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# B-52 Transformation Challenge: Maintaining Conventional Relevancy in a Nuclear-Focused Major Command

by

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## Contents

**Abstract**

In the wake of significant high-visibility errors related to nuclear weapons, Air Force Global Strike Command (AFGSC) was formed to oversee the B-52 and B-2 bomber missions as well as the intercontinental ballistic missile force. The Air Force's goal in this reorganization is to reinvigorate the nuclear enterprise and streamline the command and control of nuclear assets. AFGSC is well postured to steward the B-52's nuclear mission. However, AFGSC's dominant nuclear focus poses risk to the B-52's future efficacy as a conventional platform.

This research utilizes historical analysis of the B-52 community's reorganization from SAC to ACC in 1992. Many of the same vehicles used to influence the organizational culture of the B-52 community in the 1990s are applicable to the current transformation. The key challenge for AFGSC is to develop and instill a culture that values strict compliance in the nuclear arena while allowing for the operational innovation necessary to maintain relevancy in the ever-evolving conventional fight.

## Introduction

On June 1, 1992, the last major reorganization of the US Air Force saw the deactivation of Strategic Air Command (SAC) and Tactical Air Command (TAC). Their combat air assets—bombers and fighters—were integrated into the newly formed Air Combat Command.[1] This was a watershed event for the Air Force. In December 1946 General George C. Kenney, the first SAC commander, said, "I don't think that an airplane should be considered as a tactical airplane and a strategic airplane…I think it's an airplane."[2] However, Kenney's views were not embraced. An organizational split formed between the two "genres" of aircraft and persisted for forty-five years. In 1991, for the first time since the Air Force's inception, its senior leaders came to the consensus that aircraft should not be labeled as "strategic" or "tactical," nor should they be organized as such.[3] Now, nearly eighteen years later, the Air Force has again reorganized its command structure for combat aircraft. In the wake of significant high-visibility errors related to nuclear weapons a new Major Command (MAJCOM), Air Force Global Strike Command (AFGSC), was formed. AFGSC is charged with overseeing the B-52 and B-2 bomber missions as well as the intercontinental ballistic missile (ICBM) force. The Air Force's goal in this transformation is to reinvigorate its nuclear enterprise and streamline the command and control of nuclear assets.[4]

There are striking similarities between the dissolved SAC organization and the new AFGSC. However, there is one very significant difference—the weight of effort required to prepare for modern day conventional combat operations by the dual-role bomber force. The leaders of AFGSC and the B-52 community face a tough dilemma: balance the need for "perfection" and "100% compliance" in the nuclear arena with the need for the innovation and continuous improvement required to maintain conventional relevancy.

In the wake of the August 2007 unauthorized nuclear weapons transfer incident, the pendulum of the B-52 community's focus swung rapidly from conventional operations towards nuclear surety. The danger in this rapid—and reactionary—paradigm shift is to go too far, too quickly, away from conventional operations. Ironically, a rapid shift of focus in the opposite direction (away from a focus on nuclear operations) in the early 1990s is what set the stage for the failures that necessitated today's transformation.[5]

The purpose of this research paper is to highlight potential negative consequences to the B-52's conventional combat capability as part of the nuclear-focused AFGSC. In order to understand the contradictory cultures between conventional and nuclear operations, this paper will first analyze the cultural transitions that occurred as the B-52 community transitioned from SAC to ACC. This perspective will provide the foundation for a detailed analysis on why the SAC culture complemented the nuclear mission and ACC's culture fostered innovative conventional operations. The paper will then delve into the conflicts between the nuclear and conventional missions and explore how the contradictory cultures between the two will create challenges for AFGSC. Finally, it will provide recommendations for mitigating these challenges and avoiding the inherent "culture clash" between conventional and nuclear operations. The goal of these recommendations is to encourage relevant and proficient conventional operations without sacrificing "perfect" nuclear operations.

## The End of SAC

Understanding the Air Force's last major transformation, from SAC and TAC to ACC, is foundational to this thesis for two reasons. First, the current organizational warfighting culture within the B-52 community is a direct result of the standup of ACC. Second, AFGSC's assigned assets—with the notable absence of the tanker fleet—mirror those once controlled by SAC.

There are lessons to be learned from the B-52 community's nuclear successes as part of SAC, conventional progress and integration as part of ACC, and struggle to reinvent their organizational culture and identity following the 1992 reorganization.

