The SAC Mentality

The Origins of Strategic Air Command's Organizational Culture, 1948–51

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> *Air power can attack the vital centers of the opposing country directly, completely destroying and paralyzing them. . . . The basis of air force power is the bombardment airplane or bomber.*
>
> —Gen William "Billy" Mitchell

"KLAXON! KLAXON! KLAXON!" When public address systems echoed these words at Strategic Air Command (SAC) bases across the United States, red lights flashed and "SAC warriors" scrambled to their

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awaiting bombers.[1] As pilots frantically brought their nuclear-armed planes to life, navigators decoded cryptic emergency action messages to determine if the alert response was an actual launch against the Soviet Union or just another exercise. SAC warriors never executed their preplanned missions against America's Cold War enemy, but for over 40 years, the possibility that the United States could and might do so served to deter a possible Soviet attack against the American homeland.

Operating under these strenuous conditions placed a considerable burden on the organization. Every day, SAC aircrews studied their planned routes into Mother Russia and conducted training missions as regimented and scripted as the "real" thing. Additionally, SAC personnel's regular handling of nuclear weapons required a high degree of supervision and strict observance of established procedures. For the command's leaders, controlling this nuclear armada called for a unique operating paradigm built on routine, control, and flawless execution.

The Air Force and the nation came to rely on SAC as the pillar of Cold War deterrence. Therefore, the organization grew in size, strength, and power, reaching its peak in the 1960s. By the early 1960s, SAC's bomber generals held more than 50 percent of the senior command positions within the Air Force.[2] These leaders, largely veterans of the World War II strategic bombing campaigns, collectively believed that the threat of nuclear bombing—as well as, later, the additional risk of a nuclear missile attack—was *the* way to deter potential adversaries. In the mid-1960s, the Cold War shifted its focus when war erupted over the unification of Vietnam.[3] When the Cold War shifted to a periphery strategy, airpower concentrated on tactical aviation, and SAC's primacy in the Air Force began to wane.[4]

In 1989 the Berlin Wall fell, and the Cold War ended. The Air Force decided that the singularity of SAC's mission—nuclear deterrence—no longer met the nation's interests. The command closed its operations in 1992 and transferred its missiles to the newly formed Strategic Command. SAC's bombers became part of Air Combat Command, serving

with fighters instead of remaining separate from them. Unlike the phoenix, SAC would not rise again. Forty years of alert posturing and preparation for an apocalyptic war caused the command and its warriors to develop an organizational paradigm commonly labeled the "SAC mentality," which served the command well in the early, intense years of the Cold War.

This is the story of how this vital organization, a part of American history, developed its own organizational culture. SAC culture did not form overnight; it initially grew out of the Air Force's belief in strategic bombardment. Although SAC's culture was founded on the principle of centralized, independent bombing, the external environment—namely, the Cold War—played an important role in shaping that culture. Like any living organism, SAC evolved over time based on (1) its internal makeup and (2) its response to the external environment. In 1948 Air Force leadership earned a central role for the organization in the nation's defense, but mismanagement by SAC's leaders threatened to unravel these gains. Beginning in late 1948, new SAC leadership put the command on a war footing. By 1951 SAC embodied the belief that a highly specialized strategic bombardment force was paramount to national defense.

Simulating military operations under an "at war" mentality triggered the development of a SAC organizational culture.[5] Facing a conflict measured in hours and days rather than months and years forced the command to implement policies and directives that daily evaluated its preparation for an all-out nuclear war with the Soviet Union. In the minds of SAC's members, scripted and standardized procedures characterized the SAC mentality, setting the command apart from the other military services. Its culture became recognizable in the symbols it embraced. The intercontinental bomber represented the organization's independence from other services; the atomic bomb gave SAC its political power; and SAC's exclusive promotion system set its personnel apart from those in the rest of the Air Force, implying their uniqueness of mission and purpose. At the heart of SAC operations lay the

strategic bomber—all operations supported the main objective to put bombs on target.

Creation of Strategic Air Command: Model of an Independent, Strategic Bombing Organization

SAC embodied what airpower's prophets (e.g., Billy Mitchell and Giulio Douhet) had advocated—an offensive air armada dedicated to strategic bombardment. In Airmen's eyes, successful strategic bombardment required the application of two essential principles of war: unity of effort and mass. The precedent for the creation of SAC came from the strategic bombing campaign conducted in the Pacific. As the war effort shifted from the European theater to the Pacific, Gen Henry "Hap" Arnold recognized the divided effort in that ocean. Adm Chester Nimitz ran the campaign in the Central Pacific, and Gen Douglas MacArthur headed the effort in the South Pacific. Assigning bombers to both commands, Arnold reasoned, would divide the bombing effort. "Hap" asked the Joint Chiefs of Staff (JCS) for a different command system when newly produced B-29s began service in the bombardment of Japan. Although Arnold faced initial opposition from the JCS, he eventually won support for the creation of Twentieth Air Force, which would centrally command and control bomber operations in the Pacific.[6] This command remained the only numbered air force whose operations were directly controlled from Washington, DC. When the Army Air Forces (AAF) created SAC, it pushed for a similar type of relationship.

The JCS submitted its first plan for organizing the US military, known as the Unified Command Plan, in 1946. It specified that the SAC commander report directly to the JCS. Although SAC had not yet been assigned a specific mission, the JCS maintained control of all strategic assets through the SAC commander. Strategic bombing operations were now centrally controlled, bringing to mind Twentieth Air Force's command structure during the strategic bombing of Japan in

World War II. This situation enabled SAC to become the first specified command in the United States.[7] Since SAC now received its directives and targets directly from the JCS, it became a major part of the national war plan.[8] The Air Force, however, wanted more. The leadership desired greater autonomy for SAC operations. To increase the command's power, both symbolically and politically, the Air Force embraced not only the intercontinental bomber but also nuclear weapons.

