

PERSONALITY AND POLITICS:
THE UNTOLD STORY OF ROBERT S. MCNAMARA
&
CURTIS E. LEMAY

BY

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ABSTRACT

Over the course of the past century, the United States (US) rose from a fledgling nation to a global hegemon. This transformation occurred on the backs of countless individuals whose sacrifice and human capital paved the way for US success. Two of the great men who toiled through these challenges were Curtis E. LeMay and Robert S. McNamara. Both during WWII and in the midst of the Cold War, these individuals came together to deal with some of the greatest threats the US ever faced. Although the nation achieved success in both situations, the relationship between these two was not as fortunate.

Beginning successfully during their first encounter in WWII, they worked to innovate and transform airpower in Europe and Asia. Combining their personal traits, these two developed the most efficient and devastating air campaign the world had ever seen. After a decade apart, however, when they returned to face the Soviet threat together in the 1960s, their interpersonal relationship failed. Over the span of five years, these two would find themselves on opposing sides of almost every strategic issue.

This essay aims to explain why two such great men could so drastically fail to cooperate after previously having such great interpersonal success. In addition, this treatise seeks to understand how this failed personal relationship affected the strategic stance of the US. Finally, and most importantly, this paper will highlight why, unlike what some may believe, this failed relationship ultimately did not result in strategic failure for the US.

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Foreword

As I began researching this topic in late 2011, I did not recognize the biases I held regarding the two main characters of this treatise. Having previously only read portions of the literature regarding Robert S. McNamara and Curtis E. LeMay, I (like many) had unknowingly bought into the caricatures they had become. I saw LeMay as the general portrayed in the movie *Doctor Strangelove*; a bomber crazy, hawkish military figure bent on developing and using the most destructive military power available without regard for human suffering. As for McNamara, I thought of him as the individual hated by the military for his micromanagement of military matters and disingenuous interaction with the service chiefs during his tenure as the Secretary of Defense. Yet, as with so many intellectual journeys, by the end I found the reality to be much more nuanced than the rhetoric.

With this in mind, I hope all readers of this essay will place their preconceived notions of these two historic leaders aside prior to departing on the path ahead. They spent their lives toiling to achieve success for the United States in the best way they knew how. They were human beings, with human strengths and flaws. But certainly, they were not simply myopic, one dimensional figures bent upon advancing their ideals above all else. As a result, it is only with this open mind one can ultimately attain the truth we seek. Once attained however, the world of knowledge is open to us more fully. Please enjoy the journey of two fascinating men and the insight their interaction provides regarding the relationship between personality and politics.

Chapter 1

INTRODUCTION

As the United States (US) entered the thick of the Cold War, a storm was brewing. Not just between two great superpowers, but between two men within the US national security structure--Robert S. McNamara and General Curtis E. LeMay. Both men created and led large organizations to the heights of success, Ford Motor Company and the U.S. Air Force's Strategic Air Command respectively. Less known, however, is the story of these two men working collaboratively, demonstrating tremendous mental flexibility and ingenuity during World War II. Their efforts created a unique bombing campaign which annihilated the Japanese home islands and helped to bring this great power to her knees. By 1961, what then drove such successful and apparently compatible men to find it almost impossible to compromise on any strategic decision?

The lives of LeMay and McNamara began in very different ways. Curtis LeMay was born and raised in poverty, becoming essentially the bread winner of the family by the age of eight. While moving around the country throughout his youth, LeMay would watch his father fail at job after job as a result of his poor work ethic and life-long lack of interest in education. In contrast, his mother was highly driven. In spite of attaining only an eighth-grade education, she always grasped the importance of learning. In addition, throughout her adult life, LeMay's mother would consistently handle the challenges of their poverty stricken, nomadic lifestyle with stoicism. This woman would play the key role in influencing LeMay's early life. As a result, LeMay learned to become a self-reliant, hard-working, imaginative problem solver, whose need to financially support his family created a lifelong streak of responsibility.

This hard-knock life never stopped LeMay from pursuing his dream of flight. Through hard work and dedication during his early years, LeMay attained both an undergraduate education and an appointment to become a pilot in the US Army Air Corps. This beginning sent him upon a journey that would shape decades of US military action and national policy.

In contrast, McNamara grew up in a solidly middle class family in the suburbs of San Francisco, with a simple yet comfortable life. Similar to LeMay's mother, his parents viewed education as tremendously important. So much so, they elected to move the family to a suburb containing more challenging schools. This focus on education pushed McNamara to pursue knowledge with a vengeance, consistently striving to be the head of his class.

Although his academics soared, his personality appeared to be developing as an area of weakness for McNamara. He was becoming less tolerant of those unwilling to work hard, or those who seemed less intelligent. He learned to keep his emotions in check, and found ways to remain unswayed by any but the most analytical argument. By the time he had achieved his graduate education and was beginning his professional life, McNamara believed that cold analysis devoid of emotion was the key to bettering companies and societies.

Despite very different backgrounds, LeMay and McNamara shared several foundational characteristics: a hard and driven work ethic, a desire to attain a strong education, and a stoic pursuit of their goals. As a result, by the time they met for the first time during World War II (WWII), the roads they traveled may have been far apart, but the characteristics they had developed were significantly more congruent.

This compatibility of personalities led to a successful working relationship during WWII. In both the European and Pacific campaigns, LeMay became an innovator, consistently seeking ways to gain combat success more efficiently. McNamara, through statistical analysis, provided LeMay with the data required to achieve these results. By the end, each praised the efforts of the other, and combined they translated air power into an effective weapon of war.

At the conclusion of WWII, their paths separated and would not converge again until 1961. During this period, LeMay and McNamara would chase and achieve greatness for two gigantic organizations. McNamara would take his statistical analysis, refined during WWII, and hone it to peak efficiency at Ford Motor Company. He would institute safety, manufacturing, and sales standards that would become the envy of all other US auto manufacturers. His exceptional success would land him the position of the first-ever “non-Ford family” President of Ford Motor Company. And, this success would eventually lead him straight to the head of the Department of Defense.

LeMay prospered in this era as well. As one of the youngest to achieve General Officer rank in the US Army Air Forces during WWII, he would carry this success into the burgeoning Cold War. His innovative and demanding personality drove him to fix and then lead a failing SAC. His efforts in turning this organization from an underperforming hodge-podge of units into one of the most feared and ferocious military organizations ever are legendary. By the end, SAC was the most powerful military unit across the globe, and it seemed to be LeMay personified. This success eventually led him into the position of Chief of Staff of the United States Air Force. Thus, by 1961 these two leaders had found unparalleled success together during WWII, and subsequent success in their separate endeavors.

One might assume that, with such combined success early on, their reunion in this strategic relationship would match, if not exceed, their previous accomplishments. Yet, nothing could be further from the truth. In fact, from the beginning, McNamara and LeMay's relationship was contentious. Whether it be their debates on such weapon systems as the XB-70, or their differences on strategy relating to the Bay of Pigs, the Cuban Missile Crisis, or space policy, these two men were constantly at odds.

What caused the relationship between these men to turn so caustic? Did this failed personal relationship result in strategic failure for the United States? For the Department of Defense or the United States Air Force? What does conflict between two of the most senior members of an administration during one of the most critical times in the history of the world tell us about the role of personalities in national security outcomes?

Therefore, the relationship between Secretary of Defense Robert S. McNamara and General Curtis E. LeMay provides fertile ground for analyzing how complex human relationships affect strategic decision making. Because human interaction is the fulcrum of the political decision-making process, relationships can lead to great strategic success or failure. The relationship between McNamara and LeMay is an exceptional candidate for assessment because of their interaction at numerous times and in various strategic contexts. Analyzing this relationship will hopefully provide new insight into how personal relationships can affect strategic decision making.

Chapter 2

BUILDING COGNITIVE FOUNDATIONS

In his seminal work *Perception and Misperception in International Politics*, Robert Jervis points out that one of the strongest determinants of how an individual will perceive situations depends upon experiences gained during his formative years. At this stage, ideas and beliefs have not become rooted within an individual's consciousness, allowing a more accepting attitude toward new concepts. As a result, some of the most foundational beliefs (those which a person will draw upon to make decisions later in life) are formed during childhood.¹ In order to understand the relationship between Curtis E. LeMay and Robert S. McNamara, we must first understand their early lives/careers, and try to identify the beliefs formed from these experiences.

Curtis LeMay

If you grow up amid the confused ignominy of the very poor and insecure, and if you are sufficiently tough in spite of this, poverty can prosper you.

Curtis E. LeMay was born on November 15, 1906 in Columbus, Ohio as the first of seven children of Erving and Arizona LeMay.² From the beginning, his childhood was one of challenge and toil. Forced to move often as his father searched for work throughout the country, LeMay quickly became a self-reliant, resourceful, and innovative problem solver who was mature beyond his years. Although some young folks would have wallowed in self-pity under these conditions, LeMay did not. Instead, at a very young age this hard knock life led him to place responsibility above personal enjoyment. He found that by taking

1. Robert Jervis, *Perception and Misperception in International Politics*, (Princeton, NJ: Princeton University Press, 1976), 239, 249-250.

2. Curtis LeMay with MacKinlay Kantor, MacKinlay, *Mission with LeMay: My Story* (Garden City, New York: Doubleday & Company, Inc., 1965), 14-15, 17.

responsibility, he could achieve results and even prosper in difficult circumstances. This diligence would serve him well as he toiled to achieve his goal of becoming a US Army Air Corps pilot.

From the start, Curt—as he was sometimes called—saw the consequences of not being resourceful or driven. His father was a dreamer as well as a drifter. LeMay recalled, “During my early childhood we moved like nomads. We lived at four different addresses in Columbus; we lived in a village called Lithopolis, near Winchester; we lived in Pennsylvania, lived in Montana, lived in California. The children kept coming along, but Pop never balked at pulling up stakes and moving the whole caboodle of us almost overnight if a better situation seemed to be promised.”³

LeMay’s recollection of his early years show that he not only moved to virtually every corner of the United States but that the family had no roots, no extended family or neighbors on whom the family could rely during the bad times or with whom they could celebrate the good. Moreover, LeMay’s choice of words about the size of the family can be read as an indictment of his father for being reckless. Why would a nomadic father, LeMay seems to be saying, allow a growing number of dependents to keep “coming along”? For Erving, LeMay seems to suggest, fatherhood entailed little responsibility. Finally, LeMay clearly believes that this “nomadic” lifestyle—and all of the hardships it brought—were a result of a man who had unfounded visions of prosperity. By his son’s estimate, Erving was a “dreamer”, one who envisioned better times every several years. ⁴

By the age of 8, LeMay and his family found themselves in Montana where his father had found work on a ranch. It did not take

3. LeMay, *Mission with LeMay*, 15.

4. Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay* (Washington, DC: Regnery Publishing, Inc., 2009), 4.

long for his father to once again fail. Soon, the family was moving out of the tenant house at the ranch and off to another job at a fishing sport club in Montana.⁵ Although his father was still lacking any real success, LeMay tried to make up for his father's apparent failures by finding ways to earn money to keep his family financially afloat.

During his time at the sports club, LeMay began to develop his resourceful personality. With his father's meager salary, the LeMay family was often just scraping by. In order to help out, LeMay found a pond on the property and taught himself to become a proficient fisherman. Often, outside of school hours, he would make his way down to the lake and spend time catching fish to provide extra food for the family.⁶ Even at a young age, the dominant characteristics of his personality were emerging: imaginative, resourceful, and responsible.

Within a year the LeMay family was off again, setting out for California where Erving had attained a position in a cannery outside of San Francisco.⁷ While in San Francisco, LeMay once again utilized these burgeoning characteristics to keep his family afloat. As his family continued their struggle with poverty, he saw a need to gain more income. He decided the best solution was to develop his first business. There was an elderly woman with an infirm cat in the neighborhood and Curt saw an opportunity. He offered to shoot sparrows for the cat in return for 5 cents per sparrow. The women gladly agreed. Now, by the age of 9, Curt had become a key part of the bread winning for his family and was learning innovative ways to support their needs.⁸

For several more years, the family continued to move as LeMay's father bounced from job to job. Finally, they ended up back in

⁵ Kozak, LeMay, 20.

⁶ Ibid., 6.

⁷ LeMay, *Mission with LeMay*, 21.

⁸ Ibid., 24-25.

Columbus, Ohio, where he would complete his high school education. Throughout his high school years, LeMay proved his personality traits, which had originated out West, still remained. He found a position with the *Columbus Dispatch*, not just as a typical delivery person, but as a main distributor to a large group of delivery people. He was essentially responsible for almost three thousand customers, allowing him to provide a nice sum of money to his family.⁹

By this point in his life, fun was seen as a luxury which he could not afford. Although he resented the fact that he could not spend money on things like dating, he felt a strong responsibility and loyalty to his family. As a result, he continued his efforts at school and work without complaining.¹⁰ This trait would serve him throughout his life; LeMay was consistently doing what he believed was the responsible thing without complaint, and he had no patience for those who would not do the same.

It seems his frustration and disdain for those as lazy as his father developed early in his life and lasted a lifetime. As he discussed in his memoirs:

Out in a long ago 1914 Montana winter, my father was perfectly willing to sit with his socked feet up against the shiny stove fender, while the frost snapped and crackled outside. The larder was a vague mystery which Pop didn't bother to penetrate. He figured that somehow, from somewhere, Mom would be able to conjure up a meal out of thin air. . . But, it seemed to me, even when I was only eight or so, that if a job needed doing it had better be done, and the sooner the better. (I supposed a lot of shiny-eyed Liberals and permissive philosophers of these middle 1960's would consider this an alarming concept, perhaps dangerous to National leisure . . . in a day when labor unions howl for a twenty-hour work week, and God knows what fringe benefits besides).¹¹

⁹ LeMay, *Mission with LeMay*, 27.

¹⁰ Kozak, *LeMay*, 9-10.

¹¹ LeMay, *Mission with LeMay*, 30.

His anger with his father's laziness is almost palpable. And, this statement provides great insight into why LeMay became so tremendously industrious throughout his life. From such an early age he had to become the central male figure in a large family. In addition, he learned the tough lesson that nothing is gained without some amount of effort expended.

Amidst this miserable childhood, there was one defining moment in LeMay's life. At the age of 6, he was playing outside when he heard a loud noise above. He looked up to the sky and saw a strange machine flying in the air. He became so fascinated he followed it for what seemed like miles. As the aircraft landed and came to a stop, LeMay realized he had become so focused in his pursuit, he was lost. But, at that moment, he did not care about how far he was from home. All that mattered was he wanted to be in that "flying machine."¹² He was hooked; he wanted to fly and that interest would never leave.

It was not until many years later that LeMay would finally attain this dream. At the age of 16, LeMay the "miser" would find something he was willing to splurge on--his first flight. The deal was sealed. Flying was his passion and it would motivate him into attending college. After high school, LeMay entered The Ohio State University in pursuit of an engineering degree and became a member of the Army Reserve Officer Training Corps (ROTC). As with other times in his life, LeMay realized it would require a strong work ethic to both pay for and succeed at the university. As a result, while there he not only took a full load of classes but worked at the Buckeye Steel Casting Company from 5 p.m. to 3 a.m. to pay for his college and financially support his family as well. And in fact, his sense of responsibility to his family remained so strong,

¹² Ibid., 13.

throughout college LeMay would remain at home, helping to care for his siblings.¹³

This clear understanding of the sacrifices required to achieve his overarching goal led LeMay to make other difficult decisions. For example, to maintain his break-neck schedule, he would often choose to sleep during his 9 a.m. classes. This choice resulted in his failing many of these courses. Yet, he knew the tradeoff of forfeiting one course, allowed him to excel in all other others. This behavior seemed to foretell why later he would have such limited patience for those unwilling to work as hard as he. LeMay would speak of the expected work pace at his SAC as a 70 to 80 hour work week. Those who could not keep pace would simply be removed. As a result, although his college experience was difficult, LeMay would remain stoic and push through. His efforts only further solidified his belief in a strong work ethic. His efforts paid off: LeMay finished ROTC as an honor graduate, bringing his dream of flight one step closer to reality.¹⁴

Even though he had not completed all requirements to attain his undergraduate degree, with his reserve commission attained through ROTC, LeMay was able to apply for the United States Army Air Corps cadet program. Not surprisingly, he did not hesitate to do so. But, he quickly learned the application was but one step of a larger bureaucratic process. Once the application was submitted, the next step was simply to place your name on a list, and then wait until your turn arrived. The list of names was tremendously long, and LeMay's patience was exceptionally short.¹⁵ He was about to wield his imaginative problem-solving skills once again.

¹³ Kozak, *LeMay*, 11-12.

¹⁴ LeMay, *Mission with LeMay*, 42.

¹⁵ Barrett Tillman. *LeMay: A Biography, Great General Series* (New York, NY: Palgrave MacMillan, 2007), 6 and LeMay, *Mission with LeMay*, 42.

In order to navigate this bureaucratic road block, he decided to research what factors might increase his standing on the list of potential flying cadets. He learned that if he had a commission in the National Guard he would gain higher preference for attaining a flying training slot. So, he headed down to the local National Guard detachment to gain a commission. Literally that day, he was commissioned into the Army National Guard as an artillery corpsman.¹⁶ This successful bureaucratic maneuvering did not, however, pay immediate dividends. Nevertheless, and much sooner than would have originally been possible, in October of 1928 he had acquired a training slot and was off to pilot training.¹⁷

LeMay's initial flying experience was not entirely stellar. In fact, his relationship with his first flight instructor was quite difficult. His dreams were almost crushed when he came within a hair's width of being washed out of the program. Yet, through determination and hard work, he once again succeeded and by late 1929 was off to his first assignment as an official Army Air Corps pilot at a base in Selfridge, Michigan, flying pursuit aircraft.¹⁸

Once at Selfridge, LeMay decided he needed to finish his undergraduate degree when he recognized this achievement would afford him better promotion opportunities.¹⁹ However, his assignment would not allow him to leave to attend classes. Once again, his drive to succeed took over and he began searching for ways to find an innovative solution. He was on a quest to head back to Ohio State and nothing would stop him.

¹⁶ Kozak, *LeMay*, 14.

¹⁷ Tillman, *LeMay*, 6.

¹⁸ Curtis E. LeMay Oral History Interview conducted by Frank Voltaggio 4 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1619 C.1. IRIS Number 01060922, p. 24 and LeMay, *Mission with LeMay*, 53-78.

¹⁹ LeMay, *Mission with LeMay*, 78.

Through much research, LeMay learned that an officer was allowed to be detached from his current assignment for up to 5 months and 29 days for temporary duty at another location. Armed with this information, he requested to serve temporary duty at Norton Field near Ohio State. Once again his bureaucratic acumen paid off when his boss approved. For the next 5 months, he served at that field, and on his off duty time completed his bachelor's degree.²⁰

Although much of his time was spent on his professional development, LeMay did not entirely let his personal life falter. In 1931, while completing his college degree, for the first time Curtis began dating. It was during this era that he met the future love of his life, Helen Maitland. She was everything he was not: outgoing, cultured, and raised in an economically successful family with an attorney for a father. Yet LeMay was not ready for marriage; he still felt financially responsible for the care of his family. It would be several more years (from 1931 to 1934) until the time would arrive when his siblings were self-sufficient and he would feel ready to marry.²¹

In addition to meeting Helen, another key event occurred in LeMay's life during this time. In 1931, he was offered the opportunity to leave the US Army to work for Ford Motor Company, which manufactured the Ford Tri-motor, the first successful American commercial airliner. During this era, Ford would sell a client not just a tri-motor, but a tri-motor with a pilot included. This position would take his salary from \$200 a month to a whopping \$1200 a month. For an individual born of poverty this could be a life changing event. Yet, LeMay elected to remain in the service. The sense of responsibility he developed in caring for his family had grown into a strong commitment to support the defense of the United States. He not only enjoyed the job

²⁰ LeMay, *Mission with LeMay*, 78-81.

²¹ Kozak, *LeMay*, 30 & 41.

security of the military, but more importantly he felt the respect and patriotism of doing something focused on a greater need. "I thought," LeMay recalled, "national defense was something someone had to do."²²

In addition to this feeling of responsibility, LeMay was also drawn to the people he found in the military and the respect he received while serving. As he would later say, "I think most of all I was impressed with the people that I'd met. . . But I don't say one individual made this impression that attracted me. It was the general impression that impressed me more. For instance, I could go to the bank and sign my name on a note for any reasonable amount with the salary I was making and deposit it without a co-signer on it. This was not due to my bright, shining, honest looking face, it was due to the reputation of a long line of Army officers before me. It was things like this that impressed me more than any one particular individual. . ." ²³ This connection with those members of the military, and the automatic respect engendered by the uniform, initiated his life long career decisions. More importantly, later in life as he served with civil leaders like McNamara, he seemed to expect the same level of automatic respect for his military ideas as the respect he received early on for simply wearing the uniform.

In all respects, the mid-1930s was a transition time for Curtis LeMay. In 1934, he had just married Helen and the two had decided to remain in the Air Corps. These two big steps would lead them into their life-long focus of serving this nation together. Their first assignment involved a transfer out of the continental US to the island of Oahu, Hawaii.

²² Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 4 and Kozak, *LeMay*, 37-38.

²³ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 4-5.

This assignment would see not only a familial evolution, but a professional one. It was here that this fighter pilot would have his first opportunity to drop a bomb. It would be a life changing experience for LeMay.²⁴ Certainly, like many aviators of the time, LeMay had pondered which aspect of military aviation was more important—bombers or fighters. His experience in Hawaii sealed the deal. As he would later say he finally believed, “. . . even the most stupid people like me knew that bombers were more important in a first class war than fighters were.”²⁵

In his mind, only a bomber could be used to reach the heart of an enemy. Pursuit aircraft could not penetrate hostile airspace in any weather, day or night; he wanted to be a part of that mission.²⁶ In addition, he believed the future of Air Corps leadership rested with the bomber pilot community. No surprise then that his drive and sense of responsibility led him down the path of (in his eyes) the Air Corps’ most important mission. And with that, LeMay requested and received a transfer to the newest airplane coming on line, the Boeing B-17 Flying Fortress at Langley Field in Virginia.²⁷

It is important to note that LeMay’s transfer was not accepted simply because he desired it. He achieved this result once again because of another innovative path he was pursuing: navigation. During this era in US airpower history, navigators were recruited from those pilots showing the strongest aptitude in navigation skills. Beginning with his time at Selfridge, LeMay made attempts to become an exceptional navigator.

²⁴ Kozak, *LeMay*, 46.

²⁵ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 19.

²⁶ Tillman, *LeMay*, 7.

²⁷ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 18.

In Hawaii, for example, LeMay used to stand out on the beach with his new wife holding a light at midnight so he could practice taking celestial navigation shots.²⁸ His efforts were so exceptional that he was selected as an instructor. And, as with all other tasks in his young life, he excelled. By the end of this assignment, LeMay helped the Army transition long-range overland navigation skills to long-range over ocean capabilities. These achievements resulted in his gaining a reputation as one of the Army Air Corp's best navigators.²⁹

It was this reputation that earned him a chance to leave Hawaii and head back to the US in 1936 to work with the B-17 at Langley Field. Upon his arrival, he learned he would not be flying this war machine, but instead would be navigating it.³⁰ To LeMay this did not matter. He was excited to work with the Air Corps' newest aircraft. And in fact, his time at Langley would not only serve as a springboard to understanding bomber tactics, it would lay the foundation for LeMay's development of ideas regarding airpower and national strategy.

This growth would occur courtesy of an airpower legend, Lt Col Robert Olds (at one time a member of the staff of the infamous Billy Mitchell). While at Langley, LeMay was selected to become the group operations officer under Olds. During his tenure there, LeMay had the opportunity to hear Olds' strong advocacy of strategic bombing, and his belief in the primacy of aircraft in securing national defense. That Olds had changed him forever is clear in a 1976 interview, "*LeMay*: So for the first time [Olds] shook me up as to what we were around for and what we ought to be doing and what could be done and . . . how important the airplane was to the country we lived in. *Interviewer*: Was this the real

²⁸ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 18.

²⁹ Tillman, *LeMay*, 10.

³⁰ Ibid., 13.

turning point in your career? *LeMay*: I think it was. Yes. *Interviewer*: And the man who was so significant and his name again was it Olds? *LeMay*: Robert Olds.”³¹

By 1938, LeMay seems to have begun walking down a deductive path. With deductive reasoning, one uses general facts gained about a given subject to deduce truths that apply to all like subjects. This form of reasoning would ultimately lead him to believe that nation-states are secure when they develop and maintain strategic airpower; therefore the US must focus on strategic airpower as the basis of its national strategy.

As he worked his way through this professional development, the dawn of the Second World War was upon the nation. Soon, the true mettle of the man would be challenged. He would face these challenges with a few foundational characteristics/beliefs developed through his early years: 1) innovative problem solver, 2) strong sense of responsibility to the nation, 3) an ability to navigate bureaucracy, 4) a belief in airpower’s dominant abilities in battle and 5) an unending work ethic and motivation to succeed. Of this last point he once said, “. . . motivation is very important to me. If a man is really motivated and he really wants to get something done he’ll get it done. He may have to work ten times harder than someone who is a little more knowledgeable or smarter or better prepared but if he’s got the motivation he’ll get it done . . .”³² He lived this ideal. LeMay’s early experiences, as he rose from poverty to notoriety in just over 30 years, created strong ideals which would remain with him for life.

³¹ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 26-27 and Kozak, *LeMay*, 52.

³² Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 30.

Robert McNamara

My drive for scholastic excellence reflected the fact that neither my mother nor my father had gone to college . . . they were fiercely determined that I would. Their resolve shaped my life.

Although born just 10 years apart, LeMay's and McNamara's childhood experiences could not have been more different. Unlike LeMay, McNamara grew up with a strong and stable family in the suburbs of San Francisco. His father worked diligently and expected his children to do the same. His parents valued education, and McNamara grew to pursue it with a vengeance. Although he would not know the poverty or nomadic lifestyle experienced by Curtis LeMay, he too would arrive at the end of the 1930s with well-established beliefs and character traits that would lead him into WWII with the US Army Air Corps. And so, by the time he would find himself in first contact with LeMay, his early experiences had become entrenched within his psyche.

Robert McNamara was born on June 9th, 1916 to Claranell and Robert.³³ Raised with only one other sibling, the family resided in the neighborhoods surrounding San Francisco Bay. In the early stages of his life, his mother and father (who had not had the luxury of attending school past eighth grade) elected to move from a lower-middle class area of the city, to a more desirable location so their children might garner the education they never received. In addition, McNamara's father had a work ethic which allowed him to succeed from such meager beginnings.³⁴ It was these attitudes which drove his parents to try and make decisions to place their children on what they saw as the best possible path.

This effort by his parents made a strong impression on McNamara even at a young age. He decided he must immerse himself in this

³³ Deborah Shapley. *Promise and Power: The Life and Times of Robert McNamara*, (Boston, MA: Little, Brown and Company, 1993), 5-6.

³⁴ Henry Trewhitt, *McNamara* (New York, NY: Harper & Row Publishers, 1971), 27.

positive educational atmosphere. In the strong schools he attended, the teachers searched for ways to motivate their students. One which was often used was to seat children in order of their success on given exams. The stronger one placed on the exams, the closer one moved to the first chair. McNamara thrived on this competition. He consistently strived to attain that first chair and often found himself close if not first.³⁵ And in fact, by Junior High School, he was becoming quite “conspicuous for his scholarship.”³⁶ This love of and belief in the utility of knowledge shaped his personality.

As McNamara was succeeding in his scholarly pursuits, another trait was arising: a cold, calculating persona which tended to dismiss those with less intelligence than himself. During those Junior High School years which began to bring him visibility for academic success, he too became quite conspicuous for a lack of empathy for those he saw as less capable.³⁷ This trait was only reinforced at home where as he would say, “in my family there was no expectation of communication between the generations.”³⁸ It was a home where the management of emotion and calculated response was promoted.³⁹

Certainly others may have found this aspect of McNamara frustrating, yet he never allowed it to hinder his progress. By High School, McNamara was a member of Student Government, was leading the Honors Society, and was editor of the Year Book.⁴⁰ His educational success was outshining any personality shortcomings he may have exhibited. Clearly, by the time he was in High School, McNamara had gained a strong belief in the value of education, a powerful drive to

³⁵ Robert McNamara and Brian Vandemark, *In Retrospect: The Tragedy and Lessons of Vietnam*, (New York, NY: Vintage Books, 1996), 4.

³⁶ Trehitt, *McNamara*, 28.

³⁷ *Ibid.*, 28.

³⁸ Shapley, *Promise and Power*, 12.

³⁹ *Ibid.*, 10 & 12.

⁴⁰ Trehitt, *McNamara*, 28-29.

succeed, and a tremendous work ethic. By 1933, this success as a young, scholarly, and driven man landed him a spot at the prestigious University of California at Berkeley.⁴¹

By this point in his life, another important character trait began emerging. Throughout his early life, Robert had seen his family maintain a thrifty lifestyle. Although they were by no means poor, the family certainly did not spend money lavishly. Instead, Claranell and Robert understood the power of money saved and wisely spent when future needs arose. It was this trait coupled with the experience of the Great Depression which instilled a belief in McNamara that money should be used for higher goals, not just simple pleasure.⁴²

As he began his time as a student at Cal-Berkeley, it should be no surprise he chose economics as a major, and mathematics and philosophy as minors.⁴³ Although his first year he attained average grades, he chose to surround himself with individuals of great intellect, and by his sophomore year he had pushed himself to once again attain a higher level.⁴⁴ In fact, by his second year at Berkeley, McNamara was asked to sit on the Student Affairs Committee, considered to be one of the most prestigious student positions at the school.⁴⁵ His driven personality had once again led him to a higher level of success than his peers, a pattern that would recur throughout his life.

His experience at Berkeley greatly shaped his personal beliefs. As he began to explore the variance between philosophical and analytical ideas, his ideational structure started forming. The study of ethics shaped his moral compass and reinforced his belief in working for a

⁴¹ Shapley, *Promise and Power*, 11.

⁴² Ibid., 10-11.

⁴³ McNamara and Vandemark, *In Retrospect*, 6.

⁴⁴ Trehitt, *McNamara*, 31.

⁴⁵ Shapley, *Promise and Power*, 14.

cause higher than self-gratification. Studying math and logic courses forced him to develop precise, analytical, process-driven thinking.⁴⁶ Each of these traits would remain with him throughout his life.

In addition, throughout his time at Berkeley, he remained intellectually precise. Unlike many young people, who find themselves swayed by popular opinion, Bob consistently searched for factual support before accepting any argument.⁴⁷ Theoretically all individuals should garner facts prior to decision making. However, many people (to include LeMay) find themselves arriving at decisions based upon intuition. Not McNamara. His trait of non-intuitive, unemotionally based decision making was learned early, honed during his time as a statistical analyst for the US Army Air Corps, and would carry him through his times at Ford and as Secretary of Defense.

One final key event occurred while attending Berkeley; McNamara met his future wife, Margaret Craig. Throughout his life, Margaret would be a constant balance to the stressful life led by McNamara. As he once said, "Without her, I would have been diminished."⁴⁸ She remained with him for decades to come as his "extroverted counterpart," helping to balance some of his more introverted traits.

By 1937, McNamara's driven personality led him to the height of success. He had graduated near the top of his class. He had attained a new found aptitude for numbers and logic. And most importantly, he had once again garnered higher achievement than his peers, being selected to attend the prestigious Harvard Business School.⁴⁹ This institution, established in 1908, had produced some of the nation's most

⁴⁶ McNamara and Vandemark, *In Retrospect*, 6 and Shapley, *Promise and Power*, 13.

⁴⁷ Trewitt, *McNamara*, 32.

⁴⁸ McNamara and Vandemark, *In Retrospect*, 6.

⁴⁹ Shapley, *Promise and Power*, 17.

prominent business and civic leaders, and now Robert McNamara's name would be among those elites.⁵⁰

For McNamara, his time at this school would not just provide him with prestige. Instead, this program would solidify many of his early beliefs. One of the most important would be the idea that work was not just for monetary gain but instead for the betterment of society.

A number of his professors during his time at Harvard were beginning to view business as more than a means of personal profit. Instead they felt it should be focused on creating societal benefit. From marketing to financial control education, McNamara was hearing that business leaders should not just serve their shareholders, but must serve society as well. From his parents' frugality until this point, this idea deeply resonated with Robert. As he would later say, "There is no contradiction between a soft heart and a hard head."⁵¹ This became a key belief that would guide him throughout his life.⁵²

The other aspect of McNamara's life so staunchly solidified during his time at Harvard Business School was his belief in the capability for statistical control to garner efficiency out of large organizations. During this year, he learned of du Pont's effort to increase profits by centralizing control over the vast company, bringing everything (production, distribution and sales) under one roof. This move for efficiency led them to develop a "rate-of-return" calculation which could analytically view the utility of each of the various operations. In addition, McNamara saw how General Motors learned from du Pont and developed a similar control system which significantly increased assembly line efficiency, vaulting them ahead of Ford after WWI.

⁵⁰ Harvard Business School Website, <http://www.hbs.edu/about/history.html>

⁵¹ McNamara and Vandemark, *In Retrospect*, 7.

⁵² Shapley, *Promise and Power*, 24 and, McNamara and Vandemark, *In Retrospect*, 7.

McNamara analyzed these examples in extreme detail and seemed to absorb them into his very being.⁵³ It is therefore no surprise that when afforded the opportunity to test his studies in the real world laboratory of the burgeoning Army Air Corps, he would jump at the chance. For an individual who had shown such a penchant for numbers during his undergraduate work, this course work must have been nirvana. McNamara's belief in management through analysis may not have been born at Harvard Business School, but it certainly was solidified during that time.

Yet, with all his success in this pristine environment, McNamara was still showing signs of being intolerant of those less intelligent. In fact, one of his classmates once quipped, "Bob did not tolerate fools lightly."⁵⁴ This too was a trait which had originated much earlier. As one of his teachers discussed as early as Junior High School, McNamara was, " . . . conspicuous for his scholarship, not his personality."⁵⁵ He would carry this intolerance throughout his life.

At any rate, by the end of the year, McNamara had successfully completed the program and was offered a lucrative position with Price, Waterhouse and Cooper back in San Francisco. Having become homesick for his beloved Margaret who remained in California, he gladly accepted the offer and returned to home to be closer to her.⁵⁶ Within a year, opportunity would once again come calling. Dean Wallace Donham of the Harvard Business School offered him the opportunity to return to work as a faculty member. There was one catch, however: the university needed an answer immediately.⁵⁷

⁵³ Shapley, *Promise and Power*, 22-24.

⁵⁴ Ibid., 25.

⁵⁵ Trehitt, *McNamara*, 28.

⁵⁶ Trehitt, *McNamara*, 35.

⁵⁷ McNamara and Vandemark, *In Retrospect*, 7.

In reference to how much Margaret meant to this highly driven man, McNamara explained that he would only accept if Margaret would marry him and move East. If not, he would have to turn down this prestigious opportunity. Thankfully for him, he achieved the best of both worlds. Margaret accepted his proposal, and he accepted Harvard's. Within a few months they were married and off to Boston, Massachusetts, to begin the next chapter in their lives.⁵⁸

However, the storm clouds of World War II were looming and McNamara felt isolated from the effort. He and a fellow instructor were becoming impatient and wanted to find a way to support the war effort. It would not be long before his opportunity would arise.

By early 1942, the Army Air Forces were rapidly expanding in response to the ever increasing air war in Europe. President Franklin Delano Roosevelt authorized an increase from 1800 aircraft to an astonishing 50,000 planes per year.⁵⁹ To gain the most efficient results from this explosive growth, Charles "TEX" Thornton (a young Army Air Corps officer in charge of the Air Corps' Statistical Control Office), was directed to approach the Harvard Business School for support. Harvard accepted the request and offered to use its faculty to train statistical control officers for the Army Air Forces. McNamara jumped at the opportunity to take on this role, starting as a civilian consultant to the Air Force.⁶⁰

McNamara became enthralled with the experience. Thornton proved to be precisely in-line with Robert's strongly held beliefs. Tex not only wanted to remove waste from the Air Corps; more importantly, he believed with the correct use of data gained in a variety of areas, the

⁵⁸ Trehitt, *McNamara*, 36 and Shapley, *Promise and Power*, 26.

⁵⁹ McNamara and Vandemark, *In Retrospect*, 8.

⁶⁰ Trehitt, *McNamara*, 36.

statistical control officers could help win the war.⁶¹ This was music to McNamara's ears. As such, as with all other endeavors on which he departed, McNamara jumped in with fervor and an unending work ethic.

It did not take long before he was recognized once again. His exceptional interest in the subject combined with his grasp of statistical control garnered him a request to help stand up the fledgling Eighth Air Force in England.⁶² With Margaret's blessing, McNamara accepted and was off to an experience that would change his life forever, bringing him in contact for the first time with Curtis E. LeMay.

By this point, he had certainly gained some important beliefs and characteristics: 1) analytical thinking can solve large problems, 2) intelligence matters and those without it may be disregarded, 3) hard work and ambition are key, 4) personality is not as important as results, and 5) society can progress if companies work for the betterment of it, not only just for profit. As with LeMay, for this last trait McNamara showed great reverence. Even fifty years after his schooling he would state fervently that a main principle in his life had always been, "There needs to be no conflict between the goals of a large institution and those of society."⁶³ And so, by 1942, this young, motivated man (still less than 30 years old) had developed many of the foundational traits which would support him throughout his life.

As these two effective men were about to meet for the first time, a few questions arise. Would these traits carry them well through WWII? Would the war alter them in any way? Would their vastly different experiences prior to the war conflict with their ability to succeed together? Only time would tell.

⁶¹ McNamara and Vandemark, *In Retrospect*, 9.

⁶² Trehitt, *McNamara*, 36-37 and, McNamara and Vandemark, *In Retrospect*, 9.

⁶³ Shapley, *Promise and Power*, 24.

Chapter 3

WWII AND THE MELDING OF IDEAS

McNamara – [LeMay] was the finest combat commander of any service I came across in war.

By the time they would meet and interact during WWII, these two men had shown tremendous intellectual flexibility, a desire to achieve greater results than their peers, the required motivation and work ethic to get them there, and a determination to serve for the betterment of society. Although the roads they traveled to arrive at their first meeting were quite different, their personal beliefs were not. As a result, they combined to produce some of the most devastatingly efficient airpower results seen in human history.

LeMay entered the throes of the WWII build up in 1940, having just been promoted to Captain and assigned to command the 34th Bombardment Group at Wendover, Massachusetts.¹ Upon his arrival at this new unit, LeMay was shocked and dismayed to find how poorly it was organized. Instead of having a single squadron of like aircraft, he was handed a hodgepodge of B-17s and B-18s. Knowing he was tasked to prepare this rag tag unit for war without the proper resources, LeMay began to feel a bit helpless.² Yet, as with all other challenges, he motivated himself to find success. It did not take long. After a short time with the unit, LeMay was moved up the military chain of command from Squadron Commander to Group Operations Officer.³ And, by

¹ Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay* (Washington, DC: Regnery Publishing, Inc., 2009), 65.

² Curtis E. LeMay Oral History Interview conducted by John T. Bolen 9 March 1971. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-736. IRIS Number 01001829, p. 25.

³ Curits LeMay with MacKinlay Kantor, MacKinlay, *Mission with LeMay: My Story* (Garden City, New York: Doubleday & Company, Inc., 1965), 198.

January of 1942 he had been promoted two ranks, from Captain to Lieutenant Colonel.⁴

By April of 1942, the rapid war mobilization combined with LeMay's growing reputation landed him his next assignment, leading the 305th Bomb Group at Muroc Field, California. As with his time at Wendover, this assignment initially seemed overwhelming to LeMay. When he arrived at what was to become a fully deployable B-17 combat unit, he had only two pilots who just completed initial training, having not even yet been trained to fly multi-engine aircraft. In addition, he was given only 3 B-17s to train his ever expanding group of inexperienced aircrew. In classic LeMay fashion, he got to work.

Realizing the heat of the desert would make it difficult to work on the airplanes during the day, he developed a grueling and precise 24 hour a day flight and maintenance schedule. During the day aircrew would fly from sun up to sundown. As soon as the aircraft were down for the night, the maintainers would work throughout the night to prepare as many aircraft as possible for the following day's missions.

His efforts achieved a maximum amount of training in the shortest possible time. However, even with this innovative approach, prior to heading across the Atlantic for the European Theater, his aircrews had still never: 1) dropped an actual bomb (just a few stove pipes full of sand), 2) navigated across a large body of water, 3) flown formation, or 4) fired their guns at a target.⁵ The morass he was handed at Muroc resulted in a new life lesson for LeMay. He found that no matter how much innovation you use, 20 years of neglect of a combat arm cannot be

⁴ Kozak, *LeMay*, 65,76.

⁵ Curtis E. LeMay Oral History Interview conducted by John T. Bolen 9 March 1971. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-736. IRIS Number 01001829, p. 26-27.

fixed in just six months.⁶ He vowed never again to allow the US government to find itself unprepared on the eve of war.

Regardless of the status of preparations, it was time for LeMay and his group to enter the burgeoning air war in Europe. Like his crews, his airplanes were not entirely ready. They were undergoing final modifications at plants all throughout the US. LeMay, always thinking, decided to send his crews to the plants to help complete the modifications more quickly. His efforts paid off, and by October 23 of 1942 LeMay and his Group were off to war.⁷

As he arrived in England, LeMay understood much about flying airplanes but was still green when it came to combat. Neither he nor his crews had experienced a single “shot-in-anger”, and were thirsty for any information that might help them prepare. As was his standard by now, LeMay would not sit idly by and wait to learn. Instead, he set out to become as knowledgeable about combat as he had been about flying.

His first stop was Col Frank Armstrong. Col Armstrong was one of the original men in the European theater setting up the Army Air Forces’ combat operations against the Germans.⁸ He had flown a number of missions over enemy territory and was a seasoned combat veteran. Ironically, LeMay planned his meeting with this man to calm his nerves and those of his crews, yet it created greater questions and concerns.