Following the end of the Cold War and fresh from the experience of Operation Desert Storm, the Air Force embarked on the most significant organizational change of its history. SAC and TAC stood down and their combat assets were absorbed into the new ACC on June 1, 1992.[6] Air Force Chief of Staff, Merrill A. McPeak, noted that "Airplanes have both tactical and strategic capability and should not be constrained by artificial distinctions."[7] Unfortunately, the transition from SAC to ACC was far from "seamless" for the B-52 community. One prominent seam was the failure to get the "right people" with SAC, and specifically B-52, experience into key billets at the new ACC headquarters. This was due both to shortfalls in the personnel system and B-52 crewmembers' reluctance to volunteer for the new staff.[8] Perhaps even more troublesome than representation issues at ACC was the clash in dominant culture between the TAC fighter and SAC bomber communities. The process of fully merging these cultures—with the goal of optimizing warfighter integration—continues today, nearly twenty years after the establishment of ACC.

From 1992 through 2007, the B-52 force morphed from being a fixture of Cold War nuclear deterrence into a major player in conventional combat operations. The bomber and its aircrews played key and often leading roles in Operation Desert Fox, Operation Allied Force, Operation Enduring Freedom and Operation Iraqi Freedom. They also participated in frequent deployments to Andersen AFB, Guam, as part of USPACOM's continuous bomber presence initiative.[9] As successes in the conventional combat arena accumulated, diminishing focus was placed on nuclear operations at the wing level. Based on the conventional operational tempo of

the time period, and due in large part to a lack of objection by headquarters organizations, the perceived importance of nuclear operations plummeted.[10] This shift in priority is graphically illustrated by the initial qualification syllabus of the B-52 Formal Training Unit (FTU). In 1992, ten of the twelve syllabus missions were dedicated to nuclear training and only two were used to teach the employment of conventional weapons. By 2006, new crewmembers regularly reported to their operational units with a conventional-only combat certification from the FTU.[11]

Two events—or more appropriately failures—within the nuclear enterprise marked the low point of the USAF's nuclear stewardship.[12] First, in 2006, nuclear-related ICBM parts (though not nuclear components, per se) mislabeled as "helicopter batteries" were erroneously shipped to Taiwan.[13] Then, on 30 August 2007, a B-52 mistakenly flew six nuclear warheads from Minot AFB, ND to Barksdale AFB, LA. The sortie was scheduled to ferry twelve inert missiles. However, an accounting error in the weapons storage area identified the wrong missiles for transfer. Directed (though obviously not properly accomplished) inspections by three separate weapons teams and the aircrew should have recognized this error before the B-52 departed Minot AFB.[14] The mistake was not realized until the missile download process began after the B-52 arrived at Barksdale.

## AFGSC: Reinvigorating the Nuclear Enterprise

The fallout of these failures brought swift consequences for the B-52 community and the Air Force as a whole. Leaders from the B-52 squadron, group and wing-levels all the way to the Chief of Staff of the Air Force were eventually replaced. The Secretary of Defense and various Air Force leaders commissioned a myriad of investigative studies to evaluate the causes of these two incidents and to determine the status of the nuclear enterprise.[15]

AFGSC, from a standpoint of both its creation and, subsequently, its charter was a direct result of the findings of these studies. The Defense Science Board Permanent Task Force on Nuclear Weapons Surety's Report on the Unauthorized Transfer of Nuclear Weapons, released in February 2008, was the first major report to recommend an organizational change to the Air Force.[16] They noted that since the dissolution of SAC, overall supervisory responsibilities for day-to-day nuclear operations had been reduced from a four-star General (commander of SAC) to a Colonel within the Air Staff A-3 Directorate.[17] Additionally, they identified the fact that the nuclear mission had been dispersed from a single-focused headquarters (SAC) to three operational commands (bombers in ACC, tankers in AMC, ICBMs in AFSPACE) with little focus on the nuclear mission as a causal factor in the incident.[18] As additional reports and studies were published, it became clear that "aligning authorities and responsibilities for nuclear deterrence mission requirements" was one of the recurring recommendations.[19]

Given the nearly unanimous calls for streamlining and optimizing the entities responsible for organizing, training and equipping their nuclear forces, the Air Force had little choice but to plan a full scale reorganization. In September 2008 the Secretary of Defense Task Force on DoD Nuclear Weapons Management Phase I Report (often referred to as the "Schlesinger Report" after the Task Force's chairman) went so far as to call for specific MAJCOM changes and force realignment within and between Numbered Air Forces.[20] During their October 2008 CORONA meeting, Air Force leadership responded and agreed to multiple cascading organizational changes. Among them was the implementation of AFGSC. The new command, comprised of nuclear assets from 8 AF (B-2 and B-52 bombers) and 20 AF (ICBMs), was directed to oversee the Air Force's nuclear and global strike missions.[21]

## A Return to SAC?

To an outsider peering in, AFGSC must look like the reincarnation of SAC. An organization consisting of nuclear bombers and ICBMs with a focus on credible nuclear deterrence certainly sounds a lot like SAC of the 1970s and 1980s. However, marked differences between the realities of 1992 and 2010 preclude AFGSC from simply "dusting off" old SAC regulations and policies in their oversight of the B-52 mission.