The service approached atomic weapons from a pragmatic viewpoint. Gen Carl Spaatz issued a report in October 1945 that examined the implications of atomic bombs on strategic air operations. The US Air Force Aircraft and Weapons Board determined that "the atomic bomb . . . has not altered our basic concept of the strategic air offensive but has given us an additional weapon."[9] During World War II, limited bomb-carrying capacity meant that the Americans had to send large numbers of bombers against a single target. Arranged in large formations to defend themselves from German fighters, the bombers became valued targets for Axis air defenses. Nuclear weapons, however, gave the Air Force an opportunity to change operational concepts for strategic bombardment. These powerful bombs dramatically increased the destructive power of each bomber.[10] As one Air Force officer noted, arming bombers with nuclear weapons made "the airplane at present, and its descendants in the future, the greatest offensive weapon of all times."[11]

Nuclear weapons also drastically diminished the number of aircraft necessary to destroy a target. Reducing the number of bombers in formation made it more difficult for fighters to find the penetrating bombers. During the summer of 1947, the Air Force conducted tests to show how new jet fighters had difficulty identifying a sole penetrating bomber. The speed of fighters and bombers increased, thereby giving fighters only one chance for a head-on shot at the penetrating bombers. Finding an elusive single bomber in the sky proved problematic.[12] Combining these factors, the Air Staff submitted a report in 1947 that highlighted how the bomber and the atomic bomb reduced the need

for large conventional forces, concluding that "the atomic bomb and the long-range bomber will permit the delivery of devastating blows to the heart of the enemy without the necessity for the conquest of intermediate bases. . . . Assuming a plentiful supply of atomic bombs, . . . it would be feasible to risk an all-out atomic attack at the beginning of a war in an effort to stun the enemy into submission."[13] Not only did atomic weapons increase the destructive power of each bomber but also, and more importantly, the potential power of nuclear weapons enlarged SAC's power politically. As the command responsible for employing a majority of the US nuclear stockpile, SAC continued to receive presidential and congressional interest. The internal beliefs of the Air Force on strategic bombing *came to fruition with the creation of SAC*. As the Cold War heated up, the organization would respond to the changing strategic environment, and its culture would further evolve.

The Cold War Heats Up

Although the JCS charged the Air Force with the strategic air mission, SAC struggled to muster the resources necessary to carry out that assignment. Attempting to rein in the federal budget, President Truman placed fiscal limitations on defense spending. James Forrestal, the first secretary of defense, attempted to resolve budgetary problems by building "balanced forces." Under his plan, each service would spend funds on forces that contributed to the nation's larger strategic concept. Crucial to Forrestal's strategy was the ability to "strike inland with the atomic bomb."[14] In the interest of balance, he agreed at the 1948 Key West conference to allow the Navy to pursue development of a supercarrier while the Air Force purchased B-36s. Budget matters, however, forced the JCS to reconsider what it believed were duplicative efforts.

The debate over weapon systems and national defense stemmed from the services' competing visions of how the United States should conduct warfare in the nuclear age. The Air Force argued that the B-36 could deliver a powerful counterattack from the United States or

Alaska and return to the United States.[15] An armada of B-36s carrying nuclear weapons could directly strike the vital nodes of the Soviet Union, unhampered by range or access to staging areas. The Navy asserted that the Air Force sought an "atomic-blitz" war with an easy, cheap victory. Not only was there no cheap victory, the Navy contended, but also the idea of depending solely on "big bombers" as the only means of attack was a dangerous policy.[16] The Navy, however, was swimming upstream against JCS desires.

In 1948 Czechoslovakia fell to the Communists, and the Soviet Union blocked all access into West Berlin, causing the United States to respond with the Berlin airlift. America needed a war plan in case Soviet aggression threatened European and US interests. The JCS estimated that it would cost $21–23 billion to maintain adequate conventional forces in Europe and a naval fleet in the Mediterranean to thwart Soviet aggression. Truman, however, on 13 May 1948 placed a $14.4 billion limit on defense spending as he struggled to control a growing federal budget and deficit.[17] Confronting a nation still reeling from a devastating war and struggling to avoid becoming a garrison state similar to the Soviet Union, Truman could not see the point of funding the necessary conventional forces. The Air Force's emphasis on land-based strategic bombing from the United States dovetailed with the fiscal constraints President Truman placed on the defense budget. Therefore, an atomic air offensive offered a fiscally palatable alternative to costly conventional forces.

Most military leaders assumed that a confrontation with the Soviet Union would take place on European soil. Command of the air was essential to victory in this scenario. World War II had proven how air superiority provided troops on the battlefield better movement against the enemy. Although the war plans remained classified, General Spaatz, now in retirement, outlined how he felt the next war would unfold. While American ground forces secured air bases across Europe and fixed attacking Soviet forces in their positions, strategic bombers would strike the industrial base that buttressed the enemy troops,

thereby destroying their means of support.[18] Western forces, enjoying air superiority, would then face a much weaker Soviet force. Gen Omar Bradley, the chairman of the JCS, considered the Navy's primary mission the securing of lines of communication leading to raw materials and to areas of projected military operations. Furthermore, he determined that the United States needed strategic air operations to carry out this plan, and those operations were the purview of the Air Force.[19] When Louis Johnson succeeded Secretary of Defense Forrestal, he canceled the supercarrier, sounding the death knell for the Navy's attempt to carve out a piece of the strategic mission.[20]

In 1948 the battle over power projection, deterrence, and the United States' strategic defense came down to two choices: the B-36 or the Navy's supercarrier. The Air Force won and earned the leading role in national defense. In a speech delivered on 17 June 1949, Secretary of the Air Force Stuart Symington outlined the Air Force's role in national defense: "The Joint Chiefs of Staff's emergency defense plan as you know calls for a powerful air offense at the very outset of hostilities. The core of this air offensive is the strategic bombing effort. . . . The strategic bombing elements of the Air Force are, therefore, primarily designed to destroy—at the very outset—the enemy's means of making and supporting an attack against this Nation and its allies."[21] Developing and equipping SAC became the Air Force's highest priority. By the fall of 1948, Air Force leadership had won two significant battles: independence and a premier role for strategic bombardment. Leadership in DC had worked effectively to elevate the status of strategic bombardment, but SAC's commanders threatened to undo these achievements.