Armstrong’s initial discussion imparted some beneficial combat experience and seemed to be right in line with what LeMay hoped to gain. As Armstrong began discussing flying into the target, the tone of the conversation changed. He explained the German flak was so thick,

⁶ Kozak, *LeMay*, 72.

⁷ Thomas Coffey, *Iron Eagle: The Turbulent Life of General Curtis LeMay* (New York, NY: Crown Publishers, inc., 1986), 23-27.

⁸ LeMay, *Mission with LeMay*, 229.

airmen could not maintain straight and level flight for even 10 seconds without being shot down. This greatly distressed LeMay. LeMay had learned through his extensive experience with navigation and bombardier training that no matter what the skill level, even the best bombardier would not be able to hit a target after just a 10 second straight run. In fact, the standard operating procedures of the day required at least a 5 to 10 minute straight and level flight into a target to achieve a successful strike.⁹ LeMay immediately understood that if Armstrong was correct, his aircrew would have almost no chance of successfully striking a target.

This chance meeting with this accomplished combat veteran set LeMay's mind in motion. He had to figure out a way to complete a sustained straight and level flight into his targets or else he was sending his crews on life threatening mission for almost no pay off. This mental exercise would inspire him to create a string of innovative solutions. Throughout Europe and Japan he would develop unique resolutions to issues with training and fighting a strategic bombing campaign. And, it was this innovative and flexible spirit which would bring LeMay and McNamara successfully together during WWII.

This initial problem stoked one of LeMay's most widely heralded solutions in the European theater. As he pondered this problem of German flak, he had an epiphany. Why not view the German flak problem similar to a ground artillery exercise? He grabbed one of his old Reserve Officer Training Corps (ROTC) artillery manuals and began to calculate how many shots it would take to hit a moving B-17 at 25,000 ft. It did not take him long to realize it was an astonishing 372 rounds!¹⁰

⁹ Curtis E. LeMay Oral History Interview conducted by Frank Voltaggio 4 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1619 C.1. IRIS Number 01060922, p. 8 and Coffey, *Iron Eagle*, 30.

¹⁰ LeMay, *Mission with LeMay*, 237-238 and Curtis E. LeMay Oral History Interview conducted by Frank Voltaggio 4 June 1984. U.S. Air Force Oral History Program. U.S.

He thought, why on earth had the B-17s been moving so much during their bomb runs? The chances of being hit by flak were actually exceptionally low.

With this revelation in hand, he quickly set to work on devising an entirely new bombing method for his unit: a long straight and level approach to the target with no evasive maneuvers. In his opinion, the only reason the US was willing to risk all these men and machines was to win a war. To win that war, they needed to hit the target. To hit the target they needed to fly straight and level. And the risk in flying straight and level, he calculated, was minimal.¹¹

On 23 November 1942, these innovative tactics would be tested, and Curtis LeMay would fly the lead airplane. He wanted not only to lead his men as Lt Col Olds had taught him, but he wanted to see for himself if his ideas had utility. Amazingly, by the end of the run, not a single plane was shot down and bombs were on target. LeMay was astounded and realized he had stumbled upon the tactics with which his unit would bomb from that point forward. As with many of his ideas, it did not remain in his unit long. It took just a matter of three weeks and the entire Eighth Air Force was flying LeMay's tactics.¹² His innovative mind delivered great success for the allies, and more importantly, he personally learned how flexible thought could bring about great combat success.

There was another very important lesson LeMay learned on this, his first and historic combat mission. As the historian Thomas M. Coffey notes, LeMay realized, "If a commander is willing to do something

Air Force Historical Research Institute. Call Number K239.0512-1619 C.1. IRIS Number 01060922, p. 9.

¹¹ Coffey, *Iron Eagle*, 1986), 34.

¹² LeMay, *Mission with LeMay*, 240-245 and Coffey, *Iron Eagle*, 36-38.

himself, his men will go through hell to follow him.”¹³ Leading from the front and developing decisions based on actual experience became a cornerstone of LeMay’s persona. He believed that in being out front one not only gained respect from one’s subordinates, but more importantly gained the truest picture of operations. With that experience in hand, one could then make more appropriate decisions later. Again, we see LeMay’s deductive style of decision making. This style would lead him to frustration as the Chief of Staff when civilian leaders would make decisions based upon analytical information vice listening to his military experience.

Straight and level combat approaches were just the tip of the iceberg for LeMay’s flexible mind during WWII. He established an entirely new combat formation, known as the combat box. This allowed aircraft to fly in much tighter formations providing mutual fire support, and making it more difficult for enemy fighters to attack any aircraft in the formation.¹⁴ In addition, he changed the entire way post mission briefings were handled. Although he could have squashed dissent or disapproving statements in these briefs, he instead elected to allow anyone, regardless of rank, to speak his mind freely. He was tremendously tolerant of dissent or disagreement. It was not until a final decision was made did he expect his airmen to fall in line.¹⁵ This form of debrief created the foundation for how USAF aircrews debrief today. The fact is, his innovations were too numerous to recount here; suffice to say he never stopped searching for ways to deliver greater combat capability with less risk to his Airmen’s lives throughout WWII.

¹³ Coffey, *Iron Eagle*, 36.

¹⁴ Ibid., 32-33.

¹⁵ Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 111-112.

This driving effort by LeMay to accept innovations and develop more efficient/effective combat operations was recognized throughout the US Army Air Corps. Prior to entering Europe, LeMay was wearing the rank of Lt Col, and by the summer of 1944 he had risen to become the youngest Major General in the US Army Air Forces.¹⁶ It was not just the military leadership that was identifying LeMay's intellectual prowess as he transformed B-17 operations in Europe. A Captain in the US Army Air Forces by the name of Robert McNamara was becoming impressed as well.

Unbeknownst to one another, McNamara was about to begin working as a statistical control officer in Europe at the same time LeMay was beginning his combat operations. This early in WWII, the only major Army Air Forces (AAF) units in combat were the B-17 and B-24 groups in Eighth Air Force, of which LeMay was leading one. As these units were developing their operations, Tex Thornton recognized they might need help. As a result, two statistical control officers (Robert McNamara and Miles Mace) were tasked with heading to Europe to gather data to provide a foundation for operational planning in theater.¹⁷

As mentioned earlier, Tex Thornton was the officer directed personally by AAF Commander General Henry "Hap" Arnold, to develop statistical control for the entire Army Air Forces. The group he gathered from the Harvard Business School would be charged with tracking the total number of bombers and fighters remaining, as the levels fluctuated due to industrial production and combat losses. In addition, they would assess how many aircraft could be launched per day vice how many would abort. And more importantly, they would analyze the cause of the aborts. As well, these officers would scour data to understand what the

¹⁶ Kozak, *LeMay*, 158.

¹⁷ George Watson, Jr. and Herman Wolk, "Whiz Kid's: Robert S. McNamara's World War II Service," *Air Power History*, Winter 2003, 6-8.

relative advantages and drawbacks were between the various AAF aircraft, such as the B-17 versus the B-24. Finally, their ultimate task was to find ways to operationalize their results to create a more efficient and deadly air capability.¹⁸ Essentially, this office would analyze any data they could draw from to bring a scientific approach to war, helping to eliminate what Clausewitz termed the “uncertainty” of war.¹⁹

The Statistical Control Office originated under Thornton as a small group stationed in Washington, D.C. However, by war’s end it would comprise over 18,000 personnel stationed in 66 different locations. Although his officers would support the commanders they served with daily, ultimately Tex was the leader setting the course of this vast organization. This allowed all information provided to the combatant commander to simultaneously flow up a parallel chain of command through Thornton to the most senior AAF leaders. McNamara thrived in this environment. His ability to view numbers and trends with emotionless analysis and without personal attachment quickly enamored him to Thornton. It was not surprising that the head of this rapidly growing empire would select McNamara for such a crucial task as developing the Statistical Control in Europe.²⁰

Once in theater, one of McNamara’s first tasks was to assess for then-Col. Curtis LeMay why LeMay’s abort rate was almost 20%. McNamara and Mace pored over the data, searching for answers. From mechanical failures to physiological problems, they researched all probable causes. What they found was surprising. The Eighth Air Force had significantly higher abort rates not because of airplane issues, but

¹⁸ John Byrne, *The Whiz Kids: Ten Founding Fathers of American Business and the Legacy they Left Us*, (New York, NY: Bantam Doubleday Dell Publishing Group, Inc., 1993) 14, 42-43.

¹⁹ Dr. Frances Acomb, U.S. Air Force Historical Studies: No. 57. U.S. Air Force Historical Division, Air University. January 1952, 1.

²⁰ Byrne, *The Whiz Kids*, 24, 36, 46.

instead because of fear. The crews realized their loss rate was 4% per mission which meant many would never make it home. McNamara realized that as a result of this, crews were finding reasons not to fly. He and Mace presented this analytical report to LeMay; it would be the first time McNamara would witness LeMay's leadership first hand.²¹

When LeMay received the results of the study he told his unit he would fly in the lead plane on every mission. Anyone who did not fly over the target, he warned, would be court martialed. Not surprisingly, the unit's abort rate saw a rapid and dramatic decline.²² McNamara was impressed. Although he would only interact with LeMay in the European theater for a short time, McNamara had become a believer in this young Colonel.

A second major challenge McNamara would later discuss actually had nothing to do with analysis of information; instead it had to do with military leadership. As mentioned earlier, by this point McNamara had become an advocate for the power of analysis and critical thinking. When he arrived in Europe, he found many military leaders unwilling to accept his ideas. His job required him to push analytically based combat solutions to veteran military officers, yet many of the senior level AAF officers resisted his efforts. Even the famed combat pilot, Jimmy Doolittle, was resistant to the statistical control observations. This is especially significant because this legendary warrior was himself an engineer who had attained a PhD through the Massachusetts Institute of Technology. It seems McNamara's arrogance and impatience combined with his lack of military experience proved to be a tremendous road block to breaking through the established "old guard" military leadership.

²¹ Watson and Wolk, "Whiz Kid's", 8 and, Philip Glass and Errol Morris, *The Fog of War: Eleven Lessons from the Life of Robert S. McNamara*, Sony Pictures Classics, 2003.

²² Glass and Morris, *The Fog of War*, 2003 and, Watson and Wolk, "Whiz Kid's", 8.

McNamara would later say it was an uphill battle because the statistical control officers had “no authority” to enforce their ideas.²³

In addition to the temperate welcome, McNamara also found it challenging to attain enough data to develop solid solutions for efficient combat operation against the Germans. The officers who did not care for McNamara’s style were also unwilling to support his requests for information. At one point, Mace and he were working to analyze some maintenance issues with the aircraft. It took an inordinate amount of time to gather simple engine assembly and repair information, because they were not mechanics themselves and because senior leadership was unresponsive to their requests for support.²⁴ This experience seemed to sour his general impression of senior military leaders; an impression which remained with McNamara through his time at the Pentagon.

Yet, to him LeMay was different. In LeMay, McNamara saw an innovative military leader who understood the power of analysis to gain efficiency in large scale operations. In fact, McNamara was so enamored with LeMay, he wrote a letter home to a friend, Edmund Learned, praising LeMay’s efforts with the B-17.²⁵ Their short, semi-relationship in Europe would be just the beginning of something which would later pay large dividends in the Pacific Theater. By June of 1944, LeMay and McNamara would once again meet in the islands of the Central Pacific, both prepared to meet the challenges that lay ahead in a similar fashion.

Prior to their combined effort in Japan, McNamara was sent for a brief stop-over in Salinas, Kansas, to work on analyzing mechanical problems of the US Army Air Forces’ newest bomber, the B-29. As the newest aircraft in the inventory, the B-29 was suffering from various

²³ Deborah Shapley. *Promise and Power: The Life and Times of Robert McNamara* (Boston, MA: Little, Brown and Company, 1993), 32-33.

²⁴ Shapley. *Promise and Power*, 32.

²⁵ Henry Trewhitt, *McNamara* (New York, NY: Harper & Row Publishers, 1971), 37.

issues. During his short tenure there, McNamara was directed to focus on analyzing how to increase the production flow in order to provide more aircraft to the Pacific. By February of 1944, he had found significant problems. In a report dated the 8th of that month, McNamara stated, "The following statistical facts indicate clearly that unless present plans for aircraft modification and engine distribution are radically and immediately changed, the 58th Wing will definitely not have 137 aircraft ready to move on 15 March, probably will not have the aircraft ready to move 15 April and may not have them ready to move by 21 April."²⁶ He then went on to explain through statistical analysis what factors were causing the delays. And only a week later, in another report McNamara highlighted the negative impact the lack of aircraft was having on aircrew training. He discussed the crews' lack of flying time, formation experience, instrument training and weapon expenditure experience.²⁷ His involvement at this depot provided useful insight into the challenges he would face once he arrived in the Pacific.

Not long after his arrival in Kansas, Thornton reassigned McNamara to the Pacific theater. Upon his arrival, McNamara was assigned to the XX Bomber Command. As one of a number of analysts working on different issues, he quickly found he had his work cut out for him. At this point in the war, one of the key concerns for this command was the ability to get supplies and crews across the dangerous Himalayan mountain range to keep their B-29 operations running. For the first six months, McNamara worked on making this highly inefficient operation successful. What he would see during this tenure was immense waste. One of the greatest examples of this was the cost-versus-reward ratio. For every one gallon successfully moved over these

²⁶ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Memorandum, Weekly Review of Statistical Data, 5 February 1944.

²⁷ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Memorandum, Weekly Review of Statistical Data, 15 February 1944.

mountains, McNamara found it required a total of 28 gallons expended. Although McNamara was unable to succeed in reducing this wastage through statistical control, it undoubtedly left a lasting impression on him regarding military misuse of material.²⁸

After this stint focusing on the Himalayan operation, LeMay and McNamara were about to find themselves together again. By the middle of 1944, McNamara had been transferred to the combat operations side of statistical control. At the same time, LeMay was being directed to leave Eighth Air Force and take over the XX Bomber Command, in order to transfer his success in Europe to the Pacific.²⁹

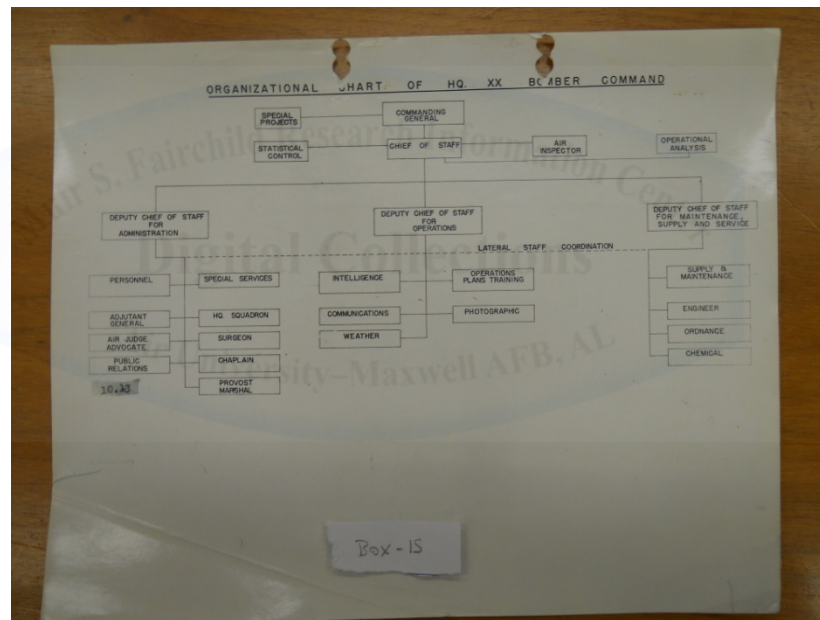


Figure 1 — XX Bomber Command Organizational Chart
Source: Curtis E. LeMay Papers, Library of Congress, Box 15, XX Bomber Command Organizational Chart.

In this new role, LeMay would not only interact with the statistical control officers, he would have them integrated directly under his

²⁸ Shapley. *Promise and Power*, 32.

²⁹ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 13.

command.³⁰ Within XX Bomber Command, statistical analysis was divided into four main sections; 1) Forward Echelon, 2) B-29 Parts Consumption, 3) Data Collecting and 4) Processing and Analysis. At the time, Robert McNamara resided within the Forward Echelon element. It was here he would find direct and almost daily access to LeMay through both meetings and written analysis. This group would review daily combat operations and provide reports on such things as the “Effectiveness of the 20th Air Force as a Strategic Weapon.” In addition, they would analyze possible courses of action to create more efficient and effective combat operations.³¹ So, the mind of McNamara would ultimately meld with the innovation of LeMay to devise tactics which would prove the death knell of Japan.

As LeMay arrived in this new role, he was determined to delve deeply into the organization, seek out and find any issues, and swiftly correct those he found. What he uncovered was almost total disorder: parts shortages, poorly developed maps, and lack of trained/effective pilots. LeMay realized his work was cut out for him. As always he went right to work. In fact, after a short period of time with the Command he became so dismayed he actually stood down the entire operation to begin retraining. As Tillman notes in his biography of LeMay, “[LeMay] was in charge and his air force was going to learn to do things his way.”³²

³⁰ Curtis E. LeMay Papers, *Library of Congress*, Box 15, XX Bomber Command Organizational Chart.

³¹ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Numerous Memorandum from Statistical Analysis Section.

³² Coffey, *Iron Eagle*, 113-116.



Figure 2 – LeMay’s Lead Crew Program

Source: Curtis E. LeMay Papers, Library of Congress, Box 12, Lead Crew Program Document.

Having found great success in Europe by developing what he termed a “lead crew” philosophy, as one of his first steps LeMay elected to develop and utilize a similar program in the Pacific. The idea with lead crews was that each crew would be designated a specific target, and would train to know it better than any other crew. If the target set was selected for a strike, that crew would be perfectly trained to lead the entire mission. LeMay was a stickler for ensuring these crews were trained correctly. As he stated in the curriculum of the formal course he created for lead crews, “In training lead crews, conditions must approach as near as possible combat operations. The targets assigned for practice must be similar to those enemy objectives designated for destruction by bombing attack. In addition, the routes to and from the targets, the manner in which the routes are flown, and the use of turning points and initial points must be as nearly as possible identical to the procedures used in actual combat.”³³ By October of 1944, LeMay and his innovative training had turned the tide of the XX Bomber Command. On the 14th of

³³ Curtis E. LeMay Papers, Library of Congress, Box 12, Lead Crew Program Document, Section General I.

October, for example, his aircrew flew a mission against Okayama, Japan, delivering three times the previous tonnage of bombs.³⁴



Figure 3 – LeMay’s Instrumented B-29

Source: *Curtis E. LeMay Papers, Library of Congress, Box 15, LeMay B-29 Test Program*

In late 1944, the strategic air war in the Pacific was beginning to escalate and General Henry H. Arnold, Commanding General, Army Air Forces realized a need to consolidate his disparate bombing operations throughout the Pacific. This move resulted from a change in US strategy originating in 1943. By this point in the war, the US had decided to initiate an island hopping campaign, choosing to gain less defended islands while by-passing Japanese strongholds. This process allowed US forces to strike further with less cost, while simultaneously cutting off Japanese strongholds from resupply. The overall intention was to gain strategic ground close enough to launch land based air strikes on the Japanese homeland. The key to achieving this strategic end was the 1944 battle for the Marianas. As a result, Arnold knew he could not fail. With LeMay’s new found success with the B-29, it was no surprise then

³⁴ Barrett Tillman. *LeMay: A Biography, Great General Series* (New York, NY: Palgrave MacMillan, 2007), 48.

that Arnold placed LeMay in command of the entire strategic air war in the Pacific. He was now the commander of the XXI Bomber Command.³⁵

With this new role, LeMay recognized a need to gain efficiencies across his now vast B-29 operation. Working diligently to find ways to increase the reliability of his aircraft, LeMay turned to his statistical analysis section and the Boeing Aircraft Company to modify a B-29 and run a complete battery of tests. As he expressed in writing, “In an endeavor to increase the bomb tonnage which could be delivered to our enemy by this command, the need for the most efficient possible operation for each airplane became apparent.”³⁶ He recognized he had trouble with maintenance and operations and once again searched for ways to solve them all.

Once the analysis was complete, as in Europe, he instituted changes immediately. As he discussed in his final report, “All information derived by the Test Unit has been reduced to usable information and is being furnished to all operations personnel in a thoroughly practical form. By use of the information so disseminated, far greater safety, increased equipment life, with reduction in equipment requirements, will occur. Vastly increased tonnage of bombs may be delivered – the aim to which all of our efforts have been directed.”³⁷

The results of his implementation were once again stunning. Until this point, no combat heavy bomber had been able to exceed eighty flying hours per aircraft per month. LeMay’s and McNamara’s crew had attained an astonishing ninety plus hours per aircraft per month, a full

³⁵ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 13.

³⁶ Curtis E. LeMay Papers, *Library of Congress*, Box 15, LeMay B-29 Test Program Memorandum.

³⁷ Ibid.

