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OCCASIONAL PAPER

"Over Not Through"

The Search for a Strong, Unified Culture for America's Airmen

Paula G. Thornhill

Prepared for the United States Air Force
Approved for public release; distribution unlimited



PROJECT AIR FORCE

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Preface

A 2010 RAND summer study explored how the Air Force contributes uniquely to the nation's security. The study was co-led by Andrew Hoehn (then–Vice President, RAND Project AIR FORCE) and author Simon Sinek. The group concluded that the Air Force serves the nation best when it creatively marshals its human capital and material resources to provide the President and his advisors with innovative, implementable solutions to developing, tough national security challenges. During this study, the importance of a strong, common culture kept emerging. What follows is a brief exploration of the foundations of Air Force culture—that is, its cultural narrative. The different narratives described in the document stem from identifying major moments when the Air Force's focus significantly shifted. Some, but not all, of these shifts are associated with wartime.

Since this summer study, several colleagues as well as serving and retired Airmen have generously offered their thoughts on the issue of culture and provided detailed insights and comments. The paper that follows is merely a departure point for a deeper discussion. If this document sparks a dialogue among America's Airmen about the Air Force's cultural narrative and how that affects its role in the joint force, it will have achieved its purpose.

Finally, particular thanks go to Sarah Harting, for pulling the original summer study together and carefully documenting the discussion, and to Karl Mueller and Cynthia Cook, for their thoughtful, insightful reviews. Their comments greatly enhanced the document. Any shortcomings remain mine alone.

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The Joint Force and Service Culture

At the beginning of his tenure, the 18th Chairman of the Joint Chiefs of Staff (CJCS), General Martin Dempsey, published “America’s Military—A Profession of Arms.” He observed in this piece that “each Service has a proud history, rich heritage, and distinct culture . . . [and these] Service cultures provide a source of strength for honing their unique expertise and competencies.” General Dempsey went on to note that this strength in diversity of Service cultures and their effective integration in turn strengthened the joint force on behalf of the nation.¹ By highlighting the importance of Service history and culture, General Dempsey encouraged the Services to reflect on how they best continue to meet the nation’s defense needs. For the U.S. Air Force, as the nation’s youngest military Service, this is a particularly important exploration. What is its Service culture? For example, Carl Builder, a keen observer of the U.S. Air Force, argued in *The Icarus Syndrome* that the Air Force lost its way as a military Service from the moment of its inception because it focused on manned flight to the exclusion of its larger national defense role. As technology advanced, the gap between the two widened until the relevance of manned military aviation inevitably came into question.² Indeed, if Builder were writing today, he could easily see evidence of a deepening crisis based on the profound increase in the use of remotely piloted aircraft (RPA) and the awkwardness, even unwillingness, that the Air Force demonstrated in integrating the RPA’s capabilities. Was Builder correct? Does total devotion to manned aviation shape the Air Force’s culture even at the expense of its larger defense responsibilities? What follows next is a brief exploration of the Air Force’s culture to see if it is answering the CJCS’s charge to use its unique culture to enhance the joint force.

Massachusetts Institute of Technology (MIT) Professor Edgar Schein’s writings on organizational culture offer a useful departure point for this exploration. Schein observes that culture is to the organization what character is to the individual.³ He notes that before a set of people can even form a culture, they must have enough stability—that is, lack of personnel turnover—and common history to allow a culture to form. Once a group has learned to hold common assumptions based on these factors, a culture can emerge.⁴ Thus, a strong, common narrative shared by individuals at all levels about why an organization exists is essential to understanding not only the organization but also why it exists at all. Popular author Simon Sinek seizes this issue of an organization’s “why” and challenges senior leaders to *Start with Why*.⁵ In the case of the military Services, this requires that leaders look beyond tradition and

¹ Martin E. Dempsey, “America’s Military—A Profession of Arms,” White Paper, 2012, p. 5.

² Carl Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, Piscataway, N.J.: Transaction Publishers, 2002.

³ Edgar H. Schein, “Five Traps for Consulting Psychologists,” *Consulting Psychology Journal: Practice and Research*, Vol. 55, 2003, p. 79.

