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Embracing the Bomb:
Ethics, Morality, and Nuclear Weapons in the U.S. Air Force, 1945-1955

by

Bret J. Cillessen

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of History.

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ABSTRACT

Bret J. Cillessen: Embracing the Bomb: Ethics, Morality, and Nuclear Weapons in the U.S. Air Force, 1945-1955
(Under the direction of Richard H. Kohn)

For four years, from 1945-1949, the U.S. Air Force was the only institution on the planet responsible for planning nuclear strikes and capable of delivering such a blow. Even in the mid-1950s, the Air Force was still by far the most powerful nuclear force and would be for years. At the same time, an intense moral debate surrounded atomic and nuclear weapons.

This paper addresses how leading U.S. Air Force officers viewed nuclear weapons in ethical terms. Specifically, at a time when no one else had to, how and why did professional Air Force officers come to accept planning for, threatening, and training to take millions upon millions of human lives, many of them civilian, with nuclear weapons?

The work draws extensively from the manuscript collections and printed primary sources of Air Force generals to show that these men ardently believed they were traveling the road of higher morality.

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To

Mom and Dad

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LIST OF ABBREVIATIONS

AAC	Army Air Corps
AAF	Army Air Forces
HAMGMC	Henry Arnold/Murray Green Manuscript Collection (at the USAFA SCL)
HBMC	Harry Borowski Manuscript Collection (at the USAFA SCL)
HHMC	Haywood Hansell Manuscript Collection (at the USAFA SCL)
LKMC	Laurence Kuter Manuscript Collection (at the USAFA SCL)
LOC	Library of Congress
MD	Manuscript Division
NTMC	Nathan Twining Manuscript Collection (at the USAFA SCL)
SAC	Strategic Air Command
UN	United Nations
US:	United States
USAFA SCL	United States Air Force Academy Special Collections Library
USAF HO	United States Air Force Historical Office

INTRODUCTION

The United States currently stockpiles thousands of nuclear warheads tucked away in silos throughout barren stretches of the open plains, in sophisticated submarines lurking in the murky depths of the ocean, and behind the heavily guarded gates of big bomber bases. "Little Boy" and "Fat Man," the only two atomic weapons ever used in war, together killed or wounded approximately 200,000 Japanese in the span of three days in 1945.[1] Today's thermonuclear weapons can pack up to 1,000 times the destructive power of those first devices, and these modern weapons can be delivered on target in a matter of minutes.[2] Almost as incredible as the destruction a future nuclear war could wreak on civilization has been the amount of national and global time and treasure already spent building, maintaining, and threatening to use nuclear military forces. Not surprisingly, then, an intense moral debate has always surrounded atomic and nuclear weapons.

For four years, from 1945-1949, the U.S. Air Force was the only institution on the planet responsible for planning nuclear strikes and capable of delivering such a blow. Even in the mid-1950s, the Air Force was still by far the most powerful nuclear force and would be for years to come. Therefore, at a time when no one else had to think about the issue, *how* did professional Air Force officers come to accept planning for, threatening, and training to take millions upon millions of human lives, many of them civilian, with nuclear weapons?

The answer is that in 1945 air leaders had an unshakable commitment to the U.S. constitution, a personal and professional devotion to strategic bombing, and an ardent belief

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[1] *The United States Strategic Bombing Survey: European and Pacific War Summaries* (Maxwell AFB: Air University Press, reprinted 1987, originally published in 1945 and 1946, respectively), pp. 100-101. Many other estimates put the death toll somewhat higher.

[2] The Hiroshima bomb was a 15 kiloton (KT, or thousands of tons of TNT) equivalent and the Nagasaki bomb 22 KT, while typical modern day Multiple Independently Targetable Reentry Vehicles (MIRVs) yield 330 KT. Many bomb are measured on the megaton (millions of tons of TNT) scale though. See Christy

that great strength could deter war. They also had a conviction that America would never fight an unjust war or a war in an unjust manner, so whatever was necessary militarily was permissible morally.[3] While certain philosophers might have argued that it might be necessary to lose a war to maintain moral behavior, air leaders dedicated to preventing and winning wars for the United States could never accept this because to them, winning wars for their beloved country was a moral imperative. Air leaders thought America was the unsurpassed embodiment of freedom, democracy, morality, and justice in the world, and that the United States was worth defending at any cost. After retiring, General Thomas Power, who had been Deputy Commander at the Strategic Air Command (SAC) under Curtis E. LeMay before becoming SAC Commander, outlined what he thought was the greatness of America, and the promise of its future. These elements included a "sound economy and prosperous industry, . . . scientific progress and good schools, . . . civil defense and the maintenance of law and order, . . . the practice of religion and respect for the rights and convictions of others, . . . a high standard of morals and wholesome family life, . . . [and] honesty in public office and freedom of the press."[4] General Curtis LeMay, Commanding General of SAC from 1948-1957, explained that he swore allegiance to the Constitution because of the "freedom with order" it represented.

These views, coupled with the fact that air leaders did not at first believe that the atomic bomb constituted a military *or* moral revolution, led the Air Force to embrace the bomb as simply a better weapon. In the event of war, responsibility for the use of the bomb

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Campbell, *Nuclear Facts: A Guide to Nuclear Weapon Systems and Strategy* (New York: Hamlyn, 1984), p. 106.

[3]Military may be simply defined as the force deemed necessary to compel an enemy to comply with one's war objectives. For an in-depth discussion of the topic see Myres S. McDougal and Florentino P. Feliciano, *Law and Minimum Public World Order* (New Haven: Yale University Press, 1961), p. 72.

[4]Thomas S. Power with Albert A. Arnhym, *Design For Survival*, (New York: Coward-McCann, Inc., 1964), p. 253.

would rest on the shoulders of an aggressor that would not be the United States, and the orders would come from civilians elected by the American people. Air leaders also carried over into the atomic age their preexisting belief that strategic bombing was more humane than other forms of warfare because it avoided indecisive, drawn-out, bloody ground action.[5]

Some senior air leaders did support early initiatives for international controls on atomic technology and weapons. But after the failure of these plans in the United Nations (UN) in 1946, and the hardening of the conflict between the West and the Soviet Union into the Cold War the next spring, air leaders became fully committed to a strong nuclear deterrence policy expressly directed against the Soviet Union. Air leaders' view of the Soviet Union helped them justify planning for nuclear war just as their consideration of Germany and Japan had done in World War II. As Les K. Adler and Thomas G. Paterson put it in their 1970 article "Red Fascism," "Once Russia was designated the 'enemy' by American leaders," they argued, "Americans transferred their hatred for Hitler's Germany to Stalin's Russia with considerable ease and persuasion. . . . This nightmare of 'Red Fascism' . . . left its mark on the events of the Cold War and its warriors."[6] Indeed, U.S. air leaders believed the Soviet Union stood for aggression, enslavement, and totalitarianism. In 1956, for example, Curtis LeMay told an audience at the University of Notre Dame that "there are two social philosophies now in conflict. These are democracy based on Christian principles,

[5]After retiring, General Curtis E. LeMay recounted, "Billy Mitchell [a prominent and controversial inter-war air leader who is considered the father of U.S. strategic bombing theory and practice] believed in strategic air power, the idea that air power could be used to strike an enemy's heartland and destroy his means and willingness to wage war. The net effect would be costly in civilian casualties, but theoretically it would in the long run, prevent even more casualties by ending a war without the carnage and indecisive land battles of the First World War." Curtis E. LeMay and Bill Yenne, *Superfortress: The Story of the B-29 and American Air Power* (New York: McGraw-Hill Book Company, 1988), p. 6.

[6]Les K. Adler and Thomas G. Paterson, "Red Fascism: The Merger of Nazi Germany and Soviet Russia in the American Image of Totalitarianism, 1930's-1950's," *American Historical Review*, vol. LXXV, number 4, (April 1970), pp. 1046; 1064.

and Communism based on atheistic, materialistic principles."[7] General Nathan F. Twining, Air Force Chief of Staff from June 1953 through June 1957, later declared, "we put a value on human life the enemy does not understand or practice."[8] And Brigadier General Dale O. Smith, writing for the *Air University Quarterly Review* in the winter of 1954-1955, articulated the Air Force view of the Soviet Union. He branded America's foe as a "brute," "maniac," "ruthless nation that has no compunction in keeping twelve million of its own population in slave labor; that has deliberately starved four million men, women, and children in an economic experiment of collectivization; [and] that has killed or uprooted millions from formerly free and independent nations such as Estonia, Poland, and China."[9] Air leaders considered Communism to be so evil that they were prepared to counter it by any means sanctioned by their political masters.

Early Cold War events such as the 1948 Berlin blockade, the 1949 Soviet atomic test, and the limited war in Korea from 1950 to 1953 only reinforced Air Force ideas and quickened the Air Force march forward into the arms race. Finally, air leaders early in the atomic age vigorously proclaimed their ideas and ethics to the public in a clear, consistent, and constant attempt to shape national policy.

To understand Air Force thinking one must set it within the contexts of the experience with strategic bombing and the spectrum of ethical discourse on bombing at the end of World War II. What Air Force officers were not saying, and why, was almost as important as what they did say.

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[7]Curtis E. LeMay, "Address to the University of Notre Dame, 22 Feb 1956, Curtis E. LeMay papers, box 71, Manuscript Division (MD), Library of Congress (LOC).

[8]Nathan F. Twining, *Neither Liberty Nor Safety a Hard Look at U.S. Military Policy and Strategy*, (New York: Holt, Rinehart and Winston, 1966), p. 230.

STRATEGIC BOMBING AND THE EARLY ETHICAL DISCOURSE ON NUCLEAR WEAPONS

The advent of the airplane in the early twentieth century changed war in profound ways. These changes were first manifested during World War I, when the aircraft's inherent qualities of speed, range, flexibility, and most importantly its presence in a new physical dimension (the air), began to alter warfare. Aircraft's most important roles in the Great War were to observe enemy activity, to spot artillery for armies, and to intercept other aircraft. However, aircraft were also used to strike at an enemy's war-making capacity, including such targets as factories, oil reserves, large rearward supply depots, and urban populations. Though these efforts were rudimentary and had little effect on the fighting at the time, *strategic bombing* was born, and so, too, was the ethical debate surrounding the bombing of targets in and near cities—not to mention the outright targeting of "civilian" populations.

Prior to World War II, the U.S. Army Air Corps settled upon a doctrine of high-altitude precision daylight bombing, following the "industrial web" theory, which sought to tear down the enemy's ability to make war by destroying a few key targets (e.g. ball bearings, oil, electricity). Although bombing for psychological effect was contemplated as a just means of destroying an enemy's will to fight, Air Corps officers believed that their "precision" doctrine provided the most effective way to fight a war since it would, in theory, deprive an enemy of the tools with which to fight. Furthermore, it was national policy not to target civilians for both humanitarian and legal reasons. This was due in large measure to the public's aversion to what they saw as indiscriminate bombing carried out in the 1936-1938 Spanish Civil War and again by the Germans and Japanese at the beginning of World War II. Indiscriminate bombing by the Germans at such places as Warsaw, Rotterdam, and Coventry

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[9]Brigadier General Dale O. Smith, "The Morality of Retaliation," *Air University Quarterly Review*, 8:3

did incite calls for retaliation, but American leaders preferred to avoid indiscriminate bombing in the war. While air leaders maintained the intention of daylight "precision" bombing in the European theater, in practice they were often thwarted by the heavy cloud cover prevailing over northern Europe, so they sometimes settled for what was not much more than area bombing. In Japan, heavy cloud cover and the high winds of the jet stream totally stymied the "precision" effort, prompting the U.S. Army Air Forces (AAF) to switch to low-level, nighttime incendiary raids on entire Japanese cities. While these raids destroyed Japanese industry, they also resulted in large numbers of civilian deaths.[10] By the end of the war, such raids were the norm against Japan. Because by 1945 air leaders had come to terms intellectually with large scale strategic bombing, they displayed no moral qualms about planning to use the atomic bomb early in the atomic age.

Army Air Forces (AAF) practices evolved by the end of the war, whereby more and more enemy cities were leveled causing more and more enemy civilian casualties. Some historians such as Michael Sherry have bluntly branded it as the "evil of American bombing."[11] But most air leaders early in the atomic age maintained that American bombers traveled the road of higher morality by ending the war sooner than it might otherwise have ended. They also maintained that either the enemy city dwellers were, indeed, combatants due to their involvement in manufacturing the tools of war, or that collateral damage—

(winter 1954-55), pp. 55-59.

[10]For a discussion of the prioritization of targeting, see Tami Davis Biddle, "British and American Approaches to Strategic Bombing: Their Origins and Implementation in the World War II Combined Bomber Offensive," *Journal of Strategic Studies*, 18 (March 1995): 91-144.

[11]For the Douhetian progression see Ronald Schaffer, *Wings of Judgment: American Bombing in World War II* (New York: Oxford University Press, 1985). Douhet's thoughts are clearly expressed in Giulio Douhet, *The Command of the Air*, translated by Dino Ferrari (New York: Coward-McCann, Inc., 1942, originally published in 1927). The "sin of American bombing" is the subject of Michael Sherry, *The Rise of American Air Power: The Creation of Armageddon* (New Haven: Yale University Press, 1987). For another thorough examination of the morality of World War II bombing see Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, (New York: Basic Books, Inc., 1977).

unintentional damage deemed unavoidable—was much less than would have occurred through a more protracted struggle. Yet, this moral debate over strategic bombing would largely wait until after hostilities ceased, so it naturally focused on, and was severely complicated by, the closing epic event of the war: the dropping of the atomic bombs.

The Spectrum of Ethical Discourse on Nuclear Weapons

Historian Paul Boyer has made the extraordinary point that, "All the major elements of our contemporary engagement with nuclear reality took shape literally within days of Hiroshima."[12] While Gallup polls tell us that 85% of Americans immediately approved of the dropping of the bomb on Japan,[13] the range of early ethical responses transcended that sign of public agreement. In September 1945, 69% of Americans polled felt that it was "good" that the atomic bomb was developed, while 17% held that it was "bad" and 14% had no opinion.[14] By October 1947, when the Cold War and the possibility of other, larger scale uses of the bomb had become a reality, only 55% of those polled believed that the development of the atomic bomb was "good," compared to 38% who thought it was "bad." Yet at the same time, 70% of Americans polled advocated continuing to manufacture the weapons.[15] Apparently, no matter how nuclear weapons were viewed morally, a feeling that the weapons were necessary had set in.

But the ethical discourse concerning nuclear weapons was much more complex than simple statements of "good" and "bad." At one extreme lay the total pacifists who were

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[12]Paul Boyer, *by the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York, Pantheon Books, 1985), p. 1.

[13]Gallup Poll, 26 August 1945. 85% approved of dropping the bomb, 10% disapproved, and 5% expressed no opinion. By comparison, there was a 72% approval rating in the UK. See *The Gallup Poll: Public Opinion 1935-1971*, vol. I (New York: Random House, 1972), pp. 521-522.

[14]Ibid., p. 527.

[15]Ibid., p. 680.

appalled by nuclear weapons and who viewed any level of conflict, for any reason, not just violence involving nuclear weapons, to be unacceptable. At the other extreme were the nuclear millenialists who rejoiced at the prospect of a nuclear holocaust because such an event promised the second coming of Christ. In the middle was a broad range of though including more ambivalent, indifferent, or moderate reactions.

Closely related to the total pacifists, for whom nuclear weapons were just one more tool of injustice to add to a list of criticisms of modern society, were the *nuclear* pacifists who believed that the new destructive power embodied by nuclear weapons was not meant for human control and that it crossed the threshold of morality.[16] Many of these people hoped for the immediate unilateral destruction of all existing bombs and a total halt to production and testing regardless of what other nations were doing. In December 1946, 21% of all Americans polled felt that this was the correct course of action.[17] These were also the first people to question the morality of deterrence policy. For example, Reverend Ernest Fremont of the First Methodist Church of Evanston, Illinois, declared in early 1946 that stockpiling atomic bombs would create "a world of fear, suspicion, and almost inevitable final catastrophe."[18] Fremont did not represent the majority of Protestant America, however. An investigation of early post-World War II literature shows that Protestant Christians, who were a majority in America, expressed many different opinions spanning the spectrum of

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[16]The very night of the Hiroshima bombing, for example, broadcaster H.V. Kalterhorn exclaimed on NBC, "For all we know, we have created a Frankenstein! We must assume that with the passage of only a little time, an improved form of the new weapon we use today can be turned against us." Quoted in Boyer, *by the Bomb 's Early Light*, p. 2.