15% more than any combat aircraft flown in either theater during WWII. Even more impressively, McNamara's data proved that LeMay's aircraft were achieving similar operational rates as the ones assigned state side; an unheard of feat for a combat unit. LeMay's goal of more tonnage upon the head of the enemy had now become a reality, built upon the foundation of McNamara's analysis.³⁸

However, even with these tremendous results, LeMay was still struggling. By early 1945, leaders in Washington, DC, were placing great pressure on Arnold to gain more rapid results in the Pacific. Arnold in turn was expecting the same from LeMay.³⁹ In fact, Arnold's Chief of Staff, Lauris Norstad, wrote a letter to LeMay ensuring he understood that if he didn't get results soon, he would certainly be fired.⁴⁰ LeMay knew that tonnage dropped was not the ultimate determinant of success, but rather destruction of the target was. And at this point, LeMay's crews were finding limited success.

The aircraft they were flying, the B-29, was a high-altitude bomber and they were using it as such. The only problem was, at the altitudes from which they were dropping munitions, there seemed to be much variance where they would land. Often, the aircraft were over the correct target, yet the bomb would drift far off course by the time it neared the ground. LeMay again turned to McNamara and his crew for answers and possible solutions.

As had been the case before, McNamara pored over data searching for clues. Could it be the aircraft? How about aircrew training? After much analysis, McNamara once again saw insight in the numbers, and

³⁸ Tillman, *LeMay*, 48 and Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Memorandum Proposed Items for Weekly News Letter, December 1944.

³⁹ Michael Sherry. *The Rise of American Air Power: The Creation of Armageddon* (London, England: Yale University Press, 1987), 266.

⁴⁰ Tillman, *LeMay*, 55.

learned of a then unknown weather phenomenon – the Jet Stream. In a report from early 1945, he began to inform LeMay of the powerful force which was wreaking havoc upon bombs dropped from higher altitudes. McNamara did not stop there. In addition to the precision problem, he gained insight into the jet stream's effect on increasing weather deviations at higher altitudes. Fewer aircraft were able to reach their primary targets due to strong winds aloft, and were being forced to strike their secondary targets instead. In his final analysis of the numbers, McNamara concluded that if critical factors were not altered in some way, even at full strength, the B-29s efforts against the Japanese would result in relatively little destruction for the exceptional effort expended.⁴¹ His cold hard assessment of the data had not only unearthed a natural force unknown to man, but was about to set a new course for the air war over Japan.

As LeMay began to ponder other ways to attack the Japanese homeland to attain the results Arnold so desired, he was armed with McNamara's analysis. Although LeMay contemplated many factors (flammability of Japanese cities, lack of flak, increased visibility, lack of Japanese fighter aircraft), it seems difficult to believe McNamara's information was not at the top of his list.⁴² In his reports, McNamara had proven that although the B-29 was capable of bombing from high altitudes, the accuracy from that height was horrendous. He had used facts and analysis to show the lower the bombing altitude, the greater the success. Although we may never know the exact weighting of factors of his decision making, in the end, LeMay arrived at the ultimate change in bombing procedures -- low level attack using incendiary weapons.

⁴¹ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Statistical Analysis Report, January 1945.

⁴² LeMay, *Mission with LeMay*, 347-352.

History was set in motion; the blending of McNamara's analysis and LeMay's innovation would set the Japanese world ablaze.

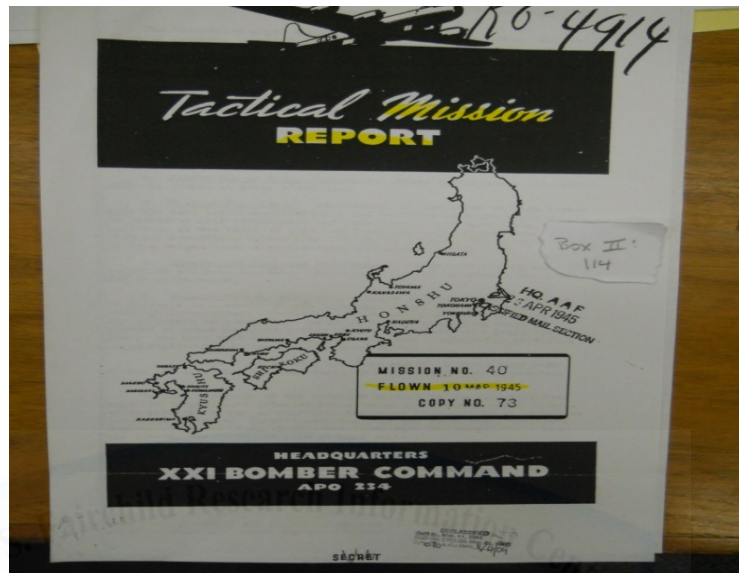


Figure 4 – XXI Bomber Command Tactical Mission Report
Source: Robert S. McNamara Papers, Library of Congress, Box II: 114, Tactical Mission Report.

As McNamara would later capture in his report on the first incendiary mission against Tokyo on 10 March 1945, the attack “. . . embodied a complete change of tactics for the XXI Bomber Command.”⁴³ No longer would they arrive over target at 20,000 feet, but instead they would be down as low as 5,000 feet above their target. They would strike with precision and ferocity, turning Japanese wooden cities into flames within minutes of their attack.⁴⁴ By May of 1945, over 70% of the overall bomb loads were comprised of incendiary munitions.⁴⁵ In the end, this duo's analysis and innovation had burned down almost 70 Japanese cities, bringing the country to her proverbial knees.

⁴³ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Tactical Mission Report, Forward.

⁴⁴ LeMay, *Mission with LeMay*, 352.

⁴⁵ Overy, Richard J. *The Air War, 1939-1945* (Dulles, VA: Potomac Books, Inc., 1980), 99-100.

As LeMay watched the components of his air campaign coalesce, his faith in air warfare's strategic power evolved alongside. As he would write during that fateful 1945 spring, "I am influenced by the conviction that the present stage of development in air war against Japan presents the AAF for the first time with the opportunity of proving the power of the strategic air arm. I consider that for the first time strategic bombardment faces a situation in which its strength is proportionate to the magnitude of its task. I feel that the destruction of Japan's ability to wage war is within the capability of this command."⁴⁶

Prior to the onset of the war, LeMay had certainly mentioned his belief that bombing from the air could be a decisive factor in war. Yet, at that point he had no practical experience upon which to base his belief. In Japan, that all seems to have changed. As his statement above shows, LeMay's deductive reasoning was hard at work during his time in Asia. He experienced what he believed to be the embodiment of his ideas regarding air power. And it would remain with him for a lifetime.

Proof of this ideational life change can be found in his statements well after the war. For example, LeMay believed his efforts were so successful, he remained convinced the war could have been won by October 1945 through continued low altitude fire bombing, and without having to drop the atomic bomb.⁴⁷ As he stated to an Air Force Institute of Technology student in 1963, "The atomic bomb certainly expedited the collapse, however, . . . I think it was anticlimactic in that the verdict was

⁴⁶ Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York, NY: Palgrave and Macmillan, 2003), 17.

⁴⁷ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 127-130.

already rendered. . . the combined might of the B-29 equipped strategic air forces did, in my opinion, force the surrender of Japan.⁴⁸

By the end of this war then, both LeMay and McNamara had found success in combining their innovative minds with data and experience to create the most efficient and effective air campaigns. Although one reasoned inductively (McNamara) and the other deductively (LeMay), their personalities and ideas would mesh in a way conducive to a positive relationship. LeMay's drive for information and flexibility in thought interlaced perfectly with McNamara's faith in the power of data. In addition, LeMay's willingness to listen to and accept McNamara's advice played well to McNamara's intellectual egotism. And, their similar levels of ambition and work ethic sealed the proverbial deal. The relationship between LeMay and McNamara would be tremendously successful throughout WWII, and much would result from their efforts.

However, as they prepared to depart this life changing era, all would not remain ad-equilibrium. We began this chapter with a quote from McNamara highlighting his respect for LeMay's combat prowess. And, throughout his life his respect for LeMay's warrior ethos remained. Yet, as the horror of what occurred in Japan began to sink in, it seems McNamara took something else away from his experience with LeMay as well. As he would later recount, LeMay said, "If we'd lost the war, we'd all have been tried as war criminals. And, I think he's right. He, and I'd say I, were behaving as war criminals."⁴⁹ It seems from this statement that McNamara had concluded that there were limits to what was

⁴⁸ Curtis E. LeMay Papers, *Library of Congress*, Box 134, LeMay Memorandum to Captain James M. Boyle, 26 March 1963.

⁴⁹ There is no way to pinpoint specifically when McNamara began coming to this conclusion. Yet, it seems by early 1960, his choice to limit kinetic response to Cuba during the Cuban Missile Crisis, and his move from a policy of Massive Retaliation to one of Flexible Response, indicates he had become concerned with the destructive nature of military over reach. As a result, it seems likely it grew out of his experiences in WWII. In addition, he did speak of this in: Glass and Morris, *The Fog of War*, 2003.

acceptable in warfare. As a result, although he departed WWII unchanged in most of his fundamental character traits, one thing was certainly new: McNamara believed war and restraint were not mutually exclusive terms.

WWII for LeMay as well seemed to cement many of his foundational beliefs: the utility of innovation, motivation, responsibility to US national security, and a belief in the power of airpower. On the other hand, he would depart this war with a much different philosophy than the man who was so crucial in helping him win in the Pacific, Robert S. McNamara. It most clearly came to him as he stood on the deck of the *U.S.S. Missouri* for the surrender of Japan thinking about how he lost so many Americans to get to this day; in war, all capabilities should be used as soon as possible to end the war as rapidly as possible.⁵⁰ In addition, the nation should never allow itself to be unprepared when the next conflict arises. These two new beliefs would underpin all his actions from this moment forward.

So, by the end of WWII, McNamara and LeMay had come together with overwhelming and successful results in both Europe and the Pacific. Many of their similarities, and some of their differences, provided the basis for this fruitful relationship. Yet, although their experiences occurred somewhat in tandem, each of these men would take drastically different lessons from their experience. McNamara seemed a bit disturbed by the total destruction laid upon the Japanese citizens, while LeMay seemed to be developing the foundation for what would later develop into the “LeMay Doctrine”: *The US should only go to war once a full public debate has occurred. Once that has happened, the US should use all possible capabilities at its disposal to end the war rapidly; this will actually reduce the total loss of any given war both for the US and the*

⁵⁰ Kozak, *LeMay*, 255, 259.

enemy nation.⁵¹ Although they developed divergent views, they would part ways at the end of the war before these conflicting beliefs came to a head.

Unbeknownst to them, this parting of ways would not be permanent. Yet, before they were to reunite, the two successful leaders would continue to utilize and embody their ideals to attain the highest levels of success. Would their journeys change them in any demonstrable way? How would their time apart affect their personas? Once again, only time would tell.



⁵¹ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 61 and Conrad Crane, *American Airpower Strategy in Korea 1950-1953* (Lawrence, KS: University Press of Kansas, 2000), 32.

Chapter 4

SEPERATION AND SOLIDIFICATION

As the sun was setting upon the US war effort, these two leaders were beginning to look forward. Major General Curtis E. LeMay was now not only seen by the populace as a US war hero, but his rise to prominence within the Army Air Forces (AAF) had been meteoric. As he began his transition into post-war positions, being one of the youngest Major Generals in the AAF, he seemed poised for greatness. With his war success as a springboard, LeMay would harness his innovative mind, motivation for success, belief in airpower, and desire for peace through strength, to create the most feared military organization on the planet, Strategic Air Command (SAC). By the time he left SAC, his organization would be the embodiment of the characteristics and beliefs which brought him to this point.

Although he gave his talents to a different organization, McNamara's path would be marked by equal success. Upon his exit from the service, McNamara would begin a 15-year ascension up the corporate ladder at Ford Motor Company. As with LeMay, his success there would be predicated upon the principles he honed throughout his life. Utilizing logic, analytical data, and an almost religious faith in systems engineering, he would transform this company and carry it to the highest level of achievement.

By the end of this decade and a half, these two leaders would ascend their respective bureaucracies through deft utilization of their highly developed skills. Their organizations would embody their beliefs

and ideals. Most importantly, their success would engender an unhindered confidence in the utility of their dogmas.

Curtis LeMay

The idea was to have overwhelming strength so that nobody would dare attack us—at least that was my idea of it, and what I attempted to accomplish at SAC—that we would have such strength that we would never have to do any fighting.

With the war effort finally coming to a close, it was time for Major General LeMay to return to the US and begin his post war efforts. As with all other events in his life, LeMay elected to complete this task with excitement. In late 1945, LeMay stripped down a few B-29s in order to return from Japan to the US in record time. As had become the trend, his determination garnered success. He and his group made the record breaking trip of 4650 statute mile trip in a record breaking 36 hours of flight time.

Arriving at what was then called National Airport, Gravelly Point, LeMay and his crew were able to present the success to the War Department.¹ By this point in his life, LeMay had gained an almost faith like belief in the power of “airpower”. This accomplishment allowed him to show the War Department how capable US airpower had become over the past 4 years of conflict, and more importantly, how there were no limits to its future utility. And as such, upon his return to the States, LeMay seemed headed down a new path to greatness; and he would arrive there through innovation, persistence, and a laser-like focus on developing a force shaped by his burgeoning belief in peace through strength.²

¹ Curtis E. LeMay Papers, *Library of Congress*, Box 7, LeMay Diary, 25 June 1943 to 25 September 1945

² Curtis E. LeMay Oral History Interview conducted by Col. Bill Peck March 1965. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-785. IRIS Number 01000342, p. 21.

LeMay began his post-war experience back in the US first as the Air Force comptroller and then as the head of USAF research and development.³ Not surprisingly, during this time LeMay's penchant for innovation continued. One of the best examples resulted from his concern with an upcoming "brain drain" of technical experience from the US as the nation began its effort to disarm. To give some perspective, prior to entering WWII, the US Army Air Corps had approximately 10,000 men. By the end of WWII this had increased to over 2.5 million. As a result, by the end of the war, the public was clamoring to reduce military expenditures at a rapid rate.⁴

This was of tremendous concern to LeMay. As mentioned previously, LeMay was hell bent on ensuring the US never found itself unprepared for another conflict. And in his eyes this disarmament meant that: "No one was worried much about the future and this was particularly true in research and development."⁵ How could a nation remain prepared for war if it eliminated its personnel and weapon system development? It was this strategic conundrum which hounded LeMay.

As he saw the data coming in from the newly acquired German scientists, his concerns worsened. He found that the US was at least 10 years behind them in both aeronautics and missiles. He quickly realized he needed two things, scientists and money. As always, with the task in hand, LeMay went to work.⁶

He began by trying to garner as much money as possible, yet in the midst of a draw down LeMay found this especially hard to come by. In

³Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay* (Washington, DC: Regnery Publishing, Inc., 2009), 266.

⁴ Curtis E. LeMay Oral History Interview conducted by John T. Bolen 9 March 1971. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-736. IRIS Number 01001829, p. 2-3.

⁵ Ibid., 3.

⁶ Ibid., 4-5.

his wisdom, he saw a way to prepare militarily without having a large standing Air Force through employing civilian scientist and engineers. In other words, he devised a way to pay for civilian scientific development instead of trying to create greater numbers of military personnel. From this ingenious idea, the nonprofit organization RAND (Research and Development) was created as “Project RAND”.⁷

Historically, the US populace has tended toward favoring large demobilizations after each major military conflict. In that regard, after being mired in an overseas conflict as large as WWII, there was a strong yearning to demobilize the US military forces. The populace wanted to reduce military expenditures and certainly had no desire to enhance the armed forces’ size or capability. In such an environment, LeMay’s ability to create RAND seems even more astounding. As he had shown early in his career, LeMay had a penchant for bureaucratic maneuvering, and an ability to make challenging ideas come to life against exceptional organizational odds. In fact, as Peter J. Roman notes in his 1993 article, *Curtis LeMay and the Origins of NATO Atomic Targeting*, “LeMay’s bureaucratic politicking enabled his doctrinal vision to become a reality.”⁸ As Roman’s statement highlights, without LeMay’s ability to manipulate organizations to achieve his desired ends, the Air Force’s post WWII direction may have been significantly altered.

LeMay developed this organization within the Douglas Aircraft Company, and through it was able to retain the exceptional scientific knowledge base which had been painstakingly developed during WWII. The contract allowed the government to fund this nonprofit organization without taking on any increase in military personnel. In addition, this

⁷ Curtis E. LeMay Oral History Interview conducted by John T. Bolen 9 March 1971. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-736. IRIS Number 01001829, p. 6.

⁸ Peter Roman. “Curtis LeMay and the Origins of NATO Atomic Targeting”, *The Journal of Strategic Studies*, Vol 16, No. 1, (London, England: Frank Cass, March 1993), 46.

group not only provided a home for US scientific experience, but they were able to hire on some of the incoming German scientists as well.⁹ LeMay had done it. He received not only the money he needed to ramp up development, but the people as well; all in a tremendously constrained fiscal environment.

In spite of his effort to develop peace through strength in the post WWII era, LeMay's beloved airpower shrank from 2.5 million to about 303,000 Airmen. And although his success continued (he was promoted to Lieutenant General in October 1947), LeMay could not help feeling the strength required to defend the US was being thrown away.¹⁰ As he would later say, ". . . it took us a long time in combat to really learn what our job was. So, I didn't want anybody to ever go through this [again], so I got together when I was given command of SAC a few people that had the same experience and we decided the best way to maintain peace was to build the strongest most professional force the world had ever seen . . . We had to start all over again when we started to build SAC because we had been busy tearing the powerful Air Force we had to pieces and into [de]mobilization."¹¹ As a result, by 1947 LeMay was deep into the heart of this demobilization period, and it was in this era he would witness the rise of another of his greatest concerns: the communist Russian threat.

By October of 1947, LeMay found himself headed back out to Europe to command the European Air Forces. Upon his arrival, he found a need to begin developing a combat capability.¹² This resulted from his assessment of the situation. He found that although the Soviets were an ally during WWII, their actions were becoming quite aggressive

⁹ Kozak, *LeMay*, 268.

¹⁰ Ibid., 272.

¹¹ Curtis E. LeMay Oral History Interview conducted by Robert M. Kipp and John T. Bohn 16 November 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1774 C.1. IRIS Number 01085539, p. 6.

¹² Roger Miller, *To Save a City: The Berlin Airlift, 1948-1949*, (College Station, TX: Texas A&M University Press, 2008) 29.

toward the US. Unlike his nation, that was rapidly demobilizing, what he saw across the lines in Germany was an ever expanding Russian military capability. LeMay was beginning to develop a strong Anti-Russian/Anti-communist bent.¹³

As if to play perfectly into LeMay's growing bias, in response to some political/economic decisions made by Western powers, in the summer of 1948 (less than a year after LeMay's arrival), the Russians decided to initiate a blockade of Western rail and freight shipments into Berlin. This provocative action would ignite the first post-WWII military crisis between the US and Soviet Union.¹⁴ LeMay would be at the forefront of the initial response.

The Western powers feared the blockade would result in massive shortages of food supplies if action was not taken. Some allied leaders felt the best option was to initiate kinetic military action against the Soviets in Germany. This led LeMay to begin developing plans to strike Russian airfields in Germany. However, cooler heads prevailed. Instead, on June 22, 1948, Lt Gen LeMay received orders to utilize the maximum number of aircraft to deliver supplies into the heart of Berlin.¹⁵

The result, the famed Berlin Airlift, was underway under the watchful eye of Lt Gen Curtis LeMay. Again, LeMay found his USAF unprepared. The quantity and size of the transports at his disposal were limited at best. In fact, in April of 1948, only two months before the beginning of the airlift, LeMay had requested larger and more modern transports; he was told he would have to wait until 1949. Without the luxury of time, LeMay got to work. And, as often was the case, he found a way to deliver results even with meager resources. Literally overnight, deliveries rose from just 6 tons to 156 tons; with a daily average hovering

¹³ Kozak, *LeMay*, 272-273.

¹⁴ Miller, *To Save a City*, 22.

¹⁵ Ibid., 40,43.

around 80 tons thereafter.¹⁶ Quickly, the operation which was jokingly termed the LeMay Coal and Feed Delivery Service began making headlines world-wide.¹⁷

Although the initial successes were impressive, LeMay realized he still did not possess enough resources to maintain the breakneck pace. He once again began pressuring leadership for an increase in aircraft to reinforce his fleet. By June, he had succeeded. Then Chief of Staff of the USAF, Gen Hoyt Vandenberg, informed LeMay he would receive four more squadrons of transport aircraft. However, this created another issue; the increase in operational capability required a more efficient organization to garner the most from the effort.¹⁸

On the 29th of June, LeMay elected to gain a firsthand view of the issue by flying from Rhein-Main, Germany to Tempelhof in Berlin. His original departure time was 10:45 local; however as he sat in the aircraft ready to depart, he was forced to wait over an hour due to congestion at Tempelhof. Albeit late, LeMay finally arrived at Tempelhof and was able to assess the situation on the ground. He saw pilots leaving their aircraft to fill out forms, grab food and refill coffee. In addition, he found the offloading of coal to be a complex and challenging task. By the end of his visit, he felt changes must be made.¹⁹

As always, LeMay began to innovate. For the delays in departure and arrivals, he developed standard landing procedures which ensured aircraft would make the most direct approach to the airfield. To decrease aircraft down time, he instituted a requirement for the forms and refreshments to be prepared and waiting at the aircraft when it arrived.

