise, the Persian state could attempt to leverage its nuclear power to deny access to the Strait of Hormuz. Of even greater concern for the US, is that a nuclear-capable Iran could lead to the proliferation of nuclear weapons throughout the Middle East. Kenneth Waltz offered an opposing viewpoint. He suggested that the Middle East may be more, not less stable with a nuclear-armed Iran when he stated,

³²² Christopher Hughes, "Japan's response to China's rise: regional engagement, global containment, dangers of collision," *International Affairs* 84 no.4 (Jul 2009): 838.

³²³ Edward Friedman, *China's Rise, Taiwan's Dilemma's and International Peace*, (New York, NY: Routledge, 2005), 14.

“the gradual spread of nuclear weapons is more to be welcomed than feared.”³²⁴ Though Waltz makes an interesting argument, a nuclear-capable Iran is not in the interests of the US.

An Assertive Russia. Russia, under President Vladimir Putin, represents a meaningful challenge to US global influence. Russia finds itself poised to reclaim a position of power and influence not seen since the Cold War. Though the level of confrontation between the US and Russia is not expected to rise to its previous level, a more assertive Russia could undermine US interests. Russia, under Putin, has attempted to expand its sphere of influence. The dividends of those attempts could be costly for the US. Russia and the US disagree on a number of significant global issues including the crisis in Syria and the US proposal to build a missile-defense system in Eastern Europe. In 2012, Russia, along with China, vetoed a UN resolution to impose sanctions on Syria. More recently, Russia rejected a UN Security Council plan that would have allowed the inspection of Syrian refugee camps in Jordan. In short, Russia’s refusal was based on the idea that the inspections would lead to foreign intervention and an eventual “no-fly-zone.”³²⁵ This veto was in direct opposition of US interests.

³²⁴ Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton and Company, 2003), 45.

³²⁵ “Russia blocks probe into Syrian refugee camps,” 3 May 13, <http://www.aljazeera.com/news/middleeast/2013/05/201353164716956408.html>

European Economic Instability. European economic instability also poses a significant challenge to US global power. The European economic disaster poses a significant challenge to US global power, particularly because the American economic recovery relies significantly on US exports. Europe, and particularly Germany and France, are not an insignificant part of global demand. Germany's economy is the fourth largest in the world, followed closely by France.³²⁶ The European economy is approximately equal to that of the US. The European economy generates a GDP of roughly \$14 trillion versus \$16 trillion for the US.³²⁷ The long-drawn-out European recession directly affects the US economy recovery effort by reducing European purchasing power. As a consequence, US exports suffer. US exports are a vital condition of the American economic recovery. Not only does the European debt crisis affect American exports, it also influences other areas of the US economy such as manufacturing and employment. In short, the European economic crisis has reduced the total demand for American goods and services.

Islamic Takfirism.³²⁸ Militant Islam represents a threat to US global power and influence. The threat emerges because a single act committed

³²⁶ International Monetary Fund, "World's Largest Economies," April 2013, <http://www.imf.org/external/ns/cs.aspx?id=28>

³²⁷ International Monetary Fund, "World's Largest Economies," April 2013, <http://www.imf.org/external/ns/cs.aspx?id=28>

³²⁸ The Takfiri are Muslims who "excommunicate" fellow Muslims as lackeys of the infidel and de facto apostates, and so justify killing them, along with the infidels, to save the Muslim community from conquest and corruption. Scott Attran, *Talking to the Enemy*, (New York, NY: HarperCollins Publishers, 2010), 36. See also David Kilcullen, *CounterInsurgency*, (New York, NY: Oxford University Press, 2010) 166.

by a single militant Islam practitioner can intensify tensions between the US and Middle East nations. Since 2000, practitioners of militant Islam have conducted attacks and killed civilians in Mumbai, Madrid, London, Moscow, Beslan, and, most recently, Boston. The evidence suggests that followers of militant Islam are growing increasingly more violent in their intolerance. Though the argument that the US has killed many more civilians in Iraq is thought provoking, the context is very different. In an increasingly global world, the notion that a group of people, no matter how small, has, as their central goal, the proposition that humankind must acknowledge and act on the truth that there is no God but that Allah, and that Muhammad is his Prophet, is a concern. The fact that militant Islam practitioners are increasingly choosing violence over proselytizing to enforce this message is a threat to US power and influence.³²⁹

