REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
25-04-2016	Master's of Military Studies	SEP 2015 - APR 2016

4. TITLE AND SUBTITLE
A Command in Peril: Air Force Global Strike Command's Reinvigoration of the Air Force Nuclear Enterprise through Cultural Change

5a. CONTRACT NUMBER
N/A

5b. GRANT NUMBER
N/A

5c. PROGRAM ELEMENT NUMBER
N/A

6. AUTHOR(S)
Swiechowicz, Jennie A.Y., Major, USAF

5d. PROJECT NUMBER
N/A

5e. TASK NUMBER
N/A

5f. WORK UNIT NUMBER
N/A

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
USMC Command and Staff College
Marine Corps University
2076 South Street
Quantico, VA 22134-5068

8. PERFORMING ORGANIZATION REPORT NUMBER
N/A

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSOR/MONITOR'S ACRONYM(S)
Dr. Paul Gelpi

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
N/A

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Instituting cultural change within a large organization is an extremely complicated and painstaking task. Recognizing when change is required and designing a change model that will have a lasting impact is more challenging. The unique structure and hierarchy of military organizations can make culture change even more difficult. This paper analyzes changes implemented by the AFGSC Force Improvement Program (FIP) to determine if these changes will have a lasting impact on the culture within AFGSC. To gain knowledge of how to organize and execute change within an organization, this paper will first examine John Kotter's 8-step process for leading change, and will then apply these steps in a case study of Strategic Air Command (SAC). Finally, a study of the AFGSC FIP program and Secretary of Defense-directed internal and external reviews of the nuclear enterprise will show that although AFGSC is on the track to success, without strong leadership from within the nuclear community, AFGSC and the Air Force may ultimately fail in their nuclear deterrence mission.

15. SUBJECT TERMS
Air Force Global Strike Command; John Kotter; Culture Change; Nuclear Enterprise; Curtis LeMay; Strategic Air Command

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USMC Command and Staff College
Unclass	Unclass	Unclass	UU	46	19b. TELEPHONE NUMBER *(Include area code)* (703) 784-3330 (Admin Office)

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

TITLE:

A Command in Peril: Air Force Global Strike Command's Reinvigoration of the Air Force Nuclear Enterprise through Cultural Change

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

AUTHOR:

Major Jennie A. Y. Swiechowicz, USAF

AY 15-16

Mentor and Oral Defense Committee Member: PAUL D. GROSS
Approved: _____
Date: 25 APRIL 2016

Oral Defense Committee Member: CHRISTOPHER S. STOWE
Approved: _____
Date: 4/25/16

Table of Contents

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

Executive Summary

Title: A Command in Peril: Air Force Global Strike Command's Reinvigoration of the Air Force Nuclear Enterprise through Cultural Change

Author: Jennie A. Y. Swiechowicz, United States Air Force

Thesis: Air Force Global Strike Command (AFGSC) carries out a no-fail nuclear mission that is often resistant to cultural change. Without strong leadership, both within the command and the Air Force, it will be nearly impossible for the nuclear enterprise to recover from near-failures and progress into the future while providing a credible deterrent to nuclear adversaries.

Discussion: Instituting cultural change within a large organization is an extremely complicated and painstaking task. Recognizing when change is required and designing a change model that will have a lasting impact is more challenging. The unique structure and hierarchy of military organizations can make cultural change even more difficult. This paper analyzes changes implemented by the AFGSC Force Improvement Program (FIP) to determine if these changes will have a lasting impact on the culture within AFGSC. To gain knowledge of how to organize and execute change within an organization, this paper will first examine John Kotter's 8-step process for leading change, and will then apply these steps in a case study of Strategic Air Command (SAC). Finally, a study of the AFGSC FIP program and Secretary of Defense-directed internal and external reviews of the nuclear enterprise will show that although AFGSC is on the track to success, without strong leadership from within the nuclear community, AFGSC and the Air Force may ultimately fail in their nuclear deterrence mission.

Conclusion: It is too soon to assess whether or not changes within AFGSC and the Air Force's nuclear enterprise will have lasting effects. As seen with SAC, effective leadership can bring positive success to people, processes, and materiel within an organization, but it requires time and dedication. The nuclear mission is a "no-fail" mission; it is imperative that AFGSC and the Air Force receive the needed support and funding to successfully operate this mission and train future nuclear warriors.

Preface

When the 2006 and 2007 nuclear incidents made headlines in 2008 I was flying the E-3 AWACS in Air Combat Command. I listened to rhetoric from Air Force leadership describing the nuclear enterprise and insisting that it was a "top priority" within the DOD and Air Force. As an E-3 pilot I was not involved in the nuclear mission; however, I became immersed in the nuclear mission and culture when I received the opportunity to fly the B-2 bomber in 2011. After the ICBM cheating scandal broke in late 2013, I received yet another opportunity, this time to work in the "front office" of AFGSC Headquarters. It was during my one-year tenure at AFGSC that I was able to learn significantly more about the ICBM and SLBM legs of the triad, and when I gained a greater appreciation of the nuclear culture within the entire Air Force. I witnessed many positive actions by Airmen of all ranks as they attempted to put a broken culture back together and become an even better enterprise. It was the actions of these Airmen that inspired me to research military culture and Kotter's model, and apply them to the future of AFGSC and the Air Force nuclear enterprise.

There are several people I would like to thank for their help and refinement of this paper. First, I would like to thank Dr. Paul Gelpi, one of the few airpower advocates at MCU. Without his willingness to help me with this endeavor at a very late date, this paper would not have been possible. Thank you for all of your patience and support. I would also like to thank the women of the self-proclaimed Women's Army Air Corps at MCU. Without your support and friendship this year would have been much less exciting, and I am positive our many "meetings" contributed to my professional development. Finally, I would like to thank my parents and husband who endured reading and editing numerous copies of this paper and many others for CSC. Without their support I would not be where I am today – I love you guys!

Introduction

> *When you think about what nuclear weapons have done for the peace and stability of the world, I'd argue that they have been a great form of peace. We have stopped great power conflicts between nations and we haven't engaged in great power wars for 70 years…So for all those who say that they don't have value, I would argue that they have great value in deterring great powers from going to war.*
>
> - Lieutenant General Stephen "Seve" Wilson
> Commander, Air Force Global Strike Command[1]

In 1992, after the collapse of the Soviet Union, the United States Air Force (USAF) disbanded Strategic Air Command (SAC) and assigned its nuclear mission to other Air Force major commands (MAJCOM). These other commands absorbed the SAC mission in an effort to streamline processes and save money. This streamlining was in response to the belief that the United States no longer had a nuclear peer, which implied nuclear weapons had lost their strategic importance. Over the course of twenty years, with the nuclear mission split between commands, the Air Force's nuclear enterprise atrophied due to a lack of funding and understanding by Air Force and Department of Defense (DOD) leadership. In 2008, after a B-52 crew unintentionally flew a nuclear-tipped cruise missile from North Dakota to Louisiana and the DOD inadvertently shipped nuclear missile fuses to Taiwan, the Air Force and DOD launched investigations to determine the root cause behind an atrophying "no-fail" mission. As part of the remedy, the Air Force decided to reinvest in its two legs of the nuclear triad and stand up a new MAJCOM, Air Force Global Strike Command (AFGSC), to oversee the USAF component of the nuclear enterprise.

Despite standing up AFGSC, problems continued to plague the nuclear mission. The near breaking point for the MAJCOM came in 2013 when Intercontinental Ballistic Missile (ICBM) officers were caught cheating on a classified test. It was after this incident that AFGSC

implemented a Force Improvement Program (FIP) for its ICBM and nuclear-capable bomber forces. There were dozens of findings from the FIP, but one thing stood out—if the Air Force nuclear mission did not receive much needed funding, personnel, equipment, and training it would fail when the country needed it most. During a time of sequestration, when many DOD programs were experiencing cuts to personnel and spending, the nuclear mission received an increase in both as an attempt to help repair the nuclear enterprise. However, funding and resources cannot solve all problems within the Air Force's nuclear program. There is a deeply rooted culture within the nuclear community that is resistant to change. It will take strong leadership with a working knowledge of both nuclear operations and organizational change to implement necessary cultural change that will have a lasting positive effect on the nuclear enterprise. This will not be a quick process; changes within the nuclear enterprise are necessary, now more than ever, due to a rapidly changing national security environment, technological advancements, and an increase in aggression from countries like the Russian Federation, the People's Republic of China, and the Democratic People's Republic of Korea.

Military Culture Change: An Overview

The only thing harder than getting a new idea into the military mind is to get an old one out.

- Sir Basil Liddell Hart, *Thoughts on War*[2]

Effective cultural change within the military is often reliant on outside influences, whether political and societal actions, or economic and technological advances, or world events. Once military leadership initiates culture change, it may take decades to occur. A frequent turnover in leadership and personnel can impede progress along the way. Historians have completed very little research on military culture, opting instead to spend their time explaining

victory or defeat by studying leadership, or doctrine, or training, which mirrors what most military organizations have focused on as well. This is concerning because "military cultures that remain enmeshed in the day-to-day tasks of administration, that ignore history and serious study, and allow themselves to believe that the enemy will possess no asymmetric responses are…headed for defeat."[3] Military organizations are often quick to adapt during wartime, but fail to change, innovate, and progress during an extended period of peace.

In *Organizational Culture and Leadership*, Edgar Schein defines culture as "a dynamic phenomenon that surrounds us at all times, being constantly enacted and created by our interactions with others and shaped by leadership behavior, and a set of structures, routines, rules, and norms that constrain behavior."[4] Although this definition is for a civilian organization, it is also applicable to military organizations. Military culture demands incredible physical and mental skill, requiring personnel to relate technical, tactical, operational, and societal changes during wartime; it ensures military personnel learn their core jobs during training and are able to apply these skills under immense wartime stress.[5] Ironically, this insistence on using "proven" methods during peacetime training environments can make military culture change difficult because the stakes are high, and commanders are often unwilling to take risks during peacetime.