⁴ Schein defines culture as “(a) a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid, and, therefore (e) is to be taught to new members as the (f) correct way to perceive, think, and feel in relation to those problems.” Edgar H. Schein, “Organizational Culture,” *American Psychologist*, Vol. 45, February 1990, p. 111. See also Linda Smircich, “Concepts of Culture and Organizational Analysis,” *Administrative Science Quarterly*, Vol. 28, 1983, pp. 339–358.

⁵ Schein, 2003, pp. 111–112; Simon Sinek, *Start with Why: How Great Leaders Inspire Everyone to Take Action*, New York: Penguin Group, 2009, p. 41, and Chapter 6, especially pp. 88–90. It is worth noting that the 2012 CJCS and Chief of Staff, U.S. Air Force (CSAF) reading lists include Sinek’s work.

competence in specific operational and tactical tasks. These leaders must be able to describe how their Services uniquely contribute to America's defense and explain why their Services have and should retain the nation's trust to manage violence on its behalf, thus continuing to receive national resources and public support in fulfillment of that trust.⁶ Do today's Airmen have a strong, common culture that allows them not only to overcome internal institutional problems but also to thrive on behalf of the nation; that translates into a shared purpose differentiating them from others who serve in the military or in public service? Said differently, do they share a unique cultural narrative that unites them as Airmen and ties them to the nation they serve?

One or Five Cultural Narratives?

When senior Air Force leaders discuss what the Air Force does on behalf of the nation, they tend to reply that the Air Force provides the nation with "global vigilance, reach and power,"⁷ because of its ability to "fly, fight and win . . . in air, space and cyberspace."⁸ And that the Airmen who perform these missions are motivated by three core values: "integrity first," "service before self," and "excellence in all we do."⁹ Although these explanations are important to understanding how the Air Force does things, they do not provide the common origin story that unites all Airmen across generations. Collectively, this suggests that Airmen might lack a common cultural narrative to explain why the Air Force continues to matter to the nation.¹⁰

One way to explore this hypothesis is to better understand, from an historical perspective, the Air Force culture that Airmen think they joined. The discussion that follows is not intended to provide a narrative history. Several outstanding works on air power theory and history already exist.¹¹ Rather, it seeks to identify critical junctures in the evolution of Air Force culture based on when the nation or the Air Force as an institution faced profound challenges. It is interesting to note that when this approach is used, five distinct cultural identities rather than one dominant identity seem to emerge: "over not through" (World War I and immediate aftermath), "give me liberty" (interwar period), "victory through air power" (World War II), "peace is our profession" (Cold War), and "we are critical enablers" (Operation Enduring Freedom and Operation Iraqi Freedom). What is equally fascinating is that as the Air Force organizationally matures, these identities increasingly overlap and coexist. Each narrative has

⁶ This depiction of the military Services' *why* relies on two works by Samuel Huntington: *The Soldier and the State*, Cambridge, Mass.: Harvard University Press, 1995; and "National Policy and the Transoceanic Navy," *U.S. Naval Institute Proceedings*, Vol. 80, No. 5, May 1954.

⁷ U.S. Air Force, "Our Mission," website, undated-a. This and subsequent observations are based on several informal conversations.

⁸ U.S. Air Force, undated-a.

⁹ U.S. Air Force, "Our Values," undated-b.

¹⁰ See Builder, especially Chapters 1–2, for his views on this.

¹¹ Good surveys of air power history include Philip Meilinger, ed., *The Paths of Heaven: The Evolution of Airpower Theory*, Maxwell Air Force Base, Ala: Air University Press, 1997; and Benjamin Lambeth, *The Transformation of American Air Power*, Ithaca, N.Y.: Cornell University Press, 2000. In addition to air power and Air Force histories, this section draws on an extensive body of literature on military innovation and history that was reviewed for a RAND summer study in July 2010. Specific works are cited where appropriate.

a period or periods of dominance but always persists in the background even as another dominant narrative emerges. Arguably, these myriad narratives create confusion for the nation's leaders and population over who America's Airmen are and what they uniquely provide the nation.

"Over Not Through" (World War I and Its Immediate Aftermath)

The "over not through" narrative describes the Airmen's culture in terms of their ability to identify and adapt to a profound innovation. This narrative harkens back to the emergence of aviation as a part of the U.S. Army and its introduction as a revolutionary instrument of war in World War I. The new "aeroplane" served as a technological innovation that could break intractable stalemates by allowing strategists and operators to imagine ways to go over the trenches rather than to continue to attempt to punch through them.¹² Especially in the wake of horrific battles of attrition, leaders on both sides saw a glaring need for new ways to break the stalemate on the Western Front.¹³ Several land, sea, and air innovations were pursued with this in mind. As for the latter, innovations in this realm meant that warfare literally assumed an added dimension.