Summary. In sum, challenges are emerging on American soil as well as across the globe. The US economic recovery requires the greatest amount of healing in the shortest amount of time. Resolving the ongoing debate between eliminating federal deficits and reducing the inequality among Americans represents the second highest threat to America's security. China's expansion in the Pacific is America's most significant international security threat. The United States-Japanese relationship poses both a challenge and an opportunity for the United States. On one

³²⁹ Kilcullen, *Counter Insurgency*, 166.

hand, Japan's contradictory nuclear policy complicates matters in the region. On the other, Japan affords the United States a significant power-projection capability in the Pacific region. The US must also consider, in priority, the challenges presented by a potentially nuclear-capable Iran, a more assertive Russia, European economic instability, and Islamic Takfirism.

A Perspective Adaptation of American Grand Strategy

Chapter Two addressed good strategy, particularly good grand strategy. I find it necessary to repeat the working definition before we go forward: *Grand strategy is a nation's sustained behavior pattern as it intellectually and harmonically refines and adapts the possible for the purpose of the imaginable.* Though our ends, ways, and means are different, American grand strategy is essentially the same today as it was in 1776. In light of the current and projected future realities, America must implement a new variation of its grand strategy. The nation must make difficult decisions and begin aligning its ends, ways, and means responsibly. Though this idea seems simple, we must remember Clausewitz's warning that though strategy is simple, it does not mean it is easy.³³⁰

Once again, I am reminded of Everett Dolman's counsel that it is presumptuous to offer an opinion on how to implement American grand

³³⁰ Clausewitz, *On War*, 168

strategy in light of the previous and current grand masters.³³¹ I do so only because I believe, like Dolman, that no single attempt will be entirely satisfactory.³³²

The primary concern of the United States is the liberty of its citizens. The preservation of liberty is worth the expenditures of all of American means. Threats to the preservation of liberty, however, are not absolute—they are relative. Clearly, a number of threats to American liberty exist; but, unlike World War II and the Cold War that almost immediately followed, none of the previously discussed threats is existential. In short, in the next few years, the United States has the luxury of aligning its ends, ways, and means. And it must start with the most pressing means – economic.

Thus, implementing grand strategy over the next quarter century requires the answer to three questions: At what level can the US anticipate its gross domestic product (GDP) to grow or decline over the next few years?³³³ How much wealth should the US devote to its federal budget? What percentage of the federal budget should be allocated to the Department of Defense (DOD)?

The first step in implementing US grand strategy over the next quarter century is anticipating the level at which US GDP will increase,

³³¹ Dolman, *Pure Strategy*, 26-27.

³³² Dolman, *Pure Strategy*, 26-27.

³³³ US Gross domestic product is the featured measure of US output, is the market value of the goods and services produced by labor and property located in the US. The GDP growth rate measures how fast the economy is growing. It does this by comparing one quarter of the country's economic output to the last.

or decrease over the next few years. In 2012, the US GDP was \$15.6 trillion.³³⁴ Economist Bill Gross stated that the US is “moving towards a 3 percent real GDP growth rate in 2013.”³³⁵ Gross argues that the 3 percent number is based in large part on the recovery of the US housing market. A recent estimate released by the US Bureau of Economic Analysis stated, “The [US] economy posted its fifteenth straight quarter of positive growth, as real GDP grew at a 2.5 percent annual rate in the first quarter of this year.”³³⁶ Based on these recent indicators, it is unsafe to assume that US GDP will increase at any level higher than 3 percent over the next few years. A 2.5 percent growth rate is a safer assumption.

Given the current and projected security situation and an expected US GDP growth rate of roughly 2.5 percent, how much wealth should the US devote to its federal budget? Prior to the Great Recession, the Executive Office of Management and Budget (OMB) maintained Federal spending at a rate below 20 percent of US GDP.³³⁷ Since the Great Recession, the US has devoted more of its wealth to the federal budget. In 2012, the federal budget was over 24 percent of US GDP. Though

³³⁴ White House, “Advance Estimate of GDP for the First Quarter of 2013,” Bureau of Economic Analysis, 26 April 2013, <http://www.whitehouse.gov/blog/2013/04/26/advance-estimate-gdp-first-quarter-2013>.