Making a Change at Strategic Air Command

In 1946 Gen George C. Kenney seemed a wise choice to lead the newly formed SAC. As MacArthur's Airman in the Pacific, Kenney had run an efficient air campaign that supported MacArthur's "island hopping" strategy in the South Pacific. Kenney's organizational structure acted as a forerunner to modern ideas of how to organize and control

air assets from multiple services.[22] Although B-17s and B-24s fell under his command, Kenney never took part in the strategic bombing of Japan. Twentieth Air Force ran operations out of Washington, DC. Furthermore, General Arnold sent General Spaatz from the European theater to the Pacific in July 1945 to command strategic air forces, making Spaatz an equal with MacArthur and Nimitz and preventing Kenney from taking part in any strategic bomber operations.[23] After retiring, General Kenney was asked why he was assigned commander of SAC. He quipped, "I don't know. Maybe they didn't know what else to do with me."[24] Critics would eventually use Kenney's lack of "strategic bomber" experience to explain SAC's poor performance under his command.

Despite Kenney's lack of "real" bomber experience, he fulfilled the mission that General Spaatz, now commanding general of the AAF, initially entrusted to him in 1946. General Kenney served as an excellent spokesperson for the Air Force. When he assumed command, the Air Force still was not a separate force, but Spaatz believed that "what we do now, the plans we lay, and the support we gain from the American people, during this period, will firmly establish the pattern for the future of our air power." He encouraged Kenney to be seen and heard, commenting, "While you nor I have any desire for personal aggrandizement, it is part of a commander's job."[25]

General Kenney enjoyed public speaking and accepted the many requests that came his way.[26] These appearances, however, drew him away from his duties as SAC commander. Therefore, he entrusted the daily operations of SAC to a long-time confidant, Gen Clements "Cement" McMullen, who, like Kenney, lacked strategic bombardment experience. In the Pacific, McMullen gave Kenney the logistics, supply, and maintenance needed to carry out his operations. McMullen never commanded a combat squadron but was widely recognized as an expert in organization and efficiency. Cement earned his nickname for his reputation of being stalwart on his command decisions and not eas-

ily swayed from his convictions.[27] This trait would prove both his and Kenney's undoing.

Kenney and McMullen inherited an impossible situation. The demobilization following World War II left SAC in a dire predicament as it faced shortages in several critical areas. In May 1946, the AAF authorized the command 43,729 personnel, but SAC had only 37,426 in its ranks.[28] Furthermore, those who left the service during the drawdown were usually the highly skilled personnel—especially aircraft maintenance and repair specialists—capable of landing lucrative jobs as civilians. A large portion of those who remained were unskilled and served in a command that heavily relied on new technology. Kenney and McMullen had three problems to overcome: obtaining new personnel and training them, reorganizing for efficiency, and rotating combat groups to forward bases and the Arctic.[29] McMullen's solution to the manning problem worsened SAC's condition to the point that it could not perform even its basic functions.

McMullen operated with a pre–World War II mind-set whereby pilots made up most of the Air Force. During those days, the AAF expected pilots to serve in multiple capacities. For example, the future SAC commander, Curtis LeMay, became famous for his skills as a navigator when his inexperience as a pilot prevented him flying the early models of the B-17. Gen John Montgomery, then a young pilot, recalled training in all three positions prior to the war: navigator, bombardier, and pilot.[30] This versatility was no longer practical in the highly technical Air Force of the Cold War. Nevertheless, Cement stood firm in his convictions. McMullen believed in cross-training crew members and assigning them to multiple billets to compensate for manpower shortages. The constant deployments overseas, though, meant that absent crew members often left staff work unfinished. More importantly, the combat readiness of the command suffered. Brig Gen Everett Holstrom, a SAC planner under LeMay and a pilot under Kenney, recalled that "everybody would do everything, and the pilots would do a navigator's job or a bombardier's job. It was cross training completely when

no one was fully trained in what we were doing."[31] The lack of specialization manifested itself in disappointing bomb scores and lower readiness rates.[32] While McMullen directed daily operations, Kenney continued his speeches.

Kenney never seemed to grasp what Air Force leaders were trying to accomplish. When the Aircraft and Weapons Board met in November 1947 to consider procuring more B-36s, the SAC commander cast the lone dissenting vote.[33] As Air Force leadership fought for SAC to become the primary instrument of the nation's defense, Kenney and McMullen allowed proficiency to decrease. Bombs scores rose as crews dropped their bombs farther and farther from the intended target.[34] Additionally, crews failed to drop the number of allotted bombs; they practiced in unrealistic conditions; and visual bombing received emphasis during training. Visual bombing (the sighting of targets through the Norden bombsight) harkened back to World War II and left an impression that the Air Force had not advanced since the end of the war. Radar bombing provided SAC the means to deliver atomic weapons through adverse weather and under the cover of darkness; however, Kenney and McMullen failed to offer sufficient guidance on training.