The introduction and integration of a new technology, in this case the airplane, emerge almost immediately as a key cultural theme. This technology allowed strategists, planners, and operators to reimagine operational challenges and the possible solutions to those challenges. It encouraged this new breed of soldier, the Airman, that emerged during World War I to view innovation as equally important to their professional ethos as tradition and competence. Because of several factors (e.g., the newness of the technology, the nascent state of operational integration), this latest aspect of warfare remained more of a promise than a reality during the war. But it made clear to the first generation of Airmen that military innovation relied heavily on their individual ability to understand and leverage the close linkages among technology, operations, and strategy to address tough security problems.

James "Jimmy" Doolittle in many ways epitomized this era. Although he served as an instructor pilot on the home front during the war, his eclectic background embodied the innovative nature of the earliest age of military aviation. In addition to his instructor pilot background, he had operational and flight test experience, and he demonstrated the highest academic achievement by earning an MIT doctorate in the new discipline of aeronautical engineering. He also devoted his time during and after World War I to creating a strategic vision of how to employ this new military capability.¹⁴ Thus, during this era, even though the airplane was the crucial means, it was the importance of innovators and innovation to breaking operational stalemates that dominated the "over not through" cultural narrative.

"Give Me Liberty" (Interwar Years)

As World War I receded in the nation's memory, the "over not through" narrative gradually morphed into the "give me liberty" narrative. For many Airmen, this narrative marked the

¹² Williamson Murray and Allan R. Millett, *Military Innovation in the Interwar Period*, Cambridge, UK: Cambridge University Press, 1998; RAND Project AIR FORCE summer study, unpublished notes, Santa Monica, Calif., July 2010.

¹³ Builder, 2002, pp. 30–31.

¹⁴ Murray and Millett, 1998; RAND Project AIR FORCE summer study, 2010; C. P. Snow, *Science and Government*, New York: Signet, January 1, 1962; James Doolittle and Carroll V. Glines, *I Could Never Be So Lucky Again*, New York: Bantam, 2001; Geoffrey Perret, *Winged Victory*, New York: Random House, 1993, p. 40.

institutional beginning of the modern Air Force. It emphasized the importance of organizing Airmen into an independent and co-equal military Service to exploit the role of the aircraft. It reflected a subtle shift in priorities that occurred when innovation on the battlefield eventually lost its urgency. Institutional independence became the means to protect this remarkable innovation called the airplane and maximize its contributions to the nation's defense.

In the aftermath of World War I, this was particularly important because the airplane theoretically brought war to the home front in previously unimaginable ways. Germany's bombing of England gave a hint of the terrifying potential of aerial bombardment.¹⁵ Because of this threat, Airmen argued that they needed to separate from the Army. They needed their own institution to address this new challenge and avoid being hampered by the bureaucracies of existing, terrestrially bound Services. From this perspective, a tradition-bound Army in particular lacked the wherewithal to appreciate the new technology's potential to recast the character and conduct of war. In other words, in this narrative, many Army generals of that day saw the airplane as just another weapon rather than as a fundamental reimagining of the battlefield and how war might be waged. This lack of understanding meant that organizational independence was essential to exploit the full potential of manned military aircraft. Britain's establishment of a separate Royal Air Force in 1918 further motivated these pioneer American Airmen to pursue independence.

Some Airmen, personified by the legendary William "Billy" Mitchell, argued that without the air Service's independence, the military would constrain the impact of this new technology.¹⁶ For them, organizational independence became synonymous with operational effectiveness, and they pursued this, in Mitchell's case, to the point of open rebellion. Mitchell used his court-martial as a direct appeal to the American public for institutional independence. As the emergence and expansion of the U.S. Army Air Corps suggested during the interwar years, Mitchell's efforts were well on the way to being rewarded by the time the United States entered World War II.¹⁷

Thus, in the "give me liberty" narrative, the innovative spirit remained strong but the relationship between innovation and independence shifted. Rather than the former gradually leading to the latter, independence emerged as a precondition for effective operational and strategic innovation with the airplane. For the first time since the nation's founding, those who adhered to this narrative argued that a new military Service was needed. Billy Mitchell and his protégés, in short, reimagined the structure of the U.S. military to ensure that manned aviation had an elite place in the military's arsenal. Innovation in the form of the airplane became an important means; however, in this narrative the creation of an independent air arm became the objective. It was that important to the nation's defense.