³³⁵ Alexis Leonidis, “Gross Raises U.S. Economic Growth Forecast to 3% in 2013,” Bloomberg, 8 March 2013, <http://www.bloomberg.com/news/2013-03-08/gross-raises-u-s-economic-growth-forecast-to-3-in-2013.html>

³³⁶ White House, “Advance Estimate of GDP for the First Quarter of 2013,” Bureau of Economic Analysis, 26 April 2013, <http://www.whitehouse.gov/blog/2013/04/26/advance-estimate-gdp-first-quarter-2013>.

³³⁷ White House, “Fiscal Year 2014 Budget Overview,” Office of Budget and Management, April 2013, <http://www.whitehouse.gov/omb/overview>

current projections suggest the US will decrease the amount of spending to around 21 percent by 2018 to deal with its almost \$17T national debt, the US should decrease the federal budget even further.³³⁸ In rough terms, one can state with some confidence that devoting roughly 20 percent of GDP to the federal budget should allow the US to continue its economic recovery, maintain its a global influence, and begin to reduce the national debt.

Over the last few years, the US defense share of the federal budget has hovered between 22 and 25 percent. Historically, the defense budget rises at the onset of war and declines when wars end. Given the current and projected economic and security situations, it is probably responsible to assume that roughly 18 percent of the federal budget will and probably should be allocated to the DOD.³³⁹ In light of this reality, the DOD must make budget reductions. While the nation is recovering from the traumatic economic recession and two wars, an 18 percent share of the federal budget still allows the DOD to maintain a meaningful global influence.

Given the current context, the Air Force and Navy shares of the defense budget will probably increase with a rebalance toward the Pacific, while the Army budget will probably decrease. In Fiscal Year

³³⁸ White House, "Fiscal Year 2014 Budget Overview," Office of Budget and Management, April 2013, <http://www.whitehouse.gov/omb/overview>

³³⁹ The defense budget is that portion of the discretionary US federal budget that is allocated to the Department of Defense.

2014, the Air Force is likely to receive \$147M.³⁴⁰ The total DOD budget, not including war and supplemental funding, is \$533M.³⁴¹ Thus, the Air Force should expect around a 27.5 percent share of the DOD budget. The 27.5 percent share is likely to continue or increase slightly over the next three years. With roughly a 27.5 to 28.5 percent share of the defense budget, two questions remain: how should the Air Force contribute to American grand strategy and how should Air Force leaders articulate that contribution?

In sum, America is recovering from a significant economic recession. Potential challenges will not, however, wait for a complete American economic recovery. Challenges are emerging on American soil as well as across the globe. Americans must resolve the ongoing debate between eliminating federal deficits and reducing the inequality among Americans. The solution is central to the nation's long-term health and welfare. China's expansion in the Pacific represents the most significant foreign policy threat. The US must also consider the challenges presented by a potentially nuclear-capable Iran, a more assertive Russia, European economic instability, and Islamic Takfirism.

³⁴⁰ Department of Defense, "Overview-United States Department of Defense Fiscal Year 2013 Budget Request," Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, February 2012, http://comptroller.defense.gov/defbudget/fy2013/FY2013_Budget_Request_Overview_Book.pdf

³⁴¹ Department of Defense, "Overview-United States Department of Defense Fiscal Year 2013 Budget Request," Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, February 2012, http://comptroller.defense.gov/defbudget/fy2013/FY2013_Budget_Request_Overview_Book.pdf

Chapter Six

Conclusions: An Airpower-Informed American Grand Strategy

From the Past, the Future.

- Motto, School of Advanced Air and Space Studies

During the inter-war years, Arnold and Mitchell clearly connected airpower to national security. Airpower offered a way of conducting war more economically than it had been in the past. At a time when the nation's resources were scarce and the nation's appetite for military conflicts was practically nonexistent, the industrial-web theory would allow the United States to fight a war against two major adversaries with fewer ground and naval resources than would have otherwise been required.

During the Eisenhower years, Vandenberg and LeMay distinctly linked airpower to national security. Concerned that the nation's budget, particularly the Department of Defense's share of the budget, would eventually bankrupt the nation, Eisenhower turned to the Air Force. Acting under national fiscal constraints, the Air Force wholeheartedly embraced the transition from a containment strategy to a deterrent strategy. The Air Force believed that an always ready nuclear force-in-being was the answer. LeMay's Strategic Air Command was the epitome of strategic deterrence for the nation. LeMay clearly understood what the nation demanded of its Air Force.

