

Bombing To Win Air Power And Coercion In War Cornell Studies In Security Affairs Paperback 1996 Author Robert A Pape

Accidental harm to civilians in warfare often becomes an occasion for public outrage, from citizens of both the victimized and the victimizing nation. In this vitally important book on a topic of acute concern for anyone interested in military strategy, international security, or human rights, Alexander B. Downes reminds readers that democratic and authoritarian governments alike will sometimes deliberately kill large numbers of civilians as a matter of military strategy. What leads governments to make such a choice? Downes examines several historical cases: British counterinsurgency tactics during the Boer War, the starvation blockade used by the Allies against Germany in World War I, Axis and Allied bombing campaigns in World War II, and ethnic cleansing in the Palestine War. He concludes that governments decide to target civilian populations for two main reasons—desperation to reduce their own military casualties or avert defeat, or a desire to seize and annex enemy territory. When a state's military fortunes take a turn for the worse, he finds, civilians are more likely to be declared legitimate targets to coerce the enemy state to give up. When territorial conquest and annexation are the aims of warfare, the population of the disputed land is viewed as a threat and the aggressor state may target those civilians to remove them. Democracies historically have proven especially likely to target civilians in desperate circumstances. In *Targeting Civilians in War*, Downes explores several major recent conflicts, including the 1991 Persian Gulf War and the American-led invasion of Iraq in 2003. Civilian casualties occurred in each campaign, but they were not the aim of military action. In these cases, Downes maintains, the achievement of quick and decisive victories against overmatched foes allowed democracies to win without abandoning their normative beliefs by intentionally targeting civilians. Whether such "restraint" can be guaranteed in future conflicts against more powerful adversaries is, however, uncertain. During times of war, democratic societies suffer tension between norms of humane conduct and pressures to win at the lowest possible costs. The painful lesson of *Targeting Civilians in War* is that when these two concerns clash, the latter usually prevails.

The relative roles of U.S. ground and air power in major operations and campaigns have shifted since the end of the Cold War. To assess this shift (i.e., between the Army and Air Force, respectively), the author of this report analyzed post-Cold War conflicts in Iraq (1991), Bosnia (1995), Kosovo (1999), Afghanistan (2001), and Iraq (2003). This revised edition includes updates and an index.

From Iraq to Bosnia to North Korea, the first question in American foreign policy debates is increasingly: Can air power alone do the job? Robert A. Pape provides a systematic answer. Analyzing the results of over thirty air campaigns, including a detailed reconstruction of the Gulf War, he argues that the key to success is attacking the enemy's military strategy, not its economy, people, or leaders. Coercive air power can succeed, but not as cheaply as air enthusiasts would like to believe. Pape examines the air raids on Germany, Japan, Korea, Vietnam, and Iraq as well as those of Israel versus Egypt, providing details of bombing and governmental decision making. His detailed narratives of the strategic effectiveness of bombing range from the classical cases of World War II to an extraordinary reconstruction of airpower use in the Gulf War, based on recently declassified documents. In the first major book since the Vietnam War on the theory and practice of airpower and its political effects, Robert A. Pape helps policy makers judge the purpose of various air strategies, and helps general readers understand the policy debates.

Beauty is in the eye of the beholder. Perhaps because the apparent target audience for John Warden's book, *The Air Campaign*, is the practitioner of the operational art, while Robert Pape seems to have written for the academic audience in *Bombing to Win*, this reviewer was compelled by Warden's argument that strategic use of air power is worthwhile and left a bit bewildered by Pape's insistence that only tactical air power used at the theater level is worth the effort. The seeming rightness of *The Air Campaign* could also be explained by the fact that this generation of Air Force officers was raised on Warden's principles from the earliest days in professional military education classes. Regardless, there is benefit to viewing both sides of the debate to glean what lessons may be learned from history as well as understand current thinking on the appropriate use of air power. This review will first look at each author's thesis and his supporting data and conclusions, as well as critique the information provided. It will then go on to compare and contrast the two works, and discuss why Warden's argument seems more valid than Pape's.