In April 1948, General Spaatz grew concerned over the number of SAC aircraft out of commission and the increasing bombing scores.[35] As General Montgomery later recalled, before Spaatz retired in the summer of 1948, he had decided Kenney's future. Montgomery had worked as Secretary Symington's executive officer prior to Montgomery's assignment to SAC. Gen Lauris Norstad, vice-chief of staff of the Air Force, told Montgomery that General Spaatz had called him into his office and said, "Larry [Norstad], I am going to have to change the SAC commander. George Kenney is a great commander, but he is making too many speeches and talking about the great blast in the horizon, and he is not running SAC. Who would you put there?" Norstad replied, "LeMay. Put him in there now so we can get ready for war."[36]

Spaatz retired in mid-1948, and Gen Hoyt S. Vandenberg took over as chief of staff of the Air Force with Kenney still in command. Secretary

Forrestal insisted that Vandenberg look deeper into SAC operations to determine if it was ready for war. Vandenberg asked Charles Lindbergh, the famed aviator, to fly with SAC crews and report his findings. During the weeks of his investigation, Lindbergh flew over 100 hours with SAC crews from six different bases.[37] On 14 September 1948, he delivered a blistering report to Vandenberg.

Lindbergh's report ended Kenney's tenure as SAC commander. Lindbergh stated frankly that Kenney and McMullen were training crews to the standards of the past: "It is obvious that the standards of performance, experience, and skill satisfactory for the 'mass' air forces of World War II are inadequate for the specialized atomic forces we have today. . . . Since a single atomic bomber has destructive power comparable to a battle fleet, a ground army, or an air force . . . its crews should represent the best in experience, character, and skill."[38] Lindbergh found that improvements in personnel were not keeping pace with those in equipment. Additionally, frequent moves between SAC bases caused morale to suffer. He recommended that SAC stabilize personnel in the atomic forces, maintain crew integrity (keeping integral crews together longer), concentrate on the primary mission of atomic forces (i.e., bombing, not ancillary jobs), give priority in selection and assignment of personnel to atomic squadrons, and create conditions that would draw the highest-quality personnel into the command.[39]

One week after receiving the report, Vandenberg notified Kenney of his transfer to Maxwell AFB, Alabama. Vandenberg also terminated the cross-training program. More importantly, he alerted Lt Gen Curtis LeMay, currently in Europe, that he was the new SAC commander.[40] Within three years, LeMay would transform SAC from a "hollow threat" into a "cocked weapon." Through this process of transformation, an organizational culture began to take shape as SAC members learned and understood LeMay's new vision for the command.

"We Are at War!"

After assuming command in October 1948, LeMay's first order of business was to change SAC's perspective. SAC no longer prepared for war, said LeMay. SAC was at war—now![41] LeMay knew the time it took to train his first squadron for operations in World War II. After Pearl Harbor, the AAF lacked the preparedness to mount an immediate response. LeMay recalled that during World War II, "every group I saw go into action during the war tied up its first mission something awful, complete failure, without exception."[42] The atomic age did not afford the United States the luxury of learning by failure. LeMay's leadership philosophy reflected this new paradigm: "We had to operate every day as if we were at war, so if the whistle actually blew we would be doing the same things that we were doing yesterday with the same people and the same methods."[43]

LeMay believed in the importance of strategic bombing and knew how to attain success. World War II proved formative for many of the cultural norms, values, and routines that he would bring to SAC. Standardization characterized his operations in Europe and the Pacific. Successfully employing a bomber meant that different personnel who performed special tasks had to act in unison. This operating mentality stood in contrast to the fighter that performed based on the skills of one person. To make sure that crews ran effectively, LeMay published manuals in both theaters that defined what each bomber position would do during every phase of flight.[44] Bombers relied on synchronized operations, every person knowing what the other did at a particular moment—especially during critical phases of flight. As LeMay emphasized in his manuals, "The importance of teamwork cannot be overemphasized. The individuals who are proficient in their respective duties do not necessarily make a good crew, but these ten individuals will definitely make a good crew if they know how to work together as a team."[45] Various aspects of LeMay's command philosophy would work their way into SAC as he embarked on his third bombing command assignment.[46]

To implement his vision, LeMay surrounded himself with staff officers experienced in conducting bomber operations. Thomas Power, whom LeMay pulled out of an air attaché job in England, became his deputy. In the Pacific, LeMay considered Power his best wing commander and charged him with leading the first B-29 bombing raid on Tokyo.[47] Andrew Kissner, who enjoyed a reputation for organization and efficiency, became SAC's new chief of staff, a position he had previously held under LeMay in Europe and the Pacific. Assuming responsibility for operations was John Montgomery, who had trained under LeMay when he first joined the Air Corps and had held a similar assignment under LeMay in the Pacific.

Almost immediately, LeMay began to change SAC from the top down. He made the same demands of his staff officers that he did of his aircrews. To make the point, LeMay assigned each staff officer his own crew. LeMay put it bluntly: "We can't show up at some operating base in a plush job flown by a sharp young pilot and then chew the combat people out for the way they are handling their combat planes."[48] Gen Paul Carlton remembered when LeMay selected him as his aide-de-camp. LeMay wanted a highly experienced pilot to run his crew. Carlton recalled, "Aiding was just strictly secondary. My number one job was to run a combat-type crew."[49] The SAC commander expected the same from his crew as he did from SAC members writ large: standardization. In other words, all personnel followed the written procedures perfectly, executed their jobs flawlessly, and worked as a team to accomplish the mission.