[17]Gallup Poll, 15 December 1946, vol. I, p. 613. Most of these people valued a loyalty to all of humankind over any allegiance to a nation-state, and they championed the words of Philip Toynbee of Great Britain who succinctly stated the unilateralist position: "surely anything is better than a policy which allows for the *possibility* of nuclear war." Phillip Toynbee, *The Fearful Choice: Nuclear Weapons*, reprinted in Dennis Sherman, *Western Civilization: Sources, Images, and Interpretations*, vol. II, (New York: McGraw-Hill, Inc., 1995), p. 317.

[18]Boyer, *by the Bomb 's*, p. 227.

response. Catholic publications, on the other hand, almost unanimously denounced the dropping of the bomb and producing nuclear weapons.

By the time the Soviet Union tested an atomic bomb in 1949, most disarmament advocates were calling for bilateral rather than unilateral action. These sentiments generally arose from two different moral concerns: First, a *future-oriented* fear of nuclear war, especially countervalue targeting—or targeting nuclear weapons against enemy population centers usually for the purpose of retaliating for an actual enemy strike; and second, a concern over *present* resource allocation and the view that a "deterrence" arms race would rob the needy of funds and resources which were wasted on weaponry. Close on the heels of the calls for disarmament were demands for international control of nuclear weapons or even a sovereign world government. Although in September 1945 only 14% of those polled desired UN control of the atomic bomb, with 73% urging that the U.S. government maintain control,[19] proponents of international control measures grew steadily in number until the end of 1946. But the Truman administration's Baruch plan for international controls of atomic energy, spearheaded by the long-time political advisor and public official Bernard M. Baruch, failed to win UN approval that year and Baruch, himself, resigned from his leading position in the United Nation's Atomic Energy Commission. By early 1947, anti-UN control views gained great public momentum.[20]

Further along the spectrum of discourse were those who accepted the existence of nuclear weapons as an unavoidable reality, but who sought production limits and an end to nuclear testing. For some, the hope was to limit the possible destruction of a future war, but

[19]Gallup Poll, 12 September 1945, vol. I, p. 525.

[20]Many people, like Cornell professor Herbert W. Briggs, questioned why people thought such a government would be a democracy when 75% of the world was controlled by dictatorships. Even if the UN

again, many people in this category focused on immediate concerns such as resource allocation or environmental problems. In September 1945, a Gallup poll found that 27% of Americans believed atomic experiments would someday destroy the world.[21] Scientists of the Manhattan Project, who sought to influence policy after the war and who were looked to for guidance by the public, formed a largely unified interest group that consistently urged, to no avail, international controls to atomic technology as well as major limits on production and research. In the January 1951 edition of the *Bulletin of the Atomic Scientist*, editor Eugene Rabinowitch wrote sadly, "Scientists cannot but admit that their campaign has failed."[22]

In the middle of the spectrum, a significant number of people looked upon atomic technology with ambivalence. They hated to think of what a nuclear war might be like, but they loved the deterrent security such weapons brought the United States.[23] Another form of ambivalence was a loathing of atomic weapons, but a profound hope for the good which atomic technology could bring the world especially in the fields of energy and medicine. Most characteristic of middle spectrum thought, however, was an "overshadowed" moral concern. In general, people were more preoccupied with immediate concerns in their own daily lives than with rather abstract questions of morality and a new weapon over which they had no direct control.[24] Only in April 1948, following the Communist coup in

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was democratic, he argued, US perspectives would always be drowned out by more populous nations such as China and India. Boyer, *by the Bomb's Early Light*, p. 41.

[21]Gallup Poll, 19 September 1945, vol. I, p. 527.

[22]Quoted in Boyer, *by the Bomb's Early Light*, p, 93.

[23]For example, on 16 March 1949, 48% of Americans polled thought that the war was "less likely" due to the atomic bomb (25% thought war was more likely, 16% maintained that it made no difference, and 11% had no opinion). Similarly, on 24 April 1954, 54% of Americans responded that the hydrogen bomb made another war "less likely" (20% thought war was more likely, 15% said it made no difference, and 11% had no opinion). See Gallup Polls, 16 March 1949 and 24 April 1954, vol. II, pp. 797-98 and 1230, respectively.

[24]When polled in October 1945, August 1946, and August 1947, only 2-3% of people felt that the atomic bomb was the "most important problem" facing the nation. Gallup Polls, 22 October 1945, vol. I, pp. 534-5; 3 August 1946, vol. I, p. 590; 17 August 1947, vol. I, p. 666.

Czechoslovakia and hints of an impending crisis in Berlin, did a majority of Americans come to believe that preventing war and developing foreign policy with the Soviet Union were the most important problems facing America.[25]

Another stream of opinion belonged to the "realists" who did not like living with the bomb and may have wished that it was never built, but who accepted nuclear-based policies as the only way to assure peace—a "necessary evil" approach.[26] As nuclear stockpiles increased to a relatively significant level by the early 1950s, most of these people began to advocate some form of "finite," or minimum number of bombs needed to deter an enemy, deterrence.[27] Others openly embraced large stockpiles of nuclear weapons, strong deterrence (vs. finite), and an arms race to achieve superiority in numbers as the best way to guarantee peace. There was no desire for war, or for a general nuclear exchange in the event of war, but there was a willingness to use, or consider using, nuclear weapons in a variety of ways should hostilities begin. Gallup Polls indicated that college-educated Americans, as opposed to those with less schooling, were much more likely to advocate maintaining U.S. sovereign

[25]Gallup Poll, 19 April 1948, vol. I., pp. 726-27. In addition, people may have expressed concern and truly felt anxiety over nuclear weapons when asked, but few people acted on their own moral sentiments at any time during the Cold War. For example, when Robert C. Aldridge, a Lockheed engineer and later author of *First Strike: The Logic of Nuclear War: The Pentagon's Strategy For Nuclear War* (Boston: South End Press, 1983), finally left his job in 1973 because he had moral qualms about contributing to the nuclear arms race, it was a unique enough move to warrant his publishing a book. There, Aldridge claimed that many other people has the same concerns but that the security of a regular paycheck kept them from acting.

[26]The term "realist" is used here only in a general sense.

[27]Finite deterrence advocates argued that only a certain level of destructive potential was necessary to deter war, so to continue researching and producing more weapons of ever greater power, was both wasteful and immoral since there would be more than one bomb per possible military target and the rest would be dumped on civilians. Nuclear stalemate adherents similarly posited that a certain nuclear potential could deter nuclear war so that war could be fought ethically, "the old fashioned way." Strong deterrence was the idea that nuclear weapons research, development, and deployment were to be pursued as much as possible with no self-imposed limits.

nuclear control and to view the development of nuclear weapons as a "good" rather than "bad" thing.[28]

Another point of view on the ethical spectrum was the belief that Americans were divinely appointed as the trustees of the bomb. At a 1946 symposium of the Episcopal Church, Arthur H. Compton, a leading Protestant layman, went even further by stating, "Atomic power is ours, and who can deny that it was God's will that we should have it."[29] Most people who supported notions of strong deterrence usually deemed that "preemptive strikes" had a place in strategic planning. Simply put, such a strategy called for U.S. nuclear weapons to be unleashed on an enemy without waiting for the enemy's actual first blow, as soon as America was sure that an adversary intended to strike the U.S. or its allies. In the case of a conventional war already underway, preemptive strike represented a willingness to be the first power to use nuclear weapons.

Approaching the other extreme of the spectrum were proponents of preventive war philosophy. In the first decade after World War II, a significant, though clearly minority, faction of Americans wanted to use the U.S. atomic monopoly, or American supremacy after 1949, to undertake a war to defeat Communism.[30] Such a call to arms was often the result of unabashed barbarism, but sometimes the argument had serious moral underpinnings. Many patriotic people felt that war with Communist nations was inevitable. Since the United States

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[28]Almost every Gallup Poll dealing with the atomic bomb analyzed the results in terms of the respondent's level of education and the results were always similar. For example, a 16 March 1949 poll indicated that 59% of Americans thought it was "good" that the atomic bomb had been developed, while 29% thought it was "bad" and 12% had "no opinion." But percentages for college educated people were: 70% good, 23% bad, and 7% no opinion. High school education: 60% good, 29% bad, 11% no opinion. Grade school level education: 54% good, 31% bad, 15% no opinion. Gallup Poll, 16 March 1949, vol. II, pp. 797-98.

[29]Quoted in Boyer, *by the Bomb's Early Light*, p. 212. President Truman even hinted at divine intervention when he said, "We thank God that it [the atomic bomb] has come to us instead of our enemies; and we pray that he may guide us to use it in his ways and for his purposes." Quoted in Boyer, *by the Bomb's Early Light*, p. 211.

was clearly good while Communism was entirely evil,[31] it was America's moral obligation to conduct a "preventative" war when it could be won most easily for democracy, resulting in a relative minimum number of casualties.

Finally, on the extreme fringe of the debate were the nuclear millenialists who believed that the second coming of Christ and a thousand years of peace would go hand in hand with the atomic age and a seemingly inevitable nuclear war. Billy Graham illustrated this school of thought when at a large revivalist meeting on September 25, 1949, just two days after President Harry S. Truman publicly announced the shocking news of a successful Soviet atomic test, Graham shouted that because of nuclear weapons it was urgent that everyone "repent," and, "prepare to meet thy God."[32] Very few millenialists, however, actually rejoiced at the prospect of attaining the kingdom of God via a nuclear holocaust.

The unprecedented and intense public discourse concerning nuclear weapons and war suggested that most people believed a revolution in military history had taken place, although only 13% of Americans polled felt that the "armed forces [were] useless except to handle atomic bombs."[33] The question of whether Americans generally felt atomic weaponry brought a new moral dimension to war was less clear. Many people felt that nuclear weapons presented a historically unprecedented moral dilemma. Norman Cousins, a famous editor and writer, believed that the atomic bomb would change "every aspect of man's

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[30]For example, a 1946 letter to the editor of the *New York Daily News* stated, "Russia shows by its spy activity in Canada that it badly wants the atomic bomb, so I say give the bomb to Russia the same way we gave it to the Japs." Quoted in Paul Boyer, *by the Bomb's Early Light*, p. 81.

[31]Gallup poll conducted 3 July 1946, vol. I, p. 587. 30% of Americans felt that Communists within the United States should by killed or imprisoned. 16% said Communist activity should be curbed, 7% said Communists should be "watched carefully," 16% said nothing should happen to the Communists, and 25% had no opinion. The Korean War ignited calls for preventative war. Secretary of the Navy Francis Matthews and Air Force Major General Orvil Anderson were prominent leaders who spoke out publicly for such action in the summer of 1950.

[32]Quoted in Boyer, *by the Bomb's Early Light*, p. 239.

[33]Gallup Poll, 2 December 1945, vol. I, p. 544.

activities, from machines to morals, from physics to philosophy, from politics to poetry,"[34] yet the popular feeling was that humans could properly and morally control atomic energy. An August 20, 1945, edition of *Life* magazine, for example, proclaimed, "Power in society has never been controlled by anything but morality. . . . The individual conscience against the atomic bomb? Yes, there is no other way."[35] And while 85% of Americans polled on August 26, 1945, approved of dropping the atomic bomb, only 40% would have promoted the use of poison gas to save American lives.[36] Perhaps in American minds the atomic bomb was not seen as some perverse new weapon without equal.

In the spectrum of opinion at the time, U.S. Air Force leaders were generally realists.[37] Most air leaders actually considered the atomic bomb to be, like any U.S. technological advance, a very positive innovation worth exploiting. To fully understand how these air leaders thought about the ethics of utilizing nuclear weapons, it is also extremely important to understand that *airmen equated moral permissibility with national military necessity*. Whatever the nation called upon them to do was justified because air leaders never believed the nation would ask them to do something unjust, like the genocide of the Jews. The means of defending American interests became almost irrelevant to the pervasive idea that American interests must be defended by any means deemed acceptable by the American people—the moral standard for most airmen. The ethical view of air leaders was fundamentally the product of a guiding world-view and a common ethical outlook, even if air leaders did demonstrate a considerable measure of individualism. The Cold War with the

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[34]Quoted in Boyer, *by the Bomb's Early Light*, p. 29.

[35]Ibid., pp. 9-10.

[36]Gallup Poll, 26 Aug 1945, vol. I., pp. 521-22. 49% would not approve and 11% had no opinion.

[37]After retiring, Curtis LeMay happily asserted that the reason why calls for nuclear disarmament on moral grounds failed after World War II was because "realism prevailed." Curtis LeMay and Dale O. Smith, *America Is In Danger* (New York: Funk and Wagnalls, 1968), p. 33.

Soviet Union crystallized beliefs about bombing and American moral superiority which the two world wars and decades of training had formed.

Air Force generals early in the atomic age had been intentionally trained to be realists and to think in plain terms.[38] Most had also spent careers fighting the morally unambiguous wars of World War I and World War II, and gaining a serious trust and appreciation for American ideals. They experienced what were for the United States almost unparalleled casualties in the bloodiest wars in human history.[39] In the inter-war years, most early atomic age air leaders had been persuaded by Brigadier General William "Billy" Mitchell and his disciples at the U.S. Air Corps Tactical School, that the unparalleled casualties in World War I could be avoided with strategic bombing. World War II confirmed these beliefs for airmen. And the war further convinced air leaders that war was endemic to the human experience, that the United States was an undeniably good force opposing evils in the world, and that the appeasement of Hitler was a major mistake that resulted in unnecessary atrocities. By the dawn of the atomic age, air leaders were thus intensely dedicated to the United States, the Army Air Forces (AAF), and plans for an independent air force. So, after spending decades serving and suffering for a nation which they saw as essentially righteous, many airmen began to make America, in practice if not theory, their standard of right and wrong—the single most important thing worth defending in life.

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[38]The best work on this subject is Morris Janowitz's *The Professional Soldier: A Social and Political Portrait* (Glencoe: The Free Press, 1960).

[39]Airmen in the U.S. and British Combined Bomber Offensive (CBO) incurred higher casualty rates than any other type of Allied soldier in World War II. Casualties in the CBO amounted to fifty percent of aircrew strengths, and before it was over, 18,000 aircraft and 81,000 lives were lost. Mark K. Wells, *Courage and Air*
Warfare: The Allied Experience in the Second World War (London: F. Cass Publishers, 1995), p. 2.

THE AIR FORCE VIEWS HIROSHIMA

Like most of the American public, Air Force leaders did, indeed, support dropping the atomic bomb on the Japanese cities of Hiroshima and Nagasaki, but not because Air Force leaders desired unbridled destruction of Japan, or even because they thought the bombings were necessary to end the war.[40] The AAF was confident that conventional strategic bombing, primarily carried out through low-level area bombing at night by B-29s loaded with incendiaries, had forced the Japanese surrender. In fact, the proposed land invasion of Japan had more to do with why the Air Force supported the atomic bombings than enemy actions did. Paradoxically, then, the Air Force supported the bombings because they seemingly hastened the end of the war and avoided risking hundreds of thousands of American lives with an unnecessary invasion of the Japanese mainland.

For the AAF, these beliefs were largely substantiated by the *United States Strategic Bombing Survey (Pacific War)*. The report concluded that "certainly prior to December 31, 1945, and in all probability prior to November 1, 1945, Japan would have surrendered even if atomic bombs had not been dropped, even if Russia had not entered the war, and even if no invasion had been planned or contemplated."[41] Army Air Forces leaders believed this even before the war was over, but they knew decision makers in Washington, particularly in their Army and Navy counterparts, had no such faith that strategic bombing alone would force the surrender.