"Victory Through Air Power" (World War II and the 1990s)

As World War II loomed on the horizon, some Airmen started to identify culturally with a third narrative best expressed by the title of Alexander de Seversky's 1942 best-selling book,

¹⁵ Builder, 2002, p. 30.

¹⁶ Douglas C. Waller, *A Question of Loyalty: Gen. Billy Mitchell and the Court-Martial That Gripped the Nation*, New York: HarperCollins, 2004; Alfred F. Hurley and Billy Mitchell, *Crusader for Air Power*, Bloomington, Ind.: Indiana University Press, 1975.

¹⁷ Herman S. Wolk, *The Struggle for Air Force Independence, 1943–1947*, Washington, D.C.: Air Force History and Museums Program, 1997, pp. 22–27.

Victory Through Air Power.¹⁸ This perspective again subtly shifted the cultural focus from institutional independence to a singular mission that the Airmen's military institution must perform—strategic bombing. Although independence and strategic bombing were closely linked, the essence of the latter was to offer a unique operational solution to winning World War II. Specifically, strategic bombing promised that precision bombing could directly target an enemy's will to fight as well as his economic war machine, ultimately leading to a decisive victory. Indeed, innovation initiatives centered largely on this premise. Strategic bombing's importance as a separate military offensive was sustained throughout the war, despite tremendous loss of life and analysis that raised issues about its ability to break the enemy's will.¹⁹ However, the delivery of two atomic bombs by the Army Air Forces in 1945 validated for some the hypothesis that aerial attack could break a nation's will and demonstrated the operational decisiveness of strategic bombing.

This cultural narrative resurfaced at different times after World War II in a variety of ways. In Vietnam, the Air Force expected bombing to be instrumental in breaking the enemy's will only to be disproven.²⁰ Conversely, in the 1990s, "victory through air power" seemed to become a reality.²¹ Precision air attacks in the Persian Gulf War and the former Yugoslavia solved tough operational problems either by creating the conditions for quick, decisive land operations (in the case of the former) or by proving independently decisive from the air (in the case of the latter). Indeed, for some, air power during the 1990s finally achieved the potential that was promised throughout the conventional bombing campaign of World War II. Among some senior Airmen, these events also finally brought full recognition to the fighter community's contribution to this narrative.²² In any event, in both cases, the "victory through air power" narrative meant that Airmen sharing this narrative were committed to the idea that precision air attacks offered innovative, unique, and decisive solutions to national problems by reimagining war's character and conduct.

"Peace Is Our Profession" (the Cold War)

A fourth cultural narrative developed largely concurrently with the creation of an independent Air Force in 1947. The official establishment of the Air Force coincided with an emerging need for the military to address a new national problem: how to deter a global nuclear conflict. Airmen offered an innovative solution by helping the nation's leaders to implement a nuclear deterrence strategy. This led to the creation of a powerful global bomber and tanker fleet, a new approach to basing, and an interest in and emphasis on polar air routes. Thus, paradoxically, during this era, Airmen offered a decisive solution to national problems by creating a stalemate to avoid a nuclear war, rather than by breaking a stalemate as earlier air Services sought to do in

¹⁸ Alexander de Seversky, *Victory Through Air Power*, New York: Simon and Schuster, 1942.

¹⁹ See U.S. War Department, *The United States Strategic Bombing Survey*, commissioned by Secretary of War on November 3, 1944.

²⁰ See, for example, Mark Clodfelter, *The Limits of Airpower*, New York: The Free Press, 1989.

²¹ See, for example, John A. Warden III, *The Air Campaign: Planning for Combat*, Washington, D.C.: National Defense University Press, 1988; John A. Warden III, "Air Theory for the 21st Century," *Battlefield of the Future: 21st Century Warfare Issues*, *Air and Space Power Journal*, September 1995.

