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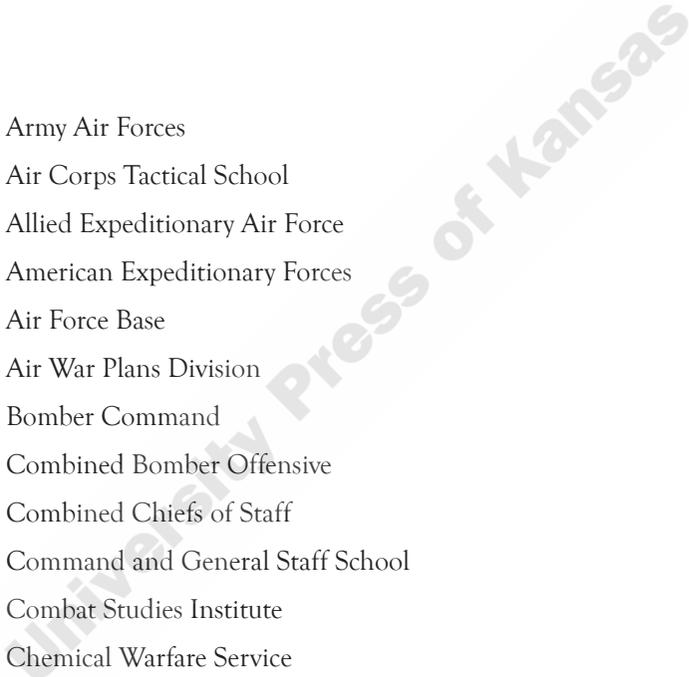
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ACRONYMS



AAF	Army Air Forces
ACTS	Air Corps Tactical School
AEAF	Allied Expeditionary Air Force
AEF	American Expeditionary Forces
AFB	Air Force Base
AWPD	Air War Plans Division
BC	Bomber Command
CBO	Combined Bomber Offensive
CCS	Combined Chiefs of Staff
CGSS	Command and General Staff School
CSI	Combat Studies Institute
CWS	Chemical Warfare Service
FEAF	Far Eastern Air Forces
HE	high explosives
JCS	Joint Chiefs of Staff
MAAF	Mediterranean Allied Air Forces
MEWS	Microwave Early Warning Stations
ORSA	operations research & systems analysis
OSRD	Office of Scientific Research & Development
ROTC	Reserve Officer Training Corps

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SHAEF	Supreme Headquarters, Allied Expeditionary Forces
USASTAF	US Army Strategic Air Forces
USMA	US Military Academy
USSBS	US Strategic Bombing Survey
USSTAF	US Strategic Air Forces
WPD	War Plans Division



University Press of Kansas

PREFACE

There are two primary reasons that I asked the University Press of Kansas to allow me to revise and update my 1993 book *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*. The first is that there has been much new scholarship in the more than two decades since the original book was published. Revealing work by Tami Biddle, Richard Davis, Rob Ehlers, Gian Gentile, Donald Miller, Richard Overy, Ken Werrell, and many others have unearthed much new information that requires reshaping my original arguments. I also uncovered new sources that needed to be incorporated into the revision during subsequent research for my second book with the University Press of Kansas that dealt with the Korean air war. In addition, my archive at the Army Heritage and Education Center was privileged to acquire the extensive operational records of the 44th Bomb Group of the Eighth Air Force, and a close examination of those files required me to adjust some of my conclusions about the conduct of the European bombing campaign, especially in its later stages.

The second reason goes back to the original title selection in 1993. My initial proposal to the press was for *The Temptations of Total War*, which I thought best reflected the concentration of the book on moral aspects of bombing civilians. However, the editors at Kansas felt differently, and as a new author I was not prepared to be combative over the title. The main title, *Bombs, Cities, and Civilians*, was fine, but the subtitle did not accurately depict what the book was about. I did not really analyze the whole development of US airpower strategy in the way that I did in my Korean air war book. Perhaps those editors were wiser than I, forcing me to realize in hindsight that my focus should have been broader. Clausewitz tells us that the amount of a nation's resistance in war is a product of total means times strength of will. My original work focused primarily on the ways American airmen attacked the civilian will to resist, directly or indirectly. However, their main objective

was always to destroy military and economic means or war-making capacity, which was seen as the surest way to end the bloody conflict as quickly as possible. The revised book deals more with the search for the “panacea” target system or systems that would really prove the efficacy of precision doctrine as well as make the biggest possible contribution to winning the war. Establishing that baseline also provides a better foundation to discuss the lures that distracted American airmen from their precision ideals and to demonstrate that such diversions were not unique to World War II.