Haywood A. Hansell, Jr., one of the architects of the 1941 air plan and an influential AAF leader until his retirement in 1946, considered President Truman's decision to drop the

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[40]In 1945, the eighth volume of the AAF's official secret "Impact" studies announced in bold print that, "With or Without the Atomic Bomb, Japan Was Through." *Impact: The Army Air Forces' Confidential Picture History of World War II*, Book 8, (New York: James Parton and Company, Inc., 1980), 8: .

atomic bomb one of the "crucial" decisions of the war. "Without this decision," he explained, "the invasion would probably have been launched with attendant great loss of life, in spite of the fact that Japan was already a hollow façade that soon must fall, and General Arnold, for that reason, opposed the use of the atomic bomb."[42] Generals Carl Spaatz (the first Chief of Staff of the independent Air Force in 1947), Nathan F. Twining (another war hero who became the Air Force Chief of Staff in 1953), and Curtis LeMay (best known as the Commanding General of the Strategic Air Command (SAC) from 1948-1957), all explicitly endorsed Hansell's conclusion.[43]

It seems peculiar, indeed, to support the killing of about 150,000 people of an enemy populace because you think your own countrymen in other services are going to err by executing an unnecessary invasion. Yet this was, in fact, at least partially the case for U.S. air leaders at the end of the Pacific war.[44] But in 1945, AAF leaders did not criticize their commanders or "decry" the use of the atomic bombs.[45] General Arnold, for example, made a personal trip to the Pacific theater in June 1945, and in his diary he noted, "LeMay's staff showed how Japan's industrial facilities would be completely destroyed by October 1st. Thirty large and small cities, all to go, then Japan will have none of the things needed to supply an Army, Navy, or Air Force. She cannot continue her fighting after her reserve

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[41] *The United States Strategic Bombing Surveys: European War and Pacific War Summaries (USSBS)*, (Maxwell AFB, Alabama: Air University Press, 1987, originally published in 1945), p. 107.

[42] Haywood Hansell, *The Seven Crucial Decisions in the Strategic Air War* (1945), copy available in the Haywood Hansell Manuscript Collection (HHMC), USAF Academy Special Collections Library (USAFA SCL), Colorado.

[43] "Newsreel Script for General Spaatz, 14 August 1945, Carl A. Spaatz Papers, Manuscript Division (MD), Library of Congress (LOC), Box 21; Interview of Carl A Spaatz, May 1965, U.S. Air Force Historical Office Interview (USAF HO), p. 23 of transcript; Interview of Nathan F. Twining, November 1965, USAF HO, p. 18 of transcript; General Curtis E. LeMay with MacKinlay Kantor, *Mission with LeMay: My Story* (Garden City, NY: Doubleday & Company, 1965), p. 381.

[44] Modern-day Political Scientist Michael Walzer explained the fact in this scathing way: "Our purpose, then, was not to avert a 'butchery' that someone else was threatening, but one that we were threatening, and had already begun to carry out." Michael Walzer, "Supreme Emergency," *War, Morality, and the Military Profession*, ed. Malham M. Wakin, (Boulder: Westview Press, 1986), p. 440.

supplies are gone."[46] Yet if Arnold was against dropping the bomb, the action caused him little anxiety, as he harbored a common desire to avenge Japanese "atrocities" which "explain[ed] why the Japs can expect anything."[47]

Most just war doctrines do not allow for striking at the enemy purely out of a desire for revenge, yet an eye-for-an-eye mentality often attracts proponents. The fact remains that one of the reasons President Truman listed for dropping the bomb was that, "The Japanese began the war from the air at Pearl Harbor. They have been repaid manyfold."[48] This vengeful stance was also prevalent among the general populace and the Air Force recognized this fact. After retiring, Lieutenant General Ira C. Eaker remembered "a strong anti-Japanese feeling in the United States. Japanese brutality—The Bataan Death March—made the difference. Also the Japanese attacked us at Pearl Harbor. Ninety percent of Americans would have killed every Japanese.[49]

In any event, air leaders expected their subordinates to follow orders and to view nuclear bombing with detachment—performing the task without hesitation like the perfectly trained muscular extensions of a human mind. General Spaatz, for example, stated: "The military man carries out the orders of his political bosses . . . so that [atomic bombing] didn't bother me at all."[50] In the early Cold War when bombers had limited range, American bombing crews could even expect to have to follow Jimmy Doolittle's 1942 example and

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[45]LeMay, *Mission With LeMay,* p. 388.

[46]General Henry H. "Hap" Arnold's Diary, Pacific Trip, 6-25 June 1945, Located in the Henry Arnold/Murray Green Manuscript Collection (HAMGMC), Series 4, Box 88, Envelope 9, Diary 9. Located in the (USAFA SCL).

[47]Ibid.

[48]Quoted in Boyer, *by the Bomb's Early Light*, p. 12.

[49]Interview of Ira C. Eaker, May 1962, USAF HO, p. 3. A Gallup poll conducted on 19 October 1945 showed that 61% of Americans felt that the U.S. was not being tough enough on Japan. 32% felt that U.S. treatment was about right, and only 1% thought the U.S. was too harsh. Gallup Poll, 19 October 1945, p. 534.

[50]Spaatz Interview, May 1965, USAF HO, p. 6 of transcript. Spaatz did refuse to carry out the bombings in writing.

conduct one-way bombing missions (meaning they would crash land, probably in enemy territory, after bombing a target)—this time with nuclear weapons—as high ranking officers seriously considered such doctrine.[51]

In summary, AAF leaders supported the atomic bombings for three reasons: first, because of vengeful attitudes toward Japan; second; and more significantly, because they believed they would save untold numbers of young American troops from dying due to the invasion plans of the army and navy leaders who were unconvinced that strategic bombing alone would end the war; and third, and most importantly, simply because their Commander in Chief ordered the action.

THE MORAL REVOLUTION OF AUGUST 1945?

To the AAF, the atomic bombings did not instigate any sort of moral revolution—not even much of a military one. In the words of Ira Eaker, "air leaders realized that here was an opportunity to put warfare on an economical, sensible, reasonable basis."[52] Two decades after Hiroshima, General Curtis LeMay still believed, "The whole damn atomic picture has been vastly overplayed as horrible and unusual. Well, maybe it's a little bit unusual, but I don't see that it's anymore horrible than the 200,000 Japs I burned up with incendiaries in the first attack on Tokyo."[53]

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[51]See Dale O. Smith, "One-Way Combat," *Air University Quarterly Review*, I (Fall 1947), pp. 55-59. Such issues, of course, beg the question whether a military officer's obligation to follow the orders of a competent authority always outweighs other moral considerations such as an obligation to humanity in general. The Nuremberg trials confirmed that a military member does bear moral responsibilities which extend beyond the limits of following orders, but it must be noted that Nazi military officers were not indicted when a link to military necessity, broadly defined, was established.

[52]Interview of Ira C. Eaker, May 1962, U.S. Air Force Historical Office Interview (USAF HO), p. 6 of transcript.

[53]Interview of General Curtis LeMay by Harry Borowski, 1974, tape (no transcript) available in Harry Borowski Manuscript Collection (HBMC), USAFA SCL.

To air leaders trained to be realists and privy to information that the general public was not, many factors kept the atomic bomb from comprising an overnight change to the face of war.[54] The scarcity of bombs, the lack of trained atomic air crews and specially equipped bombers, and the long amounts of time it took to transport and assemble atomic bombs topped the list of constraints in the first atomic-age years. In addition, early fission weapons were equivalent to about twenty kilotons of TNT and offered calculable destruction proportionate to raids of several hundred B-29s loaded with high explosives and incendiaries—something which had become rather commonplace at the close of the Pacific War.[55] Air leaders were also well aware that they were at the mercy of the President and the Manhattan Project for technological advances and stockpiles. Finally, from 1945 through 1947, the AAF was primarily concerned with the practical problems of massive demobilization (the AAF went from 2.2 million people in the summer of 1945 to just over 300,000 two years later) and with the creation of an Air Force separate from the Army, which occurred in 1947.

Because Air Force leaders did not perceive a military revolution in 1945, they did not perceive a moral one either. When asked what moral distinction he saw between fire bombing raids and the atomic bombings, Eaker replied, "None at all."[56] Other Air Force officers, most notably Carl Spaatz and Curtis LeMay also pointed out both the similar results

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[54]See Janowitz's, *Professional Soldier*, for a history of officer training in the first half of the twentieth century explaining how military officers were trained to be realists. The best discussion of US nuclear limitations at the time is in Harry S. Borowski's, *A Hollow Threat: Strategic Air Power and Containment Before Korea* (Westport, Conn.: Greenwood Press, 1982).

[55]For example, see "Affect of the Atomic Bomb on Structures of the U.S. Military Forces," Carl Spaatz, October 1945, Spaatz Papers, MD, LOC, Box 22. "The atomic bomb is a fact. . . . There is no reason yet to suppose that the advent of the atomic bomb replaces the conventional type of weapons used by an air force, nor will it reduce in any way in the forseeable future the size of combat air units or number of personnel needed for the regular peacetime Air Force." This is the same conclusion the Spaatz Board (to be discussed in detail later) arrived at at the same time.

[56]Eaker Interview, USAF HO, May 1962, p. 4 of transcript.

and equally justifiable nature of atomic bombings compared to the World War II incendiary attacks.[57] LeMay further argued that while the nature of twentieth century conflicts did blend civilians with military and industrial targets,[58] the "massacre" of civilian populations was not a revolution of strategic bombing. Although he never admitted to massacring civilians or bombing anything but military targets, he pointed out that such devastation happened all throughout history whenever a city was sacked.[59] W. Stuart Symingtom, the first Secretary of the Air Force, even maintained that as "long as there are powerful barbarians in the world . . . free men are forced to protect themselves. . . . If the question of the use of the atomic bomb be viewed with a true appreciation of humanity . . . there can be no question that its use may be justified—in fact demanded."[60]

Air leaders believed that not only wars were inevitable but technological progress as well. This belief made embracing, rather than rejecting, all new weapons almost reflexive. General George Kenney, commander of air forces in the Southwest Pacific and the first commander of SAC, pointed out in 1947, "It is axiomatic that no super-weapon long exists before a superior weapon or a defense against that weapon is conceived."[61] The Air Force's very foundation—the airplane—was the product of technological advancement and underlay all airmen's faith in technological progress.[62]

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[57]Spaatz Interview, USAF HO, May 1965, p. 6 or transcript; Curtis E. LeMay interview with Harry S. Borowski, 1974, tapes and transcripts available in the Harry Borowski Manuscript Collection (HBMC), located in the USAFA SCL.

[58]LeMay, *Mission with LeMay*, p. 425.

[59]LeMay, *Mission with LeMay*, p. 384.

[60]"Special Report of the Secretary of the Air Force to the President and the Congress of the United States," 9 June 1948, p. 21, HBMC, USAFA SCL.

[61]George C. Kenney, "We Cannot Afford to Stop Thinking: No Aggressor Would Hesitate to Attack US if We Had a Weak Air Force, It IS National Survival—Or National Suicide," *U.S. Air Services*, June 1947, p. 10.

[62]Historian Michael Sherry considers these air leaders' faith in technological advancement coupled with their embrace of strategic bombing to be "technological fanaticism."

The Air Force's emphasis on technological progress resulted in ethical views that differed from those of other military services. For example, Admiral William D. Leahy, Chief of Staff to the President and the presiding officer of the Joint Chiefs of Staff, heavily criticized the atomic bombings by declaring, "The use of this barbarous weapon at Hiroshima and Nagasaki was of no material assistance in our war against Japan. . . . [I]n being the first to use it, we . . . adopted an ethical standard common to the barbarians of the Dark Ages. I was not taught to make war in that fashion, and wars cannot be won by destroying women and children."[63]

Other naval officers followed Leahy's lead, especially after April 1949, when Secretary of Defense Louis W. Johnson canceled the Navy's plans for the *USS United States*, a 65,000 ton super-carrier, in favor of plans to acquire a fleet of B-36 bombers for the Air Force. Even though such notable military leaders as Omar Bradley, Dwight Eisenhower, and George Marshall supported the Air Force, the famous "Revolt of the Admirals" soon followed. In October 1949, Rear Admiral Ralph A. Ofstie, the U.S. Navy's Liaison Officer to the Atomic Energy Commission (AEC), testified before the House Armed Services Committee. He declared that the Air Force's contingency plan for a war with the Soviet Union, which included using atomic bombs, was a "morally wrong . . . ruthless and barbaric policy" which would lead to "the breakdown of those standards of morality which have been a guiding force in this democracy since its inception."[64] That the Air Force often ignored such ethical allegations advanced by the Navy was demonstrated by a comment by Eaker

[63]It must be noted, however, that Leahy went on to state, "However, I am forced to a reluctant conclusion that for the security of my own country which has been the guiding principle in my approach to all problems faced during my career, there is but one course open to us: Until the United Nations, or some world organization, can guarantee—and have the power to enforce that guarantee—that the world will be spared the terrors of atomic warfare, the United States must have more and better atom bombs than any potential enemy. William D. Leahy, *I Was There: The Personal Story of the Chief of Staff to Presidents Roosevelt and Truman Based on His Notes and Diaries Made at the Time* (New York: Whittlesey House, 1950), pp. 442-443.

some years later: "The Navy made a great point about strategic bombing being immoral. Then came Polaris [the Navy's submarine launched nuclear ballistic missile project] and it was no longer immoral."[65]

Other air leaders such as Twining, Air Force Chief of Staff from June 1953 until June 1957, were fully aware that, "many thoughtful people in the world today are deeply concerned about the moral implications of atomic bombing."[66] But like Eaker, Twining was disenchanted with the "unusually large number" of naval officers with "strong moral scruples against dropping bombs on cities," and who continually raised the moral debate whenever strategic bombing was discussed. Twining felt that "most" naval officers were "out of character as guardians of our national morality," implying that they were better off as guardians of national security.[67]

There were two major explanations for the discrepant moral views of the Navy and Air Force concerning nuclear weapons in the early atomic age. One was the cynical view, advanced by Ira Eaker, that Naval officers raised moral objections only out of jealousy of the Air Force's disproportionately large share of defense appropriations, involved in the reliance on strategic bombing as the first line of national defense, a role filled by the Navy since the late nineteenth century.[68] But even General Twining recognized that "many" moral objections were "unquestionably sincere."[69] At least part of the disagreement was because

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[64]Quoted in Boyer, *by the Bomb's Early Light*, p. 344.

[65]Eaker Interview, USAF HO, May 1962, p. 7.

[66]Nathan F. Twining, "Memorandum for Colonel Noel F. Parrish," 13 August 1951, pp. 4-5, Nathan Twining Manuscript Collection (NTMC), box 1, folder 2, USAFA SCL.

[67]Ibid. For a considerable collection of documents related to the Air Force/Navy debate (especially concerning the Navy's objections to the B-36, the Air Force's objections to the proposed 65,000 ton supercarrier, and the Air Force's distaste for Navy leader's tactics in the inter-service feud), see the Hoyt S. Vandenberg papers, Box 52, MD, LOC.

[68]Air leaders were conscious of this fact. See LeMay, *America Is In Danger*, pp. 30-31.

[69]Twining, "Memorandum for Colonel Noel A. Parrish," 13 August 1951, pp. 4-5, NTMC, box 1, folder 2.

since World War I, air forces had grown accustomed to bombing, and planning to bomb, targets in and around enemy cities, something destined to always produce civilian casualties. This strategic capability was the *raison d'etre* for an independent air force. The Army, likewise, was less averse to strategic bombing because it was familiar with conducting operations near cities and towns which threatened civilians (and, to a degree, because the Air Force was an outgrowth of the Army). The Navy, on the other hand, continued to operate on the high seas and in littoral regions where almost comparatively little would result in direct civilian death. Thus, each service became morally conditioned to accept what they were doing as just. Atomic bombing fit neatly into the Air Force's ethical framework in 1945 because air leaders did not associate any military or moral revolution with the bomb. It took years of growing accustomed to nuclear weapons before the Navy's thinking fully incorporated these weapons as well.