Airpower today has the same connection to national security as it did during the inter-wars and the Eisenhower Administration. Based on the forgoing analysis, this chapter suggests how the Air Force should contribute to American grand strategy in the early twenty first century and how Air Force leaders should articulate that contribution.

Airpower's Contribution to American Grand Strategy

If the Air Force wants to serve the nation well over the next quarter century, it must properly align its capabilities with current American grand-strategic interests: the continued US economic recovery, China's expansion in the Pacific, challenges presented by a nuclear-capable Iran, a more assertive Russia, European economic instability, and Islamic Takfirism. Most significantly, America needs time to recover from the second-deepest recession in its history. The nation must also maintain its global influence.

Establishing Local Air Superiority Where and as Required. Since the Air Force's inception, Congress has required that the Air Force gain and maintain general air supremacy. The Air Force must put considerable thought into how it will conduct this mission. In May 2012, Senator John McCain stated, "[He did not] think the F-22 will ever be seen in the combat it was designed to counter, because that threat is no longer in existence."³⁴² Senator McCain was looking at the past, not the future.

³⁴² Lee Ferran, "Final F-22 Fighter Delivered, McCain Says \$79B Jets Still Have No Mission," ABC News. 3 May 2012. <http://abcnews.go.com/Blotter/final-22-fighter-delivered-sen-john-mccain-79b/story?id=16270127#.UY1UVZXema4>

The emerging Pacific threat addressed heretofore is exactly the environment for which the F-22 was designed. The F-22 has the ability to gain and maintain air superiority for the nation. Though a time may approach in the future when UAVs can gain and maintain air superiority, that time has not yet arrived.

Airlift and Support for Power Projection. Over the next quarter century, the Air Force has the particular responsibility to ensure US access in and throughout the Pacific and other important global markets. The Air Force should prioritize capabilities that enhance power projection and access. Modernizing the Air Force's tanker fleet should be the number-one priority. The KC-46X, along with Airborne Command and Control (C2) platforms such as the Airborne Warning and Control System (AWACS) and Joint Surveillance and Target Attack Radar System (JSTARS), will allow forward positioning of US fighters, bombers, and ships.

The Air Force Must Meet the Nation's Obligations Economically. The Air Force must act as responsible stewards of the nation's resources. Over the next quarter century, the Air Force can expect to receive approximately 27.5 – 28.5 percent of the DOD budget. For the next 3-5 years, this probably equates to roughly \$147M to \$150M. The Air Force must demonstrate that it understands that every defense dollar is precious. To do so, the Air Force must make the difficult decisions required to maintain America's security and global influence while the

nation learns to live within its means.

Air Force Leaders Must Effectively Articulate Airpower's

Contribution to American Grand Strategy. Air Force leaders are learning at their peril that the articulation of the Air Force's contribution to American grand strategy is nearly as important as the contribution itself. Likewise, the audience, particularly in today's media-driven policy arena, is significant. So the important question with respect to airpower's contribution is not just "What should the articulation be?" but also "To whom should Air Force leaders articulate that message?" and "Which media should be used to articulate the message?" In short, the message, the audience, and the medium are all critical to an effective communication strategy.

Air Force leaders should communicate the connection between the Air Force and the nation's strategic interests. The message should be: *The Air Force, its Airmen, and National Security are interconnected.*

Air Force leaders should also carefully select the audiences in which they communicate the message. Learning from the successes of Arnold, Mitchell, Vandenberg, and LeMay the audiences should be both the national security establishment and the American people. In today's media-driven world, simply penning the Air Force message on Power Point slides and circulating them on K Street and in E Ring will not suffice. The Air Force must learn to articulate its contribution in new and creative ways that exploit the potentialities of 21st century

communications.

The US is now recovering from a traumatic economic recession. It is also transitioning from a strategic policy that focused primarily on the Middle East to a one oriented primarily on the Pacific. The Air Force contribution to that strategy and the effective articulation of that contribution are both vital to American national security.

This thesis began with a quote from Albert Einstein that stated, "We can't solve problems by using the same kind of thinking we used when we created them." Indeed, we cannot. Airmen connect bodies of knowledge that at first appear to be unrelated or only loosely related. The Air Force and the nation represent one such connection. The Air Force, its Airmen, and the nation's security are forever linked. The current strategic environment demands two things: the responsible economic provision of airpower's unique contributions to national defense and the effective articulation of those contributions by inspired, air-minded leaders.