In "An Army Transformed," Lieutenant Colonel Suzanne Nielsen declares there to be four "arguments" about the process of military change. Her first argument establishes the precondition that there must be leaders within military organizations who are sensitive to external factors affecting the military. Political leaders shape the military environment with their policy decisions, while military leaders determine how to handle these challenges. Second, "military change is about more than doctrine." It is about the personnel, training, equipment,

policies, and leadership development that allow application and further evolution of doctrine. Third, in order for a military organization to implement change, it must be able to oversee and influence change throughout the entire process. Fourth, military change can take decades. It is imperative that an organization has stability in its mission and resources in order for change to happen.[6] The most influential factor driving successful military organizational change is strong and effective leadership.

The 8-Step Model for Leading Change

Innovation is less about generating brand-new ideas and more about knocking down barriers to making those ideas a reality.

- John Kotter, *Accelerate*

In order to lead an organization through complete cultural change, military leadership must be heavily invested in the organization and able to inspire its members through a deliberate change process. Without a viable threat, people are reluctant to change and will continue to do what has worked in the past. To make change stick, "leaders must design and run an effective persuasion campaign – one that begins weeks or months before the actual turnaround plan is set in concrete."[7] In order to run this campaign, leaders must understand the organization's climate and culture, and be willing to work tirelessly until the change is complete, even if it is not always well-received by personnel. Leaders must be charismatic, have a long-term plan, and stay actively engaged throughout the process, not letting urgency lessen over time. John Kotter's "8 Steps" to organizational change provides an organizational change model applicable to military leaders and organizations.

In his book, *Leading Change*, Kotter argues that widespread and difficult change is now "the rule" for organizations due to the rapid increase in technology around the world. This

section discusses why organizations fail and Kotter's 8-Step model for leading change within an organization. Although designed for business organizations, Kotter's Model is wholly applicable to military organizations as well. There are themes resonating throughout the book applicable to military organizations – without dedicated and charismatic leaders and managers, change is not possible; a lack of trust and teamwork within an organization will make it impossible to succeed; and in order to change an organization, the lowest level workers all the way up to the highest level of leaders and managers must believe in this change.

Kotter states there are eight reasons that explain why organizations fail. The first reason is "allowing too much complacency." When there is complacency in an organization, it simply cannot transform.[8] The second reason is "failing to create a sufficiently powerful guiding coalition." A powerful guiding coalition must have a solid leader and include a diverse leadership team. Often this team will be composed of members that are newer to the organization since they are less likely to be complacent.[9] Third, organizations fail from "underestimating the power of vision." A large number of individuals in an organization must be aligned and directed by a vision that is relatively simple to explain.[10] Fourth, "under-communicating the vision by a factor of 10," means that without employee "buy-in" they may not be willing to make sacrifices to help make change happen.[11] Fifth, "permitting obstacles to block the new vision" will leave employees feeling "disempowered" by obstacles blocking their success and cause them to lose support for change.[12] "Failing to create short-term wins" is the sixth reason organizations fail.[13] The seventh reason is "declaring victory too soon," and the eighth reason for failure is "neglecting to anchor changes firmly in the corporate culture." If new norms are not deeply rooted into social and corporate thinking, with the next generation of leaders believing in this new norm, it is likely an organization will revert to its old ways.[14]

To Kotter, "The key lies in understanding why organizations resist needed change, what exactly is the multistage process that can overcome destructive inertia, and, most of all, how the leadership that is required to drive that process in a socially healthy way means more than good management."[15] He believes that a leader will be able to communicate what the future should look like, get buy-in to the new vision, and inspire employees to overcome barriers to success. His 8-Step Model is composed of three phases that can guide an organization through change.[16]

The first phase, "defrosting the status quo," consists of the first four steps: "establishing a sense of urgency;" followed by "creating the guiding coalition;" then "developing a vision and strategy;" and finally, "communicating the change vision." This phase requires the most effort due to the difficult nature of cultural change. The first step is necessary in order to reduce complacency. In order to remove sources of complacency and add a sense of urgency, bold leadership is required. If cautious behavior has been rewarded in the past, it will be hard to establish a sense of urgency.[17] A guiding coalition requires a strong leader able to pull a team together and foster teamwork. This team, or group of people, must be powerful enough to lead the change. All members of the coalition must have a desire to see the organization run as smoothly as possible.[18] A vision should be created in order to focus the change effort and strategies developed to achieve change. A solid vision will break through any resistance within an organization and will provide a direction for change, motivate people to act towards change, and help coordinate the actions of many individuals within an organization.[19] The final step in this phase involves "using every vehicle possible to constantly communicate the new vision and strategies."[20] Effective communication includes such elements as simplicity, metaphor and analogy, multiple forums, repetition, and explanation of any seeming inconsistencies. Two-way communication is encouraged.[21]

The second phase introduces new ideas and practices into the organization. Steps 5 through 7 are in this phase. They are "empowering broad-based action," "generating short-term wins," and "consolidating gains and producing more change" respectively. Step 5 involves getting rid of obstacles to success, changing systems or structures that are barriers to success or undermine the vision, and encouraging bold actions, taking the initiative, and nontraditional ideas.[22] For Step 6, Kotter says that a leader must plan for "visible improvements in performance" and then create opportunities for wins and publically recognize and reward those who "made the wins possible."[23] Short-term wins prove that sacrifices made by employees have been worth it. During Step 7, Kotter warns to avoid complacency. Rather than sitting back and savoring success, it is a time to capitalize on increased credibility in order to change systems, structures, and policies that are hindering success and may not fit with the transformation vision. This step can take years, or even decades; if it is not seen through to the end, critical momentum will be lost and regression will likely follow.[24]

The third phase "grounds the changes in the corporate culture and helps make them stick." This step is solely Step 8, "anchoring new approaches in the culture." This last step is about encouraging "customer- and productivity-oriented" behavior, and enhancing leadership and more effective management. It is the time when "articulate connections" must be drawn to link new behavior with organizational success making it possible for continued leadership development and succession. Kotter stresses that at times it is tempting to start with altering norms and shared values, but that it should actually happen during this last step since culture is not easily manipulated.[25]

Kotter's Model shows that leadership involves the ability to create culture and navigate an organization through changing times. A good leader must be able to "perceive the functional

and dysfunctional elements of the existing culture and…manage cultural evolution and change in such a way that the group can survive in a changing environment."[26] Both the SAC and AFGSC analysis will show that without solid innovative leadership, change is not possible. Kotter's Model provides a foundation for this analysis.

A Case Study: Strategic Air Command

> *Get the best people you can, around you, who will help. Decide on the course of action. Get busy on it, and keep out of your subordinates' way.*
>
> - Curtis LeMay, *Mission with LeMay*[27]

As the war effort in World War II shifted from the European theater to the Pacific, the Army Air Forces (AAF) realized the operational necessity of commanding and controlling the bombing campaign from a single command headquartered in Washington, DC. This command, Twentieth Air Force, saw great success with streamlined strategic bombardment operations and successfully dropped two atomic bombs on Japan bringing the war to an end much faster than originally anticipated by war planners.[28] This newfound independence by the AAF had a lasting impression on aviator leadership while the atomic bomb "confirmed the importance of technological advance in warfare."[29]

World War II left AAF leadership with a desire to seek autonomy, improve scientific technology used in air warfare, and create a more effective strategic bombing force. The AAF desired an independent air force with autonomy similar to Twentieth Air Force in the Pacific theater during World War II. Equality with both the War and Navy departments would allow an air force to develop its own strategy, tactics, and doctrine, while controlling its own supplies, personnel, and weaponry. Advancements in technology would allow the AAF to continue to improve on research and development while maintaining an advantage over adversaries and

"enjoy[ing] victory in future wars." A strong strategic bombing force, AAF leadership believed, could unequivocally shape the outcome of a conflict (as seen by the successful detonation of the atomic bombs on Hiroshima and Nagasaki).[30] These three points helped lead the AAF and War Department leadership to create Strategic Air Command (SAC) and an independent air force.

The Joint Chiefs of Staff (JCS) Unified Command Plan of 1946 established SAC, the first United States specified command. This Plan allowed the JCS to retain control of all strategic assets through the SAC commander.[31] Ideally, SAC would be an organization "made up of the best people and equipment that could deliver the most sophisticated weapons," ready to go to war at a moment's notice.[32] AAF leadership believed that the general officer best suited to stand up SAC and create a force ready and able to deploy atomic weapons was General George Kenney.

To establish SAC, AAF leadership re-designated the Headquarters Continental Air Forces (CAF) at Bolling Field as Headquarters Strategic Air Command. General Kenney took command of SAC on March 21, 1946.[33] Kenney seemed like the smart choice; despite lacking strategic bombing experience, he had proven his ability to organize and control air assets from multiple services.[34] In addition to duties as the SAC commander, AAF leadership directed Kenney to retain his position as the Senior United States Military Representative on the Military Staff Committee of the United Nations and encouraged him to make as many public speeches and appearances as possible in order to advocate for an independent air force.[35] This meant that Kenney was often removed from daily operations of SAC, and left his duties and the command of SAC up to his deputy, Major General St. Clair Street who was replaced by Major General Clements McMullen in 1947. In addition to largely being absent from his command, Kenney believed in streamlined processes; rather than asking for increased funding and personnel, he

allowed McMullen to implement a "cross-training" program for aircrew members. Cross training allowed aircrew to be assigned to multiple billets to make up for a shortage of personnel. Unfortunately with newer, more technologically advanced aircraft, proficiency declined, staff work was left unfinished, and combat readiness suffered.[36]

Eventually, leadership in the now-independent Air Force realized that while they were fighting for SAC "to become the primary instrument of the nation's defense," Kenney and McMullen had allowed SAC to decay to a dismal state of readiness.[37] The Air Force Chief of Staff, General Hoyt Vandenberg, asked Charles Lindbergh to fly with SAC crews and report back to him on the state of readiness. Lindbergh's report stated that SAC crews were still training to outdated World War II standards, were unable to keep up with technological advances, and suffered from low morale due to frequent moves between SAC bases. Lindbergh recommended that "SAC stabilize personnel in the atomic forces, maintain crew integrity…concentrate on the primary mission of atomic forces…give priority in selection and assignment of personnel to atomic squadrons, and create conditions that would draw the highest-quality of personnel into the command."[38] Within a week Vandenberg fired McMullen, ended the cross-training program, and told Lieutenant General Curtis LeMay to head to Offutt Air Force base in Nebraska where he would become the new SAC commander.[39]

Ultimately Curtis LeMay took a failing command and made it one of the biggest successes in U.S. Air Force history. The culture and values that LeMay instilled within the command lasted for decades.