The original inspiration for this book came from two questions. The first, asked by a professor during a graduate seminar at Stanford, focused on the precedents leading to the decision to drop the atomic bomb on Hiroshima and on why discussions about the new weapon’s employment dealt with how to use it, not whether to do so. The second, posed by a West Point cadet trying to understand the ethical restrictions on his actions in war, asked to what extent moral considerations and other limitations on combat can really be effective in a high-stakes, high-intensity conflict in a heavily populated area like Western Europe. In response to the first question, I believe that I have presented in this book many of the lures that drew American leaders and airmen down the path to total war in World War II, as well as away from the letter, if not the spirit, of precision doctrine. At the same time, I have also described how some leaders, for a variety of reasons, did slow the rush to unlimited aerial warfare. I hope that the material in this volume will provide future civilian and military leaders with some motivations and ideas about how to limit the slide toward total war in future conflicts.

As with any project that takes as long as this one, there are many people to acknowledge for their help and support. Three deserve my special thanks for the original book. Without the patience and guidance of Dr. Barton Bernstein at Stanford University, this work would have never been started or completed. Lieutenant Colonel Charles F. Brower IV at the United States Military Academy provided me with leadership and inspiration to do research and continue work. In a demanding assignment at Fort Bliss, Texas, I was guided by Lieutenant Colonel Michael Putnam, who showed me how to manage my time more efficiently and encouraged me to finish the project; he also furnished me with insightful critiques of my work.

Numerous others deserve mention. Colonel Robert Doughty and the soldier-scholars of the History Department at USMA provided a rich supply of ideas during discussions and seminars. Dr. Kenneth Werrell and Dr. Jesse Stiller gave me the benefit of their criticism in analyzing my early work, as did Colonel Paul Miles. Dr. Werrell also contributed significantly to the original

book. Dr. Ronald Schaffer deserves special mention; not only did we have some valuable discussions at historical conferences but also he generously provided me with much important source material from his own research. I received help with photographs from Larry Dodd of the Northwest and Whitman College Archival Collections, Alan Aimone from Special Collections Division of the US Military Academy Library, Gary Johnson at the US Army Heritage and Education Center, and Melissa Kaiser, Tim Cronen, and Nick Parrella of the Smithsonian. Michael Briggs, Larisa Martin, and Karen Hellekson at the University Press of Kansas were invaluable in sharpening my prose and ideas. My parents also gave me support and encouragement during this long and arduous effort, and unfortunately my father, who will always remain my image of a World War II veteran, did not live long enough to see this latest version.

I am very grateful to Mike Briggs and his staff at the University Press of Kansas for allowing me to create this revised edition, and Rob Ehlers for prodding me to look more closely at the activities of the much-neglected Fifteenth Air Force. That inclination was reinforced by Dr. John Geis and his staff at the Air Force Research Institute, who kindly allowed me access to their impressive THOR database of American bombing operations, and archivist Maranda Gilmore at the Air Force Historical Research Agency, who doggedly tracked down 455th Bomb Group information for me. Tami Bidle provided some more insights to fine-tune the manuscript. I also must express gratitude to the leadership of US Army War College and US Army Heritage and Education Center for giving me sabbatical time to do the necessary update. My family had to accept all the time I took away from them to complete another writing project. Although my sons now have their own lives to lead, unlike in 1993 when they had to tolerate my writing obsessions in person, my wife has again had to live with a husband literally and figuratively with his mind in the clouds. I hope this result is worth all the time and faith they and others have invested in me, and a worthy account of the hard decisions made by brave American airmen immersed in the boiling cauldron of the most terrible war the world has ever seen.