BIBLIOGRAPHY

Academic Papers

- Buono, Suzanne. "Demystifying Nuclear Proliferation: Why States Do What They Do." (PhD diss., John Hopkins University, 2011).
- Grissom, Adam. "What is Grand Strategy? Reframing the Debate on American Ends, Ways, and Means" (Working paper, RAND Project Air Force, April 2012).
- Layton, Peter. "*The Idea of Grand Strategy*." (Preliminary Paper for the RUSI Conference, Finding a Better British Way to Make Strategy, October 2011).
- Kan, Shirley and Wayne Morrison. "U.S.-Taiwan relationship: Overview of Policy Issues." Congressional Research Service, (January 2013).
- Manyin, Mark and Emma Chanlett-Avery. "US and South Korea Relations." Congressional Research Service, (February 2013).
- Maykish, Paul. "Strength in Ways: Finding Creativity in Routine Strategy Development." MPhil. Thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL (June 2011).

Articles

- Art, Robert. "The United States and the Rise of China: Implications for the Long Haul." *Political Science Quarterly* 125, no. 3 (2010): 374.
- Bass, Melissa. "The Success and Contradictions of New Deal Democratic Populism: The Case of the Civilian Conservation Corps." *Good Society Journal* 21, no. 2 (June 2008): 252.
- Belote, Howard. "Warden and the Air Corps Tactical School." *Airpower Journal* 13, no. 3 (Fall 1999): 39-47.
- Builder, Carl. "Doctrinal Frontiers." *Airpower Journal* 9, no. 4 (Winter 1995): 10.
- Chang, Gordon. "Fatal Attraction." *World Affairs*, (May/June 2001): 43-50.
- Christopher, T. "South Korean Patrol Boat Torpedoed by North Korea: Confirmed by Gates." *Republican Redefined*, <http://republicanredefined.com/2010/05/20/south-korean-patrol-boat-torpedoed-by-north-korea-confirmed-by-gates/>
- Clodfelter, Mark. "Pinpointing devastation: American air campaign planning before Pearl Harbor." *Journal Of Military History* 58, no. 1 (2003): 75-101
- Cohen, Adam. "The First 100 Days." *Time* 173, no. 26 (July 2009): 32-34.
- Colcord, Lincoln. "The Fight in the Senate." *Nation* 109, no. 2840 (December 1919): 711-712.
- Correll, John. "The Billy Mitchell Court-Martial." *Air Force Magazine* 95 No. 8 (August 2012).
- Dawson, Chester. "US Troops in Japan Told to 'Buddy Up'." *Wall Street Journal*, <http://blogs.wsj.com/japanrealtime/2012/11/30/u-s-troops-in-japan-told-to-buddy-up/>
- Eichengreen, Barry and Peter Temin. "The Gold Standard and the Great Depression." *Contemporary European History*, (June 2006): 185.
- Gat, Azar. "The Hidden Sources of Liddell Hart's Strategic Ideas." *War in History* no. 3 (July 1996): 293-308.
- Gilley, Bruce. "Not so Dire Straits." *Foreign Affairs* 89, no. 1 (2010): 44-60.
- Glasser, Bonnie and Wang Liang. "North Korea: The Beginning of a China-U.S. Partnership." *The Washington Quarterly*, (June 2008): 174.
- Gertz, Bill. "New details point to sinking by N. Korean torpedo: South Korea disputes U.S. professors' claims of 'fabrication'." *The Washington Times*,