A lot has changed in twenty years. The conventional operational requirements on the B-52—as evidenced by Operational Plan (OPLAN) commitments, deployment tempo and conventional training requirements—are much more imposing than they were in the SAC era. The conventional strike capabilities of today's B-52 fleet, driven by technological advances, are orders of magnitude greater. Finally, both the overall number of aircrew members and their individual experience levels (in terms of years in the cockpit) have significantly decreased. To optimize stewardship of the B-52's conventional capabilities, these differences and their impacts must be considered.

Conventional operational requirements for B-52s have skyrocketed since the dissolution of SAC. Nearly all theater-level OPLANs for major conflicts task B-52 aircrews to be trained and prepared to employ conventional ordnance. Furthering this point, the greatest testament to the increased conventional requirements on the B-52 community comes from an unlikely source—the Global Deterrence Force (GDF) construct.

The GDF was developed as a management tool to ensure the Air Force always had a credible and competent nuclear bomber force. It mandates that each of the four operational B-52 units focus their training on nuclear employment during a particular time period. In that manner it parallels the conventional "AEF bucket." Just as the AEF bucket predicts an Airman's

deployment vulnerability, the GDF predicts when a B-52 unit should be at the highest level of nuclear focus and readiness.

The two year long GDF cycle consists of four phases, each six months in length. The phases shepherd a unit through "Nuclear Spin Up" and "Nuclear Readiness," then switch focus to "Conventional Spin Up" and "Conventional Readiness." At any given time, one unit is in each of the four phases. Depending on the phase they are in, units will focus the majority of their training in either nuclear or conventional operations, while maintaining a baseline competency in the other discipline. Units can expect to deploy for conventional operations during the "Conventional Readiness" phase. In theory, this construct ensures at least one unit is always at a high state of readiness for nuclear operations and that aircrew members from all units gain nuclear experience from their turn in the nuclear-focused phase of the cycle.[22] While it accomplishes this purpose, the GDF also illuminates the high need and corresponding devotion of training for maintaining *conventional* readiness. Ironically, the program meant to guarantee the efficacy of B-52 nuclear operations recognizes that at least half of each unit's total training must be devoted to preparation for conventional employment. Despite the recent emphasis on the B-52's nuclear mission, the GDF construct ensures AFGSC B-52's will ultimately devote a far greater percentage of their training to conventional operations than did their SAC counterparts of the 1960s, 1970s and 1980s.

Throughout its history, SAC's bomber assets participated in conventional operations. They had varying degrees of success with B-29 operations in Korea and B-52 operations in Vietnam. In contrast to today's air-warfare requirements, these operations were largely autonomous and not thoroughly integrated with non-SAC or joint assets. In preparation for

combat, SAC relied on the principle that if they were prepared for the big (nuclear) war, they could handle the small (conventional) war.[23]

The combat performance of SAC's B-52s in Operation Desert Storm was appreciable. However, those missions were carried out after SAC released four B-52 wings from nuclear responsibilities to focus solely on conventional operations.[24] Following Desert Storm, General George L. Butler, SAC commanding general stated, "SAC was not prepared to participate in a conventional war of that magnitude. We were not focused culturally, intellectually or logistically to go to war in the Gulf."[25]

In addition to conventional mission requirements, the conventional capabilities of AFGSC's B-52s, along with their associated training requirements, represent another prominent point of contrast from those of SAC. The majority of SAC's conventional training was based on gravity bombing, the only available technology of the day. This entailed dropping unguided weapons from either high or low-altitude. In addition to unguided bombs, today the B-52 employs sea mines, Conventional Air-Launched Cruise Missiles, Joint Air-to-Surface Standoff Missiles, laser-guided bombs and numerous versions of Joint Direct Attack Munitions and Wind Corrected Munition Dispensers. Perhaps even more demanding from an aircrew training perspective, B-52s employ Advanced Targeting Pods for surveillance and laser designation. Given their extreme nuclear focus, SAC aircrews could not have maintained proficiency in this complex set of conventional capabilities.[26]

The final significant difference between today's B-52 community and that of SAC is specific to the aircrew members. In 1965, SAC possessed 630 B-52s and associated aircrews.[27] In the late 1980s, SAC maintained 154 B-52s.[28] Today the B-52 fleet is 76 aircraft and only four operational squadrons.[29] However, the impact is even deeper than those numbers alone indicate.

In September 1991, President George Bush directed that SAC bombers be pulled from active alert status.[30] This order effectively ended a decades-long tradition of mandated nuclear focus. Aircrews on alert duty were immersed in all aspects of nuclear operations. They gained knowledge and experience by accomplishing the mission every day. They sat alert with actual nuclear weapons, actual target folders and were prepared to launch nuclear strikes at a moment's notice. Short of a defense posture requiring the resumption of nuclear alert, it will be difficult for AFGSC's aircrew members to gain a similar appreciation for and competency in the nuclear mission. The "greybeards" among the B-52 crew force who sat nuclear alert up until 1991 have all but vanished. The depth of experience they brought to the squadrons' aircrews will not be replaced.