¹⁶ Miller, *To Save a City*, 42.

¹⁷ William Tunner, *Over the Hump*, (Washington, D.C.: Office of Air Force History United States Air Force, 1985) 162.

¹⁸ Miller, *To Save a City*, 56-57.

¹⁹ Ibid., 57.

And as for the coal issue, he directed air drop tests, to remove the need for landing/down loading it from aircraft. Although this last effort was unsuccessful, it showed that his flexible mind was once again creating solutions which would alter the shape of the airlift into an efficient and finely tuned operation.²⁰

Throughout his time at the helm, LeMay continued to press for success. One of the road blocks early on had been the separate operations being completed by the US and the British. Each had unique command structures, operating procedures and flight schedules. These parallel actions created inefficiencies in the air and on the ground. And, LeMay was not going to have it. He fought with the British senior leadership to find ways to more successfully integrate their two missions.²¹

Months of conferences occurred and LeMay sat through each one just munching on his cigar, not giving an inch. He knew what he wanted, and he would fight to attain it. Finally, just one day prior to his departure in October, LeMay succeeded. The final agreement was signed, and the American and British Airlift efforts would be merged.²²

Although he was the initial mastermind of the operation, LeMay would not remain with it through its completion. Instead, he would be transferred back to the US for his next assignment. By the time he would leave Germany, his experiences there seemed to have left two critical and lasting impressions. First, the rising Soviet Union was willing to take aggressive actions which threatened US interests. And second, when the US stands up to that Soviet aggression with strong

²⁰ Miller, *To Save a City*, 57.

²¹ Tunner, *Over the Hump*, 186-187.

²² Ibid., 187.

military power, the Soviets will back down.²³ As a result, by the time LeMay was headed back to the States, facing the task of leading the organization with which he is most identified, he had added to his personal beliefs: 1) peace only comes through military strength, 2) Soviet/communism was a great threat to the world, and 3) the Soviets will back down if/when confronted with US military might.

So, it should be no surprise that when LeMay returned to the US to command the USAF's fledgling Strategic Air Command (SAC), he would carry all of his personal beliefs along with him. And, throughout the next decade, General LeMay would build the most feared military organization which ever existed, in a way that was founded upon his well nurtured beliefs.

After a four year hiatus from leading US strategic airpower, LeMay was firmly back in the driver's seat. As senior Air Force leaders scanned the situation with the Soviets in Germany, they began to be concerned that war may be on the horizon. If that risk existed, who better to lead the strategic air arm than the highly competent combat leader, Curtis LeMay. Chief of Staff Hoyt Vandenberg was convinced, and LeMay was transferred.²⁴

His arrival at SAC was not pleasant. His view of the Soviet threat made him a staunch believer in the need for SAC to be combat ready at all times. As a result, one of the first actions he took was to assess

²³ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 49 and Kozak, *LeMay*, 277.

²⁴ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 15 and, Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 28.

bombing capability. The senior leadership at SAC told him bombing accuracy was, “. . . right on the button.”²⁵ LeMay believed otherwise and his doubts were quickly validated.

In January of 1949, he created a simulated bombing exercise against Dayton, Ohio to verify his leadership's claims. Each crew was provided with outdated maps of the city (similar to what they would receive for a Soviet city), targets to serve as strikes, and routes to fly. He set up reflector targets for the bombardiers to aim their radars upon to simulate a strike on the correct target. By the end, the mission was an abject failure. Not a single aircrew completed its task, and many did not even make it off the ground.²⁶ As LeMay saw it, this travesty was just one more example of how the exceptional US Air Force developed during WWII had been decimated by the demobilization.²⁷ And, he was determined to not allow this to occur again.

LeMay used this incident as his spring board to begin creating the highly tuned Strategic Air Command, so oft discussed in USAF historical writings. Within weeks, he fired his deputy commander, chief of staff, director of operations, and director of plans.²⁸ In explaining his rationale for such measures, LeMay said, “. . . I immediately put the command on a wartime footing.”²⁹ This wartime ideal would persist throughout SAC

²⁵ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 146.

²⁶ Ibid., 147-148.

²⁷ Kozak, *LeMay*, 283.

²⁸ Leon W. Johnson, Curtis E. LeMay, David A. Burchinal and Jack C. Catton Oral History Interview conducted by Richard H. Kohn 15 June 1984. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-2115. IRIS Number 01114855, p. 15.

²⁹ Curtis E. LeMay Oral History Interview conducted by Robert M. Kipp and John T. Bohn 16 November 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1774 C.1. IRIS Number 01085539, p. 4.

for decades to come, with a key focus of being prepared at all times for nuclear war against the Soviet Union.

Most importantly to make this vision a reality, his second order of business was to review SAC's war plan. There was a tremendous problem; SAC had none. LeMay was incensed. How could the strategic force of the US not have a war plan, especially with a war against the Soviet Union a distinct possibility? He once again went to work and developed a grandiose plan. It would be delivered to senior military leaders at Maxwell Air Force Base on December 6th, 1948 only a few months after LeMay had taken command.³⁰

On that day, SAC's Director of Plans, Brigadier General John S. Montgomery briefed the USAF Chief of Staff General Hoyt Vandenberg. He explained that when called upon, SAC would deliver an overwhelming number of aircraft to penetrate Soviet air defenses en masse, eliminating approximately 8 million Soviets in cities throughout the nation. In order to complete this task, SAC's aircraft would be required to fly exceptionally long missions from numerous locations into the heart of Russia and return to alternate bases, a feat untested at that time.

Instead of simply briefing an idea, LeMay wanted to add tangible "meat" to the theoretical presentation. Unbeknownst to senior USAF leaders, LeMay ordered two bombers to depart from Fort Worth, Texas, with simulated nuclear munitions, drop those munitions off the coast of Hawaii, and return to Maxwell Air Force Base, landing the day of the presentation. He not only created a theoretically devastating new war plan, he would prove its validity in a precise manner.³¹ Power through military strength was a vision now birthed.

³⁰ Douglas Kenney, *15 Minutes: General Curtis LeMay and the Countdown to Nuclear Annihilation* (New York, NY: St. Martin's Press, 2011), 50-51.

³¹ Kenney, *15 Minutes*, 51-52.

In line with this aim, LeMay continued to innovate throughout his time at SAC. From developing all new long-range radio equipment for his aircrew, to attaining better quarters and pay for his airmen, he honed SAC into a highly motivated, combat-focused organization aimed at winning wars through strategic bombing.³² It was becoming LeMay personified.

During this time, his intense drive to develop this combat arm began to cause some confrontations at the national strategic level. It began to seem as though his unswerving belief in the capability of strategic bombing was making him a bit myopic. In Korea for example, as the US became mired in the war in the North, the national command structure weighed various military options. LeMay's answer was to, ". . . [turn] SAC loose, not with atomic weapons but with some incendiaries against four or five towns in North Korea that this will convince them we mean business and maybe they'll stop it."³³

Although this was certainly in line with his ideas developed after WWII, both MacArthur and the Chairman of the Joint Chiefs of Staff felt this was well beyond the appropriate level of action. It seemed LeMay's philosophy of using all possible military means to end conflict quickly was not in-line with US strategic thought. In fact, McArthur and other senior military leaders not only disagreed with LeMay, they must have been concerned his staunch advocacy may turn to action without their approval. Not long after their meeting with LeMay, the group issued a

³² Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 73 and, Curtis E. LeMay Oral History Interview conducted by Edgar F. Puryear, Jr. 17 November 1976. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1450. IRIS Number 0105318, p. 35-37.

³³ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 61.

mission directive which stated, "attacks for the sole purpose of destroying urban centers will not be mounted without authority from CINCFE." ³⁴

Whether or not their fears were founded, even 20 years later LeMay unwaveringly disagreed with their actions. In an interview in June of 1972, he discussed his idea to bomb a number of Korean cities. During that discussion he said the answer he received was, "No, you can't do this . . . You'll kill too many non-combatants."³⁵ He then continued on, arguing why he felt the answer he received from MacArthur was ridiculous:

So we go on and we don't do it and let the war go on over a period of three and a half or four years why we [finally] did burn every town in North Korea and every town in South Korea, including Pusan. . . And what? Killed off 20 percent of the Korean population, either direct effects of the war or disease and exposure and so forth from the side effects of war over a period of years. Well, all those deaths are palatable. The people would say, "No, you can't stop it to start with because you might kill a few noncombatants.

Well, what I'm trying to say is if once you make a decision to use military force to solve your problem then you ought to use it and use an overwhelming military force. Use too much and deliberately use too much so that you don't make an error on the other side and not quite have enough. . . And you save resources, you save lives, not only your own, but the enemy's too and, the recovery is quicker and everybody is back to peaceful existence hopefully in a shorter period of time. It's a more humane and efficient way of doing it, I think.³⁶

³⁴ Conrad Crane, *American Airpower Strategy in Korea 1950-1953* (Lawrence, KS: University Press of Kansas, 2000), 32.

³⁵ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 55.

³⁶ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 55-56.

This response typifies how LeMay viewed the world. He believed a nation-state needed the greatest military strength. And, if called to action, that military should be used without restraint unabashedly from the start. As Korea showed, this philosophy was beginning to create consternation between him and senior US leadership.

Even with this growing disconnect, by 1957 LeMay developed a tremendous and ferocious organization. By the time he turned over SAC after nine years at the helm, it had gained 1,528 bombers and 766 tankers, all capable of launching on a moment's notice to annihilate the Soviet nation.³⁷ He brazenly accepted the power of "airpower" to succeed if called upon to win the nation's wars, and he had created SAC as a war ready force to complete that mission. He had done so based upon his belief that his tremendous and perfectly tuned organization would help deter the Soviets, causing them to understand it would be suicidal to attack a nation with such tremendous military might. By the end of his tenure in SAC, the organization had attained at least one nuclear munition per assigned aircraft. 134 aircraft were consistently armed, fueled and on 30 minute alert, and they were marching their way toward a development of 15 minute ground alert.³⁸ The organization had taken on the persona of its boss: focused on strategic airpower, constantly prepared for war, and always remaining ahead of its enemies.

In 1957, LeMay became the Vice Chief of Staff of the USAF. By this point, he had developed a hatred for the Soviets, a renewed belief in peace coming through strength, and a confidence in the utility of strategic bombing. These ideas had solidified to the point that it was tough for LeMay to depart from them. This caused an inkling of conflict to emerge at the national strategic level, most notably during the Korean

³⁷ Barrett Tillman. *LeMay: A Biography, Great General Series* (New York, NY: Palgrave MacMillan, 2007), 143.

³⁸ Kenney, *15 Minutes*, 174.

War. LeMay's beliefs were entrenched and he was about to set off on the road to his final experience in an Air Force uniform, as the Chief of the United States Air Force. And within that role, he would once again come face to face with Robert McNamara.

Robert McNamara

There is much that labor may be blamed for. However, at present I feel sure that a major part of the fault in Detroit lies with Management.

As WWII faded to a close, Lt Col McNamara had been transferred back to the US, for a short stint at the Pentagon, and then on to the headquarters of USAAF statistical control at Wright-Patterson Air Field in Ohio.³⁹ By the time he arrived at Wright-Patterson, McNamara had solidified his belief in the power of data and analysis to control large and unwieldy organizations.⁴⁰ His mathematical mind had been refined through his years of squeezing the most efficiency out of the USAAF's military might. Yet, he was an academic at heart, seemingly excited about returning from his hiatus at Harvard.

Throughout McNamara's tenure with the Army, Harvard continued to support the effort through training statistical control officers for the service. With such a visible daily operation at the University, statistical control was receiving significant consideration. In fact, an Army report from the time stated, "Much of the success of the system has been due to the Harvard method which stresses 'the meaning of figures'—the power to analyze something for oneself."⁴¹ In addition, McNamara's tremendous success with bringing efficiency to unwieldy military bureaucracies caught the university's attention. This new style of management had been proven through a fight against fascism, and Harvard wanted to harness

³⁹ Deborah Shapley. *Promise and Power: The Life and Times of Robert McNamara* (Boston, MA: Little, Brown and Company, 1993), 35.

⁴⁰ Shapley, *Promise and Power*, 37.

⁴¹ Shapley, *Promise and Power*, 35.

that into corporate America. As such, Harvard made McNamara an attractive offer, to return as a full professor teaching any course he wished within the Harvard Business School. The Dean himself was anxious to have McNamara back.⁴²

Charge to the account of

DOMESTIC		CABLE	
TELEGRAM	DAY LETTER	TELEGRAM	DAY LETTER
NIGHT LETTER	TELETYPE	NIGHT LETTER	TELETYPE

WESTERN UNION
A. N. WILLIAMS
PRESIDENT

1206
1945 OCT 19 AM 9 50
CHECK
TIME FILED

and the following telegram, subject to the terms on back hereof, which are hereby agreed to

HENRY FORD II

FORD MOTOR CO DEARBORN MICH

I WOULD LIKE TO SEE YOU REGARDING A SUBJECT WHICH I BELIEVE WOULD BE OF IMMEDIATE INTEREST. THIS CONCERNS A SYSTEM WHICH HAS BEEN DEVELOPED AND APPLIED SUCCESSFULLY IN THE MANAGEMENT OF THE ARMY AIR FORCES FOR THE PAST THREE YEARS. REFERENCE IF DESIRED IS ROBERT A LOVETT ASST SECY OF WAR FOR AIR

COL CHAS B THORNTON

II:114

FOR VICTORY
BUY
WAR BONDS
TODAY

Figure 5 – Thornton’s Telegram to Henry Ford

Source: Robert S. McNamara Papers, Library of Congress, Box II: 114, Western Union Telegram.

Amidst this exciting dawn of the post-war era, someone else had something in mind for McNamara. Through his WWII experience, Tex Thornton, the mastermind of the USAAF statistical control group, had also recognized the tremendous potential of managing bureaucracies through analytical control. His bright mind made the quick connection from his USAAF experience to post war business employment. As he would later say, “We were doing the same things in the military that we thought we needed in business. It had direct application.”⁴³ Tex decided

⁴² John Byrne, *The Whiz Kids: Ten Founding Fathers of American Business and the Legacy they Left Us*, (New York, NY: Bantam Doubleday Dell Publishing Group, Inc., 1993), 77.

⁴³ Byrne, *The Whiz Kids*, 79.

he wanted to sell his ideas of management through data to some large US company. First, he would need the right group of men to accompany him on this journey.

Initially, Tex developed a four man team to begin a hunt for companies which may desire their services. After some initial failures, the group was given a lead regarding massive changes occurring within the Ford Motor Company. Tex decided it was time to go for the jugular; he would wire Henry Ford personally. His gamble paid off. Tex received a call from Ford the very next day. And, when he arrived in Detroit to meet with the company, Tex and his group were offered jobs on the spot. All he needed now was to produce a legitimate group of capable individuals. It was time for Tex to start making calls.⁴⁴

As he ticked off his list, almost all the previous Air Corps officers who received a call from Tex jumped at the opportunity. All except Robert McNamara. His love for academia combined with his lucrative offer from Harvard made the choice exceptionally difficult. In addition, McNamara had never truly been enamored with the business world.⁴⁵ Harvard seemed to be his calling.

For McNamara, there was one large road block standing in the way of returning to his life-long dream: an almost devastating bout with polio for both he and his wife. Although Robert recovered quickly, Margy's condition worsened. Her lower body became paralyzed and at one point she was told she would never walk again. The medical bills began to mount and the prospect of caring for his invalid wife on a salary of only \$4000 a year from Harvard seemed daunting. Recognizing this strain, Thornton explained to McNamara that he would make anywhere from \$10,000 to \$12,000 a year at Ford; more than enough to comfortably

⁴⁴ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, Western Union Telegram and Byrne, *The Whiz Kids*, 78-83.

⁴⁵ Byrne, *The Whiz Kids*, 85.

handle Margy's medical care. Although he still felt drawn to Harvard, McNamara's analytical mind could not refute the numbers. Reluctantly he agreed, a decision which may have altered the course of world history.⁴⁶

Robert and Margy McNamara arrived in Dearborn, Michigan in early 1946, and Margy's condition was slowly improving. Over time she would almost fully recover with only a minor limp to show for her harrowing experience.⁴⁷ Yet, it was this medical experience which became a turning point in history, leading this family down such a different path. McNamara was about to begin his decade and a half at Ford, which would not only ingrain his already strong belief in the power of analysis, but would pave the path to his next level of responsibility as President John F. Kennedy's Secretary of Defense. That cold January in Michigan though, neither he nor Margy could have ever guessed what lay ahead.

The arrival of the group at Ford Motor Company was much like their arrival in the military. As they assessed the company, they found the Ford leadership to be comprised of a tight knit group, who had known each other well for many years. They were quite set in their ways, and were less receptive to outside ideas. McNamara and his statistical control partners had faced this same mindset as they entered military circles. This challenge excited McNamara and his group. Energized by the task, they delved rapidly into the Ford muck, learning the processes better than almost all the "old heads". This rapid submersion in data earned the group a now famous nickname: the "Whiz Kids".⁴⁸

McNamara's early assessment of Ford Motor Company was that it contained a gigantic set of resources which, if streamlined and changed,

⁴⁶ Shapley, *Promise and Power*, 37-38.

⁴⁷ Ibid., 40.

⁴⁸ Henry Trewhitt, *McNamara* (New York, NY: Harper & Row Publishers, 1971), 42.

could take the automotive world by storm. In addition, he felt the Ford family was accepting of innovative leadership from the outside, as a way to alter the course of the company for the better.⁴⁹ In essence, the company leadership echoed LeMay's WWII acceptance of outside influence for the betterment of combat effectiveness. This company focus fit perfectly into McNamara's now developed personal beliefs. And, like LeMay at SAC during the 1950s, McNamara's experiences at Ford would further cement his organizational and personal beliefs that had been developed over the course of his life.

From the get go, McNamara and his crew were driving change at Ford. As they dove into the bowels of the company, they began to realize how difficult the task was going to be. For example, McNamara researched the profit results for the first eight months of 1946 and found the company had lost \$60 million and was on track for a net deficit of \$17 million. As well, the group found Ford had no coordinated production schedule; instead engineering, purchasing and manufacturing were developing and maintaining their own without any synchronization. Within short order McNamara, and the group of ten individuals Tex carried from the USAF to Ford, were instituting statistical controls and consistent procedures. These allowed them to score many firsts at the company: first production schedule, first cash forecast, first capital budget, and first organizational chart.⁵⁰

Although the Whiz Kids were a tremendously talented bunch, as had been the case throughout his life, Robert McNamara stood out above them all. In his first role as the Ford controller, McNamara carved out a role not only as the financial records keeper, but as a future forecaster based on quantitative analysis. He learned while in the Air Corps that numbers had meaning, and efficient operations can be forecast through

⁴⁹ Trehwitt, *McNamara*, 44.

⁵⁰ Byrne, *The Whiz Kids*, 126-127.

data analysis. His effort at Ford was a simple extension of his earlier lessons learned. McNamara created “profit centers” throughout the entire company (manufacturing, marketing, purchasing) to find ways to squeeze out the most profit from each area. In addition, he used the data gained in these centers to forecast what Ford “ought to pay” for various products instead of merely accepting the market rate. By 1949, he had become so well respected within the company, he was selected as the company’s head controller.⁵¹

This new position solidified McNamara’s belief in the power of numbers. It also ingrained in him the idea that one must not necessarily understand the product one is producing, but instead assess the processes to produce it. As a result, he began to replace the “old heads” in his department with young, like-minded “outsiders”.⁵² His focus on intelligence vice direct experience was burgeoning, and he would carry this idea with him well beyond Ford.

Robert’s rapid rise at Ford continued, and by the mid 1950’s he had been promoted to head the Ford Division in Dearborn—the company’s biggest and most critical division. In this role, he continued his pursuit of data derived decision making, even going so far as to search for ways to quantify the emotional effect of advertising on car sales. In one instance, he had his men run an experiment in which they placed a Ford advertisement in only half of a specific *Reader’s Digest* issue. They then researched the buying patterns in the areas with and without the advertisement. They found a direct correlation in buying in those areas with the advertisement; McNamara’s faith in data was once again corroborated.⁵³

⁵¹ Ibid., 174-175.

⁵² Shapley, *Promise and Power*, 48 and Byrne, *The Whiz Kids*, 175-177.

⁵³ Byrne, *The Whiz Kids*, 255.

In addition to his faith in numbers, McNamara continued his belief in the need for companies to focus on the betterment of society, not just the profit margin. As head of the Ford Division, he once asked his dealers to not provide Christmas gifts to their sales force, but instead use that money to increase support to local charities.⁵⁴ Even more telling was his focus on safety during his tenure at Ford.

McNamara's interest in auto safety actually originated from his earlier days with Tex Thornton, in which Cornell had been commissioned to study aircraft safety in order to preserve more pilots' lives. The research began with a presumption that pilots were dying in aircraft accidents, and was aimed at finding ways to reduce the causes. The effort, however, produced a shocking result. Most pilots were not dying in planes, but rather in automobile accidents. McNamara realized there was a need to increase auto safety, not just flight safety. Furthermore, once he arrived at Ford, McNamara witnessed an increase in civilian auto deaths. In fact, by 1956 auto crashes had become the leading cause of death for Americans between the ages of fifteen and twenty-four. This notion was shocking enough to Robert, but more so was the lack of concern for the problem shown by his brethren in Detroit.⁵⁵ In McNamara's eyes, corporations had responsibility to work for the betterment of society, not just for profit.