- <http://www.washingtontimes.com/news/2010/jul/29/new-details-point-to-sinking-by-torpedo/?page=all>.
- Glock, John. "The Evolution of Air Force Targeting." *Airpower Journal* 8, no. 3 (fall 1994): 17.
- Hughes, Christopher. "Japan's response to China's rise: regional engagement, global containment, dangers of collision." *International Affairs* 84 no.4 (Jul 2009): 838.
- Hsu, Philip. "Reappraising the debate and practice of US strategic ambiguity/clarity in cross-strait relations." *The Pacific Review*, (May 2010): 139.
- Kaplan, Robert. "Hillary's Road Trip." *The Atlantic*, (February 2009): 2.
- Kaufman, Bruce. "Wage theory, new deal labor policy, and the great depression: were government and unions to blame?" *Industrial & Labor Relations Review* 65, no. 3 (July 2012): 504.
- Kinnard, Douglas. "President Eisenhower and the Defense Budget." *The Journal of Politics* Vol. 39, No. 3 (August 1977): 597.
- Kuehn, John. "Talking Grand Strategy." *Military Review* 90, no. 5 (2010): 74-78.
- Lazarus, Richard. "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future." *Cornell Law Review* no. 94, (2008): 3-7.
- Lee, Ivy. "Probing the Issues of Reconciliation More than Fifty Years after the Asia-Pacific War." *East Asia: An International Quarterly*, (2001): 39.
- Murray, Williamson. "History and the Future" in *War, Strategy, and Military Effectiveness*, ed. Williamson Murray. Cambridge, MA: Cambridge University Press, (2011): 16.
- Nelson, Bruce. "Give us Roosevelt--Workers and the New Deal Coalition." *History Today* 40, no. 1: (June 1980): 40.
- Packard, George. "The United States-Japan Security Treaty at 50." *Foreign Affairs*, 89 no. 2 (Mar-Apr 2010): 97.
- Quester, George. "Was Eisenhower a Genius." *International Security*, Vol. 4, No. 2 (Autumn, 1979): 169.
- Olsen, Keith. "The G.I. Bill and Higher education: Success and Surprise." *American Quarterly*, Vol. 25, No. 5 (December 1973): 596.
- Rearden, Steven. "Reassessing the Gaither Report's Role." *Diplomatic History* 25, no. 1 (Winter 2001): 4.
- Samuelson, Robert. "Revisiting the Great Depression." *Wilson Quarterly* 36, no. 1 (Winter 2012): 36-43.
- Sanger, David and William Broad. "Evidence is cited linking Koreans to Libya uranium." *New York Times*, (May 2004).
- Seung-Hyun, Yoon and Lee Seung-Ook. "From old comrades to new partnerships: dynamic development of economic relations between China and North Korea." *Geographical Journal* 179, no. 1 (March 2013): 19-31.
- Sharp, Alan. "The 'Big Four'--Peacemaking in Paris in 1919." *History Review*, no. 65 (December 2009): 14-19.
- Shomali, Hamid and Gwendolyn R. Giblin. "The Great Depression and the 2007- 2009 Recession: The First Two Years Compared." *International Research Journal of Finance & Economics*, no. 59 (2010): 15-22.
- Spaatz, Carl. "Warning on Red Air Power 'Wall of flesh' useless in Europe." *Morning Bulletin*, (March 1951): <http://nla.gov.au/nla.news-article57072501>.
- Stevenson, David. "Reading History: The Treaty of Versailles." *History Today* 36, no. 10 (October 1986): 50.
- Sunohara, Tsuyoshi. "The Anatomy of Japan's Shifting Security Orientation." *Washington Quarterly* 33, no.4 (Autumn 2010): 49.
- Twining, Daniel. "The Taiwan Linchpin." *Policy Review*, no. 177 (February 2013): 43-58.

- Weingroff, Richard. "Creating the Interstate System." U.S. Department of Transportation, *Public Roads* 60, no. 1 (Summer 1996): 3.
- Wintman, James. "Consumerism Versus Producerism: A Study in Comparative Law." *Yale Law Journal*, 117 no. 3 (January 2007): 340-406.
- Yang, Jain. "China in the South Pacific: Hegemon on the Horizon?" *Pacific Review* 22, no. 2 (May 2009): 140.