But just as Eaker claimed economics and bureaucratic pressures influenced the Navy's eventual embrace of nuclear weapons (i. e. the Polaris missile), the same may have been true for the Air Force at times. After retiring, General Twining explained how in 1945 and 1946, "The military services battled largely to justify their very existence."[70] Annual U.S. military expenditures dropped from over $80 billion in 1945 to under $12 billion two years later—the very years air leaders were trying to convince politicians to spend money to establish an independent Air Force equal to the Army and Navy. The atomic bomb also forced significant public debates over the future utility of traditional military forces at the time,[71] and the AAF was distinguished as the only nuclear-capable service. It is easy to see

[70]Twining, *Neither Liberty Nor Safety*, p. 20.

[71]In December 1945, for example, Gallup polls asked Americans if they thought armed forces were "useless" except to handle atomic bombs. 13% responded in the affirmative. Gallup poll, 2 December 1945, vol. I, p. 544.

why one might argue that AAF leaders rationalized the morality of the bomb just to save their service. This explanation is somewhat problematic, however, because although air leaders always wanted nuclear weapons after Hiroshima, it was not until after the Soviet threat solidified, and the Air Force gained independence in 1947, that air leaders *vigorously* pursued a *nuclear* strategic Air Force.[72] In 1945, for example, they were careful to note that atomic weaponry did not yet alter air force plans for a 400,000 man, seventy-group Air Force which would still largely use conventional weapons.[73] The atomic bomb, which alone could deliver the same destruction as almost 1,000 B-29s, was a boost to strategic bombing. But it was almost as much a threat to the AAF's plans for a large post-war service as it was an aid in the lean financial years prior to the Korean War.

THE FIRST ATOMIC AUTUMN

On September 14, 1945, General Henry H. Arnold and his deputy commander, Ira C. Eaker, ordered Generals Carl A. Spaatz, Hoyt S. Vandenberg, and Lauris Norstad, accompanied by Colonel W.P. Fisher as a recorder, to convene a board "to determine the effect of the atomic bomb on the size, organization, and composition of the postwar Air Force."[74] Spaatz presented the results of the board to Arnold on October 23, 1945, and

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[72]In June 1947, for example, there were only 9 atomic devices in the U.S. arsenal, and on December 31, 1946, only 23 AAF B-29s were nuclear capable. In addition, only ten nuclear-trained combat crews existed. David Alan Rosenberg, "U.S. Nuclear Stockpile, 1945 to 1950," *Bulletin of the Atomic* Scientists, 38:5 (May 1982), pp. 25-30. It was not until President Truman became alarmed at the low stockpile in 1947, and Curtis LeMay took charge of SAC in the fall of 1948, that the Air Force began to ardently pursue and acquire a formidable nuclear arsenal. See also Harry Borowski, *A Hollow Threat: Strategic Air Power and Containment Before Korea* (Westport Conn.: Greenwood Press, 1982).

[73]See the conclusions of the Spaatz report (to be discussed) in October 1945. Carl A. Spaatz to H. H. Arnold, response to 'Orders,'" 23 October 1945, HBMC, USAFA SCL.

[74]Ibid. Plans to incorporate the atomic bomb into the Air Force were not contemplated, at least on an institutional level, prior to Hiroshima simply because nobody in the Air Staff planning for the post-war Air Force knew about the bomb (the staff responsible for such planning was known as the "Post War Division" of the Air Staff's Plans Division). For a further discussion see Perry McCoy Smith, *The Air Force Plans For Peace*, 1943-1945 (Baltimore: The Johns Hopkins Press, 1970), p. 16.

Arnold approved the report "without qualification."[75] Therefore, the signatories to the Spaatz Board report included Arnold, Spaatz, and Vandenberg, the first three atomic age commanders of the AAF and U.S. Air Force. The other general officer, Lauris Norstad, would become the Supreme Allied Commander of NATO. Within months of Hiroshima, then, the AAF commanders plotted a course for their service in the atomic age by consciously deciding how to fit the atomic bomb into their existing notions of strategic bombing, strong deterrence, and technological progress.[76] These barons of air power would never turn back from the course they set in the fall of 1945.

The Spaatz Board was intended to cover the general period of 1945-1955, and it took into account the expensive nature and current scarcity of atomic bombs, the fact that B-29s would deliver the weapon for the forseeable future, and the assumption that other nations would eventually develop the bomb. In the end, the board offered seven conclusions:

a) The atomic bomb does not at this time warrant a material change in our present conception of the employment, size, organization, and composition of the post-war Air Force.
b) The atomic bomb has not altered our basic concept of the strategic air offensive but has given us an additional weapon.
c) Forces using non-atomic bombs will be required for use against targets which cannot be effectively or economically attacked with the atomic bomb.
d) An adequate system of outlying strategic bases must be established and maintained.
e) A system of national defense to provide for maximum adaptability to new weapons must be established. It should be maintained at maximum effectiveness and should be capable of immediate expansion.
f) An intelligence organization that will know at all times the strategic vulnerability, capabilities, and probable intentions of any potential enemy is essential.
g) A large scale scientific research and development program concerned with the development of new weapons is mandatory to insure out national security.[77]

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[75]Carl A. Spaatz to H.H. Arnold, response to "Orders," 23 October 1945, p. 9, HBMC, USAFA SCL.

[76]Some Air Force historians have noted that high level air leaders began to comprehend deterrence strategy in the spring of 1945. See George F. Lemmer, *The Air Force and the Concept of Deterrence, 1945-1950* (USAF Historical Division Liaison Office, June 1963).

[77]Carl A. Spaatz to H.H. Arnold, response to "Orders," 23 October 1945, HBMC, USAFA SCL.

Points (a) and (b) signified the AAF's view of the atomic bomb as non-revolutionary.[78] General Norstad did not believe atomic and missile weaponry would force changes to Air Force composition, equipment, or strategy for another five years.[79] The board also valued all technological progress and looked forward to a large nuclear military system in the future. Envisioning a formidable, nuclear-capable enemy, the board further asserted that the Air Force "must" be prepared for "(1) Preventative or Retaliatory [action] (2) Defense against attacks of all kinds."[80] The first of these carried huge moral repercussions. "Preparing for preventative action" was considered by many to be nothing more than preparing to deliver a first strike under the auspices of self-defense, but it was also unclear exactly what the Spaatz and others really meant by the phrase "preventative" action.[81] It seems that without necessarily advocating either, the air leaders were willing to conduct both, under orders, regardless of other considerations.[82] The Spaatz board also observed that "the atomic bomb in its present form is an offensive weapon for use against large urban and industrial targets."[83] The report did not include a rigorous discussion of nuclear strategy *per se*, but the board was

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[78]While the Spaatz board was meeting, General Arnold explained to the Joint Chiefs of Staff on 2 October 1945 that the Air Force required a minimum of 400,000 men and 70 groups of airplanes. See John T. Greenwood, "The Emergence of the Post-War Strategic Air Force, 1945-1953," *Air Power and Warfare (Proceedings of the Eighth Military History Symposium, USAF Academy, 1978)* (Washington, Office of Air Force History, 1979), p. 217.

[79]Lauris Norstad, Presentation given to the President "Postwar Military Establishment," 29 October 1946, p. 5, Vandenberg papers, Box 63, MD, LOC.

[80]Carl A. Spaatz to H.H. Arnold, response to "Orders," 23 October 1945, HBMC, USAFA, SCL.

[81]Preemptive strike called for delivering a nuclear blow when an enemy attack was imminent and unavoidable or when conventional war had already begun but nuclear weapons had not yet been used; preventative war was usually considered much more contentious because it called for war when it was not necessarily imminent in order to take advantage of one's own temporary military advantage.

[82]See, for example, a transcript of a 22 November 1946 ABC broadcast on "National Security" in which broadcaster Raymond Swing interviewed Ira Eaker and summed up Eaker's position this way; "in the world that it is the only true safety for this country, and especially its industrial workers, is to be prepared, physically and mentally, to strike first; for if we are to survive we must prevent the launching of atomic bombs, rockets, and guided missiles. That means an end to any moral niceties about declarations of war and immunization of civilians." Transcript available in Eaker papers, box I:38, speeches file #2, MD, LOC.

[83]Carl A Spaatz to H.H. Arnold, response to "Orders," 23 October 1945, p. 3, HBMC, USAFA SCL.

obviously not averse to the prospect of dropping the bomb on enemy cities in the future, just as had been done against Japan.

The importance of events and thinking during that first atomic autumn cannot be overstated. Air leaders at that time reacted to the bomb exactly as one would expect men trained to be realists and sworn to defend the United States would react: loyally, having just prosecuted the massive and bloody air campaigns of World War II. The atomic bomb and the concept of deterrence fit neatly into their moral framework, which considered strategic bombing, even if it caused civilian casualties, to be the most efficient way to end or deter a war, with as little damage and suffering for the United States as possible.

INTERNATIONAL CONTROLS AND THE SOVIET THREAT

While most airmen advocated a strong military as the best security, some AAF officers were prominent in the effort to empower the United Nations to control atomic weapons in 1945 and 1946. In December 1945, Theodore von Karman's *Toward New Horizons*, a work commissioned by the Air Force about future air power technologies that many air leaders like H.H. Arnold regarded as prophetic, asserted: "international control of atomic energy . . . seems to be the most probable solution of the atomic problem within the next decades. The main responsibility of the Armed Forces will be the enforcement of international agreements."[84] The air leader who worked most vigorously toward this idea was General George Kenney, the four star general who lost out to Spaatz for the AAF's Commanding General position at the end of 1945. In January 1946, Kenney was sent to London to be the special advisor on military affairs for the United States delegation to the

[84]Von Karmen, Theodore, et. al., *Toward New Horizons*, December 1945, p. 6 of introduction, copy available in Spaatz papers, MD, LOC.

United Nations.[85] Kenney spent so much time at his UN job that when he was also given command of SAC in March 1946, he rarely commanded the new outfit in person. Kenney even bragged about how the UN would have its own land, sea, and air forces just like any nation, and he recommended the U.S. should allow its military forces to be called upon by the UN Security Council.[86] Such comments upset the War Department and Spaatz.

Haywood S. Hansell was another AAF officer who felt that, "reliance on an armed standoff or 'balance of terror' for U.S. security is not compatible with long-term U.S. objectives."[87] Before his retirement in 1946, Hansell wrote: "U.S. military policies must support the long-term political objective of eliminating the causes of the US-Soviet confrontation." Surprisingly, even after his retirement and during the height of the Cold War, General Nathan F. Twining agreed. "Anybody who's not for nuclear test ban and disarmament shouldn't be alive." This double-edged quote by General Twining at once expressed a hopeful liberal sentiment for the ultimate elimination of nuclear weapons with a starkly opposite militant zeal. And predictably, Twining was very conservative: "I mean it's a thing we should be working at all the time. . . . But at the same time we must be very careful that as we go down the road, we don't get big hearted. We must have safeguards in every step of the way."[88]

While AAF officers held some hopes for international limits or controls on war or atomic energy through 1946, these were largely squelched by the new-year. The Baruch plan for international atomic energy control failed in the UN and the Soviet Union was emerging as a clear threat to American interests. Consequently, the Air Force began to oppose

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[85]Harry S. Borowski, *A Hollow Threat: Strategic Air Power and Containment Before Korea* (Westport, Conn: Greenwood Press, 1982), p. 36.

[86]Ibid., p. 140.

[87]Haywood S. Hansell, Jr.'s, "The Balance of Terror" undated draft, HHMC, USAFA SCL.

ardently, frequently on moral grounds, most international agreements and calls for disarmament. In the wake of the failed Baruch plan, General Kenney left his UN post. As he explained in June 1947, with obvious reference to the Soviets, "I would like to say that [weapons of mass destruction] will be outlawed by international agreement, that moral reasons will prevent their use in warfare. [But] the history of war affords little hope that an aggressor striving for a knockout blow, or nations fighting for their lives, will be restricted in their conduct of war by moral factors. It has not been morality but expediency that has governed the use of weapons. . . ."[89] In 1948, Secretary of the Air Force W. Stuart Symington declared: "The world is aware that the proposal of the United States was rejected, and military leadership is unanimous in the conviction that unilateral abandonment of the weapon by the United States could be suicidal for the nation."[90] That same year, Air Force Chief of Staff Carl Spaatz told the House Appropriations Committee that "the Soviet Union clearly aims to dominate [Western Europe] sooner or later by one means or another."[91] As the Iron Curtain descended in early 1947, air leaders began to embrace strategic atomic bombing more than ever, as the quintessential hope for ensuring America's peace and prosperity.

Thus as the Cold War began, most officers began to view people who advocated controls or limits on nuclear weapons as threats to national security—and the security of the United States was the guiding moral principle in air officers' lives. By 1947, officers like

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[88]Interview of General Nathan F. Twining, November 1962, USAF HO, p. 37-38.

[89]George C. Kenney, "World War II is out of Date," *Air Force*, November 1947, p. 30.

[90]Special Report of the Secretary of the Air Force to the President and the Congress of the United States, 9 June 1948, p. 20, HBMC. President Harry S. Truman adopted this as his official view on 14 July 1949 when he informed his top military advisors, "I am of the opinion we'll never obtain international control. Since we can't obtain international control we must be strongest in atomic weapons. Quoted by David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," *Strategy and Nuclear Deterrence*, ed. by Steven E. Miller (Princeton: Princeton University Press, 1984), pp. 131-132.

Major Alexander de Seversky discounted even "environmental" talk over nuclear fallout and "humanitarian" arguments against strategic bombing as nothing more than "scare propaganda," the roots of which were "distinctly pink, if not red, in coloration."[92] By 1953, Chief of Staff Twining was equally concerned: "I can remember," Twining told the JCS, "no general or press attitude before World Wars I and II which branded as immoral the actions of a nation which were necessary to the defense of that nation. . . . For the first time in history we are confronted with a threat of such a nature and magnitude that it can literally destroy the nation, and, ironically, we have philosophized ourselves into a passive and inactive frame of mind . . . we have accepted this passive and negative attitude because we have been skillfully propagandized by the Soviet Union."[93]

CLOAKING AND DENYING

Many officers began to equate "moral sentiment" with weakness, irresponsible self-righteousness, and outright Communism, and thus they often denied or cloaked their "moral sentiment." After retiring, Ira Eaker stated, "I never felt there was any moral sentiment among leaders of the AAF. A military man has to be trained and inured to do the job. Otherwise you'd never do the job. . . . The business of sentiment never enters into it at all. . . . When I watched bombs falling and hitting houses and churches I had a distaste for the whole business but they were shooting at us. You don't have any moral question at all."[94]

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[91]Testimony of General Carl Spaatz, Chief of Staff, United States Air Force, before the House Appropriations Committee," 1 April 1948, p. 1, Spaatz papers, box 29, MD, LOC.

[92]Major Alexander P. de Seversky, "A Lecture on Air Power," *Air University Quarterly Review*, 1:2 (Fall 1947), p. 37.

[93]"Memorandum of the Chief of Staff, U.S. Air Force to the Joint Chiefs of Staff on 'The Coming National Crisis,'" 3 September 1953, p. 4, Twining papers, MD, LOC.

[94]Eaker interview, USAF HO, May 1962.

Curtis LeMay agreed that in World War II at least, "to worry about the morality of what we were doing [was] nuts. A soldier has to fight. We fought."[95]

But Eaker's statement did indicate moral concerns, hidden by a fudging of definitions. Eaker considered accomplishing his "job" to be proper; he did not see anything wrong with directing a war effort against any "target" which might help win a war and thus accomplish the military task. At the same time, he did not advocate the wanton destruction of houses and churches. Eaker's denial of "moral sentiment" was even contradicted by other words and actions. For example, Eaker strongly opposed a proposed terror bombing operation in World War II because it would be ineffective (95 percent of the casualties would be civilian) and because, "we should never allow the history of this war to convict us of throwing the strategic bomber against the man on the street."[96] Eaker's line for moral permissibility was simply the same as his line for military necessity. Most other Air Force officers also drew the line of moral permissibility at the point of military necessity. For example, Paul Tibbets, the pilot of the B-29 *Enola Gay* that dropped the atomic bomb on Hiroshima, stated: "Let's face it, if you're going to fight a war, you fight it to win and use any method you can and somebody's going to get hurt. All right, if you can kill a mess of them at one time and get it over with that much quicker, I think you're better off in the long run."[97]

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[95]LeMay, *Mission with LeMay*, p. 383.