General Vandenberg gave LeMay considerable latitude as the new commander began transforming SAC. Since the JCS agreed with the Air Force's concept of power projection, Vandenberg needed LeMay to build an organization capable of providing a credible deterrent. According to LeMay, Vandenberg told him to "get SAC in shape to fight as fast as possible."[50] Furthermore, Vandenberg wanted LeMay to make sure that if a war started, SAC could win it almost immediately.[51] Although LeMay knew how to employ bombers, his personal goal was to

build an organization "that was so strong and so efficient that no one would dare attack us."[52]

A New Mentality

In order to change SAC's mentality, LeMay had to show the members of the organization that their way was not working. Upon assuming command, he received a briefing that detailed SAC's bomb scores. The scores were so good, LeMay recalled, that they were unbelievable.[53] And they were. SAC bombers had been conducting their bomb runs at 12,000–15,000 feet, an altitude way below that required for combat. At these altitudes, crews did not have to use the supplemental oxygen system necessary for flying at combat altitudes. Since radar sets had functioned imperfectly at those altitudes, the crews had been practicing their runs at lower altitudes where the equipment would work. Finally, they had been conducting the radar bomb runs against targets with large radar reflectors out in the middle of the ocean to make them easily identifiable. The combination of these factors led LeMay to the conclusion that SAC crews were not conducting realistic training.[54]

To make his point, LeMay planned a commandwide exercise commencing in mid-January 1949.[55] Each bomber crew would fly at 30,000 feet and conduct a simulated radar bomb run against Wright Field in Dayton, Ohio. The Dayton exercise confirmed exactly what LeMay suspected: that SAC was not ready for war. Not one airplane finished the mission as briefed. Either crews were not accustomed to the higher altitudes or the planes experienced mechanical failure before getting there. LeMay called the Dayton exercise "just about the darkest night in American aviation history."[56]

From January 1949 forward, SAC would never be the same. Its leaders took a systematic approach to getting the organization combat ready. They would start with one group, get it up to speed, and move on to the next one. Carlton, LeMay's aide and personal pilot, remem-

bered that LeMay had a concentrated focus, refusing to scatter resources as Kenney had done.[57] SAC began with the 509th Bomb Group, the original atomic outfit from the Pacific theater. According to LeMay, they cleaned the supply warehouses, stocked the parts and supplies the unit needed, and outfitted planes with the necessary equipment.[58] General Montgomery, SAC's director of operations, claimed that this efficient approach to getting organizations combat ready brought 3,000 crews up to combat strength and effectiveness as SAC executed three sequential developmental plans throughout 1948 and 1949.[59]

Just as LeMay had emphasized and believed in his bomber organizations during World War II, so did standardization become the new SAC commander's key to realizing success in organizational strategic bombings. Applied to SAC, standardization ensured that once a unit achieved combat-ready status, it never regressed. Each crew position would receive technical manuals and checklists that outlined in detail the procedures to perform its task. LeMay freed radar observers and bombardiers from their additional duties so they could concentrate on studying targets and procedures.[60] Furthermore, the aircraft commander and the flight engineer would complete a 600-item checklist before each flight to ensure they understood and finished critical tasks.[61] Several problems initially plagued SAC: increased bomb scores, high accident rates, and low maintenance rates for aircraft. LeMay saw standardization as the answer to all three.

In November 1948, he instructed his numbered air force commanders to make standardization programs a priority across the command. Furthermore, he asked each wing and headquarters to appoint a standardization (lead) crew.[62] Such crews had become a feature of LeMay's bombing commands dating back to the European theater in World War II. In Europe, LeMay had assigned each of his lead crews a different city. The 305th developed target folders for each city, and when a crew's city became the target, the crew led that particular mission.[63] LeMay continued this practice in the Pacific. Crews would spend their spare time studying target folders to familiarize themselves with the

features of their assigned city. His lead crews knew every aspect of their target and could find it through either bad weather or darkness.[64]

Beginning in 1949, SAC established a Lead Crew School (later termed the Combat Crew Standardization School) to train and observe an aircrew's standardized procedures. SAC expected commanders to send their best crews to the school, where instructors evaluated these integral personnel on their bombing procedures and discipline. Bombing accounted for 40 percent of the crew's overall score; bombing technique (following the checklist) and the aircraft commander's ability to command his crew made up the remainder. The school put more emphasis on radar bombing as a means of selection since this procedure required greater concentration and perfection of technique. Graduates of the school returned to their units and trained the rest of the unit's bomber crews in the best techniques and procedures.[65]

SAC's emphasis on standardization and procedures significantly lowered bomb scores. At the beginning of 1949, crews were averaging a miss distance of 3,679 feet; by the end of the year, that figure had dropped to 2,928 feet for medium bombers (B-29s/-50s) and 2,268 for heavy bombers (B-36s).[66] Throughout LeMay's tenure and beyond, bomb scores continued to receive emphasis. Low nuclear stockpiles meant that every bomb had to hit its target—there was no room for error. Furthermore, the command's push for lone penetrating bombers elevated SAC's emphasis on precise bomb delivery.

Once LeMay's commanders had assembled a crew that worked efficiently, SAC wanted to keep them together. Since the command depended on combat readiness, LeMay directed that successful crew combinations fly together year after year. If these crews mastered their planes and procedures, they could avoid the threat of a desk job.[67] LeMay, however, demanded a maximum effort from these crews. They flew longer training missions at higher altitudes against American cities that resembled their assigned targets in the Soviet Union. The general combined his ritualistic flying in the air with security measures on the ground as a daily reminder to SAC members that they were at war.

The Soviet Union made deliberate attempts to penetrate America's open society and gain intelligence. In response to these covert actions, SAC made security a top priority. The command's inspector general issued a letter stating, "The possibility exists that prior to or immediately subsequent to a national emergency an attempt may be made to destroy or damage aircraft . . . through fifth column type activity thus weakening or delaying employment of the force."[68] To address the perceived threat, SAC began to build fences around its installations and increase security controls. SAC leadership also had indications that the Communist Party USA placed the command's offensive airpower high on party plans to wreak havoc should a war break out with Russia.[69] Consequently, LeMay created special penetration teams to simulate sabotage on SAC installations. These teams acted like enemy agents trying to infiltrate various bases disguised as flight crews, civilian contractors, or even soft-drink vendors.[70]