In April of 1957, the US House of Representatives held a hearing on the issue of auto safety and the use of seat belts. In that hearing, John O. Moore, who had completed Automotive Crash Injury Research at Cornell University testified that, “. . . trauma in highway accidents is a national disease.. .”, and he felt seatbelts were an important first step. He found padding and securing the interior of the vehicle from total

⁵⁴ Ibid., 256.

⁵⁵ Shapley, *Promise and Power*, 69 and Byrne, *The Whiz Kids*, 256-257.

collapse was another key.⁵⁶ The research and results were music to McNamara's ears. The same was not true for the rest of Detroit.

The auto industry had no real interest in safety, most notably because safety at the time did not sell cars. In Detroit, the focus was on romance, beauty, and power. Chevrolet for example focused on racing successes and overall technical performance of their vehicles. Their ads promoted speed, racing, and advanced styling. It appalled McNamara. At one point, he set up a meeting with Chevy's chief engineer, Ed Cole, to try and convince him that his advertising and focus were dangerous. He explained he saw racing as foolish, immoral, and simply wrong. Cole, however, found McNamara's thoughts ridiculous, and would continue to focus on speed over safety.⁵⁷

McNamara remained unfazed by the seeming lack of popular demand for cars with safety features. He understood the importance of making business decisions which were not just profit-centered, but humanity focused as well. He would pursue that goal relentlessly. By the late 1950s, he had made seatbelts and padded dashboards available options, selling them at below cost to all who desired. The demand for seatbelts was so overwhelming that instead of requiring fifty buckles a month as expected, Ford needed one thousand a day.⁵⁸ Although the effort cost Ford a significant loss due to the "under-cost" pricing, McNamara's innovations and focus on safety led to a standard in the automotive industry which lasts through today.

By the late 1950s, McNamara and Ford were dominating the auto industry. His "data driven" style combined with his sometimes idealistic approach had beaten Chevrolet's total car sales for the first time since

⁵⁶ Robert S. McNamara Papers, *Library of Congress*, Box II: 114, 1957 US House of Representatives Hearing on Auto Safety.

⁵⁷ Byrne, *The Whiz Kids*, 257-258.

⁵⁸ Byrne, *The Whiz Kids*, 259-264.

the initial Ford Model A.⁵⁹ His drive for safety had developed an entirely new effort within the auto world. And he brought tremendous efficiency and streamlined operations to the Ford Motor Company. He was once again succeeding beyond his peers, and now destined to become the first ever non-Ford family member president of Ford Motor Company.⁶⁰ The “Whiz” of the Whiz Kids had taken the company by storm.

In the midst of all this great success, not all was pristine with McNamara. Early on in his life, Robert had shown a penchant for being impatient with those he felt intellectually inferior. Instead of lessening over time, it seems his time at Ford served to enhance this trait. As many subordinates would find, as his leadership responsibility matured, his personality did not.

Through his interactions with his subordinates, McNamara would often levy question after question at them in rapid succession. To many it seemed as though he was trying to prove how little they knew, and how much he understood.⁶¹ He ran the company through fear and exclusion, instead of motivation and inclusion.⁶² McNamara seemed to have no desire to listen to experienced and intuitive insights; he only wanted cold, hard facts. In fact, by the end, people seemed afraid to even contradict him, something which would haunt him through his later life. As one of his subordinates once said, “He was one of the brightest men I’ve ever known. But he also was one of the poorest managers of people I ever knew in my life.”⁶³

⁵⁹ Ibid., 345.

⁶⁰ H.R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies that Led to Vietnam* (New York, NY: HarperCollins Publishers, 1997), 2.

⁶¹ Byrne, *The Whiz Kids*, 247.

⁶² Trehitt, *McNamara*, 50.

⁶³ Byrne, *The Whiz Kids*, 248.

Yet, despite his personal shortcomings, within the span of just over a decade, McNamara had risen from the depths of the Ford Motor Company to become president. Through this effort, he reinforced his long-developed views of the efficacy of data, the ability to succeed through his innovative mind, what seemed to be a belief in the power of intelligence over experience, and the need to strive for the benefit of humanity not just personal gain.

Although McNamara had attained such success at Ford through enacting these personal beliefs, ultimately they would not be used much longer to better the Ford Company. Only a few weeks after accepting the position of President of Ford Motor Company, McNamara would be offered the position which would bring him back together with LeMay: Secretary of Defense for President John F. Kennedy.

In the same month Kennedy was elected, McNamara was promoted to President of Ford. They both had attained ultimate success in their chosen professions but a twist was about to come. As Kennedy began his search for key appointments, he was given a suggestion by a close acquaintance, Robert S. Lovett, who had worked with McNamara during WWII. As Kennedy and Lovett discussed various men with a combination of intelligence and ambition, Lovett said the best of the bunch was a man by the name of Robert S. McNamara. Lovett explained to Kennedy that McNamara had the perfect blend of discipline, analytical ability, and hunger for fact, a perfect addition to the developing group of intellectuals within the Kennedy White House.⁶⁴ It did not take long for Kennedy to be convinced of the promise in the new Ford Motor Company president. Only five weeks after settling in to his new role, McNamara

⁶⁴ David, Halberstam, *The Best and the Brightest* (New York, NY: Random House, Inc., 1969), 10.

would receive an offer which would once again change the course of history.⁶⁵

Kennedy's brother-in-law (Sargent Shriver) contacted McNamara and offered him a position Secretary of Treasury, which McNamara refused. McNamara responded he felt neither qualified nor interested in filling that role. Yet, Kennedy had prepared for this response. He had sent his brother-in-law to the meeting authorized to offer McNamara the position of Secretary of Defense. Kennedy was enamored with McNamara's reputation and greatly desired to have him on his team. He saw McNamara as a young, brilliant, Harvard intellectual; the model of rational modern executive thinking. Yet, again McNamara turned the offer down. Kennedy remained undeterred. He was convinced this leader would fit perfectly into the "New Frontier" mold of his new administration. He pursued a personal meeting with McNamara in an effort to persuade him.⁶⁶

⁶⁵ Byrne, *The Whiz Kids*, 369.

⁶⁶ *Ibid.*, 369-372.

Standard Form 50-3 Part Revised July 60 Prescribed by U. S. Civil Service Commission-FPMR 5.1			NOTIFICATION OF PERSONNEL ACTION		50-106
1. NAME (LAST [CAPS]-First-Middle-Initial-Mrs.) McNamara, Robert S. Honorable		2. DATE OF BIRTH 6-9-16		3. IDENTIFICATION (optional)	
4. THIS IS AN OFFICIAL NOTICE OF THE PERSONNEL ACTION DESCRIBED BELOW, WHICH AFFECTS YOUR EMPLOYMENT. GENERAL INFORMATION CONCERNING YOUR EMPLOYMENT APPEARS ON THE REVERSE SIDE OF THIS FORM.					
5. NATURE OF ACTION (standard terminology must be used) Excepted Appointment		6. EFFECTIVE DATE OF ACTION 1-21-61		7. CIVIL SERVICE OR OTHER LEGAL AUTHORITY	
8. POSITION TITLE AND NUMBER TO-Secretary of Defense		9. SERIES, GRADE, SALARY \$25,000 per annum		10. NAME AND LOCATION OF OFFICE BY WHICH EMPLOYED Office of the Secretary of Defense Washington, D. C.	
11. DUTY STATION		12. APPOINTMENT POSITION		13. VETERAN PREFERENCE No ☐ 5-pt. ☐ 10-pt. ☒ 15-pt. ☐ Other ☐	
14. TENURE GROUP		15. POSITION OCCUPIED IS IN THE: Competitive Service ☒ Excepted Service ☐		16. APPROPRIATION From: 9710100.2997 01.1 86000 29/11100	
17. PAYROLL DEDUCTIONS CRS ☒ FICA ☒ FEEL ☒ Waived		18. DATE OF APPOINTMENT AFFIDAVITS (accessions only) 1-21-61		19. REMARKS: a. Subject to completion of 1 year probationary (or trial) period commencing b. Service counting toward career (or permanent) tenure from Separations: Show reasons below, as required. Check, if applicable: c. During probation d. From appointment of 6 months or less	
Nominated by the President on 1-20-61 and confirmed by the Senate of the United States on 1-21-61. For payroll purposes only.					
20. EMPLOYING DEPARTMENT OR AGENCY DOD-Office of the Secretary of Defense		22. SIGNATURE (or other authentication) AND TITLE John E. Moore Director of Personnel 1-21-61			
21. OFFICE MAINTAINING OFFICIAL PERSONNEL FOLDER (if different than item 10, above)		23. DATE		1. EMPLOYEE COPY	

Figure 6 – McNamara’s Secretary of Defense Personnel Notification
Source: Robert S. McNamara Papers, Library of Congress, Box II: 114, Notification of Personnel Action.

During their discussion, McNamara was enamored with Kennedy. He found his intellect compelling and his personality electric. In addition, the thought of taking on a firmly established machine like the military was captivating. He believed he could help society by bringing efficiency to the Pentagon and breaking down the pork barrel politics he found so prevalent within the services. Although his pay would be cut from \$410,000 at Ford to \$25,000 at the Pentagon, the offer was too good to refuse.⁶⁷

There was, however, one catch. McNamara wanted the sole power to select his leadership team. In a letter to Kennedy on December 12th, 1960, McNamara stated he would accept the offer with one major caveat: “I would have the authority to organize and staff the Defense Department

⁶⁷ Robert S. McNamara Papers, Library of Congress, Box II: 114, Notification of Personnel Action and Byrne, *The Whiz Kids*, 371-373.

with the most competent men I could find without regard to political affiliation or obligation.”⁶⁸ Kennedy accepted this single directive. And with that, McNamara was off to the Pentagon with his belief structure fully entrenched, once again having chosen to serve society over pursuing personal gain.

By the end of this era McNamara and LeMay had translated their WWII achievements into tremendous success within their chosen organizations. Ford was outpacing all other auto manufacturers with McNamara at its helm, and LeMay had sharpened SAC into the US military’s “tip-of-the-spear.” Although each of these men was operating in different organizations, their unique experiences helped to cement their already established world views and personal beliefs. Both had shown tremendous innovation and foresight as they developed their organizations. Each felt it was more important to focus on a cause greater than himself. And each had become so self-assured in his beliefs, it was hard for him to accept criticism .

As they arrived back together in the halls of the Pentagon, the ultimate test of their leadership capability was about to begin. How then would this pair, who had both succeeded together and apart, deal with the strategic issues they were about to face? As events unfolded, it would turn out that the answer would be tremendously different than whence together during WWII . . . that was for sure.

⁶⁸ Robert S. McNamara Papers, *Library of Congress*, Box II: 42, McNamara Memorandum to President John F. Kennedy, December 12, 1960.

Chapter 5

CLASH OF THE TITANS

McNamara – I had no patience with the myth that the Department of Defense could not be managed . . . I had spent 15 years as a manager identifying problems and forcing organizations—often against their will—to think deeply and realistically about alternative courses of action and their consequences . . . I [was] determined to guide the department in such a way as to achieve the objective the president had set: security for the nation at the lowest possible cost.

LeMay – . . . I really got soured on these Ivy League smart people during the Kennedy administration in Washington. I got up to here with these Whiz Kids, brain crushers and so forth. You just couldn't get experience or judgment based on experience into the solutions of any of the problems.

It was not until just prior to the botched Bay of Pigs invasion that the two men would reunite. They had achieved the utmost success; their flexibility, innovation and world views had culminated in bringing them to this point. Once together, could they combine again to form a formidable duo? Sadly, the second time around would not prove as rewarding as the first.

Now, when the two were in their most demanding roles, when their past association could provide the greatest benefit, their relationship would unfortunately sour. These two innovative, flexibly minded individuals suddenly found themselves at odds over a myriad of strategic decisions. Whether it was the handling of crisis action planning (Bay of Pigs and Cuban Missile Crisis), purchasing USAF weapon systems (XB-70), or developing defense policy (space weaponization), LeMay and McNamara could not seem to find agreement. Almost as soon as they began to work together, the relationship became caustic.

Crisis Action Planning

In April of 1961, shortly after McNamara had accepted the position as Secretary of Defense under President Kennedy, the new administration was faced with a burgeoning problem in the island nation of Cuba. Prior to the transfer of power from President Dwight D. Eisenhower to Kennedy, the Eisenhower administration had begun developing a plan to invade Cuba with a small US-trained force of Cuban exiles. This force would combine with a US-trained insurgency to overthrow the communist regime of Fidel Castro. The plan, hatched in one presidency and transferred to a new administration, in hindsight had many flaws to include a less-than-developed insurgency in Cuba. Worse yet, the new administration was not fully convinced of the appropriateness of this operation, but felt tied to it because of their infancy in office and need to prove their national defense “credentials.”¹

It was within this mess that McNamara and LeMay would once again meet. LeMay at the time was still the Vice Chief of Staff of the US Air Force, and the Chief of Staff, General Thomas D. White, was away on a trip as the final event occurred. The morning of the invasion, LeMay found himself in a meeting focused on providing the Secretary of Defense with the latest situation updates. As he arrived, to his shock and dismay LeMay learned the air cover for the invading force had been canceled the night prior. As a tremendous believer in airpower, he could not believe it had been removed from the operational plan. Worse yet, it had been done without consulting the senior military airpower specialists. In addition, LeMay noticed McNamara was not even at the meeting; LeMay could not believe McNamara would chose not to attend this critical

¹ H.R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies that Led to Vietnam*, (New York, NY: HarperCollins Publishers, 1997), 5-6 and, Robert McNamara and Brian Vandemark, *In Retrospect: The Tragedy and Lessons of Vietnam* (New York, NY: Vintage Books, 1996), 25-26.

meeting regarding this military operation.² More so, he was furious that a decision regarding military operations was being made without input from those with military experience.

In the end, the invading force was completely overwhelmed. With a lack of US air support, the resupply ships were kept at bay by the Cuban Air Force, ultimately leading to the failure of the mission and the capture of almost 1200 men.³ The experience would begin the estrangement between LeMay and McNamara. As LeMay would later recall, “Well, here’s an operation that was planned outside the military, operated outside of the military—but the military got blamed for it being a bad operation. . .[it] actually failed where with full military participation, it might have succeeded.”⁴

McNamara on the other end viewed this debacle in a significantly different light. As he would later discuss:

I had entered the Pentagon with a limited grasp of military affairs . . . This lack of understanding, coupled with my preoccupation with other matters . . . led me to accept the plan uncritically. . . I had even passed along to the president, without comment, an ambiguous assessment by the Joint Chiefs that the invasion would probably contribute to Castro’s overthrow even if it did not succeed right away. The truth is I did not understand the plan very well and did not know the facts. I had let myself become a passive bystander. . . the incident brought [Kennedy and me] closer. I made up my mind not to let him down again.⁵

² Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 23-24.

³ McMaster, *Dereliction of Duty*, 6.

⁴ Curtis E. LeMay Oral History Interview conducted by Dr. Robert F. Futrell, Dr. Thomas G. Belden and J. Van Staaveren, 8 June 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-592 IRIS Number 00904608, p. 24.

⁵ McNamara and Vandemark, *In Retrospect*, 26-27.

In contrast to LeMay, McNamara seemed to believe the failure had nothing to do with not seeking military advice. Instead, he viewed it as a failure on his own part for not becoming personally immersed in fact checking the operational planning. Although he never discussed it, it seems his previous distrust for military leadership born during WWII, may have been reinforced in this initial crisis action experience as the Secretary of Defense. Throughout his tenure as Secretary of Defense, McNamara would remain skeptical of military leadership advice.

LeMay would walk away from the Bay of Pigs believing McNamara needed to listen more thoroughly to the experienced advice of his military experts. McNamara on the other hand would step past this incident with a laser like focus on more thoroughly examining the minute details of the military establishment.⁶ He would make it a practice to consistently check their advice against his own investigation of the facts. This cognitive disconnect would cause much consternation for these two throughout the following four years.

In his seminal work on the interaction of McNamara with his senior military leadership, H.R. McMaster vividly highlights that this discord continued between LeMay and McNamara well into their next military operation: the Cuban Missile Crisis. As he notes, by 1962 McNamara had become emboldened in his ability to strategically plan while continuing to distrust the military. As a result, Kennedy would focus his attention solely upon McNamara for military advice as opposed to accepting the Joint Chief of Staff's insights, precisely what LeMay believed to be the incorrect approach for handling the situation.⁷

To make matters worse, LeMay's advice to McNamara and Kennedy seemed tremendously aggressive. On 19 October 1962, as they

⁶ Deborah Shapley. *Promise and Power: The Life and Times of Robert McNamara* (Boston, MA: Little, Brown and Company, 1993), 115.

⁷ McMaster, *Dereliction of Duty*, 42.

discussed various options for handling the Soviet nuclear missiles in Cuba, LeMay told the president, "I think that a blockade and political talk would be considered by a lot of our friends and neutrals as being a pretty weak response to this."⁸ He would then go on to explain that he saw no other conclusion to a blockade than an escalation to war with the Soviets. As a result, in his opinion the US should take the initiative with direct military action, to quickly win the war he believed would occur regardless.⁹

This overly offensive mindset seemed born from LeMay's belief developed after WWII, that the only way to achieve success against the Soviets was the stand up against their aggression with military might. In his eyes, it worked in Berlin immediately following WWII, and so it should work now. LeMay's deductive reasoning might have led the US into WWII.

Yet, McNamara was not sold. He instead believed in using a gradual escalation of force via a blockade, combined with political negotiations. In his eyes, this option would lessen the risk of a nuclear exchange between the two superpowers while providing space for the Soviet leaders to back down without losing clout with their populace.¹⁰ In the end Kennedy would select McNamara's option, and as history has shown, his choice proved successful. The Soviets removed their missiles from Cuba, no nuclear exchange occurred, and both countries moved several steps back from the brink of war.

In the aftermath of these contentious ten days, the men who viewed the situation so differently in the midst of the crisis, also walked

⁸ President John F. Kennedy White House Tapes, <http://whitehousetapes.net/clip/john-kennedy-curtis-lemay-youre-pretty-bad-fix>.

⁹ Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis* (New York, NY: Longman, 1999) 343 and McMaster, *Derelection of Duty*, 27.

¹⁰ Allison and Zelikow, *Essence of Decision*, 343.

away with different lessons learned. As Kennedy was holding an ad hoc post-conflict meeting to congratulate all for their success, LeMay could not contain himself. He finally spoke up and told the President that the US did not succeed, they failed in Cuba. Castro was still in power, which meant the communists had won. In LeMay's eyes, although nuclear war had been averted, the measure of success was Castro's ousting. According to him, the US had lost.¹¹

McNamara, on the one hand, felt that in spite of LeMay's aggressive advice, the candid debate within the Executive Committee assured success and avoided a catastrophe.¹² He also found that his idea of "turning the screw" on the Soviets through gradually increasing military pressure was the key to victory. Indeed, unlike LeMay, McNamara saw this effort as a tremendous success.¹³ In the end, McNamara's experience with LeMay during the Cuban Missile Crisis served to undergird his existing lack of faith in military advice. In fact, by the end of 1963, their relationship had soured to the point McNamara was seriously considering replacing LeMay as the US Air Force Chief of Staff. Undoubtedly the Cuban Missile Crisis weighed heavily upon that decision.

In the end, although these two crises served to further the divide between these two strategic actors, McNamara would choose to retain LeMay, and LeMay would elect to remain in the position until his retirement in 1965. However, these events did play a role in the continuance of a bitter relationship throughout their tenure. And, crisis actions were but a small part of the overall picture. Their daily interactions were quarrelsome to say the least.

¹¹ Shapley, *Promise and Power*, 182.

¹² McNamara and Vandemark, *In Retrospect*, 332.

¹³ McMaster, *Dereliction of Duty*, 28.

Weapon System Procurement

When assessing strategic relationships, crisis action planning provides insight into a specific environment within which individuals interact. Outside of these tense situations, the daily grind continues. Of critical importance then, is the relationship between LeMay and McNamara as they maneuvered through the bureaucratic wrangling of managing strategic decisions for the US Air Force. There is no better bellwether for this aspect of their relationship than the process of future weapon system procurement. In this role, McNamara and LeMay would be placed in the position to assess each other's desires and be required to try and balance those against what they felt was the greater good of the US. Although there were a number of weapon systems acquired during their tenure, no procurement provides greater insight than the debate to acquire the XB-70.