Books

- Allison, Graham and Philip Zelikow. *Essence of Decision: Explaining the Cuban Missile Crisis*. New York, NY: Pearson, 1999.
- Arnold, Henry. *Airmen and Aircraft: An Introduction to Aeronautics*. New York, NY: Ronald Press, 1926.
- Arnold, Henry. *Global Mission*. New York, NY: Harper and Row, 1949.
- Arnold, Henry and Ira Eaker. *This Flying Game*. New York, NY: Funk & Wagnalls, 1936.¹.
- Bennett, Michael. *When Dreams Came True: The GI Bill and the Making of Modern America*. Washington DC, Potomac Books Inc., 1999.
- Biddle, Tami. "British and American Approaches to Strategic Bombing: Their Origins and Implementation in the World War II Combined Bomber Offensive." in John Gooch, ed., *Airpower: Theory and Practice*. London: Frank Cass and Co., 1995.
- Biddle, Tami. *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945*. New York, NY: Princeton University Press, 2004.
- Bowie, Robert and Richard Immerman. *Waging Peace: How Eisenhower Shaped an Enduring Cold War Strategy*. New York, NY: Oxford University Press, 2000.
- Brodie, Bernard. *Strategy in the Missile Age*. Santa Monica, CA: Rand Publishing, 2007.
- Campbell, Kurt, Robert Einhorn, and Mitchell Reiss, eds., *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices*. Washington DC: Brookings Institution Press, 2004.
- Cohen, Warren. *Empire Without Tears America's Foreign Relations 1921-1933*. Philadelphia, PA: Temple University Press, 1987.
- Corbett, Julian. *Some Principles of Maritime Strategy*. Annapolis, MD: Naval Institute Press, 2006.
- Clodfelter, Mark. *The Paths of Heaven: The Evolution of Airpower Theory*, ed. Phillip Meilinger. Maxwell AFB, AL: Air University Press, 1998.
- Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*. New York, NY: Columbia University Press, 1983.
- Dolman, Everett. *Pure Strategy: Power and Principle in the Space and Information Age*. New York, NY: Frank Cass, 2005.
- Douhet, Giulio. *The Command of the Air*. Tuscaloosa, AL: University Alabama Press, 2009.
- Einstein, Albert. *Einstein on Cosmic Religion and other Opinions and Aphorisms*. New York, NY: Dover Publications, INC., 2009.
- Eisenhower, Dwight. *Mandate for Change, 1953-1956: The White House Years, a Personal Account*. New York, NY: Doubleday & Co., 1963.
- Friedman, Edward. *China's Rise, Taiwan's Dilemma's and International Peace*. New York, NY: Routledge, 2005.
- Fuller, J.C.F. *The Foundations of the Science of War*. Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1993.
- Futrell, Robert. *Ideas, Concepts, Doctrine; Basic Thinking of the United States Air Force, 1907-1960*. Maxwell AFB, AL: Air University Press, 1989.

- Gaddis, John. *Strategies of Containment: A critical Appraisal of American National Security During the Cold War*. New York, NY: Oxford University Press, 1982.
- Gat, Azar. *The Origins of Military Thought: From the Enlightenment to Clausewitz*. New York, NY: Oxford University Press, 1989.
- Glickman, Lawrence. *A Living Wage: American Workers and the Making of Consumer Society*. New York, NY: Cornell University Press, 1999.
- Hart, B. H. Liddell. *Strategy*. New York, NY: Penguin Group, 1991.
- Henig, Ruth. *Versailles and After 1919-1933*. New York, NY: Routledge, 1995.
- Heuser, Beatrice. *The Evolution of Strategy: Thinking War from Antiquity to the Present*. New York, NY: Cambridge University Press, 2010.
- Higham, Robin. *Air Power: A Concise History*. New York, NY: St. Martin's Press, 1972.
- Hofmann, George. *Through Mobility We Conquer: The Mechanization of U.S. Cavalry*. Lexington, KY: The University Press of Kentucky, 2006.
- Holborn, Hajo . "The Prusso-German School: Moltke and the Rise of the General Staff." In *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret. Princeton, NJ: Princeton University Press, 1986.
- Hurley, Alfred. *Billy Mitchell: Crusader for Air Power*. New York, NY: Indiana University Press, 2006.
- Iriye, Akira. *The Cambridge History of American Foreign Relations Volume III: The Globalizing of America, 1913-1945*. New York, NY: Cambridge University Press.
- Jomini, Antoine-Henri Baron De. *The Art of War*. Mineola, NY: Dover Publications, 2007.
- Keynes, John. *The Economic Consequences of the Peace*. New York, NY: Clack Press, 2011.
- Kiyosaki, Wayne. *North Korean's Foreign Relations: the Politics of Accommodation, 1945-75*. New York, NY: Praeger Publishers, 1976.
- Kozak, Warren. *LeMay: The Life and Wars of General Curtis LeMay*. Washington DC: Regnery Publishing, 2009.
- Leuchtenburg, William. *Franklin D. Roosevelt and the New Deal, 1932-1940*. New York, NY: Harper & Row, 1963.
- Madison, James Charles F. Stamper. *The Constitution of the United States of America, With All of the Amendments; the Declaration of Independence; and the Articles of Confederation*. New York, NY: Create Space Independent Publishing Platform, 2010.
- McClendon, R. Earl. *Autonomy of the Air Arm*. University Press of the Pacific, New York, NY: 2005.
- McDougall, Walter. . . . *the Heavens and the Earth: A Political History of the Space Age*. Baltimore, MD: Johns Hopkins University Press, 1985.
- Mitchell, William. *Skyways: A book on modern aeronautics*. New York, NY: J.B. Lippincott Company, 1930.
- Mitchell, William. *Winged Defense: The Development and Possibilities of Modern Air Power-Economic and Military*. Tuscaloosa, AL: The University of Alabama Press, 2010.
- Meyer, Stephen. *The Dynamics of Nuclear Proliferation*. Chicago, IL: University Of Chicago Press, 1986.
- Moltke, Helmuth von. *Moltke of the Art of War*, ed. Daniel J. Hughes. New York, NY: The Random House Ballantine Publishing Group, 1993.
- Schneider, Barry. *Future War and Counterproliferation: U.S. Military Responses to NBC Proliferation Threats*. Westport, CN: Praeger Publishers, 1999.
- Sheehan, Neil. *A Fiery Peace in a Cold War: Bernard Schriever and the Ultimate Weapon*. New York, NY: Random House 2009.
- Shy, John. *A People Numerous and Armed: Reflections on the Military Struggle for American Independence*. New York, NY: Oxford University Press, 1976.
- Slessor, John. *Air Power and Armies*. Tuscaloosa, AL, University Alabama Press, 2009.