²² Mike Worden, *The Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945–1982*, Maxwell Air Force Base, Ala.: Air University Press, 1998.

World War I. This solution was embodied in the Strategic Air Command (SAC) motto "Peace Is Our Profession."

General Curtis LeMay, the father of SAC, is the public face of this period.²³ He turned SAC into a hair-trigger force prepared to launch its nuclear arsenal on a moment's notice, but also one that considered each day it did not conduct such a mission a success. LeMay's innovative leadership was essential to the creation of this nuclear deterrent force; however, a similar spirit was not cultivated among SAC's Airmen. In an operational environment dominated by the importance of speed and zero defects, these Airmen were incentivized to focus on rapid, efficient execution of their nuclear mission. In short, compliance-driven mission competence overshadowed innovation.

Even while LeMay was imbuing Airmen with a zero-defects mentality, other actors were simultaneously shaping this new, large institution. The Airmen's leading role in nuclear deterrence also inspired the pursuit of such new technologies as ballistic missiles, early warning, and secure communications from space.²⁴ General Bernard Schriever, for example, was playing a critical albeit less public role than LeMay's.²⁵ Although a pilot by training, Schriever provided the vision and leadership that led to many of the Air Force's profound technical advances during this era, especially precision ballistic missiles and space operations. These technologies were important enough to America's deterrent force that the nation devoted considerable resources to their development and sustainment.

However, many dominant Air Force leaders of this era, including LeMay, either ignored the Airmen responsible for these new weapons and technologies or actively chafed at the reallocation of resources away from core missions.²⁶ Absent an embrace by many senior Air Force leaders, these new groups of Airmen functioned on the periphery of the traditional flying mission. Left largely to themselves, they began to develop their own cultures and ethos, most notably in the acquisition and space arenas, and even vaguely to embrace their own version of the "give me liberty" narrative.²⁷ Innovative thinking and technologies rather than any specific military operation helped prevent nuclear war and contributed to the end of the Cold War. But this came at a cost—many of the Airmen behind these advances created cultural narratives unique to their skills rather than embracing a unifying one across the force. Thus, the Cold War, which marked the institutional apogee of the Air Force in so many ways, simultaneously provided a catalyst for cultural fragmentation and led some Airmen to contemplate the eventual creation of separate organizations, such as a space service.²⁸

²³ Warren Kozak, *LeMay: The Life and Wars of General Curtis LeMay*, Washington, D.C.: Regnery Publishing, 2009, pp. 279–314.

²⁴ Neil Sheehan, *A Fiery Peace in a Cold War: Bernard Schriever and the Ultimate Weapon*, New York: Random House, 2009.

²⁵ Sheehan, 2009. See, for example, his discussion of the development of the intercontinental ballistic missile, pp. 177–228.

²⁶ Sheehan, 2009, pp. 124–129, 223.

²⁷ Sheehan, 2009.

²⁸ This is not to say that the flying community was immune from these challenges. Indeed significant tensions especially emerged between the bomber and fighter communities during the Vietnam War over mission priority, institutional leadership, budget allocation, etc. See Worden, 1998, Chapters 8–9, in particular.

"We Are Critical Enablers" (Operation Enduring Freedom and Operation Iraqi Freedom)

Finally, a fifth dominant narrative recently has shaped many Airmen, especially those who joined the Air Force after 2002. As mentioned above, some Airmen returned to the "victory through air power" narrative in the 1990s. Indeed, the Air Force's institutional supremacy for some reached its zenith in the air operations over Southwest Asia and the former Yugoslavia. However, the power of this narrative dissipated after the early days of Operation Enduring Freedom and the nation's subsequent focus on counterinsurgency (COIN) operations. The COIN era has lasted for almost a decade. During this era, some Airmen conceptualized their role as national policy's "critical enablers." While land forces provided the COIN combat power, Airmen enabled their joint partners' operations by providing persistent intelligence, surveillance, and reconnaissance; inter-theater and intra-theater mobility; medical evacuation; space and cyberspace expertise; individual augmentees to support convoys, provincial reconstruction teams, host-nation training, and command staffs; and close air support to the land operations. In this narrative, Airmen provided essential and innovative support to the other Services but did not belong to a decisive military force that offered unique solutions to strategic problems. Perhaps this is best revealed by those Airmen who, proud of their role as critical enablers, mimicked the "hooahs" of their Army brethren, reveled in their ground combat skills training, and eagerly sought permission to wear Army patches on their uniforms.²⁹