## An Examination of SAC and TAC Culture

Throughout the narrative of the B-52 transformation from SAC to ACC to AFGSC, one concept surfaces repeatedly—the importance of organizational culture. The abilities of leaders to identify an organization's culture, recognize potential environmental conflicts to that culture, and influence the culture are keys to successful transformation. Lessons from the B-52 community's significant culture shift from SAC to ACC will likely apply to the culture shift currently required to once again embrace nuclear operations. These lessons should also help leaders of AFGSC and the B-52 community to understand which aspects of the current culture must be retained to ensure conventional capability is not sacrificed.

In the early 1990s, the cultures of the bomber (SAC) and fighter (TAC) pilots and aircrew members were separated and still diverging. SAC culture was marked by discipline, adherence to standards and a top-down planning approach. "Culturally, the SAC environment did not reward risk takers or innovators—or anybody who deviated from the well-established, deeply

grooved norms."[31] Meanwhile, TAC fostered and rewarded innovation, integration and decentralized execution. Some of these incongruities were justified based on their respective primary missions. Others were the result of organizational friction after TAC spent decades as an afterthought in the shadows of SAC's dominance of the Air Force's attention and budget.[32]

SAC's requirement to fight a nuclear war on short notice necessitated a disciplined and highly standardized crew force. However, there was a down side to this mentality. It was widely understood and accepted that the crew force's job was not to think; they were simply to execute SAC's plans. SAC provided detailed instructions and demanded strict adherence to checklists during flying operations. As an example, pilots experiencing equipment malfunctions were required to contact the Wing Command Post, and then to be patched through to the SAC Command Post, to receive guidance on fixing their problems. Displays of initiative were discouraged. A last indicator of the uncompromising dynamic of SAC was the impact of their inspections. At the squadron, group and wing command-level, the consequences of failing a "no-notice" operational readiness inspection were abrupt and usually included the immediate firing of the wing commander.[33]

When it came time to participate in "limited" conventional operations, SAC's response was lukewarm. In general, SAC leadership believed these small wars detracted from the deterrence value of the strategic bomber fleet. The Vietnam conflict highlights several areas where the SAC's culture negatively impacted B-52 conventional operations. In a move contrary to one of the fundamental tenets of airpower, SAC insisted on retaining control of all aircraft in theater. They based their argument on a requirement to recall the bombers in the event of nuclear war, but many believe SAC leaders could not stomach the thought of B-52s falling under the control of newly empowered fighter commanders leading the war from in theater.[34] Target

selection, routes and tactics for the bombers were the responsibility of planners at SAC Headquarters in Omaha, Nebraska. In-theater planning cells handled these duties for all other platforms.[35] Aircrews were prohibited from maneuvering to avoid threats on their bomb runs. In one extreme case on the second night of Linebacker II, the wing commander at Andersen AFB, Guam threatened to courts martial any crew that maneuvered prior to bomb release.[36] The insinuated rationale for such an over the top threat was that the SAC-provided plan already sufficiently accounted for survival against the enemy's air defenses.

SAC's strict control and the rules of engagement it placed on the bombers also affected the relationship between fighter and bomber aircrews. Throughout the conflict US fighter crews suffered heavily at the hands of North Vietnamese air defenses. Conversely, from 1966 until the Linebacker campaigns of 1972, B-52 crews were directed by SAC to break off their attacks if they detected enemy SA-2 missile systems. The B-52 crews were simply following SAC guidance; however, to the fighter crews and their leadership, it was an open invitation to question the manhood and courage of the B-52 crews.[37] These tensions were captured in the 1969 book *Thud Ridge*. The book's author, a decorated fighter pilot with combat experience in Korea and Vietnam, described B-52 operations in Vietnam with little empathy. "I guess even our B-52 crews faced some problems, like stepping on each other's fingers reaching for the coffee pot."[38] The book was "wildly popular" within the fighter world and further exacerbated the cultural divide between bombers and fighters.[39]

This snapshot view of the B-52's involvement in Vietnam is not is not meant to discredit SAC's leaders, aircrew members or planners. Without doubt, the vast majority of individuals involved were doing the best they could to accomplish the mission within the given constraints.

Rather, it should illustrate the dangers to conventional integration posed by the dominant culture of the "SAC way."