Exacting 70 to 90 hours of rigorous training a week from SAC's aircrews would soon take a toll and decrease retention unless LeMay could devise a way to reward his warriors for outstanding performance. Therefore, he implemented a "spot promotion" system to do just that. Under this system, LeMay rewarded exceptional performers an increased rank "on the spot." In late 1949, the SAC commander petitioned the Air Force Personnel Center and requested his first allotment of spot promotions. LeMay justified his request by arguing, "I believe that by virtue of the mission of Strategic Air Command, a higher degree of dependability, flying proficiency, and individual stability under pressure is required of the combat crew member than would be required of officers of equal rank and experience in the Air Force."[71] Within two months, he received approval. Eventually, LeMay expanded the program to include enlisted personnel. According to Gen William Martin, the 509th Bomb Wing deputy commander in 1950, the system also worked to enhance crew integrity and professionalism.[72] On the one hand, entire crews could gain spot promotions for significant achievements such as winning the annual SAC Bombing Competition. On the other hand, they could lose their temporary promotions if

either the crews or an individual member failed to maintain high standards of performance.[73]

Standardized procedures lowered accident rates among SAC's airplanes as well. When LeMay assumed command, SAC averaged more than 60 accidents per 100,000 flying hours. In the second month of his command, LeMay temporarily grounded the B-29 fleet due to repeated crashes.[74] The SAC commander believed that crews were not strictly adhering to the aircraft's checklist, commonly referred to as "checklist discipline," and that this practice was causing a significant number of accidents. He demanded that crews follow standard operating procedures; otherwise, he would hold them and their commanders accountable. If a wing commander had an accident at his base, LeMay required him to fly to Offutt and personally brief the SAC commander on the accident.[75] According to SAC's director of operations, LeMay demanded that flight members and maintenance teams follow checklists or get penalized, even when the violation did not lead to an accident.[76] After two years, the effort paid off, and SAC had the lowest accident rate in the Air Force.[77]

Insisting on constant vigilance, LeMay took steps to ensure it. Every night, SAC bases sent their combat readiness reports to command headquarters. Each morning by eight o'clock, LeMay reviewed the number of aircraft and aircrews available should war come. The staff at headquarters loved to crunch numbers. Combat readiness meant more than just bombing scores, which by 1950 had improved by 500 percent; it also meant lower venereal disease rates, higher maintenance readiness, and better retention.[78] Retaining trained personnel led to less turnover and enhanced combat readiness. Within LeMay's first year, SAC's reenlistment rose to 70 percent, significantly better than the Army's 40 percent.[79]

LeMay ensured that his commanders kept their units combat ready through constant, often unannounced, inspections. Every year, SAC required its commands to execute their war plans in an operational readiness inspection. Suddenly, an inspection team would arrive on base

and insist that the commander execute his war plan while they evaluated his organization's proficiency. Either the unit did it, or it did not. The commander's career rose or fell with his organization's performance. Those commanders who succeeded gained status; those who failed found new jobs.[80] By 1951 General LeMay's prescription of no-notice inspections, standardized procedures, and intense scrutiny had turned SAC around.

Conclusion

At its core, SAC's organizational culture reflected the values and assumptions of Air Force leaders who believed in the promise of strategic bombardment. Since the days of Billy Mitchell and Giulio Douhet, American Airmen were convinced that strategic airpower alone could win wars. SAC was the organizational manifestation of that doctrine. Newly developed nuclear weapons further increased the destructive power of each bomber. Early mismanagement of the organization, though, had threatened to undermine all of these victories.

LeMay and his team of "bomber generals" put SAC on alert; war was only hours away—not weeks or months. The command conducted operations each day as though war could come at any time. Since the Cold War could become "hot" at any moment, bomber crews had to memorize their routes and targets. In a regimented training program that simulated the real event, crews studied target folders, flew preplanned missions following standardized procedures, and delivered simulated bombs on American cities that represented Soviet targets. Crews either developed cohesion or they received no rewards. This mentality spread from flying operations to maintenance functions and eventually permeated every aspect of SAC's daily life. Wing commanders ensured that they knew the location of each crew member, reported daily "numbers" to LeMay, and nervously anticipated the yearly test of their leadership. Like the crews under their command, the careers of these commanders depended upon the outcome. Such was the life of SAC's warriors—the nation's first line of defense. SAC leaders not

only built a highly specialized and standardized organization but also constructed an air force within the Air Force. Because the organization's mission set it apart from the rest of the service, LeMay believed that his members should receive special consideration. The Air Force had one promotion system; spot promotions gave SAC its own. From 1951 to 1962, the command would expand greatly to fight the Cold War. This expansion brought many new warriors into the organization and indoctrinated them in the SAC mentality.

General LeMay remained at SAC until 1957, making him the longest tenured four-star general to serve in any military command. He built the nation's first nuclear deterrent and left behind an organizational culture that survived long after his tenure. According to Russell Dougherty, who rose through the ranks in LeMay's SAC and assumed command of SAC in 1974, LeMay attended the ceremony and warned him that "my [Dougherty's] nuclear command responsibilities to this nation were such that I could not afford to fail, that I could never do anything wrong myself, nor ever condone mistakes on the part of others, that affected the mission of my command." LeMay ended his advice with this comment: "Don't you be remembered in history for a single mistake." SAC's culture emphasized standardized procedures, perfection in detail, and—most of all—physical presence because this was the type of war the nation was fighting. "Every single procedure and requirement for employing those weapons . . . ," Dougherty recalled, "had to be seen to be believable, robust, and reliable."[81]

The procedures and routines to build a credible deterrent have outlived General LeMay. Although the strategic environment has changed, SAC is gone, and the intensity of the Cold War has dissipated, the operating mentality and culture associated with the nuclear mission cannot follow suit. Today's Airmen need to understand how and why these routines came into being, why the nuclear mission is important, and why those who perform it are held to the highest standards. The military has been given a special trust and responsibility for handling the most powerful weapons on the earth. Airmen need to

understand that their actions have implications extending far beyond the fence line. ✪

Notes

1. SAC leaders commonly referred to aircrews and missile crews as "SAC warriors." In 1989 Gen John T. Chain Jr., SAC commander in chief, declared 1989 the "Year of the SAC Warrior" and published a "Warrior Code of Ethics" to guide all SAC crew members. Furthermore, he issued a patch for all of those personnel to wear, labeling them SAC warriors. For additional information and a view of the patch, see "Warrior Code of Ethics," 19 April 2005, http://www.fb-iiia.net/warrior.html.