[96]The proposed terror bombing operation was operation CLARION. Quoted in David R. Mets, *Master of Airpower: General Carl A. Spaatz* (Navato, CA: Presidio Press, 1988), p. 271. Original available in Spaatz papers, box 20, MD, LOC.

[97]Interview of Tibbets with Kenneth Leigh, December 1960, transcript available at the USAFA SCL.

Like other air leaders, Curtis LeMay was torn within himself when it came to morality.[98] He felt that it was "nuts" to consider morality in war, yet at the same time he stated, "a sense of morality and a decent judgment must function along with whatever new facilities we acquire or else all the effort is in vain."[99] LeMay also stated, "we [in the bombardment business] just weren't bothered by the morality of the question. If we could shorten the war, we wanted to shorten it.[100] He did not even mention his own moral emphasis on shortening wars to save American lives, nor did he seem to remember that at other times, he labeled all his World War II targets as "morally justified."[101] LeMay also had a major problem with the connotations of the word *morality*. If morality meant avoiding war at all costs, he thought it was both ridiculous and impossible. By the end of his career, LeMay would become thoroughly annoyed with the "Whiz Kids [Secretary of Defense Robert S. McNamara's assistants] . . . writers, clergymen, savants, and self-appointed philosophers," who were constantly criticizing him and the Air Force, while support supporting any anti-military agenda that came along.[102] LeMay was especially disenchanted with people who found it "acceptable" to kill millions of people "under the most horrible circumstances" in a

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[98]Ronald Schaffer, *Wings of Judgment: American Bombing in World War II* (New York: Oxford University Press, 1985). One of Schaffer's salient points is that many air leaders were torn within themselves over the issue of morality in World War II.

[99]LeMay, *Mission with LeMay*, p. 383; p. 570.

[100]LeMay, *America Is In Danger*, p. 381.

[101]LeMay, *America Is In Danger*, p. viii.

[102]For a more in depth discussion, see LeMay, *Mission with LeMay*, p. 380. When addressing religiously sensitive crowds at places such as the University of Notre Dame, LeMay always carefully crafted his speeches to appear the defender of morality: "It is clear," he told Notre Dame students in 1956, "that there are two social philosophies now in conflict. These are democracy based on Christian principles, and Communism based on atheistic, materialistic principles," In the face of the Soviet threat he told them the solution was simple; "superior long-range nuclear air power and adequate defensive air power poised in readiness on a continuing basis. LeMay papers, Address to the University of Notre Dame, 22 February 1956, box 71, MD, LOC.

limited war, yet considered it wrong to drop a few atomic bombs, and kill far less people, at the start of a conflict to "get it over with."[103]

To LeMay, just conduct in war (*jus in bello*) was dictated by whether an action would help one's own side win the war. He also argued a utilitarian view of war, explaining that, "actually I think it is more immoral to use *less* force, than it is to use *more*. If you use less force, you kill off more of humanity in the long run, because you are merely protracting the struggle."[104] In all cases, however, the greatest ethical action LeMay felt he could take, as a soldier, was to execute forcefully the legal orders of his political superiors and to protect the lives of the young Americans he sent off to battle. During World War II, LeMay wrote privately that, "it hurts like hell to lose . . . these kids," and twenty-five years later he wrote that he still had not grown "callused" to death.[105]

LeMay and Eaker exemplified most air leaders at the time; they were very concerned with issues of right and wrong, were not inured to death, and possessed no lust for blood, although they thought at some points that violence was quite necessary. They valued the lives of American servicemen much more than enemy civilians, but they generally cared for humanity and, above all, they were committed to the Air Force and to America. Furthermore, they felt that if something was truly "necessary" militarily, it could not be wrong morally.[106] Twining even felt that the U.S. had to use its most powerful weapons out

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[103]LeMay, *Mission with LeMay*, p. 570.

[104]LeMay, *Mission with LeMay*, p. 382.

[105]Coffey, *Iron Eagle*, p. 57; LeMay, *Mission with LeMay*, p. 570.

[106]For example, air leaders believed, (unlike many Americans) that nuclear weapons could be justifiably used in a variety of situations to defend national interests as defined by their superiors. This meant that they accepted national defense as a moral imperative above all others since they perceived the United States as an irreplaceable source of goodness in the world. Air leaders like Twining even turned the tables to say that whatever was morally right was most effective militarily—the two concepts were utterly inextricable. For example, in 1954 he stated, "A desire for revenge may be understandable. From a military standpoint, as well as from a humanitarian standpoint, it should not be allowed to influence our strategic decisions in war . . . [for] it would serve neither humanitarian nor military purposes to kill hundreds of thousands of people in an enemy nation just to compensate for a similar loss of life in our own country. . . . There is room for hope that with the

of a moral obligation to the young people being sent to fight. What he found, however, was that many people disliked that his ideas for conducting a just war openly, which called for killing people in cities, and that people would use their own moral arguments to demonize him and to inhibit, in his view, the effectiveness of strategic bombing.[107] Consequently, Twining bitterly complained that most Air Force officers on active duty were "muzzled" while an "anti-nuclear amateur, with no continuing responsibility of any kind, [advocating] U.S. nuclear disarmament at any price," could spread their seemingly moral message all over the land. Finally, he urged Americans to look upon such anti-military moralists as they would a "misguided youth burning his draft card."[108]

AIR FORCE ETHICS AND THE PUBLIC FORUM

Air leaders were obviously very concerned that certain ethical ideas might hamper or destroy their coveted strategic bombing mission or even threaten the security of the country they had sworn to protect. These things, in addition to the primary goal of obtaining an independent Air Force, motivated the Air Force to forcefully enter the public discourse on nuclear weapons. The most vivid account of AAF philosophy on public relations was detailed in a May 1946 personal letter from Commanding General Spaatz to General George Kenney, Commander of the newly formed Strategic Air Command. Recognizing the unique importance of SAC as the only arm of the military capable of delivering an atomic bomb, Spaatz insisted that, "Every idea, every plan, every action must consider public reaction, to

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aid of air power it might be possible to win a war—as we did in World War II—with less slaughter and destruction than would result from a long war of steady casualties along bitterly contested lines of defense on the ground." "Address to the Chamber of Commerce Banquet, Galveston, Texas, 9 Feb 1954, p. 25 of transcript, Twining papers, box 123, MD, LOC.

[107]Twining, *Neither Liberty Nor Safety*, p. 230. Twining also noted that morality entered into strategic planning in the U.S. and Free World because "we put a value on human life which the enemy does not understand or practice."

the end that the AAF in all its phases is an All-American product, enthusiastically accepted and supported by those who pay the bill and reap the benefits. . . . The public must be given a complete, balanced, true picture of air power – past, present, and future – in a continuous flow."[109]

The AAF Commanding General had peen practicing that policy for several months. Once AAF leaders disbanded the Spaatz Board on October 23, 1945, and plotted the strategy for the post-war world, Spaatz launched the Air Force into the public ethical debate in a *Collier's* article on December 8, 1945, with an article titled "Air Power in the Atomic Age." "Every American is asking," Spaatz wrote, "Is there anything we can do about the atomic bomb? There is something we can do about the atomic bomb. The Air Force has some definite ideas about coping with it – or with any possible future war."[110] Spaatz's solution called for America to embrace atomic bombs and heavy bomber "superplanes." Further noting that, "we may never see another war so *mild* and so *slow* as World War II," Spaatz told the country, "Unless we stand in split-second readiness we will lose a future war."[111] Spaatz spread a message of deterrence, not preemptive strike or preventive war, stating, "The United States should stand as in the past unwilling to throw the first punch, but nevertheless capable of returning several in exchange."[112] He did not mention publicly the Spaatz Board requirement to be ready for "preventive action." Spaatz capped off the article with a list of requests. "Our immediate needs," he asserted, "are equality for the Air Force with the Army

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[108]Ibid., p. 101.

[109]Carl A. Spaatz, Commanding General Army Air Forces to George C. Kenney, Commanding General Strategic Air Command, 1 May 1946, HBMC, USAFA SCL.

[110]Carl A. Spaatz, "Air Power in the Atomic Age," *Collier's: The National Weekly*, 8 December 1945, p. 11. The AAF also demanded that the rest of the military listen to their views on atomic weapons. On 22 October 1945, the day before he received the Spaatz report on his desk, General Arnold sent a memo to Secretary of War Robert P. Patterson requesting AAF representation at all war department planning concerning atomic weapons. See Walton S. Moody, *Building a Strategic Air Force*, p. 56.

[111]Spaatz, "Air Power in the Atomic Age," *Collier's*, p. 11.

and the Navy; necessary outlying [i.e. overseas] bases; adequate Air Force in being; ample funds for training, research and experimentation; and the continued appreciation and constructive criticism of American citizens."[113] Spaatz also preached this gospel of strategic air power to a variety of audiences. In January 1946, he proudly told listeners at Pennsylvania Military College that "for the first time in history it becomes possible to prevent wars by making it too risky for an aggressor to start."[114] Then, in "Strategic Air Power: Fulfillment of a Concept" in *Foreign Affairs*, Spaatz claimed that "World War II might have ended differently had our enemies understood and made correct use of Strategic Air Power."[115]

By the time of Spaatz's directive to Kenney about public relations in the spring of 1946, Curtis E. LeMay was already following the Air Force line as Chief of AAF Scientific and Research Development. In a typical interview published in the January 12, 1946, issue of the *Army and Navy Register*, he painted a dismal forecast of the American future except for its strategic air power. He noted the destructive nature of the atomic bomb and the vulnerability of the United States in a future atomic war. But like Spaatz, LeMay publicly professed a deterrence policy dependent on unparalleled technological advancement and, in case of war, dishing out massive "retaliatory blows"—not preemptive ones. He professed this same message in hundreds of speeches, interviews, articles, and even two major books, all published between 1945 to 1968.[116] And after retiring in 1965, General LeMay bluntly expressed the prevalent Air Force attitude with regard to air power and the realm of ideas:

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[112]Ibid., p. 12.

[113]Ibid., p. 84.

[114]Carl Spaatz, Speech, "Air Power in War and Peace," delivered to the Pennsylvania Military College, 24 January 1946, p. 3 of transcript, Spaatz papers, box 268, MD, LOC.

[115]Carl Spaatz, "Strategic Air Power: Fulfillment of a Concept," *Foreign Affairs*, 24 (1946), pp. 385-395.

"Airpower has something to offer for the good of the country and mankind. People, mainly politicians, keep rejecting it, . . .you gotta shove it down their throats."[117]

LeMay's fellow Air Force generals also proclaimed these same messages to everyone inside the service so as to achieve a consistent voice. By the time the Air Force became independent on September 18, 1947, it already had a forum in place "to stimulate healthy discussion of Air Force problems which may ultimately result in improvement of our national security." This was the goal of the *Air University Quarterly Review*, a publication of the USAF's Air University based at Maxwell Air Force Base, Alabama. General Muir C. Fairchild and his staff spearheaded the effort to create the journal, and in the spring of 1947, it went to print for the first time. Targeted primarily at officers, the journal was perhaps the best barometer of Air Force thinking at the time since it was the official professional journal of the service. From 1947 to 1955, ten major articles focused on ethics, and many others dealt with nuclear weapons. Although the views expressed in these articles were "not the official views of the Department of the Air Force or of the Air University," the essays were written primarily by well-known commanders, scholars, and chaplains within the service. Their strikingly similar message both embraced ethical questions and proselytized for a policy of strong nuclear deterrence expressly focused against Communism. All the articles were written some time after the failed Baruch plan for international nuclear controls in 1946, and the announcement of the Truman doctrine the following spring. So, not surprisingly, none of the works in the journal from 1947 to 1955 seriously considered the viability of any sort of international control or arms agreement on nuclear weapons. Instead,

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[116]"Can Not Stop Air Attack," Army and Navy Register, 12 January 1946, p. 1. See also LeMay's, *Mission with LeMay: My Story* (1965) and *America Is In Danger* (1968).

[117]Interview with Borowski, 1974, tape available in HBMC.

the writing favored stockpiling nuclear weapons and hitting the Soviet Union or any other Communist nation hard in the event of war.

An example of this view can be found in Brigadier General Dale O. Smith's article, "The Morality of Retaliation," which appeared in the winter 1954-55 issue of the *Review,* which articulated this sentiment most clearly in an attempt to convince others to accept the Air Force ethic. Citing Communist military build-ups and the domestic atrocities committed by Stalin's Soviet Union, Smith labeled Russians as "armed maniacs," while the United States was a concerned "father." "When an enemy," he stated, "is dedicated to destroy us by any means, it seems perfectly moral to utilize any conceivable weapon against him in self defense. To do less would be immoral."[118] The argument was by no means self-evident when compared to the vast spectrum of ideas prevalent in American society. A vast number of people from pacifists to moralists were undoubtedly alarmed by the notion of using "any means" to defend America—as if there was nothing, not even global nuclear holocaust, that could be worse than the fall of America. But the air leaders of the time could not imagine anything worse than the fall of their country. They believed that an all-out nuclear strike could be a justified and proportionate action in some situations. Finally, Smith lashed out against nuclear disarmament by posing the question: "If the maniac is a brute who outweighs the father, has the father made a moral agreement in giving up the weapon that could have saved his family?"[119]

Another plain example of the Air Force ethic within the Review was a summer 1954 article, "Morality and War: A British View," by Air Marshal Sir Robert Saundby, the RAF

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[118]Smith, "The Morality of Retaliation," p. 57.

[119]Ibid., p. 57. Other airmen addressed strategic atomic bombing in the review from an international law perspective. See Captain Hamilton DeSaussure, "International Law and Aerial Bombing," *Air University Quarterly Review*, (1952), pp. 22-34.

Bomber Command's second in command during World War II. Perhaps the editors of the review wanted to include this article by a renowned foreign air leader to substantiate the view prevalent in the U.S. Air Force. The title of the article suggested Saundby's view as not simply that of a lone British man, but rather *the* view of the entire British Empire. In the article, Saundby argued that those who opposed the atomic or hydrogen bombs in his country, "are not numerous" and were "people who feel rather than think."[120] As far as people who advocated unilateral disarmament on moral grounds, he flatly stated that, "Nothing can be done about them, but they do not gain many converts, as a rather special type of mental unbalance is necessary for the holdings of such convictions."[121] Saundby went on to point out that all new weapons in history were received by some with disdain. In an obvious connection to atomic weapons he wrote, "We shrink from the horror of new methods and new weapons, even though they are demonstrably more humane, simply because they are new."[122] He thus dismissed the anti-nuclear moral argument as one with "no logic," and argued that atomic weapons would deter war and ensure peace. Saundby proclaimed that the western world should, "embrace the higher morality that bids us to take advantage of [atomic weapons] to abolish the new slavery [of Communism], and exorcise from the world the evil ideology that threatens twentieth-century humanity."[123]

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[120]Air Marshal Sir Robert Saundby, "Morality and War: A British View," *Air University Quarterly Review*, (1954), pp. 3-4.

[121]Ibid. In a summary of Air Marshal Saundby's article appearing in the same issue of the review, the editors recounted the author's major points but also stated on their own that, "Many plans have been advanced for the abolition or control of nuclear weapons. Surely there does seem to be a special revulsion against a weapon which can bring such a terrific and random destruction to the homes and families of a nation. But many of these plans which have stemmed from this humanitarianism have not been distinguished by logic and so far none of them have combined their noble aims with prudent safeguards."

[122]Ibid., p. 8.

WHY DID THEY THINK THAT WAY?

Air Force leaders believed U.S. military necessity was always moral and ethical because they assumed America was a just nation. The United States determined for these men what was right and wrong since the United States was their standard for goodness on this earth. On November 11, 1949, General Vandenberg expressed his reason for this sentiment at an Armistice Day Luncheon: "We have long recognized the evils of war. The results we achieved in wars of the past were not always those for which we had hoped. But we know in our hearts that no nation ever had a nobler history."[124] Many leading officers at that time had fought and suffered in World War I and all of them had sacrificed a great deal in World War II. Most had lost many friends in training accidents and in the air wars to combat Hitler's Nazis and Japanese imperialism.