The two decades between the end of the Vietnam conflict and the end of the Cold War did little to reduce the cultural disparities between SAC and TAC aviators. The norms of each community can be illustrated by the measuring stick they used to evaluate their best flyers. The TAC community shepherded its "best and brightest" towards a career path that included attending the Air Force Fighter Weapons School. Graduates of the Weapons School returned to TAC units ready to lead from within, experts on the cutting edge of integration and emerging tactics. SAC, on the other hand, believed in putting its best B-52 aircrew members in instructor duty charged with training new aircrews in the Combat Crew Training School (CCTS), an equivalent to the fighter's Formal Training Unit (FTU). Those who truly excelled—the best of the best—were then placed in the Combat Flight Instructor Course (CFIC) to teach and qualify new B-52 instructors.[40] There was little to no focus on tactics, but CFIC instructors were recognized for their impressive depth of knowledge on the management and function of the B-52's complex sub-systems.[41] Despite these unique skills, fighter pilots had a hard time understanding what the big deal was about training and qualifying new instructors. This function was accomplished as a qualification upgrade within fighter units.[42] The norms and standards—the underlying culture—of the SAC and TAC airmen were clearly not in synch.

## B-52 Culture in ACC

When SAC dissolved, the B-52 community had to change its culture in order to survive its new mission and roles in ACC. To meet this challenge, senior B-52 leaders tried to instill new visions and processes.[43] However, the commanders could do only so much. Highly

motivated mid-level officers, quick to embrace the new guidance, became the true catalyst for culture transformation. The initial efforts yielded slow, but promising results.

The first step in the cultural transformation process was to change the emphasis of the B-52 FTU's syllabus. ACC ordered the unit to add conventional training modules and make them the focus of the syllabus. The implementation of this order was marked by the cooperation of CFIC instructors and Weapons School graduates. Together, they were able to advocate tactical problem solving and aggressive employment alongside pure study of the aircraft's systems.[44] The effect on culture was two-fold. Instructors from the B-52's two sub-cultures (CFIC and Weapons School) were cooperating. More importantly, the new generation of crewmembers' initial exposure to the FTU was one that highlighted conventional employment. Within a few years, the demographics of the operational squadrons changed. Graduates of the new FTU syllabus outnumbered those who had studied under the SAC program.

At the same time the FTU was changing their syllabus, commanders in the operational units began to break outdated paradigms of SAC operations. Instructors within the squadrons were asked to "scrutinize day-to-day operations and provide recommendations to improve unit-level training and develop an employment-minded culture."[45] One response was to change the traditional SAC mission planning timeline. Instead of spending a full eight hours mission planning for the next day's sortie, aircrews received a briefing and mission materials constructed by a planning cell just a few hours before they flew. This mirrored the planning "battle rhythm" aircrews had experienced during Desert Storm and was expected to be the norm for future conventional combat.[46] This "train like you fight" initiative was one of many similar steps at the squadron level that helped change the B-52 culture.

The final major conscious effort to change B-52 culture addressed integration and innovation. Leaders in the community realized that if they were to fit in with the other ACC combat communities, they would have to be present at "important" events such as exercises and tactics conferences. Prior to 1992, B-52 aircrews typically conducted exercises from their home bases. Though this arrangement precluded the need for a large maintenance footprint at the exercise's host base, it also prevented B-52 aircrews from debriefing with and learning from other combat aviators. Following 1992, B-52 community leaders emphasized not only participation in combined exercises, but also demanded that B-52 crewmembers take on leadership roles in exercises like Red Flag.[47] This initiative ensured the developing B-52 culture complimented the rest of the combat air forces (CAF).

Together, these three efforts paid huge dividends for the B-52's conventional capabilities. By 2007, the culture of the B-52 community was remarkably similar to that of other CAF aviators. Graduation from the Weapons School was widely regarded as the pinnacle of excellence and tactical prowess for B-52 crew members. Conventional operations were the focus. Nuclear operations—the holy grail of SAC—had little impact on the daily routines and training of aircrews.

Perhaps the best indicator of the lack of nuclear culture remaining in the B-52 community was provided during aircrew interviews conducted by the Defense Science Board's unauthorized weapons transfer incident investigation. Their report stated that "the typical estimate of the share of their (B-52 aircrew members') time spent on the nuclear mission varied from 5% to 20%."[48] One experienced aircraft commander summed up the sentiment saying: "The nuclear mission is all about procedures; the conventional mission is about operational results."[49]

## AFGSC Culture

Though the new command has not been in place long enough to create its own unique and quantifiable behavioral legacy, AFGSC leaders have hinted at their intended culture. In November 2009, on the eve of standing up the command, the AFGSC vice commander stated, "We're going to build a culture of compliance and be a model Air Force Command."[50] The AFGSC organizational website, as of March 2010, advertised the following "AFGSC values:" "Individual responsibility for mission success, Critical self-assessment of our performance, Uncompromising adherence to all directives, Superior technical and weapons system expertise, Pride in our nuclear heritage and mission, Respect for the worth and dignity of every Airman, and Safety in all things large ... and small."[51] When asked how AFGSC would balance the emphasis on both the nuclear and conventional missions of the assigned bombers, the commander of AFGSC stated, "the simple fact is that this is not a new challenge."[52]