2. Col Mike Worden, *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945–1982* (Maxwell AFB, AL: Air University Press, 1998), 103–4.

3. The United States and the Soviet Union never directly confronted each other. Instead, these two superpowers conducted their opposition through "periphery" nations in Asia (Vietnam, Korea, etc.) and South America (El Salvador, Nicaragua, Guatemala, etc.).

4. For an explanation of how tactical fighter leadership replaced bomber leadership in the Air Force, see Worden, *Rise of the Fighter Generals*.

5. Joanne Martin, *Organizational Culture: Mapping the Terrain* (Thousand Oaks, CA: Sage Publications, 2002), 57–59. According to Martin, there are at least two schools of thought concerning organizational culture. The ideational school defines organizational culture as "a set of important understandings (often stated) that members of a community share in common" (p. 57). Ideationalists see organizational culture as cognitive and conceptualized in terms of meanings or understandings. Another school of thought, the materialist approach, stresses the subjective nature of organizational culture and looks at the material condition under which the employees work. Materialists define organizational culture as "the system of values, symbols, and shared meanings of a group including the embodiment of these values, symbols, and meanings into material objects and ritualized practices" (p. 57). Martin recommends an approach that incorporates both schools of thought. Therefore, this article examines both aspects of organizational culture with respect to SAC: how its leadership instilled an organizational culture using formal channels—policy, orders, and so forth (idealist)—and how symbols and rituals within SAC came to reflect the organizational culture (materialist).

6. For a history of Twentieth Air Force's operations in Japan and Arnold's justification, see Kenneth P. Werrell, *Blankets of Fire: U.S. Bombers over Japan during World War II*, Smithsonian History of Aviation Series (Washington, DC: Smithsonian Institution Press, 1996), 90–91.

7. Ronald H. Cole et al., *The History of Unified Command, 1946–1993* (Washington, DC: Joint History Office of the Office of the Chairman of the Joint Chiefs of Staff, 1995), 11–21, http://www.shsu.edu/~his_ncp/UCS.html.

8. Department of the Air Force, "Topical Digest of Testimony before the House Armed Services Committee during Hearings on the B-36 and Related Matters: Section II," October

1949, roll 33780, frame 891, text-fiche, Air Force Historical Research Agency (AFHRA), Maxwell AFB, AL.

9. General Spaatz's report as quoted in Steven L. Rearden, "U.S. Strategic Bombardment Doctrine since 1945," in *Case Studies in Strategic Bombardment*, ed. R. Cargill Hall ([Washington, DC]: Air Force History and Museums Program, 1998), 387.

10. "Why the Air Force Wants the B-36," *U.S. News and World Report*, 17 June 1949, 18.

11. Maj Kenneth Gantz, "The Atomic Present," *Air Force Magazine*, March–April 1946, 4.

12. Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force*, vol. 1, *1907–1960* (Maxwell AFB, AL: Air University Press, 1989), 231.

13. Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St. Martin's Press, 1981), 54.

14. Walton S. Moody, *Building a Strategic Air Force* ([Washington, DC]: Air Force History and Museums Program, 1995), 159.

15. "Why the Air Force Wants the B-36," 18.

16. "Why Navy Officers Risk Careers," *U.S. News and World Report*, 14 October 1949, 22.

17. David Alan Rosenberg, "American Atomic Strategy and the Hydrogen Bomb Decision," *Journal of American History* 66, no. 1 (June 1979): 68.

18. Carl A. Spaatz, "The Air-Power Odds against Us," *Reader's Digest*, June 1951, 11–12.

19. Phillip S. Meilinger, *Hoyt S. Vandenberg: The Life of a General* (1989; repr., Washington, DC: Air Force History and Museums Program, 2000), 131.

20. The Navy would not give up its fight for a part of the strategic mission. With the development of missile technology, it pursued the submarine-launched Polaris missile and became part of the United States' strategic triad.

21. W. Stuart Symington, "Our Air Force Policy," *Vital Speeches of the Day* 15, no. 18 (July 1949): 569.

22. For further discussion of Kenney's achievements in the Pacific, see Thomas E. Griffith Jr., *Macarthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (Lawrence: University Press of Kansas, 1998).

23. Ibid., 227–28.

24. Gen George C. Kenney, interview by Dr. James C. Hasdorff, 10–21 August 1974, transcript, United States Air Force Oral History Program, K239.0512-806, AFHRA.

25. Gen Carl Spaatz, commanding general, AAF, to Gen George Kenney, commanding general, SAC, memorandum, 1 May 1946, Borowski Papers, B-26, United States Air Force Academy.

26. Harry R. Borowski, *A Hollow Threat: Strategic Air Power and Containment before Korea*, Contributions in Military History, no. 25 (Westport, CT: Greenwood Press, 1982), 141.

27. Richard H. Kohn and Joseph P. Harahan, eds., *Strategic Air Warfare: An Interview with Generals Curtis E. LeMay, Leon W. Johnson, David A. Burchinal, and Jack J. Catton*, USAF Warrior Studies (Washington, DC: Office of Air Force History, US Air Force, 1988), 74.

28. Borowski, *Hollow Threat*, 45.

29. Ibid., 135.

30. Maj Gen John B. Montgomery, interview by Capt Mark C. Cleary, 30 April–1 May 1984, transcript, United States Air Force Oral History Program, K239.0512-1586, AFHRA.

31. Brig Gen Everett W. Holstrom, interview by James C. Hasdorff, 14–15 April 1988, transcript, United States Air Force Oral History Program, K239.0512-1793, AFHRA.