Many airmen, like Curtis LeMay, thus deepened their religious-like devotion to their country. "I am devoutly attached," LeMay reflected as he looked back on his career, "to the Constitution of the United States, to which I have given my sacred oath, and I firmly believe implicitly in the human precepts of freedom with order which stand behind the Constitution."[125] This declaration, which used words like "devoutly," "sacred," and "precepts," was the language of a man whose one true church was the United States of America. LeMay even explained to his wife before they were married in 1934 that, "the Army will have to come first, you'll come second."[126] The only thing LeMay ever granted could come before one's loyalty to the United States was God. As he explained to an audience at the University of Notre Dame in 1956, "Patriotism should be second only to

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[123]Ibid., p. 11.
[124]Speech, 11 November 1949, Vandenberg papers, Box 90, MD, LOC.
[125]LeMay, *America Is In Danger*, p. 294.
[126]LeMay, *Mission with LeMay*, p. 558.

religion as a driving force in American life."[127] LeMay seldom spoke or wrote of God, but at places like Notre Dame he did, obviously trying to use religion to sell strategic nuclear air power to a predominantly Catholic audience. If LeMay really did believe in an authority higher than that of America, one might conclude that to LeMay, patriotism was religion since, "Divine guidance was sought – and, I am sure, was obtained – by the statesmen who first declared our national principles."[128] Finally, LeMay argued at Notre Dame that the United States and its "democracy based on Christian principles," was in direct conflict with "Communism based on atheistic, materialistic principles."[129]

Because airmen had such a deep faith in their country, they never thought that they would be ordered to carry out an unjust act, so they planned for nuclear war without hesitation. As Ira Eaker stated in 1947, "the protection of our atomic secrets and the maintenance of a stockpile of atomic bombs is primary. Every sane unprejudiced man in the world today of any nationality knows that we would never use them for conquest."[130] US non-use of nuclear weapons early in the atomic age further strengthened air leaders' belief in good intentions of their country. "For years," Twining stated in 1954, "the United States held a virtual monopoly of super-weapons and long-range air power. The fact that we did not exploit that power in war, proves to all the world the sincerity of our defense for peace."[131]

Two world wars had also ingrained the harsh realities of war into these men, and the belief that war was by nature destructive. Having already witnessed the deaths of hundreds

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[127]Address of General Curtis LeMay at the University of Notre Dame, 22 February 1956, p. 6. LeMay papers, box 71, MD, LOC.

[128]Ibid., p. 6 of transcript.

[129]Ibid., p. 7 of transcript.

[130]Remarks by LtGen Ira C. Eaker, at Los Angeles, California, 7 August 1947, p. 4 of transcript, copy available in Eaker papers, Box I:38, MD, LOC.

of thousands of people via strategic bombing, they gained a philosophy that kept nuclear bombing casualties from becoming an ethical dilemma. As Haywood Hansell wrote in 1946:

> Now philanthropists may easily imagine that there is a skillful method of disarming and overcoming an enemy without causing great bloodshed, and that this is the proper tendency of the Art of War. However plausible this may appear, still it is an error which must be extirpated, for in such dangerous things as War, the errors which proceed from a spirit of benevolence are the worst. He who uses force unsparingly, without reference to the bloodshed involved, must obtain a superiority if his adversary uses less vigor in his application. . . If our opponent is to be made to comply to our will, we must place him in a situation which is more oppressive to him than the sacrifice which we demand.[132]

Another key issue air leaders resolved for themselves was the notion that civilians were not necessarily non-combatants. After retiring, Ira Eaker explained, "I always felt that a skilled workman was a high priority target."[133] Since most of a society supported a country's war effort in some manner, this philosophy permitted strategic bombing on a massive scale, and helped the Air Force justify planning atomic strikes at a time when technological limits forced targeting against large industrial cities, not specific military targets. Even clergymen in the service confirmed for air leaders that this philosophy was sound. In a summer 1950 article, "The Morality of War," Chaplain (Colonel) John J. Wood concluded that "war is not intrinsically evil."[134] After tracing the development of just war theory from the time of St. Augustine (A.D. 354-430), Wood pointed out that because only legitimate military targets could be justifiably attacked, this, "obviously prohibits the

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[131]Address by General Nathan F. Twining at the "Chamber of Commerce Banquet," Galveston, TX, 9 February 1954, Twining papers, box 123, MD, LOC.

[132]Initial version of Haywood S. Hansell's, "Modern Air Power, undated, HHMC.

[133]Eaker Interview, USAF HO, May 1962, pp. 4-5 of transcript.

[134]Chaplain John J. Wood, "The Morality of War," *Air University Quarterly Review*, 4:1 (summer 1950), pp. 31-32.

international bombing of civilian noncombatants."[135] But it was on the classification of "civilians" that Chaplain Wood and the Air Force broke with many prominent moralists. Wood did not address the issue of what to do about civilians who were not engaged in war work, but he proclaimed that, "in modern war, particularly in large industrial centers, the civilian population who engaged in the direct production of war materials can hardly be classified as non-combatants." He continued, "it appears that in spite of the revolutionary changes that the techniques of war have undergone, war in its moral aspect remains essentially the same."[136]

The AAF's dedication to deterrence through air power—which became nuclear air power—was second only to its devotion to the United States. In a *Foreign Affairs* article just after the war, Spaatz contended that "the fact of an American Air Force in being with full potential in 1939, might have prevented the outbreak of war."[137] The Air Force was sold, then, on the doctrine of deterrence with or without the atomic bomb because the air leaders concluded that their pre-war theories on the significance of strategic bombing had been substantiated in the war. The *United States Strategic Bombing Survey (European War)* published in 1945 proclaimed, "Allied air power was decisive in the war in Western Europe."[138] Air leaders believed that the introduction of atomic weapons into the Air Force arsenal buttressed such claims and made air power "all-important."[139]

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[135]Ibid., p. 38.

[136]Ibid., p. 41. Also, the "revolutionary changes" did not deal exclusively with the 1945 atomic bomb but also with the Soviet acquisition of the bomb and the beginnings of atomic plenty—both of which occurred by the time Chaplain Wood was writing.

[137]Carl Spaatz, "Strategic Air Power: Fulfillment of a Concept," *Foreign Affairs*, 24 (1946), pp. 394-395.

[138]The Pacific War summary also pointed to the convincing role played by air power against the Japanese Empire. This report, which became public in July 1946, also reinforced AAF concepts of deterrence by stating that, "the threat of immediate retaliation with a [atomic] striking force of our own should deter any aggressor from attacking." *United States Strategic Bombing Survey (European War Summary)*, p. 37. See also the introduction to Theodore von Karman, *Toward New Horizons*, p. 3., copy available in Spaatz papers, MD, LOC, box 58: "Until recently it was not generally recognized that destruction from the air is the most efficient

Based upon World War II, Air Force officers also learned to equate military unpreparedness, slow technological development, and political appeasement with deadly war. The failed appeasement of Hitler by Neville Chamberlain in 1938 had, perhaps, the most profound effect on Air Force leaders. As World War II drew to a close, General Arnold gave his staff a critical briefing on AAF development in July 1945, with a key point being, "All of our planning should be directed toward the future . . . we cannot let the American people down by sniping back to our 1938 position."[140] General LeMay further cited Chamberlain's appeasement of Hitler as an example of how "Pacifists with their perennial utopian quests can harm the human race as much as the conquerors."[141]

On an operational level, the lessons of Pearl Harbor were equally important. LeMay expressed this sentiment after retiring when he remembered the fate of Admiral Husband D. Kimmel and Lieutenant General Walter C. Short, the Navy and Army commanders at Pearl Harbor. LeMay stated that "everyone" in SAC remembered that Kimmel and Short "didn't do very well and they got relieved. Now here I am at SAC. If the Russians decide to drop some atomic weapons on 'em [allied troops in Korea] what am I going to do suppos'n there's

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method for the defeat of an enemy. This fact has now been proved by the results obtained in Germany and Japan." Or see Hoyt S. Vandenberg, report to the Joint Orientation Conference at the Pentagon, 12 Nov 1948, p. 2, Vandenberg papers, box 90, MD, LOC: "the strategic air offensive emerged from World War II as a decisive weapon [his emphasis] of modern warfare." See also a 10 September 1945 report by Alexander P. de Seversky to the Secretary of War, p. 3, Twining papers, box 17, MD, LOC: "Air Power Decisive Factor: Allied victory in Europe came through Air Power."

[139]LtGen Ira C. Eaker, (ret.), speech, "Winning Strategies in Aerial Warfare," 19 Nov 1945, p. 15 of transcript, Eaker papers, Box I:38, MD, LOC. In March 1952, General LeMay gave a top secret briefing to his fellow air force leaders stating, "experience in World War II emphasized the need for a long range striking force in-being to concentrate on strategic bombing." LeMay papers, file B16935, p. 18 of transcript, MD, LOC.

[140]General Henry H. "Hap" Arnold's Diary, Terminal Conference, 10-20 July 1945, series 4, box 88, envelope 13, diary 13, HAMGMC, USAFA SCL. In 1953 General Laurence Kuter also proclaimed, "We will not invite world war again by a posture of weakness." Laurence S. Kuter speech to Montgomery, Alabama Civic Clubs, 15 May 1953, p. 6 of transcript, Laurence Kuter Manuscript Collection (LKMC), USAFA SCL.

[141]LeMay, *America Is In Danger*, p. 69.

no Washington? Well, I made up my mind I was going to do something, not get hung for not doing something."[142]

Another lesson air leaders extracted from World War II was to embrace technology and technical superiority wholeheartedly. Although a few air leaders vested hopes in international control of atomic weapons and limits on war before the failure of UN initiatives in 1945-46, Air Force leaders considered the arms race to be the only realistic way to maintain the peace in the Cold War. In 1949, Kenney wrote Vandenberg, "As long as we remain ahead of any possible opponent technically we could not lose a war; but if we once fall behind technically, it is difficult to see how we could win a war of the future."[143] LeMay often explained, "We must RACE!"[144] In addition to the national security benefits of the nuclear arms race, LeMay also perceived an economic benefit. "I sincerely believe any arms race with the Soviet Union would act to our benefit. This is the faith I have in the free enterprise economy over the rigidly planned and programmed socialistic system of our rivals."[145]

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[142]Interview of LeMay by Borowski, 1974, HBMC, USAFA SCL. Also, on June 30, 1950, LeMay wrote to Chief of Staff Vandenberg: "I therefore believe that General Whitehead should be given definite instructions to the effect that in event of the destruction of Washington and in the absence of direction from our national leaders, he should order the immediate initiation of the Strategic Air Command Emergency War Plan [i.e. all out nuclear war]." Vandenberg turned down the request in February 1951. LeMay papers, Files B-5324/6 and B-9670/1, Box 195 and 197 respectively, MD, LOC.

[143]Robert Frank Futrell's, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1960* (Maxwell AFB: Air University Press, 1989), p. 278. See also introduction to *Toward New Horizons*, December 1945, p. 2, Spaatz papers, box 58, MD, LOC: "The recognition of the growing technological character of modern war partly emerged from the experiences of the first World War, and the scientific character of any future warfare becomes obvious in light of the war which has just ended." See a similar statement in: Interview of General Thomas S. Power, USAF HO, p. 30 of transcript.

[144]LeMay, *America Is In Danger*, p. 113. In his tenure as SAC Commander, LeMay's message to every public and private audience was similar: "super long-range, nuclear air power is the key to peace if continuing peace is possible and it is the only means of victory if a major war is inevitable." Address to the Harvard Advanced Management Association, 6 Dec 1955, LeMay papers, box 69, MD, LOC. And as LeMay continually reiterated to his SAC personnel, the only difference to him between war and peace was "where we drop our bombs." "Address to the American Ordinance Association," 7 Dec 1953, Ibid.

[145]LeMay, *America Is In Danger*, p. 94.

General Arnold had begun the emphasis on technological advancement even before the end of World War II. In the fall of 1944, Arnold's real interest was in what would shape the air war for many years into the future.[146] On November 7, 1944 Arnold asked von Karman to establish and lead a group of scientists focused on technology and future of air power. This scientific team hammered out the landmark report *Toward New Horizons: Science the Key to Air Supremacy*, delivered to Arnold on December 15, 1945.[147] Noting that "the discovery of atomic means of destruction makes a powerful Air Forces even more imperative than before,"[148] the report gave atomic energy primacy of place in the first chapter of the first volume of the work. Atomic energy coincided with the historical sentiment von Karman expressed in the introduction of *Toward New Horizons*. "No man," von Karman wrote, "in past centuries could, by any stretch of the imagination, foresee the devastation and loss of life produced by the two consecutive wars in our time. Humans adjust themselves rapidly to new concepts."[149]

But the Air Force's emphasis on new technology and atomic weaponry raised questions about the Soviet response. One of the salient arguments against the Cold War practice of deterrence was that one side arming itself for "self defense" threatened the other side, causing a endless cycle of actions and reactions which brought the world to the brink of a nuclear war.[150] After the Cold War, Georgi Kornienko, an expert on American affairs in the Foreign Ministry of the Soviet Union from 1949 to 1990, felt that had the U.S. not positioned itself starkly against the Soviets during the Cold War, "the far reaching changes in the USSR

[146]Theodore Von Karman Interview, USAF HO, p. 8.
[147]Memo from H.H. Arnold to Dr. Von Karman, 7 November 1944, HBMC, USAFA SCL.
[148]Letter from Von Karman to H.H. Arnold, 15 December 1945, HBMC, USAFA SCL.
[149]"Toward New Horizons," Introduction, p. 5, copy available in Spaatz papers, box 58, MD, LOC.
[150]Political Scientists commonly refer to such a phenomenon as the "security dilemma."

would also have started much earlier in a different, more favorable international climate."[151] General Spaatz foresaw such arguments in his December 1945 *Collier's* article. He insisted that, "Because of our past record and the openness with which we conduct our national politics no nation could honestly construe military preparedness on the part of the United States as evidence of a basic change toward an aggressive foreign policy."[152] Years later, LeMay would give a more sobering account of the aggression America displayed in its war with Mexico and against the "Indians," but he would add that the World Wars were clearly not wars of American aggression.[153] "Defense is never provocative. A porcupine invites no attack. It signals its desire to stay at peace."[154]

The Soviet threat did greatly influence the willingness to build and maintain a *large* nuclear arsenal. Ira Eaker spoke for nearly all air leaders when he later claimed, "We realized Russia would be the opponent if there was another war. Everybody knew we couldn't beat Russia on land."[155] However, the lessons of World War II and history were so pronounced for Air Force leaders that, even without the Soviet threat, they would have wanted the United

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[151]Commentary by Georgi M. Kornienko, *American Cold War Strategy: Interpreting NSC68*, ed. By Ernest R. May (Boston: Bedford Books of St. Martin's Press, 1993), p. 125.

[152]Spaatz, "Air Power in the Atomic Age," p. 83.

[153]LeMay, *Mission with LeMay*, p. 422.

[154]LeMay, *America Is In Danger*, p. 63. Ira Eaker also stated, "the protection of our atomic secrets and the maintenance of a stockpile of atomic bombs is primary. Every sane unprejudiced man in the world today of any nationality knows that we would never use them for conquest." Remarks by LtGen Ira C. Eaker, at Los Angeles, California, 7 August 1947, p. 4 of transcript, Eaker papers, box I:38, MD, LOC. At the time, most Americans polled sided with the air leaders' view of the Soviet Union. When asked on 27 June 1949, 60% versus 22% of respondents thought Russia was out to "rule the world" and not simply "protect itself." On 11 January 1950 the ratio was up to 70% to 18% [illustrating public reaction to the Soviet Atomic Explosion and Communization of China]; by November 29, 1950, the ratio further skyrocketed to 81% to 9% [evidence of America's reaction to the Korean War—especially the massive Chinese intervention on Thanksgiving]; and on 21 August 1953 the ratio was still hovering at the 79% to 10% level. See the 1935-1971 Gallup poll index, vol. II, pp. 826, 881, 949, 1163.