Arguably, this period offered Airmen their greatest challenge to understand and communicate their unique value to the joint force and the nation. Although Airmen did much to be proud of and clearly were value-added to the operations, their contributions were frequently as augmenters to the land forces. On one hand this is the epitome of cooperation in the joint force—Service members were serving where their nation needed them, when their nation needed them. On the other hand, the fact that many Airmen started to identify culturally with their ground brethren raised an important question for senior Air Force leaders to explore: Did Airmen identify with the other Service cultures from a position of confidence in their own distinct culture, or did they turn to them because they sought a stronger cultural identity?

As mentioned above, the five cultural narratives frequently overlap historically and even coexist. One usually dominates for a time, but the others persist in the background. The fact that five discernible narratives exist, however, suggests that Schein's criterion of a strong, single narrative to unite Airmen is missing. Instead, individual Airmen adopt the narrative that appeals to them most.³⁰ For example, anecdotally today the "over not through" narrative resonates most viscerally with the research and test communities, especially those young Airmen, cadets, and officers interested in scientific and technical advancements. They are fascinated by the power of innovation to transform air power and warfare in general and joined the Air Force to be a part of an innovative culture rather than specifically to learn how to fly.

The allure of the institutional independence ("give me liberty") narrative also endures, especially among pilots of manned aircraft. They take pride in the rebelliousness that created an independent military organization. It is this independent organization that, while innovative, more importantly possesses a unique understanding of air operations and thus bears a

²⁹ As Commandant of the Air Force Institute of Technology (2006–2009), for example, I routinely experienced all three, as did other commanders.

³⁰ My description of what narratives appeal to different Airmen is anecdotal not empirical; it is based on several conversations with serving and retired Airmen. It is intended to capture the appeal that different narratives have to different Airmen to give value to their service.

responsibility for advising national leaders on how best to employ them. It is interesting to note that some space and cyber operators are also drawn to this narrative because they hypothesize that to best leverage the power of space and cyber, they, too, need their own organizations.

Meanwhile, Airmen who perform the manned, deep attack mission in the combat air forces continue to gravitate to the "victory through air power" narrative. For them, this narrative holds a unique appeal because it highlights the combined success of their aircraft and weapons and their airmanship. "Peace is our profession" still resonates with Airmen associated with the nuclear deterrence mission.

Finally, the "critical enabler" narrative has considerable resonance with mobility operators, some portions of the space community, support officers, and many enlisted personnel. These Airmen deploy with great frequency and, in some specialties, such as explosive ordnance disposal and security forces, they operate routinely under dangerous conditions. From their perspective, their augmentation role to the ground forces is a source of pride and takes them back to their deep historical ties to the Army. Rather than worry about losing their institutional identity, these Airmen thrive on being "warfighters" in their own right rather than supporters of the combat air forces.

Although the categorizations might be oversimplified, multiple narratives clearly exist. For Airmen, the absence of a shared cultural narrative encourages them to create and celebrate their own subnarrative. Senior leaders miss an important opportunity to imbue all Airmen with a unifying cultural identity that captures their value and place in a dynamic national security arena. Without a common cultural foundation, intra-Service rivalries inadvertently distract Air Force leaders. Rather than focusing on understanding large national security problems and offering meaningful options to address them, they become increasingly focused on addressing internal competitions over manpower, money, and mission. Ultimately, this exacerbates Airmen's long-standing concerns about their institution's legitimacy when compared to the other Services.³¹

"Over Not Through"—A Unifying Narrative

If the conclusion that Airmen lack a unifying narrative is accurate, and assuming all five narratives have value, Air Force leaders might ask: Is there a unifying narrative that underpins all others? One way to answer this question is to look for a narrative that is deeply rooted in Air Force history, has threads through all the other narratives, is timeless (i.e., not tied to a specific medium or technology), and has broad appeal. In other words, is there an origin story? Does a narrative exist that sets the organization on its journey? As with the story of our nation's founding, it is this origin story that defines why an organization exists. It is that original intent on which any organization is built; and the opportunity for that organization to thrive comes from its ability to make decisions that amplify its original, natural strengths.