The views expressed herein are those of the author and do not purport to reflect the positions of the Army War College, Department of the Army, or Department of Defense.



University Press of Kansas

1. INTRODUCTION

There is no doubt in my mind that the RAF want very much to have the US Air Forces tarred with the morale bombing aftermath which we feel will be terrific.

—General Carl Spaatz¹

If you want to overcome your enemy you must match your effort against his power of resistance, which can be expressed as the product of two inseparable factors, viz. the total means at his disposal and the strength of his will.

—Carl von Clausewitz²

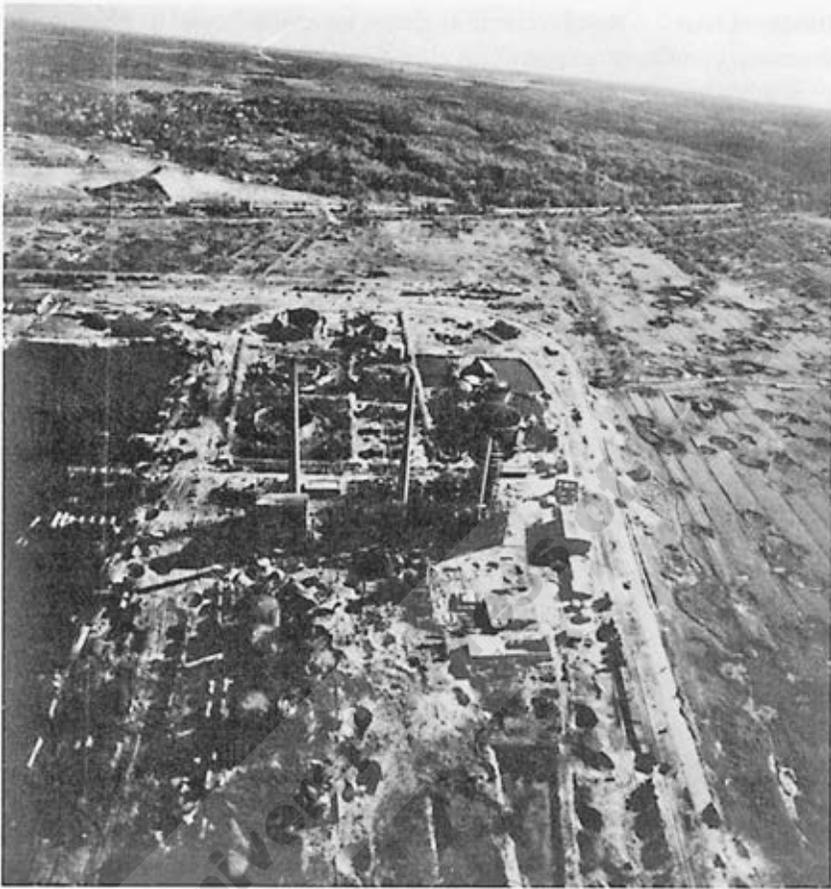
Allied strategic bombing during World War II has generated considerable controversy among historians, regarding both results and motivations. Perhaps the most heated debate has focused on the intentional bombardment of civilians to break their morale, a practice called morale bombing or terror bombing. Basil Liddell Hart, the noted British military historian, called the practice of indiscriminate Allied area bombing of cities “the most uncivilized method of warfare the world has known since the Mongol devastations.” An American counterpart, Walter Millis, termed such tactics “unbridled savagery.”³ Many American historians, including me, have perceived a difference between the practices of the Royal Air Force (RAF) and the United States Army Air Forces (AAF), however, especially in the European theater. While the British embraced a policy of indiscriminate night area bombing as their only realistic option, the Americans pursued daylight aerial offensives against well-selected military and industrial targets that were justified by both “strategic judgment and morality.”⁴ Reflecting the Clausewitz quote above, the RAF targeted will, while the AAF aimed to destroy means.