Details key issues and events that have governed the development of military strategy and policy making in the United States since colonial days

Throughout this first century of air power, military theorists have proposed numerous schemes as the best use of air power. Airmen of many nations tried and tested these theories in wars large and small and they have learned, ignored, or forgotten many lessons. Of the four major coercive mechanisms available to air power—punishment, risk, military denial and decapitation—Robert Pape in *Bombing to Win*, concludes that military denial is the best use of air power. Furthermore, Pape argues that recent technological advances only enhance the military denial mechanism. In his appendix, Pape categorizes the Italian case as another case of successful military denial. This study examines the collapse of Italy in 1943 and the contribution of air power to this collapse. Several broad works, often citing Ernest May in "Lessons" from the Past, claim that air power decisively caused the Italian surrender, but do not indisputably argue this point nor do they define the coercive mechanism(s) air power employed to achieve this result. Studies such as the U.S. Strategic Bombing Survey or the British Bombing Survey Unit largely ignore Italy or in the case of F. W. Deakin's *The Brutal Friendship*, cite the coalition politics as the primary cause of Italy's surrender... In an era of clean conflict, both painless and quick, leaders and airman downplay the psychological effects of air power—with the exception of the questionable negative effects of casualties on the democracies. Operation DESERT STORM typifies both these effects. Furthermore, attrition-based computer wargame simulations largely ignore the human element. The collapse of Italy serves as one example where the psychological effects of air power outweighed the physical damage caused by bombing.

On 4 June 1942, three squadrons of U.S. Navy Dauntless dive bombers destroyed Japan's carrier force at Midway and changed the course of the Pacific war. As Wildenberg demonstrates in this book, the key ingredient to the Navy's success was the planning and training devoted to the tactic of dive bombing. Examining how political, economic, technical, and operational factors

influenced the development of carrier airpower between 1925 and 1942, he shows why dive bombing became the Navy's weapon of choice. He also pays tribute to the select group of naval aviators who drove the evolution of carrier tactics. Although many books have been written about the Battle of Midway, this is the first to focus on how the Navy came to develop the one aerial weapon that proved to be the decisive instrument of victory

This monograph examines how the United States and the North Atlantic Treaty Organization employed air power to obtain national objectives in Operation Linebacker II, Operation Deliberate Force, and Operation Allied Force. Operation Linebacker II took place from 18-29 December 1972. It was the only maximum effort bombing campaign of the Vietnam War that targeted the heartland of the Democratic Republic of Vietnam, ultimately compelling the negotiations that ended the conflict. Operation Deliberate Force, the final operation of the Balkans Air Campaign, was a seventeen-day effort that sought to undermine the military capability of the Bosnian Serb Army and led to the 1995 Dayton Accords. Operation Allied Force was a seventy-eight-day air campaign in 1999 that successfully sustained offensive operations against Serbian forces led by president Slobodan Milosevic and impelled their removal from Kosovo. This monograph primarily uses Dr. Mark Clodfelter's Framework for Evaluating Air Power Effectiveness as a means to evaluate these campaigns and test the hypothesis that an air campaign positively impacts national objectives when it effectively targets an enemy's military vulnerabilities in which it has no equal means of response. These case studies demonstrate air power's ability to obtain or positively contribute to the achievement of national objectives when used as the predominate or sole means of combat power. Findings indicate that while effective targeting was crucial to these campaigns, there were other factors of equal or greater importance. Although each case study provides unique insights to the effective use of air power in pursuit of national objectives, common themes for all three include the evolution of national objectives to match military capability, the isolation of the adversary from its perceived allies, and a type of war waged by the adversary conducive to targeting or exploitation by air power. This compilation also includes a reproduction of the 2019 Worldwide Threat Assessment of the U.S. Intelligence Community. This monograph examines the specific employment of air power in each of these campaigns to assess how it affected success in achieving national objectives. Borrowing heavily from Robert Pape's *Bombing to Win*, this monograph hypothesizes when an air campaign effectively targets an enemy's military vulnerabilities in which it has no equal means of response, it positively impacts national objectives by making continued military action imprudent. This hypothesis acknowledges that targeting may diverge from original campaign objectives in order to leverage the decisive but devastating effects of air power. To evaluate this hypothesis, this monograph uses the case study framework and the methodology outlined by air power historian and theorist Dr. Mark Clodfelter. In his article, "Airpower Versus Asymmetric Enemies: A Framework for Evaluating Effectiveness" Clodfelter provides a catalogue of variables and associated questions to apply to historical and potential uses of air power to determine its effectiveness. These criteria are further discussed in chapter one of this monograph; however, this monograph primarily considers his variables: (1) the nature of national objectives; (2) the nature of the enemy; (3) the type of war waged by the enemy; and (4) the magnitude of U.S. or allied military controls. It also applies supplemental campaign evaluation criteria from the 1994 Joint Force Air Component Commander (JFACC) Primer and the 2014 Joint Publication 3-30: Command and Control of Joint Air Operations.