Using these criteria, for Airmen breaking stalemates by going "over not through" the trenches—and other tactical, operational, and strategic problems—emerges as that origin story. Airmen excelled when providing innovative solutions to significant challenges whether that was using the third dimension to break the stalemate on the Western Front; sinking a

³¹ See Carl Builder, *Masks of War: American Military Styles in Strategy and Analysis: A RAND Corporation Research Study*, Baltimore, Md.: Johns Hopkins University Press, 1989, pp. 27–30; see Builder, 2002, for manned flight focus.

battle fleet from the air; going beyond an economic blockade to actually attacking an enemy's industrial capacity; resupplying a large, isolated city population from the air (e.g., the Berlin Airlift); perfecting long-range refueling so that air fleets could reach anywhere in the world; and looking to space for solutions to precision navigation and timing, just to name a few.

Not only is "over not through" the first narrative chronologically, it emphasizes the fusing of independent-minded Airmen with a willingness to embrace new technologies and a devotion to innovation that collectively produces creative solutions to vexing national problems. By treating technology as a means rather than an end and heralding the spirit of innovation, this identity should inspire Airmen from the early days of flight to the present. In this narrative, being an Airman is less about flying and more about providing creative, realistic solutions to tough security challenges. The narrative emphasizes innovation over rebellion or subspecialty elitism. It connects the youngest Airmen to the first "air-minded" soldiers in World War I, and it connects the modern Air Force to its organizational ancestors. Finally, it reminds Airmen that their "over not through" approach to problems predates any formal institution. In short, this narrative provides a powerful, shared identity.

If this is the core narrative uniting Airmen, then the Air Force as an institution sets itself apart by being a Service that offers the President and the Secretary of Defense unique, innovative, lethal, and nonlethal options to myriad problems. Sometimes these solutions are tactical, sometimes operational or strategic, and sometimes they redefine the problem altogether. In all cases, they are about inventive, realistic options. The Air Force's core *why*, then, is to help identify large national security problems, then to find and deliver better ways of addressing them to bolster the common defense.³²

Indeed, looking closely at the five narratives, the innovation theme runs through them all. The articulation, inculcation, and celebration of this part of the Air Force's culture is so elemental that generations of Army Air Corps and Air Force Airmen perhaps took it for granted. With the explicit recognition of the importance of military innovation, senior Air Force leaders should look for ways to highlight this cultural heritage at all levels of command.

Certainly, at a minimum, it is a fundamental quality that Airmen's education and training programs should emphasize, leadership at all levels should discuss and encourage, and senior Air Force leaders should cultivate and communicate on behalf of the nation. This cultural inculcation should start from the moment Airmen take their oaths of office. In the basic commissioning programs, curricula could be restructured to celebrate those who brought about innovations as well as those who operationally employed them. For example, this would mean learning as much about how manned systems were created as about the pilots or astronauts who flew them, extolling the ingenuity of the engineers who helped develop ballistic missiles, highlighting the intrepid ways of the logisticians and maintainers who kept the Berlin Airlift operating as well as the operators who executed the mission, heralding the contributions of joint terminal attack controllers in conducting close air support, and celebrating the creativity of cyber and space experts on the nation's behalf. In other words, these curricula adjustments would bring out of the shadows the myriad Airmen who individually and collectively addressed problems by going "over not through" challenges to accomplish a mission. Similar adjustments should be made to the various levels of professional military education and to the timing and purpose of graduate education.

³² In this way, as noted in the CSAF 2012 Reading List theme, the Air Force contributes to national defense by offering every Airman an innovator.

Education alone, however, is not enough. Creating a dynamic yet disciplined environment to maximize innovation on behalf of the nation is essential. Examples could be gleaned by looking across the other military Services and at corporate cultures known for innovation. 3M, for example, has had a deep culture of innovation for over 100 years. One aspect that is particularly intriguing is 3M's focus on the constant sharing of knowledge across fields, both formally and informally, to keep researchers fresh and good ideas circulating.³³ An Air Force equivalent could mean significant adjustment to the personnel system so that various operational communities, researchers, acquirers, strategists, and other disparate communities more routinely work together for extended periods of time to address tough national security issues.