During World War II, the United States Army Air Forces did enunciate a policy of pinpoint assaults on key industrial or military targets, avoiding



Two contrasting views of Allied strategic bombing of Germany in World War II: a section of Munich razed primarily by British night raids (above) and a destroyed oil refinery at Harburg hit by American daylight bombers (opposite). Note the many craters from near misses in the fields around the oil plant. (Northwest and Whitman College Archival Collections, Penrose Memorial Library, Whitman College, Walla Walla, WA)

indiscriminate attacks on population centers. This seems to differentiate US policy from the policies of Germany, Great Britain, and Japan, all of which resorted to intentional terror attacks on enemy cities during the war.⁵ Scholars who have cited the official AAF history emphasize the intention of American leaders to resist bombing noncombatants in Europe for both military and ethical reasons.⁶ Many of these writers contend that US airmen regarded civilian casualties as an unintentional and regrettable side effect of bombs



dropped on military or industrial objectives; in contrast, the RAF campaign to destroy the cities themselves and kill or dislocate their inhabitants was a deliberate strategy.⁷

A few British writers, such as Max Hastings, have for some time criticized the claimed ethical superiority of AAF strategic bombing as “moral hairsplitting.”⁸ Beginning in the 1980s, however, the tar of morale bombing that Spaatz feared was applied by American historians such as Ronald Schaffer and Michael Sherry. In a groundbreaking 1980 article, Schaffer analyzed the statements of AAF leaders as well as numerous wartime bombing documents in Europe and concluded that ethical codes “did little to discourage air attacks on German civilians.” In fact, “official policy against indiscriminate

bombing was so broadly interpreted and so frequently breached as to become almost meaningless.” He argued that both the policy against terror bombing and ethical support for that policy among AAF leaders were “myths.” In his subsequent book, *Wings of Judgment*, which also discusses strategic bombing in the Pacific, Schaffer examined the issue in more detail. He softened his harsh judgment somewhat, but he still concluded that although “virtually every major figure concerned with American bombing expressed some views about the moral issue . . . moral constraints almost invariably bowed to what people described as military necessity,” another disputed concept.⁹

Sherry’s award-winning book focused on the development of American airpower, which ultimately led to the use of the atomic bomb. He concentrated on the bombing campaign against Japan and contended that strategists adopted the policy of indiscriminate firebombing of cities after precision bombing against military and industrial targets proved only marginally effective in 1944. Though racism made such tactics easier to adopt against Japan, firebombing was the inadvertent but inevitable product of an anonymous “technological fanaticism” of Allied bombing and airpower. The assumption that using everything available would lead to eventual victory was key in the decisions to firebomb and eventually to use the atomic bomb. The American press and public at the time accepted such measures as retribution for war crimes or as preparation for invasion. Since 1945, concerned Americans have focused on the decision to use the atomic bomb as “the moment of supreme moral choice”; Sherry argued that the whole bombing campaign was the product of “a slow accretion of large fears, thoughtless assumptions, and incremental decisions.”¹⁰

DOCTRINE, COMMAND AND CONTROL, AND OPERATIONS

Certainly AAF leaders had varying motivations and opinions about terror bombing. But a sophisticated understanding of military processes, particularly of doctrinal development, command and control, and operational execution, is needed to evaluate American strategic bombing. Both Schaffer and Sherry judged that the AAF failed to live up to the letter and spirit of precision-bombing doctrine. Sherry was especially critical because doctrine was not inspired and shaped to a greater degree by technology. Because of the limitations of the bombers of the 1930s, when precision bombing was developed, he argued, wartime technology was “more demonstrably than usual . . . the offspring, not the parent, of doctrine,” leading to vague and un-

realistic assumptions about the potential of pinpoint strategic bombardment and diminishing utility and support of the doctrine as the war went on.¹¹

Doctrine, however, is supposed to be developed to meet national goals, perform battlefield missions, or counter a perceived threat, and technology is then designed to implement the doctrine. Technological developments may force modifications in doctrine; ideally they should not drive it. Otherwise, the result is something like the Army's infamous Sergeant York Air Defense Gun, an expensive piece of sophisticated equipment whose capabilities were shaped more by technological possibilities than by an accurate appraisal of the evolving threat of enemy aircraft.¹² The entire family of US armor and antiarmor weapons in World War II illustrates the problem of allowing current technology to define tactical doctrine. Developed by technical experts to be light and mobile, American tanks and tank destroyers were employed to maximize mobility. However, they could not support the army's overall strategy and doctrine of firepower and direct assault, which was required by the conditions of European combat. This flaw affected US ground operations throughout the war.¹³