There are two key takeaways from this compilation of strategic guidance. First, the notion of compliance, in fact "uncompromising compliance," appears to be paramount. The second takeaway comes from the apparent approach of dealing with the dual nature of the bomber fleet. The B-52 has had conventional capabilities throughout its existence. However, given today's security environment, it is perilous to insinuate that nothing needs to change as leaders strive to balance the competing requirements of the two missions. Never before has the Air Force declared the primacy of focus on nuclear excellence while the accompanying conventional responsibilities loomed so significant.[53]

There is a lack of emphasis on innovation in AFGSC's strategic communication. Without innovation, organizations become stagnant and susceptible to obsolescence by an ever evolving environment. Innovation is not required for strict adherence to nuclear directives.

However, without continuing tactical innovation in the conventional arena, the B-52 community will face obsolescence when compared to the rest of the CAF.

Beyond continued relevancy, innovation speaks to a secondary characteristic—morale. If AFGSC is to be the organization that grows the next generation of nuclear-savvy leaders, it must foster a morale level that encourages retention. The discouragement of initiative and innovation in SAC led to serious aircrew morale problems. As early as the mid 1960s, a large percentage of aircrew members separated from the Air Force as soon as their commitment was up. "Assignment to SAC was considered the most undesirable assignment by pilot training graduates."[54] The crux of innovation's link to morale was effectively summed up by Major General (retired) Charles D. Link, in the foreword to Lt Col John Zentner's monograph titled *The Art of Wing Leadership and Aircrew Morale in Combat*. "Morale generally improved when the wing commander either displayed a personal flair for tactical innovation or allowed his subordinates to become innovative. Conversely, morale declined when higher headquarters placed burdensome and unsound restrictions on aircrew tactics."[55]

One final dynamic impacting both morale and culture within AFGSC will be the long-standing perception among nuclear-experienced airmen that they are disadvantaged for promotion in comparison to their peers. This perception has its roots in the Vietnam era as SAC began to lose its dominance. "To an Air Force promotion board, a SAC pilot sitting nuclear alert in North Dakota was little competition for a fighter pilot of equal rank with a combat tour and a chest full of combat ribbons."[56] In the era of ACC, this perception was backed up by statistics. When the Secretary of Defense Task Force on DoD Nuclear Weapons Management looked into the accusation, they found that "promotion rates between the years 2000 and 2007 for nuclear-experienced bomber navigators are 4 to 14 percent below Line Air Force averages for majors,

lieutenant colonels, and colonels and 1 to 14 percent below their nonnuclear counterparts."[57] They added that this situation "clearly sends a signal to the officer corps that maintaining nuclear-trained officers has not been an Air Force priority."[58] This dynamic was not created in AFGSC. Nonetheless, it is a reality of the B-52 community. AFGSC would make significant strides in aircrew morale by acknowledging that an issue exists and then working with the Air Force to correct it.

**Recommendations for Maintaining B-52 Conventional Relevancy**

AFGSC is extremely well postured to meet its charter in stewardship of the nuclear portion of the bomber mission. Given the unsettling nuclear-related events of recent years, the call for rigid compliance, discipline and pride in the nuclear mission are warranted. Under the leadership of AFGSC, the B-52 community is on a path towards nuclear excellence, surety, security and reliability, with zero tolerance for mistakes.

There is less certainty that the current path also fosters conventional innovation and continued relevancy. The Air Force cannot afford to lose the conventional capability the B-52 currently brings to the fight. The following recommendations are intended to prevent conventional capability from atrophy, without undermining the primacy of the nuclear mission.

Lessons learned from the B-52 community's culture shift during the transformation from SAC to ACC apply today. That shift was started by senior leaders, but the grand strides came only when officers at the operational squadrons and FTU became involved in the cause. To that end, leaders of the B-52 community must ensure that their instructors in the units and FTU are marching in lock step with senior leadership's guidance and intent. Because of their direct impact on new crew members, front line instructors and the syllabi they execute will have immense impact on the organizational culture of the B-52 community in the coming years.

Continuing participation in large force exercises such as Red Flag is critical. Admittedly, the constraints of the GDF training focus cycle and steady-state deployments will hamper the scheduling of conventional exercises and composite force events. However, the importance of these events to aircrew professional growth, tactical innovation, cultural normalizing with the CAF, and morale is hard to overemphasize. These exercises should include B-52 operations conducted from the host base to facilitate face-to-face planning and debriefing. Further, operational units must continue to support CAF-wide conferences, such as the annual CAF Weapons and Tactics conference and Tactics Review Board, with delegates. This must continue even when the conferences occur during the "nuclear" portion of a unit's GDF focus period.