An Analysis of Why Kenney Failed

According to Kotter, it is difficult to establish a sense of urgency without a visible crisis due to the natural human tendency of becoming complacent. When SAC was established in

1946, there was no visible threat to the command or the United States. The Axis powers had been solidly defeated, and the Soviet Union was barely a blip on the United States radar. While it is tempting to assume that the atomic bomb itself would be a motivating factor for establishing a successful command, the atomic bomb was "not important enough to guide successful change."[40] Kenney failed to establish a sense of urgency and failed to emphasize the importance of the atomic bomb and other technological advancements. These mistakes contributed to SAC nearly failing as a new command.

Additionally, without a guiding coalition or leadership group powerful enough to lead an organization through its establishment or change, it will likely fail. Not only did internal leadership, like Kenney and McMullen, contribute to SAC's near failure, external leadership also played a role. Kenney's absence from SAC while he was off either promoting an independent air force or working for the United Nations left him unable to lead, or even establish, a guiding coalition. McMullen did not listen to his lower-level leadership and nearly ran the command into the ground with his cross-training strategy and constant deployment of personnel.[41] Moreover, General "Tooey" Spaatz and General Vandenberg, were both "thoroughly involved during the design phases of SAC" and prominent AAF general officers outside of SAC.[42] Due to their high positions within the AAF, Spaatz and Vandenberg both had the ability to remain more involved in the development of SAC while Kenney was away from SAC advocating for an independent air force.

During the first years of SAC, "the fledgling command was a hodgepodge of organizations, as lacking in capability as in orderly structure."[43] Its mission, per General Spaatz, was to be prepared to conduct "long range offensive operations in any part of the world," to conduct reconnaissance over land and sea, to be able to employ the most advanced weaponry,

and to maintain "Strategic Forces" around the world.[44] Unfortunately, due to his lack of strategic bombing experience and absence during command tenure, Kenney failed to provide SAC with a vision and direction on how to carry out the mission. Whereas an organization undergoing a change would normally expect its leadership to "role model" employee expectation, Kenney and McMullen not only failed to do so, they failed to lead the command at all.[45] They were unable to communicate the change vision because they had built no guiding coalition, and SAC lacked a clear vision and strategy from the very beginning.

During Kotter's fifth step, a leader should get rid of obstacles to success and remove any barriers that undermine a vision. SAC was unable to devote any significant time to bombing practice during the first two years of the command due to manning, supply, demobilization, and administration problems. Kenney held the command's first bombing competition in June 1948 in an effort to "stimulate interest in improving bombing accuracy."[46] Unfortunately it was too little too late. The manpower and basing problems created a quality issue with the personnel who had not left the command. McMullen's cross-training program (in an attempt to meet AAF requirements with fewer personnel) was not sustainable and resulted in a significant decline in proficiency and readiness among aircrew and personnel.[47] At no point in time were members of SAC empowered to lead the nation's premier specified command.

Although Kotter's model includes eight steps, it is clear at this point that the first two years of SAC were riddled with leadership problems and manning setbacks. SAC never progressed past Kotter's first five steps and had been in a "downward spiral" since its inception. Kenney was unable to make his crews combat-ready and failed "to keep a firm rein on the overzealous McMullen."[48] Fortunately, Lieutenant General Curtis LeMay took over the

command and was able to guide and evolve it into a no-fail nuclear force that successfully helped lead the United States through the Cold War.

An Analysis of Why LeMay Succeeded

In *Organizational Culture and Leadership*, Edgar Schein states that leadership is "the source of beliefs and values that get a group moving in dealing with its internal and external problems. If what leaders propose works, and continues to work, what once were only the leader's assumptions gradually come to be shared."[49] Lieutenant General Curtis LeMay provided this leadership for Strategic Air Command following General Kenney's departure. LeMay took a command in peril, created a sense of urgency, changed SAC's perspective, and led it through a massive cultural overhaul and shift in mindset so that SAC would always be ready for war.

General Vandenberg, the Chief of Staff of the Air Force, was so impressed with LeMay's bombing operations in the Pacific during World War II, and air operations during the Berlin Airlift while the commander of the United States Air Force in Europe, he hauled LeMay "out by the ears" to take over SAC after Kenney was reassigned.[50] LeMay took command of SAC on October 19, 1948 and realized that immediate change was necessary. In *Mission with LeMay*, LeMay laments, "we didn't have one crew, *not one* crew in the entire command who could do a professional job. Not one of the outfits was up to strength – neither in airplanes nor in people nor in anything else."[51] LeMay knew there was a crisis at SAC, and that the command would be unable to go to war without completely rebuilding the organization. He also knew that personnel at SAC were complacent with their current jobs and would need motivation from leadership to make it through the massive cultural change about to happen.

LeMay immediately gathered a team. He "started grabbing here and there, getting people who knew their business" and putting them in jobs that fit their experience and expertise. LeMay knew that he could not change the command by himself, because "[the strategic bombing] business was too damn complex for that…"[52] Vandenberg gave LeMay the latitude he needed to change the command, and LeMay started from the top down. He requested Major General Thomas Powers to be his deputy commander. LeMay considered Powers his "best wing commander" in the Pacific having led the first B-29 bombing raid on Tokyo.[53] The other officers LeMay hired all had experience with LeMay in the Pacific and "had shown a grasp of bomber operations;" they included his Chief of Staff, the head of the Operations and Plans Directorates, and two other prominent SAC positions.[54] This guiding coalition consisted of leaders that would be able to handle pressure from Washington while being powerful enough to lead subordinates though a massive culture change.

When LeMay took command of SAC he saw extensive problems with facilities and personnel. There were construction problems and housing problems – SAC had received "leftover" bases that were previously used by other commands. There was not enough housing for personnel. SAC employees did not take their no-fail mission seriously and morale was extremely low. LeMay recognized that the command needed its people to be "combat ready and combat wise" and believed that he could create an incredibly strong command by fixing manning, supply, and administration issues while improving food, housing, and recreation facilities.[55] LeMay had a vision for SAC that included the highest levels of combat readiness with little-to-no human error in order to prevent a nuclear conflict with the United States. He believed this vision was achievable by taking care of his personnel, improving morale, and effectively communicating what a safe, secure, and reliable nuclear force should look like.

LeMay's strategy was in line with Kotter's third step in that it provided direction for change, motivated personnel to act towards change, and helped coordinate actions between many departments within SAC.

LeMay realized that his guiding coalition and leadership at the flying wings in SAC needed to be role models to members of the command. He made sure the leaders shared a mental model of what SAC should look like and he fired those unwilling to get onboard with his change vision. Two months into LeMay's command he grounded the B-29 fleet after a fatal crash. Accident rates were on the rise and LeMay believed that crews had become complacent and were not following proper safety protocols. Following this accident, checklists and procedures became standardized within SAC, and eventually throughout the Air Force. Each crew position in each airplane had a checklist and procedures to follow; these procedures were the same throughout similar airframes within SAC. In order to ensure wings were using appropriate checklist discipline and following procedures, LeMay ordered any wing commander who had an aircraft accident or incident within their wing to fly to SAC Headquarters and personally brief him on the incident. This resulted in aircrew members and leadership at all levels remaining personally invested in the safe operation of aircraft. Within two years SAC had the lowest accident rate in the Air Force.[56]

In addition to increasing the safe operation of aircraft, LeMay was also able increase buy-in throughout the command, a necessary portion of Kotter's fourth step. He accomplished this by efforts to improve housing and facilities in SAC. LeMay constructed auto hobby shops, woodworking shops, and skeet ranges for airmen to use in their off time. He built "SAC-style barracks" for young airmen to use that were much nicer than housing at other bases. These barracks held two airmen to a room and every two rooms shared a bathroom. This helped

combat rest issues with personnel on different shifts. Additionally, LeMay saw the benefit of maintaining a good relationship with the community and local leaders. When SAC started building new barracks, local citizens helped raise money to furnish the rooms.[57] LeMay was also responsible for improving housing on SAC bases (and ultimately throughout the military). He worked with Nebraska Senator Kenneth Wherry to introduce a bill that would allow private construction of housing on or near military installations, with guaranteed mortgages. Eventually Congress accepted a compromise version of Wherry's bill, which allowed private contractors to compete for a contract to build on base and the military to lease houses from the private contractors after they were built. Although LeMay was frustrated at the extreme costs the government would pay over time, "every SAC airman knew of his efforts" and "understood the lengths their commander had gone to provide for their needs." The idea that SAC took care of its airmen began to resonate throughout the Air Force.[58]

It is easy to see how LeMay was quick to remove obstacles hindering success of the command's personnel in order to empower SAC personnel for broad-based action. He immediately got rid of the cross-training program and ensured training was standardized. In order to guarantee crews across the command were training to the highest standard, he stood up the Lead Crew School where "crews trained together in a standardized and uniform pattern." Each wing within SAC sent three crews to a class. Once the crews graduated they returned home to instruct. This slowly improved performance within all of SAC, and within eight months bomb scores improved more than fifty percent.[59] This program contributed to SAC having the right structure, training, system and supervision in place in order to change the command for the better and generate short-term wins.