- Spence, Jonathan. *The Search for Modern China*. New York, NY: W. W. Norton & Company, 1990.
- Stephens, Alan. *The War in the Air, 1914-1994*. Maxwell AFB, AL: Air University Press, 2001.
- Strassler, Robert. *The Landmark Thucydides*. Revised Ed. New York, NY: New York Free Press, 2008.
- Rosen, Stephen. *Winning the Next War: Innovation and the Modern Military*. Cornell Studies in Security Affairs. Cornell University Press, 1994.
- Rumelt, Richard. *Good Strategy, Bad Strategy, The Difference and Why It Matters*. Crown Publishing Group, New York, NY: 2011.
- Thompson, Roger. *Lessons Not Learned: The U.S. Navy's Status Quo Culture*. New York, NY: Naval Institute Press, 2007.
- Tillman, Barrett. *LeMay (Great Generals)*. New York, NY: Palgrave Macmillan, 2007.
- Wills, Garry. *Lincoln At Gettysburg: The Words That Re-Made America*. New York, NY: Simon & Schuster, 1992.
- Wylie, J. C. *Military Strategy: A General Theory of Power Control*. Annapolis, MD: Naval Institute Press 1976.

Reports

- NSC-68 in Foreign Relations of the United States 1950, Vol. 1. (Washington D.C.: Government Printing Office, 1977): 279.
- Campbell, Kurt. "US Policy Toward North Korea." Senate Foreign Relations Committee Hearing, Washington DC, 2011.
<https://aapress.com/ethnicity/korean/u-s-policy-toward-north-korea/>
- Finney, Robert. *History of the Air Corps Tactical School, 1920-1940*. USAF Historical Study 100. Maxwell AFB, AL: USAF Historical Division, Air University, 1955.
- Gravel, Mike. *The Pentagon Papers, The Defense Department History of United States Decision Making on Vietnam, Volume 1*. (Boston, MA: The Beacon Press, 1971), 66.
- Lemmer, George. *The Air Force and Strategic Deterrence: 1951-1960*. USAF Historical Division Liaison Office, 1967.

Speeches

- Obama, Barak. President of the United States of America. State of the Union Address. United States House of Representatives, Washington, DC, 25 January 2011. <http://www.whitehouse.gov/state-of-the-union-2011>
- Lodge, Henry Cabot. *The Senate and the League of Nations*. C. Scribner's sons. 1925 http://scholar.googleusercontent.com/scholar?q=cache:pHtvQLURaZAJ:scholar.google.com/+Lodge%27s+reservations+to+&hl=en&as_sdt=0,11
- Wilson, Woodrow. President Woodrow Wilson's Fourteen Points. January 9, 2009 <http://web.ebscohost.com/aufric.idm.oclc.org/ehost/detail?vid=10&sid=efd3e894fcab7e419ed75f9f10%40sessionmgr4&hid=1&bdata=JnNpdGU9ZWhvc3QtbnG12ZSZzY29wZT1zaXRl#db=aph&AN=21212292>.