Figure 7 – XB-70

Source: http://www.patricksaviation.com/files/photos/full/4714_3288.jpg

Originating in the early 1950s, the XB-70, otherwise called the Valkyrie, was planned to be the future of US Air Force nuclear bombardment. Designed to fly at altitudes higher than 70,000 ft. and speeds greater than Mach 3, this aircraft was intended to operate beyond the limits of known Soviet air defense missiles and aircraft. It would be capable of leading Strategic Air Command's support to the single

integrated operating plan against the US' number one enemy: the Soviet Union. LeMay saw this weapon as the critical modernization tool for his Air Force, and even prior to becoming the Chief of Staff, he desperately wanted to acquire it.¹⁴

Without this aircraft, LeMay believed the US would be unable to maintain the tremendous military might required to deter the Soviet nuclear threat. In a 1961 question and answer session at an interview in the Pentagon, LeMay discussed his opinion. He explained that the US retained an advantage in bombers against the Soviet advantage in missiles. In his eyes, this advantage remained only if the US maintained the most technologically advanced aircraft to defeat this threat; that aircraft was the XB-70. Without this advantage, LeMay believed the Soviets might be willing to risk a first strike on US soil.¹⁵

McNamara on the other hand saw this airplane as a bloated program whose cost/benefit could never outweigh the pace at which it would become obsolete. In his opinion, the Soviets were developing anti-aircraft defenses capable of reaching the altitudes planned for the XB-70. In addition, he felt a weapon which could be launched offensively for a first strike was tremendously destabilizing to the fragile nuclear edge the world was wobbling on. In his opinion, if the Soviets believed the US had the capability to strike first, they might see no reason to restrain themselves and launch a surprise nuclear barrage. Instead, McNamara believed the Cuban Missile Crisis had proven negotiations and carefully controlled conventional military action could solve international conflicts,

¹⁴ Barrett Tillman. *LeMay: A Biography, Great General Series* (New York, NY: Palgrave MacMillan, 2007), 144-145.

¹⁵ Curtis E. LeMay Papers, *Library of Congress*, Box 173, Transcript for *America Wants to Know* Interview, July 16th, 1961.

keeping them from escalating to full scale nuclear war. In his eyes, the XB-70 was one giant leap away from that line.¹⁶

Throughout their time together, this debate raged in the public eye. From congressional testimony to public statements, LeMay and McNamara would argue the merits of their case. Just months prior to LeMay entering his new role, the new Defense Secretary, Robert McNamara, would begin dousing the flames of his desire. On the 18th of April, in one of his first testimonies to the Subcommittee of the Committee on Appropriations, McNamara discussed his ideas for the proposed 1962 Department of Defense Appropriations Bill. In the testimony he expressed concern over the cost and utility of the XB-70 program:

The substantial increase in the total number of strategic weapons, projected in our recommendations, calls for a reexamination of the role of the B-70 mach 3 manned bomber. . .The B-70 was originally conceived in 1953 as an ultimate replacement for the B-52. At that time, the important place the intercontinental ballistic missile [ICBM] would have in our strategic arsenal could not be fully foreseen. . .With the advent of the ICBM, the B-70 also requires quick ground reaction time, thus introducing the need for additional equipment. The net result is an extremely complex and costly aircraft. . .at an estimated total cost of \$2.7 billion. . . After weighing all of the advantages and disadvantages, we have concluded that the B-70 should not, at this time, be carried forward as a full-scale weapon system development.¹⁷

The stage was set, and the fight was on. McNamara would fight to shelve the program, and LeMay would pursue its continuance without pause.

As LeMay began his tenure as Chief of Staff in June of 1961, it did not take him long to begin working his bureaucratic magic to attain his

¹⁶ Curtis E. LeMay Oral History Interview conducted by Robert M. Kipp and John T. Bohn 16 November 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1774 C.1. IRIS Number 01085539, p. 77.

¹⁷ Robert S. McNamara Papers, *Library of Congress*, Box II: 46, Congressional Testimony, April 1961.

goal. He quickly began mounting a campaign to outmaneuver McNamara through developing overwhelming congressional support for the aircraft. By the end of the month, it began taking hold. The money which McNamara had proposed to cut from the XB-70 program was restored via congressional approval. Then, on June 27th, 1961 Nebraska representative Phil Weaver spoke on the floor of the house regarding the proposed 1962 Department of Defense Appropriations Bill. In that testimony he stated:

The Secretary recommended a cut-back to \$220 million from the \$358 million recommended in the January 16 budget. The Committee has restored this money. My only question is as to whether we are going fast enough or far enough with this new intercontinental, supersonic bomber. . . To my way of thinking, General LeMay is absolutely right when he insists that the hope in this area lies with the B-70. I sincerely hope that the Administration will take another look at this program and come back to Congress next year, before it is too late, with a revitalized B-70 program.¹⁸

Weaver had so thoroughly imbibed LeMay's ideas, he even took the time to write a personal note to him after his testimony. In that note, he provided LeMay with a copy of his testimony, and highlighted the specific areas in which he spoke of LeMay and the B-70.¹⁹ LeMay's ability to gather advocates would be crucial to his fight, but in turn, would only strengthen the divide between he and McNamara.

It was not only LeMay's advocates fighting this battle on the congressional floor; from the outset LeMay was doing so himself. On July 18th of 1961, as General LeMay briefed the Senate appropriations subcommittee on the Moscow Air Show, he explained to them there was a need for improved manned aircraft. His answer to that need was a

¹⁸ Curtis E. LeMay Papers, *Library of Congress*, Box 147, Phil Weaver Congressional Testimony, June 27th, 1961.

¹⁹ Curtis E. LeMay Papers, *Library of Congress*, Box 147, Phil Weaver Personal Note to General Curtis LeMay, 1961.

request for almost \$2.5 billion over five years to produce the B-70 and more B-52s.²⁰

To make matters worse, his testimony occurred as a result of a request from Congress for a rebuttal to previous testimony from the Deputy Secretary of Defense Ross Gilpatric. Gilpatric had recently testified there was no need for extra money to be spent on manned aircraft. Congress wanted to hear the opposing view. And LeMay was glad to provide it. Less than two months into office, he was publicly disagreeing with McNamara's stance.

The congressional wrangling in June 1961 proved only the beginning of the quarrel between these two leaders regarding this weapon system development. By early 1962, the debate was raging both inside the walls of Congress, and in the full view of the public writ large.

In February of that year as LeMay was once again called to testify to both the House and Senate Committee on Appropriations, he harped on the idea that US technology must keep pace with the Soviets. Being able to locate, track, and destroy mobile missiles was critical to meeting this need; and the XB-70 held the key to this requirement. In his words, "The B-70's indicated performance should affirm my conviction that the essential mission of manned military aircraft depends upon our continuous advancement of their superior performance."²¹ He later expressed concern to the House of Representatives that the current development pace would only provide test results and in no way lead to a

²⁰ Curtis E. LeMay Papers, *Library of Congress*, Box 147, William J. Coughlin, *Missile and Rockets*, "America Still Wants to know" August 7, 1961.

²¹ Curtis E. LeMay Papers, *Library of Congress*, Box 172, LeMay Senate Testimony, 1962.

fully operational aircraft. Without that operational capability, LeMay felt the US would be at risk from a first strike by the Soviets.²²

McNamara was certainly not convinced. In fact, a short time later, in two different public forums, McNamara espoused his concern with the program and hinted at his frustration with LeMay. First, on March 7th, speaking before the Advertising Council in Washington, D.C. McNamara said, “. . . events have proven that superior nuclear forces are not a universal deterrent. They were not sufficient to deter the North Koreans and the Chinese from the invasion of South Korea; they were not sufficient to deter the East Germans from constructing the wall in East Berlin on August 13; they were not sufficient to deter the Soviets from proposing to engage in a peace treaty with East Germany. So clearly superior nuclear forces are not a universal deterrent against all forms of political and military aggression.”²³

These remarks were entirely contrary to LeMay’s private beliefs and public statements. Yet, to make matters more contentious, McNamara continued the discussion by saying at one point, “. . . we don’t need that plane today or at the time it would become operationally available if we were to decide to produce it today, because of the huge forces we have built up in manned bombers and strategic missiles.”²⁴

His frustration with the airplane seemed palpable in the above statement, but his irritation with the congressional support LeMay gained for the program appears glaring. During the question and answer session, an individual asked McNamara if he had a chance to present his point of view to the Armed Services Committee prior to them voting

²² Curtis E. LeMay Papers, *Library of Congress*, Box 175, LeMay House of Representatives Testimony, 1962 and, Curtis E. LeMay Papers, *Library of Congress*, Box 172, LeMay Senate Testimony, 1962.

²³ Robert S. McNamara Papers, *Library of Congress*, Box II: 54, Interview Advertising Council, Washington, D.C, March 7, 1962.

²⁴ Ibid.

unanimously against his opinions. In response, McNamara began by simply saying no. He then expanded the discussion by stating, “The action which the committee took and will announce today therefore was taken without further testimony from me. Because the matter is so important . . . I am asking for an opportunity to appear before other committees of Congress that will eventually have to pass on this issue.”²⁵ Clearly he had been politically outmaneuvered; but more importantly he would not accept these actions without a fight.

Only 8 days later, McNamara would continue this public counterattack at a press conference at the Pentagon. During the interview, McNamara received questions regarding whether or not there should be an increase in funds to more fully develop the subsystems of the B-70. McNamara argued, “The answer is, we believe not, and I have no program that indicates that more can be spent.” The interviewer then retorted, “. . . I assume that the Air Force doesn’t agree with all of your statements and conclusions. Will they be free to refute or attempt to refute or rebut some of your arguments?” Instead of responding with a precise answer to the question, McNamara instead seemed to attempt to undermine LeMay’s opinion: “I have seen no program of the Air Force that in any way refutes or rebuts my statement and I believe that there is none available.”²⁶

Instead of letting up, the interviewer remained relentless in pursuing McNamara’s opinion of this public struggle. He later asked him, “. . . is it all right for the Air Force to continue to oppose your viewpoint on the B-70?” McNamara once again responded with a tangential statement, “I think in order to proceed in any large

²⁵ Robert S. McNamara Papers, *Library of Congress*, Box II: 54, Interview Advertising Council, Washington, D.C, March 7, 1962.

²⁶ Robert S. McNamara Papers, *Library of Congress*, Box II: 51, Pentagon Press Conference, Washington, D.C, March 15, 1962.

organization efficiently and effectively the organization must be united behind the decisions of the responsible leaders and authorities in that organization.”²⁷

This public rebuke of LeMay by McNamara was only the beginning. The final question from the interviewer to McNamara was, “Mr. McNamara, is General LeMay free to hold a press conference and answer questions about your statements?” McNamara responded sarcastically, “I am sure General LeMay is free to do almost anything, including holding a press conference.”²⁸ With that, the press conference ended, but the debate did not. It continued to rage in the halls of Congress and the main streets of the US.

By the summer of 1962, LeMay was pushing back. In a memorandum to the Secretary of the Air Force aimed at providing his view on the now re-designated RS70, LeMay explained, “There is no doubt whatsoever in my mind that the strength and quality of our strategic forces up to the present time have been the principle deterrent to general [read nuclear] war. This means continued modernization and constant improvement in both the manned and unmanned elements of strategic air power. The RS-70, in my view, represents such modernization.”²⁹ In addition, in another retort aimed specifically at McNamara’s earlier statements he explains, “The technical feasibility of the RS-70 and its subsystems has been established beyond any reasonable doubt.”³⁰

²⁷ Robert S. McNamara Papers, *Library of Congress*, Box II: 51, Pentagon Press Conference, Washington, D.C, March 15, 1962.

²⁸ Ibid.

²⁹ Curtis E. LeMay Papers, *Library of Congress*, Box 21, LeMay Memorandum to Secretary Zuckert, 1962.

³⁰ Curtis E. LeMay Papers, *Library of Congress*, Box 21, LeMay Memorandum to Secretary Zuckert, 1962.

LeMay's pointed argument evidently gained him another ally in the fight, Secretary of the Air Force Eugene Zuckert. Only 9 days after LeMay's memo was sent to Zuckert, the Secretary of the Air Force provided a 5 page memorandum to Secretary McNamara outlining all the reason the RS-70 should be continued. In it, he acknowledges his review of LeMay's recommendations and his belief of their ". . . great attractiveness." Furthermore he told McNamara, "My own strong feeling is that aggressive development of the RS-70 should be pursued."³¹

By the end of 1962, the argument had reached the presidential level. In a memorandum from McNamara to Kennedy dated 3 December 1962, in which McNamara discussed his review of the Fiscal Year 1964 Department of Defense Budget, he stated:

The Air Force has made claims for the performance of the RS-70 that cannot be achieved if the proposed RS-70 development and deployment schedules are to be met. What is available in terms of current technology to apply to weapon system design will provide a much less impressive weapon system than that described by the Air Force. . . However, let me emphasize, my recommendations against RS-70 development is not based primarily on issues of technical performance. Even if the Air Force's performance claims could be substantiated . . . I do not believe the RS-70 would be worth its estimated cost.³²

Certainly LeMay had his advocates in Congress; however, as seen above, McNamara was now fighting back through the White House. He expanded in this memo a detailed analysis of the costs required to acquire this aircraft, positing that they would consume much too large a portion of US national resources. More importantly, he explained that developing the plane would still not ensure total success if the US was to elect a first strike against the Soviets. In his words, in this case, ". . .the

³¹ Robert S. McNamara Papers, *National Historic Archives*, Box 21, Zuckert Memorandum to McNamara, 1962, 2-3.

³² Robert S. McNamara Papers, *National Historic Archives*, Box 25, McNamara Memorandum to Kennedy, 1962, 4.

US would not escape disastrous damage from Soviet weapons which had been unidentified or which were mobile.” Consequently, his advice to the President was to not waste billions of dollars that could be better spent elsewhere protecting the US.³³

One other interesting note regarding this memorandum was the fact that, about half way through McNamara off handedly mentions that a multi-role (reconnaissance and bomber) could be developed more rapidly and at less cost than the XB/RS-70. This idea would percolate over the next month into what would become another large debate between LeMay and McNamara, the aircraft initially termed the R-X, then the TFX, and finally designated as the F-111. The mention of this idea in the memorandum seems to imply McNamara had already been contemplating a solution to his problem with LeMay and the XB-70. Perhaps he was already laying the ground work with his supporter (President Kennedy) for a battle he assumed was about to ensue with LeMay.

In any event, by January of 1963, regardless of the hard-fought battle waged by LeMay, McNamara was ringing the death knell of the RS/XB-70. In his statement to the Senate Armed Services Committee regarding the Fiscal Years 1964-1968 Defense Budget, McNamara stated, “. . . I believe all who participated in the studies are now convinced that, regardless of cost, a B-70 manned bomber would not be very useful in the late 1960’s and early 1970’s. We are also all agreed that we will probably need some sort of manned reconnaissance capability in that period.”³⁴ He would then go on to describe the specifications required of the new aircraft, all of which supported his

³³ Robert S. McNamara Papers, *National Historic Archives*, Box 25, McNamara Memorandum to Kennedy, 1962.

³⁴ Robert S. McNamara Papers, *National Historic Archives*, Box 22, Senate Testimony, January 1963.

argument against the B-70. In the end, he purposed the B-70 program complete the already started test regime and then be allowed to wither on the vine.

Ultimately, that is precisely what would occur. LeMay would not receive his precious new aircraft. As he would later say, “. . . we got embroiled in the egotistical intellectual who said this was the destabilizing weapon system, it is a threat to the Russians, therefore they will build something to counter it . . .”³⁵ He certainly understood McNamara’s view. McNamara in turn, would force the closure of the program by simply not funding any future testing. And in the end, the aircraft which the B-70 was to replace (the B-52), would remain in service through today, fighting in almost every major conflict in which the US has been engaged.

This debate offers tremendous insight into the transformation of their relationship during this era. For one, their competing world-views regarding the utility of nuclear force caused a rift regarding the military utility of this weapon system. Unlike their time together in WWII (when their strategic views were aligned), at this point they visualized diametrically opposed ways of handling the strategic threats they faced.

As well, tension seemed to increase as LeMay saw McNamara using data to support his decisions instead of listening to highly experienced military insight. Although LeMay tended toward deductive reasoning and McNamara toward inductive; in the case of the XB-70 McNamara found solace in deductive decisions based upon the cost-benefit analysis of the airplane. Ironically for LeMay, at this point he felt his military intuition was correct vice McNamara’s number crunching. This role reversal became another factor in their strained relationship.

³⁵ Curtis E. LeMay Oral History Interview conducted by Robert M. Kipp and John T. Bohn 16 November 1972. U.S. Air Force Oral History Program. U.S. Air Force Historical Research Institute. Call Number K239.0512-1774 C.1. IRIS Number 01085539, p. 77.

Finally, LeMay's choice to use his well-developed skills at bureaucratic maneuvering to support his fight seemed to incense McNamara. And ironically, it ultimately led to the demise of the program as McNamara trumped LeMay's efforts by garnering presidential support. In the end, the debate regarding the XB-70 was certainly not the only cause of frustration between LeMay and McNamara; however it was the most public. This acquisition highlights the transition of their relationship from one of mutual respect in which their personality traits supported one another, to one of mutual frustration.

Defense Policy

The final area providing a window into the relationship between LeMay and McNamara in the early 1960s is that of defense policy. As these two gentlemen entered their strategic positions, each seemed to have formed fairly strong views regarding the way in which the world operates. LeMay was a believer that military strength was the path to peace, especially against the Soviet Union. More importantly, in order to maintain that strength, the United States must remain ahead of the Soviets in capability regardless of how aggressive that may appear to the "enemy." McNamara, on the other hand seemed to believe the world hung on a tremendously perilous nuclear balance. One misstep between the US and Soviets would lead to a world-wide thermonuclear exchange. As a result, the US must have conventional military capability which could be used to signal the intent to increase hostilities without having to threaten nuclear holocaust. As well, the US must work to create international discussions to reduce the risk of slipping into nuclear conflict. This vast disconnect between the two world views would lead to a tremendous divide in their relationship. One such area was related to space policy.

From early in his tenure as Chief of Staff, General LeMay had become a staunch believer in the need for the USAF to take the ultimate lead in developing military weapons in space. In fact, in a speech to the USAF Air War College just over one week prior to entering his final role (18 May 1961), LeMay spoke specifically of the effect space operations would have on future US strategy. He began by offering up his already discussed view that national survival is only assured through strategic military superiority. He then pulled that thread into a discussion regarding the need to develop military capabilities in space to maintain superiority over the Soviet Union. As he explained, “We are confident that man will have a decisive mission in space and that our future strategy must and will exploit military advantages offered by space operations.”³⁶ He later expanded this idea to explain that no nation can maintain the superiority required to operate in space without suitable space vehicles and weapons. Most importantly, LeMay saw the critical organization required to develop and foster these weapons being the USAF.³⁷ In his later memoirs *Mission With LeMay* he later recounted that, “NASA’s Space operations . . . are not *intended* to develop military Space capabilities.”³⁸ As LeMay was entering office, he felt space needed to be exploited to include weapons, and that the USAF needed to complete that development.

Within a year, his strategic belief had only strengthened. In July of 1962, during an interview with *This Week Magazine*, LeMay was asked why in his first year on the job the USAF had gained a requirement to develop space weapons. In his answer, he explained that President Kennedy’s testimony to Congress in 1961 discussing the need to direct

³⁶ Curtis E. LeMay Papers, *Library of Congress*, Box 173, LeMay Speech to Air War College, 18 May 1961, 18.

³⁷ Curtis E. LeMay Papers, *Library of Congress*, Box 173, LeMay Speech to Air War College, 18 May 1961.

³⁸ Curtis LeMay with MacKinlay Kantor, MacKinlay, *Mission with LeMay: My Story* (Garden City, New York: Doubleday & Company, Inc., 1965), 539.

space activities for peaceful purposes actually required some extension of military capability into space to protect those peaceful operations. He then discussed the military role in space as just an extension of its role within the atmosphere. Weaponization in space was just a simple extension of weaponization on earth.³⁹

His articulation of ideas regarding space policy was not limited to public forums. He focused on these in Congress as well. In testimony to the Senate Committee on Armed Services in March of 1963, for example, LeMay began by stating, “Maintaining the peace in space, as elsewhere, will be accomplished through deterrence. Deterrence can be achieved only through the existence of ready military capabilities to operate in the area of question [i.e. space].”⁴⁰ He went on to discuss his belief that the Soviets understood this reality and were well on their way to developing the capabilities required to gain military advantage in space. As a result, he later testified, “We must not risk the danger of waiting for the enemy to demonstrate a capability before we undertake development of our own. The visible threat to our National security requires a vigorous military space program.”⁴¹ LeMay wanted the same overwhelming military power in space that he had created and nurtured in SAC.

McNamara on the other hand was not as “hawkish” regarding weaponizing outer space. In an interview only two months prior to LeMay’s 1962 interview, McNamara was asked if he saw a military requirement for developing space systems. Unlike LeMay, in his answer he was reticent to discuss outer space as a largely military domain. In fact, he explained to the interviewer that at that moment he could not

³⁹ Curtis E. LeMay Papers, *Library of Congress*, Box 175, Interview in *This Week Magazine*, July 1962.

⁴⁰ Curtis E. LeMay Papers, *Library of Congress*, Box 175, LeMay Senate Testimony, 1963.