According to Kotter, short-term wins are necessary to build morale and enhance motivation. LeMay "insisted his commanders demonstrate concern for the needs of their men and show appreciation for jobs well done."[60] He communicated this vision to his commanders through written correspondence.[61] Additionally, LeMay implemented a "spot promotion" program for his officers, and later for his enlisted Airmen, to encourage strong performance and aid in retention. The Air Force officially approved this program, and a crew could lose a "temporary" promotion just like they could earn it. The spot promotion program allowed SAC to avoid Congressional ceilings on the number of personnel serving in a specific rank, while still allowing an individual to wear that rank and earn a higher level of pay.[62] This program made SAC personnel proud to serve in the command, and quickly became known throughout the Air Force as a "benefit" of exceptional service within SAC.

LeMay was able to consolidate gains and produce more change by using short-term wins within SAC to tackle more problems and continue positive change within the command. Two examples of how he did this are his "sabotage teams" and Operational Readiness Inspections (ORI). When LeMay took command at SAC he immediately saw how lax security was around the bases, and more importantly the nuclear weapons. To encourage personnel to take security seriously and increase it where possible he created sabotage teams. These teams used "every trick in the deck" to try to penetrate security defenses. This included teams posing as SAC officers, enlisted men working on the flight line, soft-drink machine vendors, government surveyors, mailmen, contractors, etc.[63] The point was for personnel to always be on alert for sabotage from someone who may, at first, seem unsuspecting and as if they belong. If there were repeated problems with a base, LeMay would remove commanders. Security throughout the command rapidly improved. Additionally, LeMay required daily operational readiness reports

from each of his bases. He reviewed these to make sure the wings were always ready for war. To aid in this readiness he would have "constant, often unannounced" readiness inspections to keep units combat ready.[64] These inspections required commanders to execute war plans to ensure their units were ready for combat. If a unit failed an ORI, commanders would be replaced in an effort to make that unit combat ready. These inspections lasted throughout SAC's existence and carried over into the rest of the Air Force.

LeMay understood that the organizational overhaul necessary in SAC "couldn't be cobbled together overnight" and that anchoring new approaches into a culture often takes years or decades.[65] He took the time to create a new culture within the command, create new norms of behavior, and create shared values. When he provided guidance to those under his command, it was clear guidance that required very clear results in order to keep the old culture of SAC from reasserting itself. By the time LeMay left SAC in 1957 it had "developed into an organization of renowned professionalism and precision."[66] LeMay ensured there was "buy-in" not only from members of SAC, but also from Air Force, Department of Defense, and Congressional leadership outside of the command. Eventually SAC's unique, no-fail nuclear culture became recognized throughout the Air Force—it lasted for decades after his command tenure came to an end.

LeMay took George Kenney's fledgling command and completely turned it around. Although LeMay passed away many years before John Kotter began his work on organizational culture change, it is clear that LeMay understood the steps necessary to change an organization for the better. His no-fail nuclear culture lasted until SAC was disbanded in 1992, and can still be seen in Air Force Global Strike Command's nuclear enterprise today. Kotter's model demonstrated how two different people can take command of and lead the same organization and

have drastically different results. After discussing the background of AFGSC, Kotter's model will then be used to give a prognosis for AFGSC and the Air Force's nuclear enterprise.

Reinvigorating Air Force Global Strike Command

> *The mission of the U.S. nuclear forces has always been demanding. In the past, positive margin in surplus capability provided the resilience needed to meet the challenging mission demands. This margin no longer exists. The underlying issues have been identified. The needed responses to many of the issues are not complex. Lasting action is possible, necessary, and expected.*
>
> - 2014 Independent Review of the Department of Defense Nuclear Enterprise[67]

The culture in today's Air Force nuclear enterprise is unique and has a rich history beginning in Strategic Air Command. The SAC nuclear culture has artifacts, espoused beliefs and values, and underlying assumptions that lasted after Strategic Air Command's disbandment in 1992 and remains heavily embedded in AFGSC and parts of the nuclear Air Force.[68] Schein stresses the significance of the impact that leaders, who help found an organization, have on that organization's cultural beginnings. He states that cultures "spring" from three sources: "the beliefs, values, and assumptions of founders of organizations"; "the learning experiences of group members as their organization evolves"; and "new beliefs, values, and assumptions brought in by new members and leaders."[69] LeMay provided the initial leadership and foundation for the Air Force nuclear enterprise. Since the days of SAC, new leaders have added their own beliefs and values to the nuclear enterprise. The evolution of the nuclear enterprise after 1992 reached an all-time low in 2008 as U.S. military and civilian leadership continuously failed to provide guidance, support, and resources to the nuclear mission. Since then, the Air Force nuclear community has been fighting a slow, uphill battle in an effort to maintain a safe, secure, and effective strategic deterrent.

During the heyday of SAC, Air Force personnel vied to receive an assignment within the command. The beliefs and values that were prominent in SAC culture also resonated throughout the Air Force, and an assignment within SAC was considered necessary for promotion. However, as time went on and the Cold War progressed, it became less likely that the United States would detonate another nuclear weapon during wartime, and more likely that the United States would be involved in wars and battles requiring support from conventional forms of airpower not requiring a nuclear detonation. The bomber pilots began to take over the Air Force in the mid-twentieth century and held the majority of the general officer positions. The bomber subculture essentially ran the Air Force from its institutional beginnings after World War II until the mid-1980s. The subculture was heavily influenced by Generals LeMay and Powers and "remained convinced of the efficacy of manned strategic bombers (despite new technologies) and assumed a national willingness to use atomic weapons that exceeded political realities."[70]

The bomber, ICBM, and nuclear leadership within SAC did not adapt to new technologies and a changing strategic environment. This paved the way for the "rise of the fighter generals" with conventional experience in both the Korean and Vietnam Wars. By 1982 these fighter generals were beginning to run the Air Force. This change in leadership resulted in "a selection of the first in a continuous string of generals with fighter backgrounds as the Air Force chiefs of staff."[71] The backgrounds of the fighter generals from Tactical Air Command (TAC) were quite different from the bomber generals of SAC. Whereas SAC produced a regimented culture of "nuclear warriors" ready to follow a specific plan to employ nuclear weapons at the direction of the president, TAC valued "creative warriors who made decisions on the fly."[72] As fighter generals began to take over general officer billets, ideals changed and the Air Force saw a devaluing of its strategic nuclear weapons.

In 1991, the Air Force Chief of Staff, Merrill McPeak, stated that the nuclear triad was "overinsurance" because "one leg of the triad could inflict such massive damage on any potential opponent that it alone would suffice to deter any rational person." Ironically, he also called the B-52 a "sunset system."[73] This lackadaisical attitude towards nuclear weapons marked the end of an Air Force era dedicated to the nuclear deterrent mission. Nuclear weapons were no longer the premier weapons systems for the Air Force. When SAC disbanded in 1992 following the end of the Cold War, its assets were divided. SAC tankers went to Air Mobility Command. Air Combat Command (ACC) received the ICBMs and then turned them over to Air Force Space Command. The nuclear-capable fighters and bombers were also absorbed by ACC. As a result of reorganization, "the Air Force's nuclear sustainment system became fragmented, the pool of nuclear experienced Airmen atrophied, and nuclear expertise eroded as less time was allocated to maintain nuclear operational proficiency."[74] The new command's ensuing culture had a constant focus on fighter employment of conventional weapons. This shift in cultural focus remained throughout the 1990s and was exacerbated by the Global War on Terrorism and conventional wars in Iraq an Afghanistan.

When the bombers of SAC combined with the fighters of TAC in ACC there was a clash of cultures. The bomber community eventually accepted the "TAC way" and began to prioritize conventional weapons employment and conventional training over nuclear operations. From the mid-1960s onward, SAC bomber wings were able to focus on a single mission—either nuclear *or* conventional weapons employment. The reduction in military forces and decline in funding in the 1990s forced bomber wings and individual crewmembers to have to focus on *both* nuclear and conventional weapons employment and training procedures.[75] As focus shifted even further from nuclear operations during the early twenty-first century, "Air Force leadership failed to

advocate, oversee, and properly emphasize the maintenance of [a] nuclear-related skill set" as well as all nuclear-related missions, education, and training.[76] The decline of the Air Force's nuclear culture and its two legs of the nuclear triad came to a head in 2006 when ICBM nuclear fuses labeled as "helicopter batteries" were shipped to Taiwan, and in 2007 when a B-52 crew unknowingly flew six nuclear-tipped cruise missiles across the U.S. from Minot Air Force Base, North Dakota to Barksdale Air Force Base, Louisiana.[77] These two incidents clearly showed that there was a crisis within the Air Force nuclear enterprise.

In 2008, in an effort to pinpoint the problems within the nuclear enterprise, the Secretary of Defense (SECDEF), Robert Gates directed the Air Force to conduct an internal review of its nuclear enterprise. At the same time directed prior Secretary of Defense, James Schlesinger, to stand up a Nuclear Task Force to examine the Air Force's nuclear enterprise from an external review. Ultimately the Schlesinger Task Force found six key problems with the Air Force's nuclear program: evident underinvestment in the nuclear deterrent mission which undercut U.S. nuclear posture; a fragmented nuclear-related authority and responsibility; ineffective processes for uncovering, analyzing, and addressing nuclear-compliance and capability issues; erosion of nuclear-related expertise; lack of self-assessment within the nuclear culture; and a lack of a comprehensive process ensuring sustained nuclear investment advocacy.[78] The Air Force nuclear culture had atrophied due to a diminished sense of mission importance, poor discipline, and nuclear warriors who no longer desired to achieve the excellence and maintain the pride that LeMay and SAC held in such high regard. The Task Force declared that a massive reorganization of nuclear assets would address many of the issues within the nuclear community.