AFGSC should ensure that part of its organizational construct is focused on maintaining conventional relevancy. To accomplish this, AFGSC should consider following the path the Air Staff took to rectify its own lack of dedicated and consolidated *nuclear* focus. On 18 September 2008, an Air Force Nuclear Summit decided to create a new Air Force A-10 directorate within the Air Staff. The new directorate manages nuclear enterprise policy, guidance, requirements, and advocacy across the Headquarters Air Force staff. In addition, A-10 is responsible for nuclear plans, policy, and requirements, as well as the synchronization and integration of all related issues across the nuclear enterprise.[59]

A similar division within AFGSC would provide focused leadership and guidance for the conventional aspects of the B-52 and B-2 missions. It should be staffed with graduates of the Air Force Weapons School and those with experience in the test community. This organization should be AFGSC's primary conduit for information exchange with ACC, the Weapons School, and the operational test community. A division dedicated to conventional excellence will foster credibility with the rest of the CAF, provide a mechanism for conventional innovation, and

encourage tactical innovators to work in concert with the organization's culture instead of against it. Concurrent with establishment of this division, a new trait emphasizing the importance of conventional bomber operations should be added to the list of advertised AFGSC values: "Continued excellence in worldwide conventional combat operations."

## Conclusion

The Air Force's focus on the nuclear enterprise decreased steadily following the disbanding of SAC in 1992. The magnitude of the decay was delivered abruptly to Air Force leaders on the wings of a B-52 unknowingly carrying nuclear warheads on 30 August 2007. The critical assessment that followed drove significant organizational changes. The transformation of nuclear capable bombers from ACC to AFGSC offers vast improvements in management of the nuclear force. There are, however, second and third order impacts on the conventional missions of the assigned bombers. The development of an organizational culture that prohibits innovation, initiative and tactical thought is the greatest threat to the B-52's conventional efficacy as part of AFGSC.

The last organizational transformation of the B-52 community, from SAC to ACC, was neither smooth nor easy. However, positive aspects of the 1992 shift still apply today. Leaders of the B-52 community and AFGSC must recognize the important role culture will play in their success or failure. In its stewardship of bombers, AFGSC cannot blindly accept the "SAC way." That outdated culture cannot accommodate the conventional requirements and capabilities of today's B-52. The best way to manage the changing culture of the B-52 community is to shape the mindsets and ideals of the newest aircrew members via the FTU training syllabus and instructor force.

B-52 units should reward innovation and continue to take advantage of opportunities to integrate and train with the CAF. A new AFGSC division should advocate for continued conventional relevancy of the bomber force. AFGSC should openly value excellence in conventional operations with the same vigor it demands excellence in the nuclear mission.

The B-52 community can succeed and excel at both the nuclear and conventional missions. Recognizing and addressing the shortfalls of the new organizational construct is the first step. Identifying and effectively instilling the desired culture—one that demands nuclear perfection while still valuing conventional innovation—is the second. Failure to do so will ultimately negate the conventional interoperability and relevancy gained by the B-52 community since the inception of ACC.

Still not convinced of the importance of B-52 conventional operations? The December 2009 release of "Triad, Dyad, Monad" by the Mitchell Institute for Airpower Studies detailed a forecast of the future of US nuclear deterrence. In summary, the study recommended focusing on a nuclear force primarily comprised of ICBMs and ballistic missile submarines, with B-2 bombers retaining the "capability to conduct discrete and selective nuclear strikes." The study advocated that the Air Force "phase out the B-52 from a nuclear role" and "divert any planned investments dedicated to maintaining the B-52 in a nuclear role."[60] While the Mitchell Institute has no implicit authority, their strong recommendations underscore the relative importance of the B-52's conventional mission. The leaders of AFGSC and the B-52 community must consider that there is a greater than nominal chance that within the near future the B-52 will not be part of the US nuclear deterrent force at all, leaving conventional operations as the B-52's only mission. Our leaders must safeguard and continue to grow that capability accordingly.