In this monograph, Tami Davis Biddle analyzes the historical record of air power over the past 100 years. Her monograph, designed for the student of strategy, is intended to provide both a concise introduction to the topic and a framework for thinking intelligently about air power, particularly aerial bombing. Her primary aim is to discern the distinction between what has been expected of air power by theorists and military institutions, and what it has produced in the crucible of war. Aerial bombing, Biddle argues, is a coercive activity in which an attacker seeks to structure the enemy's incentives-using threats and actions to shape and constrain the enemy's options, both perceived and real. It is an important and much-utilized military instrument for both deterrence and compellence. In addition, it is a powerful tool in the arsenal of the joint warfighter. Its ability to achieve anticipated results, however, varies with circumstances. Students of strategy must be able to discern and understand the conditions under which aerial bombing is more or less likely to achieve the results expected of it by those who employ it.

Airpower, especially strategic bombing, frequently generates controversy. Ever since the US Army bought its first "aeroplane" in 1909, debates have raged over the utility, effectiveness, efficiency, legality, and even the morality of airpower. These debates continue despite (or perhaps because of) the hundreds of books that have been written on the subject and the scores of examples witnessed. As the saying goes, certain topics tend to produce more heat than they do light. In some cases, the questions regarding airpower, strategic bombing, and their roles in war remain unanswerable-or at least people fail to agree on the answers. Soldiers, sailors, and airmen approach war from different viewpoints and with differing service-cultural perspectives, which similarly influence others who write and speak about war. This is natural and perhaps advantageous-fresh ideas are always useful. Unfortunately, much of the debate regarding airpower and strategic bombing has been colored by accusations, misconceptions, inaccuracies, myths, and simple untruths. If airpower needs criticizing-and certainly there are times when criticism is appropriate-it must be based on accurate information. What follows are points and counterpoints that attempt to clear away some of the detritus that obscures the subject, thus allowing more informed debate on the real issues concerning airpower and strategic bombing. This in turn, hopefully, will give our political and military leaders a better basis on which to form decisions in future conflicts.

Tracing the use of air power in World War II and the Korean War, Mark Clodfelter explains how U. S. Air Force doctrine evolved through the American experience in these conventional wars only to be thwarted in the context of a limited guerrilla struggle in Vietnam. Although a faith in bombing's sheer destructive power led air commanders to believe that extensive air assaults could win the war at any time, the Vietnam experience instead showed how even intense aerial attacks may not achieve military or political objectives in a limited war. Based on findings from previously classified documents in presidential libraries and air force archives as well as on interviews with civilian and military decision makers, *The Limits of Air Power* argues that reliance on air campaigns as a primary instrument of warfare could not have produced lasting victory in Vietnam. This Bison Books edition includes a new chapter that provides a framework for evaluating air power effectiveness in future conflicts.

World War II is usually seen as a titanic land battle, decided by mass armies, most importantly those on the Eastern Front. Phillips Payson O'Brien shows us the war in a completely different light. In this compelling new history of the Allied path to victory, he argues that in terms of production, technology and economic power, the war was far more a contest of air and sea than land

supremacy. He shows how the Allies developed a predominance of air and sea power which put unbearable pressure on Germany and Japan's entire war-fighting machine from Europe and the Mediterranean to the Pacific. Air and sea power dramatically expanded the area of battle and allowed the Allies to destroy over half the Axis' equipment before it had even reached the traditional 'battlefield'. Battles such as El Alamein, Stalingrad and Kursk did not win World War II; air and sea power did.