[155]Eaker Interview, USAF HO, May 1962, p. 6 of transcript. In 1949, Henry H. Arnold, retired Commanding General of the World War II AAF, wrote, "Russia has no fear of an army; she thinks hers is just as good as, and bigger than, any in the world; she has no fear of a navy, since she cannot see how it can be employed against her; but she does fear our long-range strategic Air Force, which she cannot as yet match, or as yet understand." See also Henry H. Arnold, *Global Mission* (New York: Harper and Brothers Publishers, 1949), p. 615.

States to continue researching atomic energy and building atomic bombs after the war.[156] In December 1943, long before the atomic bomb entered the scene, Major General Barney M. Giles, Chief of the AAF Air Staff, announced that after the war the Air Force would be both independent and formidable enough to "squash" any aggressor.[157] Thus, Soviet actions strongly focused the most fundamental Air Force views, but did not create them.

The conclusions in Air Force thinking were obvious. In 1947 Lieutenant General Ira Eaker expressed it by stating, "the maintenance of a strong America is the surest guarantor of world peace and national security." In 1953, Chief of Staff Hoyt Vandenberg repeated that long-range atomic striking power was the "greatest hope for peace or for victory."[158] LeMay was in full agreement as SAC's Commanding General. "The combination," he insisted, "of the long-range bomber and new air weapons can give us the most powerful force for peace that the world has ever seen."[159]

THE AIR FORCE ATOMIC AGE ETHICS IN PRACTICE: THE BERLIN BLOCKADE, SOVIET ATOMIC BOMB, AND KOREAN WAR

Keeping in mind the virtual religious faith that air leaders had in America, their opposite view of the Soviet Union after 1946, and their equally strong beliefs in the morality of strategic nuclear bombing, air leaders' approach to major Cold War events was consistent.

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[156]In 1966, retired General Twining asserted that, "The United States would not have had to build the strategic forces if the Soviets had been willing, following World War II, to abide in a world of law and order. America disarmed following that war, *Russia did not.*" See Twining, *Neither Liberty Nor Safety*, p. 203. Twining's thoughts were clearly influenced by two decades of the Cold War, though, for before World War II ended the AAF was demanding a 70 group *strategic capable* force to be manned by 400,000 personnel. LeMay also remembered that after looking at the destruction caused by relatively few B-29s at the end of World War II he decided, "From that moment forward, I believed that it would be possible to maintain peace through strength." Curtis E. LeMay and Bill Yenne, *Superfortress: The Story of the B-29 and American Air Power* (New York: McGraw-Hill Book Company, 1988), p. 161.

[157]Robert Frank Futrell, *Ideas, Concepts, and Doctrine*, p. 202.

[158]General Hoyt S. Vandenberg, Before the Joint Orientation Conference, 26 March 1953, p. 13, Vandenberg papers, box 91, MD, LOC.

[159]Address by General Curtis E. LeMay to the Pittsburgh Post of the American Ordinance Association, 7 December 1953, p. 9 of transcript, LeMay papers, box 69, MD, LOC.

Their reaction to the Berlin blockade in 1948, the first Soviet atomic explosion in 1949, the Korea War, and the escalating nuclear arms race illustrate this consistency.

By the end of June 1948, Soviet forces had shut down all rail, barge, and road traffic coming into West Berlin in an attempt to strangle that half of the city and test the resolve of the West. The US and Britain responded by airlifting over 1,500 tons of basic necessities a day to Berlin from June 26, 1948 until the blockade was lifted on May 12, 1949. Had war broken out over Germany, the Air Force general would have not only supported, but probably recommended, the use of nuclear weapons. On June 9, 1948, when the United States and Soviet Union seemed headed toward an open conflict, Secretary of the Air Force Symington stated, "If the United States were to lose a war because of the failure to use the atomic bomb for humanitarian reasons, we should be guilty of the greatest disservice to civilization in the history of mankind."[160] After the crisis, air leaders credited their own atomic striking potential for deterring a shooting war in Berlin. LeMay, who had been the Air Force commander in Europe at the beginning of the crisis, later claimed that the Soviets could have jammed American radar signal around Berlin and taken other such actions to make the airlift nearly impossible. But they refrained only out of fear of America's atomic capability.[161] After the blockade was lifted, Laurence Kuter, Twining, and LeMay all proudly cited Winston Churchill's conviction "that Europe would have been communized like Czechoslovakia, and London under bombardment some time ago, but for the deterrent of the atomic bomb in the hands of the United States."[162]

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[160]Special Report of the Secretary of the Air Force to the President and the Congress of the United States, 9 June 1948, p. 21, HBMC, USAFA SCL.

[161]LeMay Interview with Harry Borowski, 1974, HBMC, USAFA SCL.

[162]. *New York Times*, 1 April 1949, pp. 1,11. Laurence S. Kuter, "Air power: the American Concept," draft, June 1952, p. 20, LKMC, USAFA SCL; LeMay Interview with Harry Borowski, 1974, HBMC, USAFA SCL; Interview, Nathan F. Twining with U.S. News & World Report, 1 December 1953, transcript p. 2, NTMC, box 15, folder 3, MD LOC.

As the Berlin airlift drew to a close in 1949, the Soviet Union's detonation of its first nuclear device profoundly changed Air Force planning and aerial defense measures, and spurred a general realization among air leaders that war was becoming radically different from anything previously encountered in history.[163] On September 30, 1949, Air Force leaders responded to the Soviet explosion by holding a special conference in the office of Vice Chief of Staff General Muir S. Fairchild "to consider the Air Force position in view of the accelerated time table imposed by the announcement of the Russian atomic bomb explosion."[164] As opposed to the sense of control prevailing at the 1945 Spaatz board, officers in 1949 concluded that the Joint Chiefs of Staff (JCS) needed to recognize the Soviet explosion "as a matter of urgency."[165] Hoyt Vandenberg, the Air Force Chief of Staff, delivered this message to the JCS on November 16, 1949, and in his attached memorandum Vandenberg stated that the Soviet explosion occurred four years earlier than expected and some ten to fifteen years prior to some estimates.[166]

The Air Force also went public with its needs. In an article in the *Saturday Evening Post* in February 1951, Vandenberg claimed that Air Force duties had now "roughly doubled."[167] Not only did the Air Force still have to deter war and be capable of knocking out the Soviet's war making capacity, but the Air Force now had to be able to destroy the

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[163]Even the Finletter Commission report published a year and a half prior to this time realized how important a Soviet detonation of an atomic bomb would be. See Futrell, *Ideas, Concepts, Doctrine*, p. 200. Curtis LeMay would later claim that the Soviet bomb was not very surprising because the Soviets developed the bomb exactly when the Air Force had predicted. LeMay Interview by Harry S. Borowski, 1974, HBMC, USAFA SCL.

[164]Memorandum For Record, Muir S. Fairchild, 30 September 1949, in HBMC, USAFA SCL.

[165]Ibid.

[166]Memorandum, Chief of Staff USAF to JSC, 16 November 1949, p. 1, HBMC, USAFA SCL. In 1946, General Lauris Norstad had indeed briefed the President that 1949 would be the year the Soviets would enter the atomic arena, and Leslie Groves and Vannevar Bush agreed. Yet by 1949, the Air Force prediction was for 1951, and Groves and Bush moved their predictions back twenty and ten years, respectively. Meilinger, *Vandenberg*, p. 151. Copy of Norstad's original report to the President, "Postwar Military Establishment," 29 October 1946, Vandenberg papers, box 63, MD, LOC.

Soviet military, especially its air forces, which could drop atomic weapons on the U.S. The Air Force solution to the new Soviet threat included collective security (NATO), new aerial defenses, and an increased reliance on strong nuclear deterrence, but not preventive war. Barton Leach, a Harvard law professor and reserve Air Force officer often consulted by Secretary Symington, spoke for nearly all air leaders when he said, "Now they have the A-bomb and should feel much happier, [but] the effect of a deterrent is not lost by the fact that the other fellow has a deterrent too."[168]

Perhaps the most significant impact of the Soviet explosion was that it motivated President Truman to approve research for a thermonuclear, or hydrogen, bomb on January 31, 1950.[169] Air Force leaders, unlike any people even in the military, were unanimously in support of the decision to build what they believed would be a truly revolutionary weapon. In a meeting held on November 9, 1949, the five-member civilian panel of the Atomic Energy Commission, the trustees of the actual atomic bomb stockpile, voted three to two against building the hydrogen bomb. Even more remarkable was the fact that at an October 14, 1949 meeting of the Joint Chiefs of Staff, the Army and Navy were undecided on the issue; only the Air Force Chief of Staff pushed strongly for the "super."[170] Clearly, Air Force leaders perceived the Soviet explosion to be a much more profound event than the bombing of Hiroshima four years earlier. Yet, the event did not change the Air Force ethical view, nor

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[167]Hoyt S. Vandenberg and Stanley Frank, "The Truth About Our Air Power," *Saturday Evening Post*, 17 February 1951, pp. 20-21.

[168]Quoted in Moody, *Building a Strategic Air Force*, p. 321.

[169]For a discussion of the H-bomb decision within the Truman administration see Borowski's, *A Hollow Threat*, pp. 192-194. The Soviet explosion also inspired Truman to authorize a study by the State and Defense Departments concerning the implications of the Soviet bomb on national security; the study culminated in the landmark document NSC-68. A good short analysis of the subject is Ernest R. May, ed., *American Cold War Strategy*. May provides the entire NSC 68 text, along with helpful commentary and an array of essays by the men who wrote the document, those who had to deal with it in later administrations, and even high ranking Soviet officials.

[170]George F. Lemmer, *The Air Force and the Concept of Deterrence*, 1945-1950 (Washington: USAF Historical Office, June 1963), pp. 54-55.

did it cause air leaders to look back and encourage international controls; the Soviet bomb only quickened their march forward into the nuclear arms race.

Half a year after vigorously supporting President Truman's decision to build a hydrogen bomb, air leaders' nuclear ethics and ideas were again put to a major test. On June 25, 1950, North Korean troops poured south across the 38th parallel and ignited a bloody three-year war. If it had been left solely to their discretion, every major American air leader of the time would have used atomic bombs in some fashion in Korea. The fact that Presidents Truman and Eisenhower never ordered atomic weapons use established a profound moral precedent of non-use, even in a very limited way, unless national survival was at stake. Air leaders vehemently disagreed with this unwritten but significant new rule on both moral and pragmatic grounds because it limited strategic bombing. But air leaders' highest allegiance was to the state, not strategic bombing, and so they fastidiously carried out the lawful orders given to them.

Major General Orvil A. Anderson was the most vocal Air Force proponent of preventive nuclear war; the Korean War ignited Anderson's underlying desire to conduct nuclear strikes against the Soviet Union. For some time, the General had been discussing preventive nuclear strikes in the academic atmosphere of the Air University, but at the end of August 1950, just days after Secretary of the Navy Francis Matthews publicly advocated preventive war, the national media publicized Anderson's views. He told one newspaper reporter, off the record he thought, that he could "break up Russia's five A-bomb nests within a week. . . . And when I went up to Christ I think I could explain to him why I wanted to do it—now—before it is too late, I think I could explain to him that I had saved

civilization."[171] Chief of Staff Vandenberg relieved Anderson the next day as Commander of the Air University, revealinging the fact that concern for American ethics, or at least public opinion. In November, Vandenberg reasoned that despite the unlikelihood of a peaceful solution to the Cold War, "we need not submit to the cynical assumption that the only alternative left us is inevitable war." He continued that in between the extremities of pacifist illusion and preventative war despair, an ideal alternative was available—the "middle way" of strong deterrence.[172]

The Air Force's other significant experience with preventative war ideas against the Soviet Union in the first decade of the atomic age was Colonel Raymond S. Sleeper's "Project Control," which was widely briefed throughout the Air University and in Washington, but certainly not in public.[173] The plan consisted of two phases. The first, a "Persuasion" phase, would put U.S. aircraft over the Soviet Union as a show of force to compel the Soviets to do such things as withdraw from Eastern Europe and allow for an independent and unified German nation. If this phase failed, the Air Force would begin "Pressure" operations that ultimately meant conducting a "strategic atomic offensive" against military targets in Russia. Ultimately, Sleeper and his associates wanted to transform air

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[171]Tami Davis Biddle, "Handling the Soviet Threat: 'Project Control' and the Debate on American Strategy in the Early Cold War Years," *The Journal of Strategic Studies*," 12:3 (September 1989), p. 277; Futrell, *Ideas, Concepts, Doctrine*, p. 295; *New York Times*, 2 September 1950, p. 8. Anderson was close to the pulse of American sentiment at the time, though. On August 2, 1950, a Gallup poll indicated that 66% of Americans thought that if America engaged in another "World War," the U.S. should use the atomic bomb (16% more gave a qualified yes, 16% said no, and 7% had no opinion). Interestingly, on 19 August 1950, 57% of respondents looked upon the Korean Wars as "World War III" (28% thought fighting would be limited and 15% had no opinion. Furthermore, on 12 February 1951, 66% of Americans responded that if the U.S. found itself in an all-out war with Russia, America should use the atomic bomb first (19% said to use the bomb second, and 15% had no opinion). See 1935-1971 Gallup poll index.

[172]Hoyt S. Vandenberg, Speech before the National Association of Radio News Directors, Chicago, 17 November 1950, pp. 1-4 of transcript, Vandenberg papers, box 90, MD, LOC.

[173]A good discussion of "Project Control" is Tami Davis Biddle's, "Handling the Soviet Threat: 'Project Control' and the Debate on American Strategy in the Early Cold War Years," *The Journal of Strategic Studies*, 12:3 (1989), pp. 273-303.

power from simply a deterrent force into a "dynamic" actor that could offer the U.S. leverage over Soviet political actions.

Sleeper defended his plans on moral grounds by urging people to redefine terms such as "aggression" and "self-defense." And when contemplating a massive nuclear exchange, Sleeper asserted, "There are certainly worse things than physical extinction. We must fight for our vital interests. . . . we must be willing even to strike the first blow in our own interests rather than accept a bloodless defeat."[174] Once again, the fall of America or American ideals, even if brought about by non-violent means, was a worse prospect in the minds of many airmen than a massive nuclear war. But like General Orvil Anderson's ideas, "Project Control" never did become a war plan, and by the end of 1954, President Eisenhower, who himself contemplated aggressive nuclear action in an analysis known as "Solarium," effectively shut the door on any plans for preventive war.[175]

LeMay was one leader who, up until the mid-1950s when the U.S. had nuclear supremacy, would also have supported a nuclear ultimatum, demanding that the USSR pull out of eastern Europe and stop its aggression by a certain date under the threat of nuclear attack.[176] By 1966, LeMay believed such action was too risky, but he still urged, "a more aggressive attitude on the part of the United States."[177] It was also repeated many times throughout his career, most notably in the *Washington Post* on July 13, 1954, that LeMay

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[174]Ibid., p. 291.

[175]For a good discussion of Project Solarium, and especially for U.S. considerations for aggressive action with the rearmament of its military by the end of the Korean War (seen as a "window of opportunity"), see Marc Tractenberg's, "A 'Wasting Asset': American Strategy and the Shifting Nuclear Balance, 1949-1954," *International Security*, 13:3 (winter 1988-89). Also, on 29 September 1954, 76% of Americans polled disagreed that the country "should go to war with Russia now while we have the advantage of atomic and hydrogen bombs." Only 13% agreed with the statement. Gallup poll, 29 September 1954.

[176]LeMay, *Mission with LeMay*, p. 481.

[177]Ibid., p. 559.

advocated preventive nuclear strikes against the Soviet Union.[178] Even though LeMay felt such attacks could have succeeded through the mid-1950s, he denied ever advocating them.[179] Yet, he never ruled them out, claiming it was not his decision to make.[180]

Even before the Korean War, other air commanders outlined the Air Force position against preventive war—although preemptive strikes were considered an option.[181] In a November 1947 address to the President's Air Policy Commission, Chief of Staff Spaatz defined the Air Force position: "It is out of the question that we as a nation will ever have the incalculable advantage of initial surprise. From all of this we conclude that more than ever before will our best defense lie in a quick and paralyzing retaliatory blow."[182] In a May 1950 address to the Air War College, the new Secretary of the Air Force, Thomas K. Finletter, explained why "preventative war is not a possible policy for the United States at this time."[183] Thus, it was permissible to discuss preventive war behind closed doors at the Pentagon or the Air University, where officers were expected to contemplate all sorts of contingencies. But to propose such an extreme plan, which was not national policy, to the public was intolerable to the Chief of Staff and his civilian superiors.