Allowing current technology to define doctrine can also limit the scope of doctrine without providing guidance or flexibility for later developments. A study of the evolution of military doctrine in the three decades after World War II by the US Army's Combat Studies Institute concludes that "the great value of doctrine is less the final answers it provides than the impetus it creates toward developing innovative and creative solutions" for future problems.¹⁴ The commander of the AAF, General Henry "Hap" Arnold, understood this process. In his final report to the secretary of war in 1945, he emphasized, "National safety would be endangered by an Air Force whose doctrines and techniques are tied solely to the equipment and processes of the moment." The Air Force must keep "its doctrines ahead of its equipment, and its vision far into the future."¹⁵ It is always better to have technology chasing doctrine, not the other way around.

It can be argued that the technology for precision bombing really did not exist until the smart bombs of the Vietnam War. The destruction of the French embassy during the 1986 air strike on Libya; the few televised misses with guided munitions and admitted poor accuracy with unguided weapons during DESERT STORM; the targeting of the Chinese embassy in Belgrade in 1999; and the continuing debates over civilian casualties in Afghanistan and Iraq demonstrate that the ideal of pinpoint accuracy under all combat conditions has still not been reached.¹⁶ Yet the pursuit of accurate bombing remained a primary goal throughout World War II, influencing American

tactics and technology during that conflict and setting precedents for later wars, including DESERT STORM, in which the US Air Force first provided an impressive demonstration of advances in precision methods and munitions in military briefings and media clips. When examined in comparison with the bombing results of other air forces in World War II, the intent, if not always the effect, of American air attacks was consistently to achieve the most precise and effective bombardment possible in pursuit of the destruction of the enemy's capacity to resist in order to end the war as quickly as possible. Wartime improvements in bombing accuracy, as well as the eventual impact on the German economy, demonstrate that such a goal was realistic, not a dream always to be abandoned in favor of military expediency. Changing conditions influencing combat capabilities and effectiveness in the European and Pacific theaters did lead to the AAF's acceptance of greater risks for enemy civilians by 1945, but in Europe at least, the operational record shows that the avoidance of noncombatant casualties in accordance with precision doctrine remained a component of American bombing, especially outside Germany, even if one of decreasing influence.

Military doctrine is simply a condensed expression of an accepted approach to campaigns, major operations, and battles. The general purposes of doctrine during and after World War II remained basically the same: "to provide guides for action or to suggest methods that would probably work best" and to facilitate communication between different elements by defining terms and providing concepts.¹⁷ Historically, American field commanders have felt free to interpret doctrinal guidance generally as they pleased. Indeed, the Soviets taught that "one of the serious problems in planning against American doctrine is that the Americans do not read their manuals nor do they feel any obligation to follow their doctrines."¹⁸ This is certainly an exaggeration, but field commanders have rightly assumed that doctrine is basically a set of guidelines that permits much situational leeway. Traditionally, these same field commanders have been given considerable freedom from strict command and control, far in the rear. Even the official AAF history of World War II admits that "air force commanders actually enjoyed great latitude in waging the air war and sometimes paid scant attention" to directives from higher up.¹⁹

This means that the attitudes of leaders in Washington do not always determine operations in far-flung theaters of war. As Schaffer and Sherry pointed out, the leader in Washington most concerned about moral issues, Secretary of War Henry L. Stimson, was either ineffective or isolated. His position was basically administrative, and unlike the president or the chiefs

of staff, he was not deeply involved in making strategy. Whatever their public pronouncements to the contrary, neither Roosevelt nor Arnold had any aversion to terror bombing when it suited their purposes. However, the extent of their control over commanders in the field should not be overstated. At times Arnold's shifts in commanders had considerable influence on bombing policies, such as when he replaced Lieutenant General Ira Eaker with Major General Jimmy Doolittle and Brigadier General Haywood Hansell Jr. with Major General Curtis LeMay. In addition, Arnold's consuming desire to justify an independent air service put pressure on AAF combat leaders to produce decisive bombing results. Yet whether because of distance, heart trouble, or the complexity of the war, Arnold rarely wielded a great deal of direct influence, especially in key operations late in the conflict. Sherry's contention that he consistently exercised particularly strong direction of American strategic-bombing operations and units is not supported by the operational record.²⁰