The main organizational changes instituted by the Air Force following the 2008 investigations included a new Air Staff directorate, the office for Strategic Deterrence and

Nuclear Integration (HAF/A10) headquartered at the Pentagon, and a new, separate nuclear MAJCOM, Air Force Global Strike Command. The HAF/A10 directorate would oversee the management and guidance of nuclear assets, nuclear deterrence policy, and nuclear personnel. AFGSC would oversee ICBM and nuclear capable bomber operations. The nuclear acquisition process and materiel would remain with Air Force Materiel Command (AFMC). AFMC also retained the Kirtland Underground Munitions Storage Complex (KUMSC) responsible for the shipping and maintenance of Air Force and Navy nuclear weapons. AFGSC would be headquartered at Barksdale Air Force Base and would oversee three ICBM bases, two B-52 flying wings, and one B-2 flying wing. Unlike eight other MAJCOMs commanded by four-star generals, a three-star general would command AFGSC.[79]

AFGSC officially activated in August 2009. For the first four years all outward appearances indicated that nuclear operations were functioning successfully per the recommendations made by nuclear leadership and the Schlesinger Report. Unfortunately, in the fall of 2013 several incidents occurred that would raise doubt about the reliability and capability of the relatively new MAJCOM. That fall, the 341st Missile Wing located at Malmstrom Air Force Base, Montana, was investigating allegations of drug use by several ICBM "missileer" officers within the Wing when the investigation discovered a cheating ring. This cheating ring consisted of nearly a dozen missileers who were regularly sharing test questions and answers from monthly-classified nuclear tests. Not only were these officers sharing tests, many were also sharing pictures of the classified tests with each other on unclassified personal cell phones. These officers were cheating as well as carrying personal electronic devices into classified areas, which is explicitly prohibited. This scandal quickly made headlines as one of the most embarrassing ethical lapses in recent Air Force history.

In similar response to the scandals leading to the 2008 Air Force nuclear enterprise investigation, there were two investigations initiated in early 2014 regarding the cheating scandal. The SECDEF, Chuck Hagel, directed an internal DOD review and an external independent review of the DOD nuclear enterprise. Both reviews included ICBMs, nuclear-capable bombers and tactical fighters, Navy ballistic missile submarines, and the necessary supporting infrastructure for these nuclear assets. The teams traveled to each of the involved DOD bases or establishments. Assistant Secretary of Defense, Madelyn Creedon, Rear Admiral Peter Fanta who had previous Joint Staff experience, and Command Sergeant Major Patrick Alston from U.S. Strategic Command (STRATCOM) led the internal review. The external review was led by former Air Force Chief of Staff and SAC commander, General (Retired) Larry Welch and former Commander of Fleet Forces Command, Admiral (Retired) John Harvey.[80] In addition to these two reviews, the Commander of AFGSC, Lieutenant General Stephen Wilson, initiated a Force Improvement Program (FIP). The FIP team traveled to all five AFGSC bases in an effort to determine the root cause of the cheating scandal. All three teams determined that there were much needed cultural and systemic improvements not only in the ICBM community, but also in the rest of the nuclear enterprise despite the fact that nuclear weapons and operations had remained safe and secure throughout the scandal.

The FIP team determined that the root causes behind "driving the ICBM culture away from stated Air Force Core Values" of Integrity First, Service before Self, and Excellence in All We Do, were the "requirement" for a zero-defect culture; a culture that had been based on performing for tests and inspections rather than focusing on the mission; and a confusing definition of both officer and enlisted ICBM career paths.[81] The team also found that DOD leadership had not funded, resourced, or managed the nuclear enterprise and its leadership due to

a lack of strategic focus and advocacy for the nuclear mission in a fiscally constrained environment despite the recommendations from the 2008 investigations.[82] Additionally, the team found that a "Toxic Triangle" existed in the ICBM community. The Toxic Triangle includes: toxic leadership involving micro-managers and individuals motivated for their own self-interest; a toxic environment where fear, mistrust, and unnecessary stress had become the norm; and vulnerable, inexperienced, powerless followers who were unable or unlikely to voice an opinion or speak up with something is not right.[83] Recommendations to fix the ICBM community included reorganizing the ICBM career field, strategic placement of quality ICBM officers around the Air Force and at commissioning sources, as well as actively recruiting high-quality individuals from commissioning sources.[84] Furthermore, the team determined that "A revolution in training and evaluation led by junior officers *guided by senior mentors steeped in nuclear experience* will be foundational to putting training back in its land from supported to supporting role."[85] In other words, getting rid of the unspoken requirement to obtain a perfect score on monthly tests and requiring missileers to complete a certain number of alert missions would be first steps in reestablishing a valued and enduring ICBM culture.

The internal and external DOD reviews found similar issues with the ICBM culture and made many recommendations similar to the FIP team's findings. The internal and external reviews also looked at the entire DOD nuclear enterprise and had numerous findings and recommendations, many of which were overlapping. It was determined that "While Air Force senior leadership has stressed the priority of the nuclear mission over the last several years, these words seem to ring hollow in the fact of the national debate, inadequate resources and unyielding mission demands."[86] Nuclear Airmen believed that the nation and the Air Force no longer valued the nuclear mission or their jobs within the nuclear community. Both reviews found a

lack of understanding of nuclear deterrence and the demands of the mission throughout all ranks in the Air Force, as well as many other issues related to personnel, inspections, investment, and overall organization of the Air Force nuclear enterprise. These issues will be touched on in the Kotter analysis.

A Kotter Analysis for the Future of Air Force Global Strike Command

Kotter's first step is to establish a sense of urgency. The urgency was created not only by the cheating scandal, but also by the SECDEF directing internal and external investigations. Kotter states, "Creating a strong sense of urgency usually demands bold or even risky actions that we normally associate with good leadership."[87] Lieutenant General Wilson and the FIP team exemplified bold leadership when they set out to tackle the scandal head on. Rather than hide the scandal from the public and brush it aside as a momentary lapse in judgment, Wilson and the FIP team set out to identify underlying cultural issues and stressed the urgency of creating lasting cultural change. Additionally, nine officers were fired during the aftermath of the investigations. These firings combined with the investigations, FIP actions, and the scandal itself created a sense of urgency.

The second step is creating the guiding coalition. This step was more difficult to accomplish than it would initially seem because there was a disconnect due to national leadership's confusing rhetoric on the priority of the nuclear mission combined with a lack of funding and lack of public understanding. Additionally, the "say-do gap" between what leadership within the Air Force and DOD said and did was confusing since the nuclear mission was deemed to be "uniquely important" while the force level lacked materiel, qualified personnel, facilities, and funding.[88] Part of the difficulty creating a guiding coalition within the Air Force was due to the fact that the only four-star general directly responsible for nuclear

forces was the Chief of Staff who was unable to provided "needed daily attention" and show proper due diligence to the nuclear mission.[89] In order to create a guiding coalition within the Air Force, the Chief of Staff regularly holds Nuclear Oversight Boards (NOBs). All MAJCOM commanders, the HAF/A10, and all nuclear leaders are required to attend each NOB. The location of the NOB rotates; its intent is to immerse high-level Air Force leadership in the nuclear mission to ensure they are educated on the mission and are able to advocate for it since many Air Force senior leaders lack any nuclear background. In addition to the NOB, the FIP team became a benchmark organization able to travel around AFGSC to ensure compliance and a return to the Air Force's Core Values within the command. The FIP team resides within the AFGSC headquarters and has also done improvement processes and surveys of the bomber communities and AFGSC headquarters itself.[90] These teams of leaders created the guiding coalition necessary to lead positive cultural change within the nuclear community of the Air Force and AFGSC.

Developing a vision and strategy is Kotter's third step. At this step AFGSC and the Air Force needed to be able to develop a vision that would incorporate why change within the nuclear community was necessary. AFGSC's mission is to "provide strategic deterrence, global strike, and combat support" and its vision is "Innovative leaders providing safe, secure and effective combat-ready forces for nuclear and conventional global strike…today and tomorrow!"[91] In order to comply with AFGSC's mission and vision it was necessary for Airmen within the command to follow a vision and strategy implementing nuclear cultural change. The Independent Review communicated the strategy when it directed DOD leadership to "own the mission," "restore mission confidence and credibility," and "ensure accountability" while

making sure that nuclear warriors at all levels understand the importance of the nuclear mission and are able to communicate this importance. [92]

The fourth step, communicating the change vision, was incredibly important within the nuclear enterprise as it required leadership at all levels to be able to obtain buy-in within their organizations. By keeping the vision simple it enabled the guiding coalition and lower level leadership to repeat the vision as much as possible in various forms of different length, which is what Kotter believes is necessary to have an effective change vision.[93] To ensure leadership within the command remains in step with the guidance from higher headquarter, AFGSC and its numbered air forces (NAFs) hold regular Senior Working Groups (SWGs). These SWGs bring command and senior enlisted from across the NAFs to either a NAF headquarters or AFGSC headquarters for a week of leadership and teambuilding to discuss ongoing operations and the status of the nuclear enterprise. [94] The SWGs allow the AFGSC Commander to informally evaluate the state of the nuclear enterprise and then give guidance on what to take back to their own organizations.