## Notes

[1]Nalty, *Winged Shield, Winged Sword, Vol II*, 549.
[2] Trest, *Air Force Roles and Missions: A History*, 114.
[3] Chamberlain, "Transition of the B-52 Bomber from SAC to ACC," 31.
[4] Air Force Nuclear Task Force, *Reinvigorating Nuclear Enterprise*, 68.
[5] Ibid., A22. This dynamic was captured by multiple review boards following the August 2007 unauthorized weapons transfer.
[6] Nalty, *Winged Shield, Winged Sword, Vol II*, 549.
[7] Trest, *Air Force Roles and Missions: A History*, 250.
[8] Chamberlain, "Transition of the B-52 Bomber from SAC to ACC," 41
[9] 36 WG Public Affairs, www.andersen.af.mil/news/story.asp?id=123192026. (Accessed 2 Mar 10). USPACOM's Continuous Bomber Presence has been hosted at Andersen AFB, Guam since 2003. Its purpose is to demonstrate a credible deterrent force in the Western Pacific. B-52s have been a regular part of this rotational force since February 2004.
[10] Defense Science Board Permanent Task Force on Nuclear Weapons Surety, *Report on the Unauthorized Movement of Nuclear Weapons*, 13.
[11] *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management, Phase I: The Air Force's Nuclear Mission*, 23.
[12] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, 12. "The Air Force nuclear enterprise consists of the people, organizations, processes, procedures, and systems that are used to conduct, execute, and support nuclear operations and forces. It includes the infrastructure and life-cycle activities for nuclear weapons, delivery platforms, and supporting systems; intellectual and technical competencies; and cultural mindset that ensure sustainable, responsive, safe, reliable, and secure Air Force nuclear deterrence capabilities. In addition, it includes Air Force organizations responsible for nuclear policy and guidance, and Air Force relationships with other entities who contribute to the Nation's nuclear deterrence mission."
[13] Ibid., 2.
[14] Defense Science Board Permanent Task Force on Nuclear Weapons Surety, *Report on the Unauthorized Movement of Nuclear Weapons*, 3.
[15] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, 12-13. The Air Force recognized and addressed findings from seven separate reports.
[16] Defense Science Board Permanent Task Force on Nuclear Weapons Surety, *Report on the Unauthorized Movement of Nuclear Weapons*, 14. The classified ACC Commander Directed Investigation (CDI) report was completed before the release of the Defense Science Board's report. After its initial release, the Defense Science Board report was revised in April 08.
[17] Ibid., 9-11, 13.
[18] Ibid., 13.
[19] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, 13.
[20] *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management, Phase I: The Air Force's Nuclear Mission*, 62.
[21] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, 69.
[22] 8 AF (AFSTRAT) Global Deterrence Force Concept of Operations (U), 17 Oct 08. (Secret) Information extracted is unclassified.
[23]Clodfelter, *The Limits of Airpower*, 27-30.
[24] Dorr, *Boeing's Cold War Warrior: B-52 Stratofortress*, 227
[25] History, Strategic Air Command, 1 January – 31 December 1991, Volume 1, 24.
[26] This data derived from United States Air Force Technical Orders T.O. 1-B52H-1, T.O. 1-B52H-12 and T.O. 1-B52H-34-2-1. (For Official Use Only). Information extracted is unclassified.
[27] Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1961-1984, Volume II*, 392.
[28] Trest, *Air Force Roles and Missions: A History*, 231.
[29] Current number of aircraft provided by ACC/A852 via email on 30 Jan 10.
[30] History, Strategic Air Command, 1 January – 31 December 1991, Volume 1, 28.
[31] Chamberlain, "Transition of the B-52 Bomber from SAC to ACC," 29.

[32] Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1961-1984, Volume II*, 467-468.
[33] Michel III, *The Eleven Days of Christmas*, 4-6.
[34] Ibid., 12.
[35] Ibid., 72.
[36] Clodfelter, *The Limits of Airpower*, 193.
[37] Michel III, *The Eleven Days of Christmas*, 16-18.
[38] Broughton, *Thud Ridge*, 46.
[39] Michel III, *The Eleven Days of Christmas*, 18.
[40] Chamberlain, "Transition of the B-52 Bomber from SAC to ACC," 51
[41] Ibid., 52
[42] Ibid., 52.
[43] Ibid., 4.
[44] Ibid., 51-52.
[45] Ibid., 53.
[46] Ibid., 54.
[47] Ibid., 54.
[48] Defense Science Board Permanent Task Force on Nuclear Weapons Surety, *Report on the Unauthorized Movement of Nuclear Weapons*, 11.
[49] Ibid., 12.
[50] Air Force News Service, "Air Force Global Strike Command leaders Release Command's Mission, Vision," 11/2/2009. (accessed 4 November 2009)
[51] Air Force Global Strike Command Homepage, http://www.afgsc.af.mil/main/welcome.asp. (accessed 4 March 2010)
[52] Air Force Global Strike Command Public Affairs, "New Command to be Advocates for Bomber Missions," 2/22/2010. (accessed 4 March 2010)
[53] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, Cover letter.
[54] Michel III, *The Eleven Days of Christmas*, 4-6.
[55] Zentner, *The Art of Wing Leadership and Aircrew Morale in Combat*, vii.
[56] Michel III, *The Eleven Days of Christmas*, 18.
[57] *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management, Phase I: The Air Force's Nuclear Mission*, 27.
[58] Ibid., 27.
[59] Air Force Nuclear Task Force, *Reinvigorating the Air Force Nuclear Enterprise*, 71.
[60] Johnson, Bowie and Haffa, *Triad, Dyad, Monad? Shaping the US Nuclear Force for the Future*, 7-8.

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