Finally, having created this environment, the Air Force could reinvigorate the spirit of experimentation literally in a more thoughtful way. Specifically, the Air Force could forgo some of its more expensive war games in favor of the Service equivalent of "thought experiments." The role of thought experiments is well understood in science and philosophy (notable practitioners include Newton and Einstein). Those who conduct them focus on fundamental concepts by asking insightful, basic questions. A talented, eclectic group of Air Force officers could explore new concepts and develop new capabilities for a constantly changing geostrategic environment in ways more akin to the War Plan Orange initiatives between the World Wars.³⁴ Much of their effort would be devoted to identifying the critical problems to solve and then pursuing alternatives in an intellectually robust manner over a period of time. Conceivably, this approach would enable the operational, technical, and political-military communities to come together on a regular basis for collaborative purposes. Ideally, a couple of groups would independently be given the same question to see what alternatives might emerge. The power of conceptualizing capabilities and their implications could prove useful to senior leaders as they strive to offer solutions to tough national security problems in a fiscally tight environment.

This focus on an innovative culture could help these senior leaders effectively integrate emerging mission areas and perhaps recast or discard older ones. Moreover, it would highlight the importance of an institutional culture that allows innovation to thrive specifically on behalf of the nation. Finally, and perhaps most importantly, it would force senior Air Force leaders to keep asking fundamental questions such as: How can we improve on what we are doing and best prepare for it? What is the next big threat that needs innovative, implementable, operational solutions? How do we best marshal human capital and material resources to help the President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staff address these threats? This does not mean that institutional tensions would disappear, but it does suggest that the ability to foster and sustain an innovative culture in the Air Force is essential to its long-term institutional health and legitimacy.

It is important to note that this is not about whether Airmen are better or worse than others in the military. Nor is it about the elevation of innovation to the detriment of tradition or competence, both of which remain vital. It is about balancing these qualities and creating a culture that encourages Airmen to leverage their strengths and offer the nation's leaders creative, alternative options. As General Martin Dempsey observed, the strength of our nation's military relies on the diversity of perspectives, so for Airmen, it is not a value judgment about which approach is right or wrong; it is about ensuring that meaningful, different options are

³³ Michael Arndt, "3M's Seven Pillars of Innovation," *BloombergBusinessweek*, May 9, 2006.

³⁴ Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945*, Annapolis, Md.: Naval Institute Press, 2007.

available. Senior civilian leaders will then have the opportunity to evaluate and capitalize on the alternatives Airmen offer.

Finally, Airmen should be mindful of two potential risks with regard to their cultural narrative. They should be careful not to mistake innovation for "change for the sake of change," or, worse yet, assume that institutional rebelliousness is a hallmark of innovation. Their great strength could become their great liability if they allow either to occur. To meet the demands of the joint force, Airmen need to ensure that their innovation culture is integrated into a larger common culture that embraces the entire U.S. profession of arms. The joint force excels when each part understands its responsibilities to the nation, operates in an integrated fashion, and allows various cultural strengths and limitations to compensate for each other. A strong, cohesive joint military in large part reflects the ability of each Service culture to connect clearly to its own origin narrative and then to amplify the best of its own culture on behalf of each other and the nation.³⁵

As with other components of America's military, Airmen's unique cultural narrative embraces unique responsibilities on behalf of the joint force. It strives to go over not through tough operational problems and is at its best when it offers the President and his top advisors and commanders innovative solutions to break strategic stalemates (or create them in the case of deterrence). Airmen must focus on this for the nation's sake. Without this broader focus they will be consumed by infighting over platforms and budgets. Airmen, especially senior leaders, should ask themselves daily whether they are they providing innovative solutions to the nation's top security problems. If the answer is no or maybe, this suggests a core cultural issue to address. If the answer is yes, then these contributions and the Airmen who bring them into being should be appropriately heralded.

Airmen have always looked to the future. But it is the close identification with their origin story that will ensure that their organization's future remains focused on the nation's needs as technology continues to develop at an accelerated pace. They need to understand their exceptional culture, revel in it, and be able to communicate it to the joint force, the President, Congress, and, most importantly, the American public. The latter in particular needs to appreciate this unrivaled national resource it has created and understand the unique national defense options it provides. Indeed, without that understanding, in a time of defense drawdowns, the American people will question what the Air Force uniquely offers the nation.

³⁵ Dempsey, 2012, pp. 3–5.

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