32. Bomb scores were measured in circular error probable, the distance in which one-half of a plane's bombs fall within the circle and the remainder outside. In the grading of crews and bomb squadrons, lower bomb scores mean a greater chance of hitting the target; therefore, lower scores were better. Combat readiness was measured by the percentage of assigned personnel considered prepared for combat duty; hence, higher rates were considered better.

33. Moody, *Building a Strategic Air Force*, 180.

34. Borowski, *Hollow Threat*, 148–49.

35. Moody, *Building a Strategic Air Force*, 221.

36. Montgomery, interview.

37. Meilinger, *Hoyt S. Vandenberg*, 105.

38. Charles Lindberg, "Report to General Vandenberg," 14 September 1948, Emmett "Rosie" O'Donnell Papers, United States Air Force Academy.

39. Ibid.

40. Meilinger, *Hoyt S. Vandenberg*, 106–7.

41. Curtis E. LeMay with MacKinlay Kantor, *Mission with LeMay: My Story* (Garden City, NY: Doubleday, 1965), 436.

42. Gen Curtis E. LeMay, interview by John Bohn, 9 March 1971, transcript, United States Air Force Oral History Program, K239.0512-736, AFHRA.

43. Ibid.

44. "Lead Crew Manual, 3rd Bombardment Division"; "Combat Crew Handbook, 3rd Bomb Division"; and "Combat Crew Manual, XX Bomber Command," all by Maj Gen Curtis E. LeMay, were published during World War II and outlined standardized procedures for each crew position. Curtis E. LeMay Personnel Papers, Box B4, Library of Congress, Washington, DC.

45. Maj Gen Curtis E. LeMay, "Combat Crew Handbook, 3rd Bomb Division," Curtis E. LeMay Personnel Papers, Box B4, Library of Congress, Washington, DC.

46. Harrison M. Trice and Janice M. Beyer contend that a characteristic of organizational culture is that it is historically based. As LeMay and his staff prepared SAC for strategic bombing in the atomic age, they consistently drew on their experiences in World War II. See Trice and Beyer, *The Cultures of Work Organizations* (Englewood Cliffs, NJ: Prentice Hall, [1992]), 6.

47. Werrell, *Blankets of Fire*, 161–62.

48. Harold Martin, "Are Our Big Bombers Ready to Go?," *Saturday Evening Post*, 30 December 1950, 65.

49. Gen Paul Carlton, interview by Maj Scott Thompson, 13–15 August 1979, transcript, United States Air Force Oral History Program, K239.0512-1138, AFHRA.

50. LeMay, Bohn interview.

51. "Bombers at the Ready," *Newsweek*, 18 April 1949, 25.

52. LeMay, Bohn interview.

53. Kohn and Harahan, *Strategic Air Warfare*, 79.

54. LeMay with Kantor, *Mission with LeMay*, 432.

55. Kohn and Harahan, *Strategic Air Warfare*, 79.

56. LeMay with Kantor, *Mission with LeMay*, 432–33.

57. Carlton, interview.

58. Kohn and Harahan, *Strategic Air Warfare*, 80.

59. Montgomery, interview; and Borowski, *Hollow Threat*, 166–70.

60. Charles W. Bosanko, "The Architecture of Armageddon: A History of Curtis LeMay's Influence on the Strategic Air Command and Nuclear Warfare" (PhD diss., California State University–Fullerton, 2000), 64.

61. "Man in the First Plane," *Time*, 4 September 1950, 17.

62. Excerpts of the letter in Capt Robert K. Weinkle, USAF, "The Progression of the Standardization/Evaluation Program in Strategic Air Command" (Maxwell AFB, AL: Air University, 1965), 7.

63. LeMay with Kantor, *Mission with LeMay*, 256–57.

64. Gen Curtis E. LeMay, interview by Col Bill Peck, March 1965, transcript, United States Air Force Oral History Program, K239.0512-785, AFHRA.

65. Office of SAC History, "Lead Crew School and Combat Crew Standardization School," SAC History Study no. 8 (Offutt AFB, NE: Office of SAC History, 1951), 1–10, K416.01-8, AFHRA.

66. Office of SAC History, "History of Strategic Air Command, 1949" (Offutt AFB, NE: Office of SAC History, 1950), 141, K416.01, AFHRA.

67. Martin, "Are Our Big Bombers Ready to Go?," 65.

68. Office of SAC History, "Development of Strategic Air Command Security Program," History Study no. 17 (Offutt AFB, NE: Office of SAC History, 1951), 2, K416.01-17, AFHRA.

69. Ibid., 4.

70. LeMay with Kantor, *Mission with LeMay*, 479.

71. Office of SAC History, "The Strategic Air Command Spot Promotion Program: Its Rise and Fall," History Study no. 167 (Offutt AFB, NE: Office of SAC History, 1978), 3.

72. Lt Gen William K. Martin, interview by Lt Col David L. Olson, February 1988, transcript, United States Air Force Oral History Program, K239.0512-1791, AFHRA.

73. Office of SAC History, "The Development of Strategic Air Command" (Offutt AFB, NE: Office of SAC History, 1972), 16.

74. "U.S. Grounds B-29s As Another Crash Kills 5 in Florida," *New York Times*, 19 November 1949, 1.

75. LeMay with Kantor, *Mission with LeMay*, 439.

76. Montgomery, interview.

77. Office of SAC History, "Development of Strategic Air Command," 26.

78. "Man in the First Plane," 16.

79. "Bombers at the Ready," 24.

80. LeMay with Kantor, *Mission with LeMay*, 446.

81. Russell E. Dougherty, "Leadership during the Cold War," in *Warriors and Scholars: A Modern War Reader*, ed. Peter B. Lane and Ronald E. Marcello (Denton, TX: University of North Texas Press, 2005), 119.

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