Empowering broad-based action is Kotter's fifth step. This was a big step for the nuclear enterprise since both investigations found that there was "intolerance of less-than-perfect outcomes at any level," and that this intolerance created a culture characterized by risk aversion and too much reliance on process and procedures often "to the detriment of personal responsibility and the authority and accountability of commanders." Risk avoidance and micromanagement were the norms within the nuclear community while monitoring and evaluation programs were used in an effort to make risk decisions without jeopardizing one's career.[95] ICBM missileer testing procedures and the personnel reliability program (PRP) are two great examples of how AFGSC eliminated barriers to success for nuclear personnel. The testing

procedures that led officers to cheat on a classified test were changed. Rather than recording individual scores, each test became pass or fail. This was designed to aid the officer performance report (OPR) process. Previously the OPR indicated an individual's scores on a test, which would either help or hurt that individual on a promotion board as well as help determine assignment selection. By implementing a pass/fail system, it removed grades from the OPR, which will help keep test scores from impacting a promotion board or assignment selection. The PRP system was set up during the SAC era as a way for commander's to monitor their individuals who worked with or around nuclear weapons.[96] For security force (SF) members in the missile fields, they were required to meet PRP standards *and* Arming and Use of Force (AUoF) standards. This not only created a significant amount of paperwork for the SF commanders and medical group, it also allowed security force Airmen who did not want to be stationed at a missile field to "opt out" for not meeting PRP standards. In order to remedy this situation it was determined that AUoF standards were enough for SF members in the missile fields. This eliminated the extra burden of the PRP paperwork, a layer of micromanagement, and proved to SF supervisors that their choice to arm an Airmen according to AUoF standards was good enough to work in the missile fields or at any other SF job in the Air Force.[97] Although this step is still in progress, it is clear that AFGSC and the Air Force have taken the right steps toward empowering individuals and encouraging bold actions.

The sixth step is generating short-term wins. For AFGSC this step began almost immediately when Lieutenant General Wilson agreed with 90 percent of the FIP team recommendations from the AFGSC bases. Wilson instructed commanders to change what was within their power and then sought solutions from higher headquarters as needed. Short-term basing wins included transferring the B-1 bombers from ACC to AFGSC, KUMSC from AFMC

to AFGSC, and the E-4 airborne command post from ACC to AFGSC. Additionally, the commander of AFGSC became a four-star general position. These actions almost immediately proved that DOD and Air Force leadership were finally on board with making the nuclear enterprise a "top priority." Other short-term wins included new SF uniforms designed for the colder environments experienced at the northern-tier ICBM bases, and various pay incentives for critical officer and enlisted nuclear positions.[98] The uniform changes and pay incentives were small actions by AFGSC and Air Force leadership that personally affected all levels of officer and enlisted Airmen throughout AFGSC. These changes enhanced morale and motivation while proving sacrifices made by nuclear Airmen on a daily basis are worth it—all actions that Kotter finds crucial when implementing cultural change.[99]

Consolidating gains and producing more change is Kotter's seventh step. This step is not a short process and involves "hiring, promoting, and developing" people who are able to implement the new change vision.[100] There were many issues within the nuclear enterprise that highlighted lack of career progression within the Air Force. ICBM operators, maintainers, and helicopter operators all lacked a clear path. Exacerbating this problem is the fact that there was very little general officer level leadership within the Air Force with nuclear experience. As previously mentioned, the "rise of the fighter generals" left little room for those with nuclear experience to progress. This created a bathtub effect with very few nuclear operators to choose from for nuclear positions—for example, General Robin Rand, the first four-star general to lead AFGSC had no experience in bomber nuclear operations and the nuclear community before taking over the command.[101] There were no four-star generals with nuclear experience when Rand took command at AFGSC and very few three-star generals with nuclear experience. In an attempt to remedy this problem, the Air Force has created a career field track for *all* officers with

nuclear experience and has instituted mid-level leadership positions within ICBM squadrons.[102] Additionally, in an effort to fund these requirements and fix aging weapon systems, AFGSC earned an additional $214 million for fiscal year 2015 to fund nuclear command, control, and communication systems, manpower, readiness requirements, and FIP initiatives.[103] Although it is early in the process, these steps indicate that the Air Force is consolidating gains and producing more change within its nuclear enterprise.

Kotter's final step is anchoring new approaches in the culture. In order for positive change within the nuclear community to last, it is necessary for AFGSC and Air Force leadership to understand that many changes cannot happen quickly, and that it will require time and buy-in from many individuals. Like LeMay and SAC, AFGSC now has buy-in from leadership within the Air Force, DOD, and Capitol Hill. This will ensure the nuclear mission remains a top priority. Additionally, educating nuclear operators and support personnel is also a priority for AFGSC and Air Force leadership. In order to help educate nuclear officers, the Air Force created the School for Advanced Nuclear Deterrence Studies (SANDS). The goal of SANDS is to "produce deterrence experts" who can either serve on a staff or return to subordinate commands within AFGSC and "share their knowledge with colleagues, helping to improve the overall understanding of Airmen."[104] Educating nuclear Airmen and ensuring buy-in at the highest levels are ways to guarantee the nuclear mission receives necessary funding and remains a top priority within AFGSC and the Air Force. Kotter states, "Culture changes only after you have successfully altered people's actions, after the new behavior produces some group benefit for a period of time, and after people see the connection between the new actions and the performance improvement."[105] These actions by AFGSC and the Air Force are steps in the direction of lasting positive cultural change within the nuclear enterprise.

It has only been two years since the investigations took place and FIP was implemented. It is too early to give a definite answer as to the success of positive cultural change within the Air Force nuclear enterprise, but it appears that AFGSC and nuclear Airmen are on the right track. In order to avoid a relapse, and potentially failing at a no-fail mission, it is imperative that AFGSC and AF leadership continue to push for funding and support for the nuclear community.

Conclusion

> *As long as nuclear weapons exist, the United States must invest the resources necessary to maintain—without testing—a safe, secure, and effective nuclear deterrent that preserves strategic stability.*
>
> - 2015 National Security Strategy[106]

It is too soon to assess whether or not changes within AFGSC and the Air Force's nuclear enterprise will have lasting effects. As seen with SAC, effective leadership can bring success to people, processes, and materiel within an organization, but it requires time and dedication. The nuclear mission is a "no-fail" mission; it is imperative that AFGSC and the Air Force receive the needed support and funding to successfully operate this mission and train future nuclear warriors. If leadership within the Air Force, AFGSC, and DOD remain strong and dedicated to the nuclear mission, the nuclear mission will continue to be a success. However, if leadership lacks an understanding of the importance of the nuclear deterrence mission and is unable to adapt to changing technology and world events and allows the nuclear mission to atrophy, it is likely the nuclear mission will fail when the country needs it most.

Notes

[1] Stephen Wilson, "AFGSC: Reflections on the Past and a Look into the Future" (speech, Air Force Association, Washington, DC, April 21, 2015), transcript http://higherlogicdownload.s3.amazonaws.com/AFA/6379b747-7730-4f82-9b45-a1c80d6c8fdb/UploadedImages/Events/Heussy/042115afawilsondraft%20-%20CLEAN.pdf. After commanding Air Force Global Strike Command, General Wilson moved to United States Strategic Command where he currently serves as the deputy commander of the command.
[2] Basil H. Liddell Hart, *Thoughts on War* (London: Faber and Faber, 1944), 115.
[3] Williamson Murray, "Does Military Culture Matter?" *Orbis* (Winter 1999), 27-43, http://search.ebscohost.com.
[4] Edgar Schein, *Organizational Culture and Leadership*, 3rd ed. (San Francisco, CA: Josey Bass, 2004), 1.
[5] Murray, 27-43. "Does Military Culture Matter?" Suzanne C. Nielsen, "An Army Transformed: The U.S. Army's Post-Vietnam Recovery and the Dynamic of Change in Military Organizations," *The Letort Papers* (U.S. Army War College, 2010), 12.
[6] Nielsen, 3.
[7] David A. Garvin and Michael A. Roberto, "Change Through Persuasion", Harvard Business Review (May 2009): 104-106.
[8] John P. Kotter, *Leading* Change (Boston: Harvard Business Review, 2012), 4-5. According to Kotter, complacency is driven by past successes, a lack of a "visible crisis," performance standards that are not high enough, and a lack of feedback from external agencies. Without a sense of urgency to change, people "cling to the status quo and resist initiatives from above."
[9] Ibid., 6-7
[10] Ibid., 7-9
[11] Ibid., 9-10. Inconsistent forms of communication, or communication that conflicts with the vision may cause employees to lose their buy-in.
[12] Ibid., 10-11.
[13] Ibid., 11-12. If goals and milestones are not celebrated along the way, change momentum may come to a halt. Additionally, Kotter gives a 6 to 18 month window for change that will leave employees feeling dejected if there is not "compelling evidence" that change has been worth it. If this does not happen, employees may give up or "actively join the resistance."
[14] Ibid., 13-15.
[15] Ibid., 17.
[16] Ibid., 28 & 24.
[17] Ibid., 44-46. Kotter believes that people will always look for a reason and way to stick with what they know. If urgency is not felt throughout an organization, change "will probably die short of the finish line." He identifies many sources of complacency including, "the absence of a major and visible crisis;" "too many visible resources;" "a lack of sufficient performance feedback from external sources;" "a kill-the-messenger-of-bad news, low-candor, low-confrontation culture;" the human nature to deny change is necessary; and "too much happy talk from senior management" (Kotter, 38, 42). There are four general characteristic of military organizations – standardization, culture, vested interests, and uncertainty avoidance (Nielsen, 9). These characteristics are often barriers to organizational culture change within the military. Unless there is a conflict or war it is hard to begin change and create a sense of urgency due to a

lack of a perceived crisis. This is where it is up to military leadership to "create" a crisis and establish a sense of urgency.

[18] Kotter, 61, 67. Kotter points out it is a dangerous misnomer to believe that only one strong leader or manager is necessary to lead change, when it takes an entire group. Four "key characteristics" of a guiding coalition are: "position power" – key players must be on board; "expertise" – these key players must have varying background so that intelligent, well-informed decisions can be made; "credibility" – each member of the coalition must be credible and taken seriously by others in the organization; and "leadership" – all members of the guiding coalition must be able to lead, manage, and work with others (Kotter, 53, 59-60). Kotter recommends against having people with excessive egos or who are not trustworthy on the guiding coalition. In the military, the "leader" in charge of building a guiding coalition is the commander. It is up to the commander to ensure the guiding coalition consists of leadership with diverse backgrounds who are all willing to instill the needed change.