⁴¹ Curtis E. LeMay Papers, *Library of Congress*, Box 175, LeMay Senate Testimony, 1963.

fully answer the question. He said, “. . . the requirements for military operations in space five years from now, ten years from now, fifteen years from now, are not at all clear to us.”⁴² Once again, McNamara saw the need for further study and analysis, rather than blindly accepting military intuition. In addition, he discussed the idea that if there did become military requirements, the military needed to work with NASA to develop the correct capabilities. A possible area of focus in his words might be navigation. Certainly he was not focused on the aggressive weaponization posited by LeMay.⁴³

Although these two did not clash publically as decisively on space policy as they had on the XB-70 issue, their difference of opinion was no less vast. LeMay, ever the military power advocate, saw space as just the next dimension by which the military could gain the “high ground.” McNamara on the other hand saw this as Kennedy had, a peaceful area which sometime in the future might require future military power. Yet, there was no need to increase the threatening stance by extending the weapons race into the exoatmosphere. Once again, these two leaders could not find common ground.

As with the issue of the XB-70, the change in world views seemed to haunt these two leaders when it came to defense policy. LeMay constantly searched to find ways for the US to remain constantly prepared for any conflict; ensuring what he went through prior to WWII never occurred again. McNamara on the other hand, found the devastation of WWII difficult to deal with, and was pursuing ways to pursue less confrontational policies; seeking to reduce the risk of the nuclear devastation he felt somewhat responsible for in Japan. Their ideas on space were an extension of these world views developed over the course

⁴² Robert S. McNamara Papers, *Library of Congress*, Box II: 51, Interview, 1962.

⁴³ Ibid.

of several decades. The problem was their world views were at opposing sides of the international spectrum.

By early 1965 as LeMay was preparing to retire, he and McNamara had found themselves at odds at almost every turn over the course of nearly 4 years. In the end, their working relationship had suffered greatly, a vastly different experience than during WWII. The result: McNamara had almost completely shut out the advice of LeMay during the tensest nuclear situation in the history of the world, LeMay had lost the battle for his most desired weapon system, and the USAF Chief of Staff wanted to pursue defense policy which was counter to Secretary of Defense's prerogative.

The relationship was caustic. As McNamara would later quip, "[LeMay] was the most outstanding combat officer I had ever worked with. He was, by far, the worst geopolitical officer that I knew."⁴⁴ What resulted from such a blatant interpersonal failure between two of the most critical strategic players in US history; a detailed analysis provides a surprising answer.

⁴⁴ George Watson, Jr. and Herman Wolk, "Whiz Kid': Robert S. McNamara's World War II Service (*Air Power History*), Winter 2003, 9.

Chapter 6

SUCCESS OR FAILURE?

McNamara – I will hope as well to see others continuing to pursue the objectives which I have sought (very imperfectly at times) to move the world toward peace among peoples and nations and to accelerate economic and social progress for the least advantaged among us.

LeMay – My duty as Chief of Staff of the United States Air Force is to build aerospace power (weapon systems and people) of a quality and quantity to deter any aggressor from making an attack upon the United States or its allies.

We have completed a journey through the lives of two exceptionally talented men who left lasting impressions upon the environments in which they worked. From early youth, each began developing traits which would follow him throughout life. As they progressed through their professional experience, their beliefs evolved and solidified. By the mid-1960s, at the height of their success, their personas were locked. This mental inflexibility resulted in a contentious relationship which often affected their strategic interaction. In the end though, this mental exercise only has utility if we can answer the oft asked academic question, “So what”? Why did the relationship fail? How did it affect US national strategy? Did the failure of their personal relationship result in strategic failure for the US? Each of these questions provides us with a critical piece to complete this complex puzzle.

In order to answer these questions, it seems crucial to begin with an assessment of why the relationship failed in the first place. The seminal work on analyzing strategic decision making, *Essence of Decision: Explaining the Cuban Missile Crisis*, by Graham Allison and Philip Zelikow, provides an exceptional springboard for the assessment of

this failed strategic relationship. In their academic review, they assess the Cuban Missile Crisis through three lenses: 1) Rational Actor Model, 2) Organizational Behavior Model, and 3) Political Process Model.²²⁷ In their analysis, they show how each provides utility for understanding the entire nuance of a complex strategic situation. As we search for the answer as to why this relationship failed, their models seem to offer significant benefit.

First, the rational actor model asserts that each actor in a given situation will act with perfect information in a way that provides them the maximum benefit in relation to their competitor. As such, it is a zero sum game; benefit for one requires reduction of benefit for the other. In that regard, within this theory each individual actor is completing value maximizing calculations as they interact with others throughout the given situation. When viewed through this lens, we can perhaps see McNamara and LeMay working as “value maximizers.”

This model provides utility when reviewing the XB-70 case, for example. In this case, McNamara was striving to gain what he saw as the maximum efficiency for the Department of Defense (DOD). He felt the XB-70 was going to be an outdated, costly weapon system which would reduce the overall DOD budget without providing significant security gain.

LeMay on the other hand felt the aircraft provided the ultimate benefit to the service because it replaced outdated weapons systems with newer and greater capability. In his view, this aircraft would provide the greatest benefit against the Soviet mobile missile threat. In light of his penchant for deductive reasoning, LeMay believed the Cuban missile crisis proved the Soviets would always back down when confronted with

¹ The following section is referenced from the totality of: Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis* (New York, NY: Longman, 1999), unless otherwise noted.

overwhelming strategic airpower in the hands of a nation willing to unleash it.²²⁸ Without an advantage incapability (i.e. without the XB-70), he saw the USAF as losing strategic “value” against the growing Soviet arsenal. Certainly, when it came to the “daily grind”, these two were arguing about what they saw as the most beneficial answer to the strategic questions at hand. Yet, each used opposing reasoning to argue that strategic “value” was lost if their opinion was not accepted.

The second theoretical model offered by Allison and Zelikow is the Organizational Behavior Model. Essentially this model advances the idea that organizations have patterns, rules, regulations and routines that both constrain and enable their behavior. As the organizations bundle their human and technological capabilities in ways consistent with their established norms, their decisions become “outputs” of these factors. In essence, decisions of leaders can actually be seen as a result of the organizational structure more so than the leader’s personal selection. As we assess the relationship through this lens, it becomes a bit more problematic than the first.

We could assess the Department of Defense and the USAF as separate organizations if this failed relationship was actually a failed interaction between two organizations. However, during their time together, each man developed their respective organization (DOD and USAF) into what were almost extensions of their persona. As such, the failure of the organizations to successfully interact would be based upon norms established consistent with these leader’s personal norms. Ipso facto, the failure is once again a personal relationship failure, not one of failed organizational behavior.

² Robert Futrell, “The Influence of the Air Power Concept on Air Force Planning, 1945-1962”, *Military Planning in the Twentieth Century: Proceedings of the Eleventh Military History Proceedings* (Washington, D.C.: Office of Air Force History, United States Air Force, 1986), 268.

Finally, we have the Political Process Model. In this model, the authors explain decisions as a bargaining process between various actors. They note the importance of understanding each actor's goals and objectives, to better comprehend how they arrive at their final decisions. As well, they explain the importance of recognizing who has access and sway, and who sets the agenda for the decision maker. As with the first, this third model has some applicability to this relationship.

For example, reviewing the XB-70, the relationship between LeMay and a number of strong congressional members played a part in the bargaining process between LeMay and McNamara. LeMay used them to pressure McNamara to concede to his point, instead of having to confront McNamara directly.

On the flip side, McNamara used his personal relationship with the president to undermine LeMay's position. He found ways to individually provide the president with his opinion without allowing LeMay the same access. This relationship ultimately proved successful and the bargain was lost by LeMay.

In addition, when looking at the Bay of Pigs and the Cuban Missile Crisis, LeMay was given opportunities to provide opinions, yet McNamara held the ear of Kennedy. Each time, it was this personal relationship which ultimately led to the final decision. It seems as though this unequal bargaining power with the president may have upset the relationship in some way.

The beauty of Allison and Zelikow's analysis however, is not simply their view of a strategic situation through these three models specifically. More deeply, they highlight the risk of myopia in strategic analysis. It would be easy to assess a situation through only one lens, yet each lens provides a more nuanced and holistic view of the situation. By only

using a single framework to understand decision making, one risks missing factors critical to the final outcome. As a result, each lens helps bring greater clarity, and there is almost no limit to the lens' one may utilize to view a situation.

In light of this tremendous insight, it seems there is another lens that proves vital to understanding why this strategic relationship failed; that lens is their difference in analytical reasoning. For example, through LeMay's experience in WWII and the subsequent Berlin Airlift, his deductive reasoning led him to a strong belief that strategic air power could deter and defeat US enemies. This analysis resulted in his strong desire for continuous development of military capabilities superior to the USSR, almost regardless of the cost to US taxpayers.

On the other hand, from a very early age McNamara showed a strong penchant for inductive reasoning. He used the specifics of his data to derive general principles regarding the world around him. At Ford for example, he used specific data concerning highway deaths to arrive at a general conclusion--the American populace would desire seatbelts in their automobiles. This mindset of viewing specific examples to arrive at general world conclusions helped underpin his belief in the power of data to provide insight for broader decision making. The WWII Japanese experience provides another example, as McNamara used specific data regarding high-altitude bombing failures to conclude low altitude bombing would be more efficient and effective. Consequently, in their later years together McNamara was unwilling to accept LeMay's experience as a singular determinant for strategic decision making, directly contradicting LeMay's feelings on decision making.

As a result, although there are other explanations which provide ancillary understanding of why this strategic relationship failed, it seems the greatest insight can be drawn from the difference in their cognitive

assessments. More than any of the models developed by Allison and Zelikow, it seems McNamara and LeMay were simply having a massive clash of perspectives due to their reasoning. Worse yet, each of these individuals developed their thinking through early life experiences; ironically some, of those experiences occurred as they worked together during WWII. As noted earlier, Robert Jervis highlights the issue that early experiences solidify strongly within people, and have tremendous impact upon the way they perceive future situations. This phenomena seems to have greatly affected these two ingenious men. By the time they would work together in this final experience, their analysis of the world was so divergent, it resulted in a strategic failure of their relationship.

To assess the theoretical underpinnings of their final failed relationship is but one aspect of this story. We must also discuss the human aspects which seemed to drive this change in their relationship. With human interaction being the crux upon which strategic decision making balances, this aspect is critical as well.

As we review their paths we see first that from childhood through youth, their personalities were formed in some very similar and some very different ways. Each became innovative and hard-working, while finding comfort and satisfaction in working toward something greater than themselves. Yet, LeMay developed himself through hands-on, direct experiences. McNamara on the other hand saw success occurring through intellectual inquiry. This combination of similarities and differences led to great success between the two during WWII.

Each individual saw value in the other's similarities while being able to overlook the differences because they did not affect the way in which they operated. For example, although McNamara may not have seen LeMay as an intellectual equal, LeMay was his boss and more importantly, unlike many other senior leaders LeMay was willing to listen

to, and change operations as a result of, McNamara's data analysis. Certainly LeMay's intellectual flexibility was greatly appreciated by McNamara. It was one of the reasons he wrote the letter home complementing LeMay.

LeMay's goal was to find ways to more efficiently produce combat airpower. Although he always rooted this in practical experience, he was willing to use any information, even that derived from intellectual data analysis, to achieve his desired results. Most importantly, they were operating in a crisis environment in which the leadership relationship was very clear – LeMay was the boss and McNamara was the subordinate. No question about it.

As they became reacquainted, this leadership relationship was obviously reversed. Although there is no data to support this claim, it seems realistic to believe one of the reasons for the human failure the second time around was this role reversal. LeMay most likely still saw McNamara as the subordinate he used to be, and was frustrated by his inability to simply tell McNamara what he wanted done, and have it happen (e.g., XB-70). McNamara on the other hand was probably frustrated by LeMay's apparent insubordination as he fought for things contrary to the desires of McNamara.

In addition, the differences so easily dismissed in their previous relationship were not as easily pushed aside. By the time he was Secretary of Defense, McNamara had taken the US' largest automotive company to the heights of success through his analytical approach. He certainly had gained the ultimate belief in the power of numbers. LeMay on the other hand had toiled to build SAC, doing so based upon his years of operational experience. As a result, each was less prepared to accept ideas developed outside his own well-established mental framework.

It seems then this failed role reversal only exacerbated the issues resulting from their divergent analytical views. Without the same mental

flexibility they demonstrated during WWII, these two men became personally vitriolic, not just intellectually so. This failed interpersonal relationship led to a challenging four years for the USAF. McNamara found it increasingly difficult to interact with LeMay, gradually pushing him out of strategic decision making. As a result, the strategic desires of the service were often thwarted by McNamara. Although USAF leadership experienced great frustration with this situation, it is important also to address whether or not this failed relationship led to strategic failure for the US.

With a grasp of why the relationship failed, we can turn our attention to the greater issue of what strategic impact this failure had upon the US. It is this area which seems to hold fertile ground for analysis, and even more so, seems to hold significant surprise. This clash of world views played out on the national stage in many ways, perhaps suggesting it resulted in strategic failure for the US. Yet, when assessed with an open mind, this does not seem to be the case.

Let's first look at their interaction during a crisis action situation, the Cuban Missile Crisis. In this experience, LeMay was pushing hard for direct military action against the Cubans to overthrow the Castro regime. At this moment in time, LeMay believed war with the Soviet Union was inevitable. In addition, he felt the US maintained a military advantage over the Soviets, but he saw that advantage as diminishing. In light of these views, he wanted to take military action against the growing Soviet threat while the US still had the lead in military power. He was concerned that if this did not occur, the US would reach the tipping point and the Soviet Union would gain advantage in the area that mattered most, military might. This view however was diametrically opposed to the views of Secretary McNamara. He was the architect and

proponent of limited military action (blockade) combined with diplomatic interaction. Ultimately this proved to be the path of victory.

If however, this relationship had been more cordial, would it have provided greater strategic success? It would be difficult to argue the affirmative. Had McNamara accepted LeMay's ideas outright, the world now knows Soviet troops in Cuba were prepared to launch a nuclear strike on the US.²²⁹ Not a tremendously positive result! On the flip side, had LeMay fallen staunchly into McNamara's camp, he may not have rapidly activated the entire SAC nuclear forces; a sign which most likely played into Khrushchev's calculus regarding the choice to interact diplomatically with the US. Consequently, their clash of views resulted in a middle ground which allowed McNamara to pursue his less aggressive policy, with the large stick of LeMay's SAC helping to silently persuade the enemy.

How about the issue relating to the XB-70? McNamara argued that the system already in the inventory, the B-52, was entirely capable of meeting US needs in conjunction with an increase in nuclear missile forces. In his opinion this would lead to the least concern on the Soviet side of a surprise attack by the US. LeMay on the other hand felt the XB-70 must be developed to maintain greater military superiority over the enemy.. Did the ultimate decision to delete the program result in strategic failure for the US? Once again, the answer is no.

For one thing, the airframe which it was to replace, the B-52, has remained in service through today, fighting successfully in all major conflicts. In fact, as the B-52 USAF fact sheet states, "For more than 40 years B-52 Stratofortresses have been the backbone of the manned strategic bomber force for the United States. The B-52 is capable of

³ Michael Dobbs, *One Minute to Midnight* (New York, NY: Alfred A. Knopf, 2008), 351.

dropping or launching the widest array of weapons in the U.S. inventory.”²³⁰ In addition, not only did it not become obsolete as LeMay had feared, it is planned to be in the USAF inventory through 2040.²³¹ In the end, the decision to remain with the B-52 and scrap the XB-70 saved the tremendous cost of developing and producing an entirely new airframe without reducing US military capability.

LeMay’s argument for the airplane also allowed the US to at least complete testing on all of its subcomponents from radar to radios. Each of these resulted in tremendous benefit to weapon systems currently in the USAF inventory. As a result, once again this conflict between LeMay and McNamara actually resulted in strategic balance, not strategic failure.

Finally, there was the issue of defense policy. Here again we find these two gentlemen on opposite ends of the spectrum. LeMay, desired the weaponization of space to maintain military superiority. McNamara, on the other hand desired a slow development of military actions in space; instead focusing on utilizing it for more peaceful purposes. In the end, the USAF combined with NASA to place the first man on the moon. In addition, the USAF would create the most precise navigation, reconnaissance and communication space systems the world has ever seen. All of this has occurred to date without a shot being fired in anger in space. Again, the failed relationship between these two certainly did not result in strategic failure. Instead, it resulted in balanced, long term strategic success.

So, this all begs the critical question, although these two developed an antagonistic relationship, is a failed interpersonal relationship bad for strategic decision making? For this, it behooves us to turn to an ancient

⁴ USAF Fact Sheet, <http://www.af.mil/information/factsheets/factsheet.asp?fsID=83>

⁵ Ibid.

Chinese philosophy, yin yang. In this philosophical concept, the world is composed of seemingly opposing forces. Although these forces may appear diametrically opposed, this teaching views them as critically interconnected. Hot and cold, fire and ice, light and darkness are all examples of these dualities. Most importantly, yin yang does not prescribe morality or benefit to either side of the forces; instead it focuses upon the advantage of balance these forces create within the world.

Although this philosophy was not written on a subject directly correlated to the issue at hand, the idea of opposing forces providing balance has utility to this discussion. As in yin yang, balance among strategic decision makers may be viewed as a beneficial function. If we view strategic decision making as the result of multiple actors (forces) combining to arrive at the most appropriate solution, when the balance is removed (i.e., actors are too similar in nature), the strategic decision may be skewed and the best solution may not be selected. In the US, the founding fathers seemed to clearly recognize this idea. In their development of three branches of government, they created a system in which opposing forces, each with differing views and interests, can never singularly unhinge the balance. Instead, each force places opposing tension on the overall system, ultimately leading to the most balanced solution.

The above argument also highlights the beauty of Allison and Zelikow's model III behavior. As they illuminate, to understand strategic decision making, one must uncover who the key actors are, and where their interests lay. In light of this idea of yin yang, the nuance to their model becomes; one can gain ever greater clarity by assessing the balance between the personalities of each key actor.

When we review the relationship between LeMay and McNamara surprisingly we find just such an important dynamic. Had these two

been in lock-step throughout their time between 1961 and 1965, the resulting strategic solutions may have been unbalanced. In support of this notion, their views were greatly congruent in Japan during WWII, and in McNamara's eyes the solution was unbalanced. The amount of destruction wrought was much greater than what was required. Perhaps, the ancient Chinese idea of yin yang provides a framework through which strategic decision making can be viewed. As with the natural balance resulting from opposing forces, strategic decision making requires balance; without it, the resulting solution may be more harmful than desired.

Therefore, the relationship between LeMay and McNamara, although turbulent at times, should not be viewed as some strategic failure. Certainly their interpersonal relations could have been more cordial, yet their difference of opinion can be seen as creative balance/tension. Without it, the US might have landed in numerous strategic blunders. Instead, as these two each departed their time together, the US had gained strategic accomplishments in a number of DOD/USAF areas. And although the two men may have been continually at odds, the US won strategically.

Appendix A, Curtis E. LeMay Biographical Information

1906, Nov. 15	Born, Columbus, Ohio
1928	Commissioned 2 nd Lt US Army Reserve
1929	Graduated Air Corps Primary Flying School
1930	Commissioned 2 nd Lt, Air Corps, Regular Army Assigned, Selfridge Field, Michigan
1932	Graduated, Ohio State University
1934	Married Helen Estelle Maitland and moved to 18 th Pursuit Group, Schofield Barracks, Hawaii
1935	Promoted to 1 st Lt
1937	Operations and intelligence officer, 49 th Bombardment Squadron, Langley Field, Virginia
1939	B-17 Commander, Langley Field, Virginia
1940	Promoted to Captain
1941	Transferred to 34 th Bombardment Group & promoted to Major
1942	Commander 305 th Bombardment Group, led forces in Europe and promoted to Lt Col and Col
1943	Promoted to Brig General
1944	Commander 20 th Bomber Command & Promoted to Major General
1945	Commanding General, 21 st Bomber Command, then Chief of Staff, US Strategic Air Forces, and finally special deputy to Air Material Command
1947	Commander US Air Forces in Europe
1948	Commander Strategic Air Command
1957	Vice Chief, US Air Force
1961-1965	US Air Force Chief of Staff, then retired
1990	Death

Appendix B, Robert S. McNamara Biographical Information

1916, June 9	Born, San Francisco, California
1937	A.B. in economics and philosophy, University of California, Berkeley
1939	M.B.A., Harvard University
1940	Married Margaret Craig
1940-1943	Assistant professor of business administration, Harvard University
1943-1946	Statistical Control Officer, US Army Air Force
1946-1960	Executive, Ford Motor Company
1960-1961	President, Ford Motor Company
1961-1968	Secretary of Defense
1968-1981	President, World Bank
1981-2006	Member of Board of Directors of numerous corporations, foundations and nonprofit organizations
2009	Death

Acronyms

AAF – Army Air Forces

Col – Colonel

DOD – Department of Defense

Gen – General

ICBM – Intercontinental Ballistic Missile

Lt Col – Lieutenant Colonel

Lt Gen – Lieutenant General

Maj Gen – Major General

NASA – National Aeronautics and Space Administration

RAND – Research and Development Corporation

ROTC – Reserve Officer Training Corps

SAC – Strategic Air Command

US – United States

USAAF – US Army Air Forces

USAF – US Air Force

USSR – United Soviet Socialist Republic

WWII – World War II

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