This loose doctrinal and command direction resulted in a bombing policy that was shaped by the operational and tactical commanders who actually dropped the bombs. To understand fully American strategic bombing, we must look at day-to-day planning and operations in the field, not just policy papers in the Pentagon. In his exemplary study of the escalating air war between Germany and Great Britain in 1940, F. M. Sallagar notes that "changes crept in as solutions to operational problems rather than as the consequences of considered policy decisions. In fact, they occurred almost independently of the formal decision making process."²¹ In that case, the operational solutions always led toward terror bombing; the same is not true for the AAF. An examination of the actual execution of operations in Europe, such as CLARION, THUNDERCLAP, and the War-Weary Bomber project, reveals that American air commanders there consciously tried to avoid terror bombing even when superiors were encouraging it. Some, like Carl Spaatz, seemed to have genuine moral concerns about such bombing; others, like Ira Eaker, were apparently more concerned with public opinion against such tactics or believed they were ineffective or inefficient. AAF operations in Europe contrast starkly with the American strategic bombing of Japan, where the destruction of cities by firebombing was adopted. Yet this decision also was made by the commander on the scene, Curtis LeMay, without real direction from Washington. Bombing policy in each theater was shaped by the military necessity of combat, but it was also affected by the individual personality of each commander, who defined that necessity. Air campaigns were also influenced by command relationships. In Europe, US Strategic

Air Forces (USSTAF) commander Spaatz worked closely with the theater commander, General Dwight Eisenhower, to synchronize air and ground operations. The Pacific theater had no such unified command or such a unified strategy. However, while strategic air operations against Japan were primarily conducted by the Twentieth Air Force, both the Eighth Air Force and the Fifteenth Air Force were bombing Germany, and they operated differently.

Certainly air operations in the European and Pacific theaters had come to accept more risks for noncombatants by 1945. In both cases, this evolution came about as planners and commanders in the field interpreted doctrine and searched for optimum bombing strategies. In Europe, the change resulted to a large extent from an increasing resort to attacks on transportation targets as higher-priority industrial objectives were destroyed or dispersed. Such operations assisted ground advances by restricting the movement of reinforcements and supplies, by putting extra burdens on a transport system already strained by the destruction of oil targets, and by facilitating widespread attacks that used the increased air assets present in the theater. Large transportation objectives could also be discerned by radar used for nonvisual bombing through overcast, a technique that allowed American bombers to increase their missions significantly during German winter weather but that also contributed to an acceptance of less accurate bombing results. Precision doctrine recognized the validity of transportation targets as a means to weaken the enemy's economy, but attacks on marshaling yards in cities were bound to increase the number of noncombatant casualties from errant bombs. Targets in Germany were also treated differently from those in other countries, with more pressure to deliver bombs there in poor weather conditions. In the Pacific, the evolution toward total war went much further. The strategic air campaign targeted factories and military facilities, but normal precision tactics did not seem to work. In order to destroy these objectives, LeMay resorted to incendiary attacks on urban areas that were bound to kill thousands of civilians. If European air commanders were showing less concern for noncombatant casualties in 1945, then Pacific air leaders were demonstrating none at all. Proponents of precision bombing had long argued that it was both the most efficient and humane way to fight a war. However, once LeMay became convinced that pinpoint tactics were no longer effective, morality alone was not enough to prevent the firebombing of Tokyo.

In both theaters, air operations were also influenced by growing pressure to end a war that seemed to be increasingly bloody at the same time enemies should be close to collapse. The Battle of the Bulge in Europe and the

invasions of Iwo Jima and Okinawa in the Pacific were shocking portents of possible future costs. At the same time, prodigious American industrial output created vast fleets of bombers that could not just sit idle, despite poor weather, at the same time enemy air defenses were depleted so as to be almost nonexistent. It must be noted that even in the Pacific, the primary focus of bombing strategy remained eliminating military and economic capacity, not targeting civilian will.