[19] Ibid., 23, 70. A good vision is "a picture of the future [of an organization] with some implicit or explicit commentary on why people should strive to create that future." An effective vision is imaginable, desirable, feasible (with realistic and attainable goals), focused, flexible (allows initiative and course changes during the change process), and communicable (can be easily explained within five minutes) (Kotter, 70, 71, 74). Almost all military organizations have mission and vision statements. It is up to the commander to ensure that these statements accurately reflect the mission the unit is tasked with doing, and that individuals within the organization are invested in its mission and vision. Both the mission and vision should be timeless and able to outlast multiple commanders no matter what leadership style they implement, even if it happens to be toxic.

[20] Ibid., 23. The guiding coalition must be willing to advertise this new vision and "role model" employee expectation. This cannot be done if there is not a "shared sense of a desirable future" and a common understanding of the vision and how to get there (Kotter, 87). Once communication has begun, it must be simple and jargon-free, and able to be understood by many different groups of individuals. In the military it is up to the commander and the guiding coalition to decide the best avenues for communication. All commanders must be willing to seek feedback and encourage two-way communication.

[21] Ibid., 91-92.

[22] Ibid., 23. Leaders and managers must remove structural barriers and provide training needed to reach the vision. Kotter also says to make sure that supervisors are not hindering success and to ensure they are on the same page and not discouraging employees from making change toward the new vision (Kotter, 106, 110, 116). An organization, military or otherwise, must have "the right structure, training, systems, and supervisors to build on a well-communicated vision" to safeguard employee empowerment (Kotter, 119).

[23] Ibid., 23. Positive feedback builds morale and enhances motivation, and helps "fine-tune" the vision while ensuring employees stay on board with the change plan. Additionally, short-term wins build momentum and will pull neutral employees in line with the vision while keeping "bosses" at different levels on track with the vision. Short-term wins are often impacted by the size and scope of an organization undergoing change.

[24] Ibid., 150, 139. "Hiring, promoting, and developing" individuals who are implementing or can implement the new vision is necessary, as is reinvigorating the change process "with new projects, themes, and change agents" (Kotter, 23). During this step Kotter says it is important to

use success to tackle even bigger challenges, and bring in new people and promote those who are deserving. It is necessary to keep senior leadership engaged and clearly communicating the vision, goals, and urgency while lower-level leadership should continue to guide and manage personnel (Kotter, 150).

[25] Ibid., 23. If there is resistance, turnover of key people may be required. "Culture changes only after you have successfully altered people's actions, after the new behavior produces some group benefit for a period of time, and after people see the connection between the new actions and the performance improvement" (Kotter, 166). One of the reasons military organizations easily resist change is the high turnover rate of personnel which does not allow for a new mindset to be engrained in their thoughts and behavior.

[26] Schein, 23.

[27] Curtis LeMay and MacKinlay Kantor, *Mission with LeMay: My Story* (Garden City, NY: Doubleday and Company, Inc., 1965), 456.

[28] Melvin Deaile, "The SAC Mentality: The Origins of Strategic Air Command's Organizational Culture, 1948-51," *Air and Space Power Journal* (March-April 2015): 51. http://www.dtic.mil. Twentieth Air Force was created in April 1944 and was initially led from Washington, DC by Hap Arnold, the AAF Commanding General. Arnold created Twentieth Air Force for "unity of command in the Pacific" in order to keep Army generals and Navy admirals from directing "his high-priced bombers as auxiliary support for surface forces and divert[ing] them from their primary mission of destroying Japan's vital centers." Mark Clodfelter, *Beneficial Bombing: The Progressive Foundations of American Air Power, 1917-1945* (Lincoln, NE: University of Nebraska Press, 2010), 165-166. Today, Twentieth Air Force is responsible for maintaining, securing, supporting, and operating all Minuteman III ICBMs.

[29] Walton S. Moody, *Building a Strategic Air Force* (Washington, DC: Government Printing Office, 1995), 7.

[30] Harry R. Borowski, *A Hollow Threat: Strategic Air Power and Containment before Korea* (Westport, CT: Greenwood Press, 1982), 7-8. Michael Sherry, *The Rise of American Air Power: The Creation of Armageddon* (New Haven, CT: Yale University Press, 1988), 353-356. Although it is debated whether or not the atomic bomb compelled the Japanese to surrender and won the war, it is agreed that the atomic bomb hastened the end.

[31] Deaile, 51-52.

[32] John J. Bleil, "Roadmap for a New Command: Lessons from Strategic Air Command and Air Combat Command" (master's thesis, School of Advanced Air and Space Studies, 2009), 17.

[33] Office of the Historian, Headquarters Strategic Air Command, *The Development of Strategic Air Command, 1946-1981* (Offutt Air Force Base, NE: Headquarters Strategic Air Command, 1982), 1-3. http://www.dtic.mil. CAF resources were divided between SAC, Tactical Air Command, and Air Defense Command. SAC Headquarters moved from Bolling Field to Andrews Field on October 21, 1946.

[34] Deaile, 55-56. Kenney never took part in the strategic bombing of Japan during World War II.

[35] Office of the Historian, Headquarters Strategic Air Command, 1.

[36] Ibid., 57-58.

[37] Ibid., 58. Autonomy allowed the Air Force control over its missions, personnel, force structure, and resources. Prior to independence, the AAF was completely reliant on support from the Army and War Department.

[38] Ibid., 58-59.

[39] Ibid.
[40] Bleil, 25. In July of 1946, Major General St. Clair Street, still the SAC deputy commander, wrote: "No major strategic threat or requirement now exists, in the opinion of our country's best strategists nor will such a requirement exist for the next three to five years." (Moody, 78). With this statement it should not be surprising that SAC leadership failed to create a sense of urgency.
[41] Deaile, 57
[42] Bleil, 25. Spaatz & Vandenberg chaired separate "boards" prior to the creation of SAC that studied the atomic bomb. Both boards concluded that although the threat of another country using the atomic bomb did not yet exist, it was necessary for the United States to continue to advance atomic weapon technology. Additionally, the boards concluded that it made sense for the AAF to be the force responsible for the safe operation and employment of the weapons since the AAF possessed strategic bombers and other delivery systems were not yet invented. (Moody, 55-57)
[43] Moody, 65.
[44] Ibid., 65-66.
[45] Deaile, 59.
[46] SAC History, 14.
[47] Bleil, 26-27. Basing issues were created when it was announced that SAC headquarters would be moved from Andrews to Colorado Springs. Many personnel had already moved to Colorado Springs and bought homes when it was decided that SAC would be headquartered out of Offutt Air Force Base in Omaha, Nebraska instead of Colorado Springs. This caused many individuals to leave the command who otherwise might have stayed had the command either moved to Offutt to begin with or stayed in Colorado Springs.
[48] Meilinger, *Hoyt S. Vandenberg: The Life of a General* (Washington, DC: Air Force History and Museums Program), 106.
[49] Schein, 36.
[50] LeMay and Kantor, 429.
[51] Ibid., 429-430.
[52] Ibid., 431 & 456.
[53] Deaile, 61.
[54] Moody, 229-230.
[55] LeMay and Kantor, 436. Phillip S. Meilinger, "How LeMay Transformed Strategic Air Command," *Air and Space Power Journal* (March-April 2014), 78.
[56] Deaile, 66. LeMay and Kantor, 439.
[57] LeMay and Kantor, 467.
[58] Borowski, 175-176.
[59] Meilinger, "How LeMay Transformed Strategic Air Command," 82.
[60] Borowski, 177.
[61] Ibid.
[62] Deaile, 65.
[63] LeMay and Kantor, 479.
[64] Deaile, 66.
[65] LeMay and Kantor, 436.
[66] Meilinger, "How LeMay Transformed Strategic Air Command," 85.

[67] US Department of Defense, *Independent Review of the Department of Defense Nuclear Enterprise* (Washington, DC: Office of the Secretary of Defense, June 2014), 3.
[68] Schein, 26. Schein defines artifacts as visible organizational structures and processes that are on the surface level and can be observed by someone outside of an organization. He defines espoused beliefs and values as strategies, goals, and philosophies that provide a "social validation" for individuals within an organization. Finally, he defines underlying assumptions as subconscious beliefs and values that are taken for granted and help determine behavior, perception, thought and feeling.
[69] Ibid., 225.
[70] Michael R. Worden, *Rise of the Fighter Generals* (Maxwell Air Force Base, AL: Air University Press, 1998), 236-237.
[71] Ibid., x. It was not until August 2008 that a non-fighter general was appointed Air Force Chief of Staff. Another fighter pilot immediately followed his tenure in 2012.
[72] Robert Spalding, "Culture Clash: Bomber Nuclear Operations in a Post-Cold War World," *Air and Space Power Journal* (Winter 2009): 102-103, http://www.dtic.mil.
[73] US Department of Defense, *Report of the Secretary of Defense Task Force on DOD Nuclear Weapons Management – Phase I: The Air Force's Nuclear Mission* (Washington, DC: Office of the Secretary of Defense, Task Force on DOD Nuclear Weapons Management, September 2008), 21. From here on out this will be referred to as the "Schlesinger Report."
[74] US Air Force, *Reinvigorating the Air Force Nuclear Enterprise* (Washington, DC: Director Nuclear Operations, Plans and Requirements, Air Force Nuclear Task Force, October 2008), 1. From here on out this will be referred to as the 2008 Air Force Nuclear Task Force.
[75] Spalding, 102-103.
[76] 2008 Air Force Nuclear Task Force, 2.
[77] Ibid., 2. The Air Force did not receive the ICBM parts back until 2008. At the same time news of the accidental shipment and inadvertent ferrying of nuclear weapons made world headlines.
[78] Schlesinger Report, 14.
[79] The only other MAJCOM led by a three-star general was Air Force Special Operations Command.
[80] US Air Force, *Report on Nuclear Deterrence Mission* (Washington, DC: Office of the Secretary of the Air Force, March 2014), 13.
[81] Air Force Global Strike Command, *A Proposed Human Resource Development Plan to Improve the Culture and Climate for Training and Evaluating ICBM Crew Members* (Barksdale Air Force Base, LA, March 2014), 11-13. This will be referred to as the "AFGSC Human Resource Development Plan."
[82] Ibid., 15-16.
[83] Ibid., 17.
[84] Ibid., 24.
[85] Ibid., 41
[86] US Air Force, *Report on Nuclear Deterrence Mission*, i.
[87] Kotter, 45.
[88] US Department of Defense, *Independent Review of the Department of Defense Nuclear Enterprise*, 4-6.
[89] Ibid., 30.