Nuclear weapons also forced a tough moral debate about limited and general wars. President Truman never allowed nuclear weapons to be used, or China to be bombed, in an effort to limit the Korean War. In the words of Nathan F. Twining, the Air Force took a dim

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[178]Coffey, *Iron Eagle*, pp. 331, 371.

[179]See Curtis LeMay, Address to the Citadel, 9 February 1957, LeMay papers, box 71, MD, LOC.

[180]Coffey, *Iron Eagle*, pp. 331, 371.

[181]In April 1950, NSC-68 stated, "the military advantages of landing the first blow . . . require us to be on the alert in order to strike with our full weight as soon as we are attacked, and, if possible, before the Soviet blow is actually delivered." Quoted in Rosenberg, "Origins of Overkill," p. 135.

[182]"Appearance of General Spaatz in a Public Hearing Before the President's Air Policy Commission," 17 November 1947, p. 3, Spaatz papers, box 268, MD, LOC.

[183]Robert F. Futrell, *Ideas, Concepts, Doctrine*, p. 286. On 7 June 1950, Major General Gordon P. Saville also explained why the Air Force should not advocate preventative war, and by 1955, Colonel Richard S. Leghorn was explaining to the press how preventative war was considered a long forgotten "extreme" idea.

view of limited war, because "limited war meant conventional, non-nuclear forces . . . a diversion of resources [which might] cripple the Strategic Air Command."[184] Despite this, the Air Force Chief of Staff during the Korean War, General Vandenberg, initially supported the President's limited objectives for he felt the Air Force could not conduct heavy operations in Asia while being prepared for the possible "real" invasion of Western Europe.[185] But after three agonizing years of war, Vandenberg hardened; in May 1953 he gained permission to start the devastating bombings of North Korean dams, and he also supported a JCS recommendation to the President that month to drop atomic bombs on some North Korean targets.[186]

Most Air Force leaders, however, would have supported dropping nuclear weapons much earlier in the war in an effort to bring a decisive end to the war. They justified this position by arguing that such action would have saved more lives in the long run, while sending a clear message to the Soviet Union to stop sponsoring Communist expansion. In January 1951, former Air Force Secretary Symington urged the National Security Council (NSC) to demand that Korea be evacuated, China be bombed, and serious threats of atomic bombing be used as a diplomatic tool against the North Koreans.[187] After the war, LeMay lamented, "for the first time in history, fear of the atomic bomb dominated our policy and restrained us from winning a war we were entirely able to win."[188] He ardently believed that

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Futrell, *Ideas, Concepts, Doctrine*, p. 286; Press Release, Colonel Richard S. Leghorn, "How Nuclear War May Be Fought," 25 January 1955, box 9, folder 2, NTMC, USAFA SCL.

[184]Twining, *Neither Liberty Nor Safety*, p. 115.

[185]For a discussion of this subject see Moody, *Building a Strategic Air Force*, p. 352.

[186]Meilinger, *Vandenberg*, p. 187.

[187]Moody, *Building a Strategic Air Force*, p. 350.

[188]LeMay, *America Is In Danger*, p. 42.

America sustained over 157,000 unnecessary casualties in Korea.[189] Similarly, General Twining argued that one A-bomb dropped on a "tactical target," might have deterred the Chinese invasion and paved the way for a united, free country.[190] More than ever, Twining longed to return to the days when, "war was war and once engaged, America fought it to win."[191]

Air leaders were not alone in this view, either. By the end of the conflict, a National Security Council paper considered the use of atomic weapon as a possible option in Korea. Symington's 1951 recommendation to threaten such use took form on May 21, 1953, when Secretary of State Dulles issued a message implying such action might be taken—a message Eisenhower would later consider to be the cause of the end of the war.[192] The lesson the Air Force learned was that nuclear compellence could still work—and thus strategic bombing with nuclear weapons was as decisive as ever.[193] Just like the Berlin Blockade and the test of a Soviet atomic bomb had done, Korea confirmed the need for a powerful strategic nuclear force in the eyes of the Air Force. The Air Force's lack of a decisive, winning role in Korea was considered an anomaly since strategic bombing was not truly employed.[194] Furthermore,

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[189]LeMay, *Mission With LeMay*, p. 464. General Frank F. Everest, the Air Force Assistant Deputy Chief of Staff for Operations in the winter of 1950-51, also believed that the U.S. could have stopped the war early on if it had threatened to use atomic weapons. Futrell, *Ideas, Concepts, Doctrines*, p. 299.

[190]Twining, *Neither Liberty Nor Safety*, p. 117.

[191]Ibid.

[192]Moody, *Building a Strategic Air Force, p. 459.*

[193]In 1953 General Twining even felt that the reason the Korea War occurred in the first place was because the United States did not possess a strong enough military deterrent in 1950. See his "The Coming National Crisis," 3 September 1953, p. 5, Twining papers, MD, LOC.

[194]Hoyt S. Vandenberg, Report Before the Joint Orientation Conference at the Pentagon, 26 March 1953, Vandenberg papers, box 91, MD, LOC. The report reads, "*The Korean War offered no test of air power in its most effective application* [his emphasis]. . . ." We all know that air power, when applied steadily against sources of enemy strength as it was in the Pacific during World War II, can prove decisive. Nothing that has happened in the Korean War has proved or disproved this.

air leaders attributed the fact that the Soviets did not enter the war more forcefully, or expand it to Europe, to nothing other than SAC's nuclear capabilities.[195]

In Korea, world leaders deemed nuclear weapons as wrong for most situations and appropriate only for the most grave of circumstances—a fundamentally moral argument. American air leaders did not criticize their civilian commanders for limited war ideology, but airmen made it clear that they felt such a policy was a practical and ethical mistake that resulted in tens of thousands of unnecessary American deaths. Furthermore, if it were up to them, different boundaries for the ethical use of nuclear weapons would have been established. While most air leaders did not seek preventive war in times of peace, they thought that nuclear weapons could be used justly, in certain ways, once a war had begun. The parallels to Air Force thinking about Hiroshima and Nagasaki were striking. The Air Force supported the atomic bombings of Japan in large measure because they believed it stopped a wasteful amphibious invasion. Five years later, these men felt atomic bombing on a similar scale could have averted the need for what they saw as more unneeded, bloody ground action.

THE REAL MILITARY REVOLUTION: SOVIETS, STOCKPILES, AND H-BOMBS

In the eyes of the air leaders, the first atomic bomb, which so shocked the world in August 1945, paled in significance to what they perceived as a real technological revolution in military affairs by the early 1950s: the Soviet nuclear threat; large nuclear stockpiles in the U.S. and USSR; and technological advancements, most notably the hydrogen bomb and delivery vehicles of ever increasing speed and range.

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[195]See comments by Hoyt Vandenberg, Stewart Alsop, et. al. in Parrish, *Behind the Sheltering Bomb* (New York: Arno Press), p. 373.

The fear of a formidable Soviet stockpile, which existed by 1954, influenced Air Force thinking the most.[196] The repercussions of Soviet weaponry were compounded by the first detonation of a hydrogen bomb by the U.S. on October 31, 1952, followed by a Soviet H-bomb within the next two years. General Thomas S. Power, Deputy Commander of the Strategic Air Command, was one USAF officer who had been increasingly impressed by the evolution in bombing from 500-pound conventional bombs, to the Tokyo fire raid, and finally to the atomic bombings. About the hydrogen bomb, Power exclaimed, "When I saw the first H-bomb go off, everything I had ever seen before just paled into insignificance."[197] General Carl A. Spaatz shared General Power's conviction. Spaatz noted that through the years 1946 and 1947, the atomic bomb did not progress far beyond the 22 kiloton yield of the Nagasaki bomb, and of course, bombs were scarce, "so the atomic weapon was not really to the front [of strategic planning], as you might think from what developed later on."[198] "The power that it poses now," Spaatz stated in May 1965, "with thousands of them in megatonnage and kilotonnage, presents an entirely different picture than the show at that time."[199]

In an essay prepared for publication in the *Air University Quarterly Review* in the winter of 1954-1955, Colonel Robert C. Richardson, III, detailed another reason for a military revolution. "The year 1954 has ushered in the second phase of the atomic age . . .[;] the public is being confronted not with an atomic bomb or hydrogen bomb, but with an

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[196]The Soviets possessed an estimated 120 to 200 bombs and 1000 bombers by 1954, numbers which alarmed most men like LeMay and Finletter. See LeMay papers, files B-4685/6, box 195, MD, LOC.

[197]General Thomas S. Power Interview, USAF HO, p. 17, USAFA SCL. Like previous air leaders, Power went to the public after his retirement with his concern. In his 1964 book he told Americans that they, "must try to understand that the hydrogen bomb has created a host of unprecedented problems and that it is vital . . . to know what these problems are." Power, *Design For Survival*, p. 29.

[198]Spaatz Interview, USAF HO, May 1965, p. 29 of transcript.

[199]Ibid.

atomic weapon system."[200] This system, characterized by a plentiful source of different types of nuclear weapons as well as the means to deliver them effectively, would revolutionize "every military activity." Richardson further noted that within the Air Force, the perceived need to adapt to the new military developments had become "quite general."[201]

One of the few air leaders who did not perceive any sort of military revolution was Curtis LeMay. Even after the development of the hydrogen bomb and the ICBM, General LeMay claimed to "consider an atomic weapon just another weapon in the arsenal . . . [it will] certainly kill a lot more people under certain conditions . . .[;] but in other conditions they won't kill as much as the damage you get from incendiary attacks."[202] But after the Soviets acquired a nuclear stockpile, he reminded his contemporaries that the Soviet stockpile compelled the U.S. to go back to the "rulebook" and adopt a counterforce strategy intended to knock out the enemy air force—the means of delivering a nuclear blow—first.

One might conclude that atomic plenty, hydrogen bombs, and Soviet capabilities had finally forced a military revolution in the eyes of air leaders a decade after Hiroshima. This was precisely the time when the Air Force embraced nuclear weapons, physically and morally, more than ever. Just as World War II strategic bombing paved the way for the Air Force to accept the atomic bomb, seven years of embracing atomic weapons set the stage for air leaders to accept this new revolutionary weapon without a moral qualm. Once again the

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[200]Richard C. Richardson, III, "Atomic Weapons and Theater Warfare: Part I: Will Nuclear Weapons Be Used?" prepared for publication in the *Air University Quarterly Review*, winter 1954-55, p. 1. Copy available in NTMC, box 4, folder 6, USAFA SCL.

[201]Ibid. Some of the weapons Richardson envisioned included Intercontinental Ballistic Missiles (ICBMs), which the Air Force began developing in the mid-fifties. Although ICBMs did not weigh heavily on the minds of Air Force leaders then, the Soviet launching of Sputnik on 4 October 1957 shocked the Air Force. General Twining, who had become the Chairman of the JCS by that time, described it as a "shot . . . both seen and heard around the world." The Soviets were seemingly gaining the ability to drop a hydrogen bomb on U.S. soil at a moment's notice. This was a very revolutionary prospect, but one that the Air Force had invited by encouraging the arms race and always developing better technologies.

[202]Interview of LeMay by Borowski, 1974, HBMC, USAFA SCL.

Air Force evinced an unshakable belief in the promise of technology. To Air Force generals at the time, technology was a pure good just like strategic bombing and the United States. In 1954 and 1955, there were even serious proposals within the air staff to employ *only* nuclear weapons in the USAF.[203] Even O.P. Weyland, who still saw the need for conventional munitions, bragged to the *U.S. News & World Report* in July 1954 that all "offensive type aircraft" in the Air Force, including fighter-bombers, were nuclear capable or soon would be.[204] In fact, many officers such a felt that the use of nuclear weapons in any future war would be utterly "inevitable." Such an occurrence would not be "necessarily synonymous" with the destruction of cities and cultural landmarks, however. Again advancing the Air Force line of military necessity, Colonel Robert C. Richardson stated that any future targeting would be "wholly dependent" on its military contribution.[205]

In addition, key officers in the Air Force still concluded that this, or any military revolution, did not correlate to a moral revolution. The widely published Brigadier General Dale O. Smith articulated this view in his winter 1954-1955 article, "The Morality of Retaliation," published in the *Air University Quarterly Review*. "The discovery of atomic explosives," he insisted, "did not change mankind. Only human beings are moral, and unfortunately, immoral."[206] LeMay would have surely concurred. In *Neither Liberty Nor Safety*, written after ICBMs came on line, Twining agreed that, "immorality lies in the causes of war and not in the instruments of war."[207]

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[203]Interview of General O.P. Weyland, undated, USAF HO, p. 55 of transcript.

[204]"Can Air Power Win Little Wars?: Exclusive Interview with General Otto P. Weyland, Commanding US Tactical Air Force," *US News & World Report*, 23 July 1954, p. 60. For similar statements by General Twining see: Nathan F. Twining, Report to the Committee on Appropriations in connection with the fiscal year 1955 budget, House of Representatives, 11 February 1954, Twining papers, box 123, MD, LOC.

[205]Richardson, "Atomic Weapons and Theater Warfare"

[206]Smith's, "The Morality of Retaliation," p. 57.

[207]Twining, *Neither Liberty Nor Safety*, p. 110.

CONCLUSION

At the dawn of the atomic age in 1945, air leaders believed that the scarcity of atomic bombs, the lack of nuclear-capable bombers and crews, and the bomb's twenty-kiloton yield, kept atomic weapons from representing an immediate military revolution. In addition, Air leaders accepted strategic bombing on the scale of the Tokyo fire bombings as well as Hiroshima and Nagasaki as morally just because they thought they were saving more lives, especially American ones, in the long-run. They also believed factory workers could be justly targeted and that other unintended casualties were either to be blamed on the nature of warfare or on the enemy who ultimately started the war. Thus, the atomic bomb offered no new ethical dilemma to the Air Force, and the atomic bomb was embraced, in a positive and practical fashion, as merely another more powerful weapon. The World Wars also reinforced their belief that war was sometimes necessary and justifiable; so, too, was the use of the atomic bomb or any weapon needed to win a war. Air leaders felt it would be morally reprehensible not to embrace the bomb because they saw American nuclear weapons as the only deterrent to the "evil" expansion of Communism, which threatened their standard of justice: the United States of America.

Prominent Air Force leaders such as Henry H. Arnold, Carl A. Spaatz, Hoyt S. Vandenburg, Nathan F. Twining, Curtis E. LeMay, George C. Kenney, and Lauris Norstad all felt strategic bombing was the road of higher morality because air power avoided the need for bloody ground war, ended wars faster, and reduced American casualties. To them, a more destructive weapon such as the atomic bomb made strategic bombing more effective and decisive. But even more important than their commitment to strategic bombing was their complete faith in the goodness of the United States, a belief which was solidified in the

bloodiest war in human history. Air Force leaders had no qualms about fighting an all-out nuclear war if the only other choice was to watch America fall. No other earthly things were ultimately more important to these men than their country.

By the close of the first atomic decade in late 1954, atomic plenty, hydrogen bombs, Soviet stockpiles, and capable delivery systems had forced a military revolution in the eyes of the Air Force. Yet at the same time, the failure of international nuclear control efforts, the spread of Communism, the Berlin blockade, Soviet nuclear build-ups, and the Korean War convinced air leaders that their 1945 beliefs had been correct. They were convinced that strong deterrence, when actually used, worked. Furthermore, anything deemed a military necessity during war, even the use of nuclear weapons in a limited conflict, was not only justifiable but ethically imperative—again, due to a belief in the righteousness of America and the effectiveness of strategic bombing. And at all times during this first decade, the Air Force forcefully engaged the public debate over nuclear weapons in an attempt to shape opinion out of a concern for image, and a belief that the Air Force offered the most security for the United States.

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