OTHER INFLUENCES ON COMMANDERS

It is usually difficult to identify moral considerations in the decision making of key US commanders in World War II. Their primary objective was to win the war in the shortest time with the most efficient use of resources and the fewest possible American casualties. Mission requirements usually prevented any sense of morality from being “an overriding criterion” on aerial operations, although one planner stated that his group “took some comfort that our proposals would be much less costly in terms of the lives of civilians.”²² The need for Allied cooperation also tended to mute ethical arguments because the British so strongly supported attacks on civilian morale and the Americans did not want to cause a rift or aid German propaganda. Although it is hard to determine moral positions from official records and correspondence, it is probably true that ethical restraints were not the most important limitations on terror bombing by the USSTAF. Such considerations, however, cannot be completely discounted.

At the same time, it must be noted that psychological effects have always been an important part of air warfare. Like the bayonet or the tank, the airplane has a shock effect that is intended to unnerve an enemy and break the will to resist. Unlike those other weapons, however, the long range of the airplane encompasses vast regions of the enemy’s rear area, inhabited mainly by civilians. Once factories became acceptable bombing targets as part of the enemy’s capacity for making war, factory workers could no longer be seen as noncombatants. Once the trend to recognize some civilians as belligerents began, it was only a matter of time until the justification would be made, as in Japan, that everyone supported the war effort in some way. The temptation to exploit and magnify the psychological effects of bombing civilians would also be hard to resist. American airmen, even those most devoted to precision doctrine or morally opposed to bombing any civilians, expected that the destruction of economic and industrial infrastructure

would have a significant effect on enemy civilian morale. Yet at least in the European theater AAF leaders were not willing to achieve the same goal by intentionally killing women and children or burning down their homes. Even LeMay's fire raids listed the destruction of specific industrial targets as the primary objective. However, once a supplementary campaign of psychological warfare was launched to terrorize the rest of Japan with the threat of more conflagrations, differences lessened even more between this American air campaign and RAF Bomber Command's area raids on German cities or the Luftwaffe's Blitz against London.

Other influences on air commanders also affected their decisions. Pressures from various levels of command and perceptions of public opinion helped shape planning and operations. Any military mission includes implied tasks to fight, win, and return with honor intact, but these elements have different weight, depending on where the soldiers are on the battlefield. Although Arnold hoped to achieve an independent air force with "Victory through Airpower," his bomber crewmen were more concerned with doing the best job they could and surviving. Operational and tactical commanders were caught in the middle; they had to be loyal to the goals of their organization and to the welfare of their men.²³ A quick and overwhelming victory served both purposes and was also in keeping with the "Airpower Ethic" by preventing long and bloody land combat. The lure of achieving the Allies' stated aim of winning the war "as decisively and speedily as possible" through technological solutions or by a single operation to produce a deathblow became especially strong after the success of Operation OVERLORD in Europe and as the invasion of Japan approached.²⁴ With the exception of some officers like LeMay, devotion to precision-bombing doctrine remained strong in the field, especially with those officers who had helped develop it, though its applications changed as the military situation evolved. Contrary to many American doctrines in our military history, this one was uniformly known, understood, and believed by most of the soldiers who were supposed to follow it. Indeed, it often seems that precision bombing was better understood in the field than in Washington. In his memoir, *Wartime*, Paul Fussell claims that "precision bombing became a comical oxymoron relished by bomber crews with a sense of black humor," although he provides no real evidence to back up this statement about American strategic bombing.²⁵ In reality, aircrews and their leaders were convinced of the effectiveness and appropriateness of their tactics and missions and were usually quick to express dissatisfaction with any perceived deviations from proven and accepted

techniques and procedures, though admittedly such complaints lessened as the end of the war approached.