[90] After the FIP process had been underway for about a year, Lieutenant General Wilson saw the success it had within the command and how receptive people were to the idea during question and answer sessions following speeches and informal visits. This led him to unofficially declare the FIP to be more of a process than a program, and to decide to implement FIPs within the bomber community and AFGSC headquarters. At the time Airmen within the command and the Air Force were able to track FIP action items and process on an AFGSC FIP website. In the summer of 2015 General Wilson relinquished command. Since then the FIP website has been taken down and the FIP programs has been renamed "Airmen Driven Innovation" within a new "Global Strike Health and Operations Council" or GSHOC. The GSCHOC does not have an accessible website. Additionally, piggybacking off of the AFGSC FIP, ACC implemented a Culture and Process Improvement Program aimed to improve the remotely piloted aircraft (RPA) community.
[91] Air Force Global Strike Command, "Fact Sheet," last modified December 2015, http://www.afgsc.af.mil/Library/FactSheets/Display/tabid/2655/Article/454593/air-force-global-strike-command.aspx.
[92] US Department of Defense, *Independent Review of the Department of Defense Nuclear Enterprise*, 10-11.
[93] Kotter, 96.
[94] AFGSC Human Resource Development Plan, 66.
[95] US Department of Defense, *Independent Review of the Department of Defense Nuclear Enterprise*, 21.
[96] US Air Force, *Report on Nuclear Deterrence Mission*, 8.
[97] Robin Rand, "Status of Air Force Nuclear and Global Strike Systems" (testimony, United States House of Representatives, Washington, DC, March 2, 2016), 13.
[98] Ibid., 13.
[99] Kotter, 127.
[100] Ibid., 23.
[101] US Air Force, "General Robin Rand Biography," last modified November 2015, http://www.af.mil/AboutUs/Biographies/Display/tabid/225/Article/107922/general-robin-rand.aspx
[102] US Air Force, *Report on Nuclear Deterrence Mission*, 9.
[103] Rand, 14.
[104] US Air Force, "AF Global Strike Command Establishes School for Its Best, Brightest," accessed April 1, 2016, http://www.af.mil/News/ArticleDisplay/tabid/223/Article/612054/af-global-strike-command-establishes-school-for-its-best-brightest.aspx.
[105] Kotter, 164-165.
[106] The White House, *The National Security Strategy of the United States of America* (Washington, DC, 2015), 11.

Bibliography

Air Force Association. "Four Star Forum." 2015 Air and Space Conference and Technology Exposition, September 16, 2015.

Air Force Global Strike Command. "Fact Sheet." Last modified December 2015, accessed April 1, 2016. http://www.afgsc.af.mil/Library/FactSheets/Display/tabid/2655/Article/454593/air-force-global-strike-command.aspx.

Air Force Global Strike Command. *A Proposed Human Resource Development Plan to Improve the Culture and Climate for Training and Evaluating ICBM Crew Members.* Barksdale Air Force Base, LA: Office of the Commander of Air Force Global Strike Command, March 2014.

Bleil, John J. "Roadmap for a New Command: Lessons from Strategic Air Command and Air Combat Command." Master's thesis, School of Advanced Air and Space Studies, 2009. http://www.dtic.mil.

Borowski, Harry R. *A Hollow Threat: Strategic Air Power and Containment before Korea*. Westport, CT: Greenwood Press, 1982.

Clodfelter, Mark. *Beneficial Bombing: The Progressive Foundations of American Air Power, 1917-1945.* Lincoln, NE: University of Nebraska Press, 2010.

Deaile, Melvin G. "The SAC Mentality: The Origins of Strategic Air Command's Organizational Culture, 1948-51." *Air and Space Power Journal* (March-April 2015): 48-73. http://www.dtic.mil.

Gammon, Laurel V. "Culture Change: Is the United States Air Force Taking the Right Steps to Change the Culture of the Air Force Nuclear Enterprise?" Air Force Fellows, Air University, 2011. http://www.dtic.mil.

Garvin, David A. and Michael A. Roberto. "Change Through Persuasion." *Harvard Business Review* (May 2009): 104-112. http://search.ebscohost.com.

Grissom, Adam. "The Future of Military Innovation Studies." *The Journal of Strategic Studies* Vol. 29, No 5 (October 2006): 905-934. http://search.ebscohost.com.

Hart, Basil H. Liddell. *Thoughts on War.* London: Faber and Faber, 1944.

Kelly, Jeffrey. "Resistance to Organizational Cultural Change in the Military: A JFO Case Study." Master's thesis, U.S. Army War College, 2008. http://www.dtic.mil.

Kotter, John P. *Accelerate*. Boston: Harvard Business Review Press, 2014.

Kotter, John P. *Leading Change*. Boston: Harvard Business Review Press, 2012.

LeMay, Curtis, and MacKinlay Kantor. *Mission with LeMay: My Story.* Garden City, NY: Doubleday and Company, Inc., 1965.

Meilinger, Phillip S. "How LeMay Transformed Strategic Air Command." *Air and Space Power Journal* (March-April 2014): 77-86. http://www.dtic.mil.

Meilinger, Phillip S. *Hoyt S. Vandenberg: The Life of a General.* Washington, DC: Air Force History and Museums Program, 2000.

Michel, Marshall L. "The Revolt of the Majors: How the Air Force Changed After Vietnam." Doctoral dissertation, Auburn University, 2006. https://etd.auburn.edu/bitstream/handle/10415/595/MICHEL_III_55.pdf.

Moody, Walton S. *Building a Strategic Air Force.* Washington, DC: U.S. Government Printing Office, 1995.

Murphy, Robert M. "Managing Strategic Change: An Executive Overview." U.S. Army War College, 2003. http://www.dtic.mil.

Murray, Williamson. "Does Military Culture Matter?" *Orbis* (Winter 1999): 27-43. http://search.ebscohost.com.

Nielsen, Suzanne C. "An Army Transformed: The U.S. Army's Post-Vietnam Recovery and the Dynamic of Change in Military Organizations." *The Letort Papers*. Strategic Studies Institute, U.S. Army War College, 2010.

Office of the Historian, Headquarters Strategic Air Command. *The Development of Strategic Air Command, 1946-1981*. Offutt Air Force Base, NE: Headquarters Strategic Air Command, 1982. http://www.dtic.mil.

Rand, Robin. "Status of Air Force Nuclear and Global Strike Systems." Presentation to the House Armed Services Committee, Strategic Forces Subcommittee, United States House of Representatives. United States Congress, Washington, DC, March 2, 2016.

Schein, Edgar H. *Organizational Culture and Leadership*, 3rd ed. San Francisco, CA: Josey Bass, 2004.

Sherry, Michael S. *The Rise of American Air Power: The Creation of Armageddon.* New Haven, CT: Yale University Press, 1987.

Spalding, Robert. "Culture Clash: Bomber Nuclear Operations in a Post-Cold War World." *Air and Space Power Journal* (Winter 2009): 102-103. http://www.dtic.mil.

US Air Force. "AF Global Strike Command Establishes School for its Best, Brightest." August 4, 2015, accessed April 1, 2016. http://www.af.mil/News/ArticleDisplay/tabid/223/Article/612054/af-global-strike-command-establishes-school-for-its-best-brightest.aspx.

US Air Force. "General Robin Rand Biography." Last modified November 2015, accessed April 1, 2016. http://www.af.mil/AboutUs/Biographies/Display/tabid/225/Article/107922/general-robin-rand.aspx.

US Air Force. *Reinvigorating the Air Force Nuclear Enterprise.* Washington, DC: Director Nuclear Operations, Plans and Requirements, Air Force Nuclear Task Force, October 2008. https://www.dtic.mil.

US Air Force. *Report on Nuclear Deterrence Mission.* Washington, DC: Office of the Secretary of the Air Force, March 2014.

US Department of Defense. *Independent Review of the Department of Defense Nuclear Enterprise.* Washington, DC: Office of the Secretary of Defense, June 2014.

US Department of Defense. *Report of the Secretary of Defense Task Force on DOD Nuclear Weapons Management – Phase I: The Air Force's Nuclear Mission.* Washington, DC: Office of the Secretary of Defense, Task Force on DOD Nuclear Weapons Management, September 2008. https://www.dtic.mil.

Wilson, Stephen. "AFGSC: Reflections on the Past and a Look into the Future." Speech. Air Force Association, Washington, DC, April 21, 2015, accessed March 1, 2016. http://higherlogicdownload.s3.amazonaws.com/AFA/6379b747-7730-4f82-9b45-a1c80d6c8fdb/UploadedImages/Events/Heussy/042115afawilsondraft%20-%20CLEAN.pdf.

The White House. *The National Security Strategy of the United States of America.* Washington, DC, 2015.

Worden, Michael R. *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945 1982.* Maxwell Air Force Base, AL: Air University Press, 1998.