This continuity in doctrine is not really evident unless one focuses on day-to-day operations. Though archival sources such as the papers of Spaatz or Arnold provide invaluable topical information, letters or documents are grouped by subject more than by time period, and even unit histories can be narrow in focus. The best source for a full understanding of the milieu of European air operations is the daily operational diaries of Frederick L. Anderson, USSTAF deputy commander for operations. Each daily file contains bound packets of correspondence that passed in and out of USSTAF headquarters, including letters from Arnold and Spaatz, press releases, and battle reports from the field. This concentrated operational- and tactical-level documentation describes the course of the air war in great detail and shows the continuity and persistence of precision-bombing doctrine even while temptations to use terror bombing increased.²⁶ The mission reports and monthly summaries of individual bombardment groups are also very revealing about the way operational directives were actually executed.

Yet in the Pacific theater, a unique combination of military problems and an innovative commander less committed to prescribed doctrine produced a far different response to these temptations. This contrast makes the European record even more remarkable, especially when one considers the need to cooperate with an ally dedicated to terror bombing. Though adverse weather, technological limitations, or enemy countermeasures such as flak or smokescreens often made it difficult to achieve the standards of precision-bombing doctrine, most AAF airmen did live up to the spirit of it. Moreover, in the Pacific theater, Brigadier General Haywood Hansell, LeMay's predecessor, was replaced because he would not swerve from the tenets he had helped develop.

Most critics of precision bombing have been asking the wrong question, because it is impossible to determine accurately the specific ethical motivations for strategic air attacks from the documentation available. On the narrower issue of the application of precision bombing practices in the field, an impartial observer must conclude that in general most American airmen did the best they could to win the war with consistent application of a doctrine that favored military and industrial targeting over terror bombing. Their intent was to spare noncombatants while reducing enemy means to resist, and they succeeded better than many historians are willing to concede.

Perhaps the survivors of strategic-bombing attacks understood this bet-

ter than the historians. As one German who lived through the American bombing and the RAF-induced firestorms in Hamburg commented, “The Americans were regarded by us as *soldiers*. Their attacks were during the day-time and were nearly always directed on military targets, even if the civilian population sometimes suffered heavy casualties because of them. They flew in good visibility and risked the aimed fire of our Flak. Hence [we had] a certain respect for the ‘Amis’ as we called them.”²⁷

Yet it is undeniable that for a number of reasons strategic-bombing principles and precedents from Europe contributed to “the slide to total [air] war” in the bombing of Japan. Military conditions were different in the Pacific theater, as were perceptions of the enemy; command and control was much looser also. According to the official history of the Joint Chiefs of Staff, “The division of the Pacific Theater between two major commands [Nimitz and MacArthur] complicated the problems of war and undoubtedly reduced the efficiency with which the war was fought.”²⁸ As the Army and Navy pursued competing strategies, the AAF also mounted an essentially independent campaign. Perhaps the most important difference from the European theater was that in the Pacific, the air commander who instituted the firebombing campaign had not been involved in the development of strategic-bombing doctrine, had learned “not much” when he attended the Air Corps Tactical School, and “was always more practical than theoretical.”²⁹ Once LeMay decided on the burning of Japanese cities as the solution to his operational problems and the practice became accepted by leaders in Washington and in the field, the next step in the escalation to total war—dropping the atomic bomb on Hiroshima—was indeed, to use Sherry’s words, only an “incremental decision.”

An ironic legacy of strategic bombing in World War II, evident in more limited conflicts such as the war in Vietnam and the campaigns against Iraq, is that even though international opinion might focus on the image of the mushroom cloud obliterating cities or on B-52s carpet bombing enemy populations, the American military ideal in both doctrine and practice has remained the pursuit of precise destruction of enemy capacity. The military ethics and accuracy espoused in doctrinal literature on air operations today and first demonstrated so convincingly during Operation DESERT STORM evolved directly from the effort and intent of the experience in World War II. And since that 1991 conflict the expectations of the American public and political leaders about the precision and potential of airpower have exceeded the dreams of even the most idealistic airmen who shaped the AAF, cre-

ating the potential for a dangerous policy-capability mismatch. Exorbitant expectations for accuracy, bloodlessness, and speedy victory always clash with the grim realities of war. History reveals that any lengthy American strategic-bombing campaign targeting national capacity, successful or not, eventually diverges from those precision ideals, or at least stretches their boundaries.