Throughout this first century of air power, military theorists have proposed numerous schemes as the best use of air power. Airmen of many nations tried and tested these theories in wars large and small and they have learned, ignored, or forgotten many lessons. Of the four major coercive mechanisms available to air power punishment, risk, military denial and decapitation Robert Pape in *Bombing to Win*, concludes that military denial is the best use of air power. Furthermore, Pape argues that recent technological advances only enhance the military denial mechanism. In his appendix, Pape categorizes the Italian case as another case of successful military denial. This study examines the collapse of Italy in 1943 and the contribution of air power to this collapse. Several broad works, often citing Ernest May in *Lessons from the Past*, claim that air power decisively caused the Italian surrender, but do not indisputably argue this point or do they define the coercive mechanism air power employed to achieve this result. Studies such as the United States Strategic Bombing Survey or the British Bombing Survey Unit largely ignore Italy or in the case of F. W. Dakin *The Brutal Friendship*, cite the coalition politics as the primary cause of Italy's surrender. This book reveals how air power made four contributions to the collapse of Italy. First, airpower shaped the grand strategy of the western Allied powers in 1943. The Americans preferred to wage an air campaign to destroy German industry while using the direct approach of a cross channel invasion to defeat Germany. Under the leadership of Churchill, the strong British preference for an indirect strategy aimed at the soft-underbelly of Europe as well as the belief in the efficacy of air power to cause the Italian surrender through morale bombing artfully maneuvered the United States into waging a prolonged campaign in Africa and the Mediterranean. Second, mainland attacks against rail marshaling yards, ports and airfields did indirectly contribute militarily to operations HUSKY and AVALANCHE. The destruction of six key rail nodes was part of an over-all interactive campaign to prevent reinforcements and supplies from reaching first Sicily in support of HUSKY and then southern Italy in support of AVALANCHE. The San Lorenzo marshaling yards in Rome, however, was not one of these six key notes. Additionally, in both HUSKY and AVALANCHE Allied forces enjoyed unprecedented air superiority, which resulted in the ability for strategic air power to pursue operations other than the direct or indirect support of ground operations'. Third, both American and British strategic bombing contributed to the psychological decapitation and fall of the Fascist government on July 25, 1943. In a meeting with Hitler on the nineteenth of July, Mussolini failed to obtain German military aid especially the desperately needed 2000 fighters. Significantly, the first air raid on Rome by over 540 bombers, the largest air raid in history to date, interrupted the meeting. This first raid also convinced the Italian king, a majority of Fascist leaders, and the Pope that Italy must get out of the war. A stunned Mussolini called for a meeting of his Grand Council of Fascism for 24 July, where he allowed, in the wee hours of the 25th, Fascist leaders to pass a motion to remove him from command of military forces. Later that day, the King, again in command of the army, arrested a docile, psychologically decapitated Mussolini in a bloodless coup d'état. Finally, air power coerced and aided the interim Badoglio government to surrender unconditionally and escape to the Allies on 9 September. Appointed by the king, Badoglio quickly sent civilian representatives to Lisbon to negotiate a conditional surrender to the Allies, despite the mounting German occupation of Italy. The threat and actual second Rome air raid resulted in the first direct contact between Badoglio's military representatives and the Allies in order to declare Rome

This book examines how international expectations intersected with the United States Air Force's fight for autonomy and utility, explains how the service began to change, and asks how airpower-and the US military as a whole-might further deepen its efforts. The author expands perspectives on assessing and directing the use of airpower and encourages further work to maximize both mission accomplishment and civilian protection. The recent evolution of US airpower offers inspiring, if incomplete, evidence that the conduct of war can become more humane while remaining effective. Technology, adversaries, and the goals of armed conflict will continue to evolve, but the central challenge of humanizing war will endure. Part one outlines the challenge that contemporary expectations about the American use of force pose for airpower. Part two describes the Air Force's adaptation to modern expectations of civilian protection, tracing operational experiences during the 1990s and the consequent operational and institutional innovation.

Includes a new Afterword

Finalist for the Council on Foreign Relations Arthur Ross Book Award

One of the world's foremost authorities on the subject of suicide terrorism, the esteemed political scientist Robert Pape has created the first comprehensive database of every suicide terrorist attack in the world from 1980 until today. In *Dying to Win*, Pape provides a groundbreaking demographic profile of modern suicide terrorist attackers—and his findings offer a powerful counterpoint to what we now accept as conventional wisdom on the topic. He also examines the early practitioners of this guerrilla tactic, including the ancient Jewish Zealots, who in A.D. 66 wished to liberate themselves from Roman occupation; the Ismaili Assassins, a Shi'ite Muslim sect in northern Iran in the eleventh and twelfth centuries; World War II's Japanese kamikaze pilots, three thousand of whom crashed into U.S. naval vessels; and the Tamil Tigers in Sri Lanka, a secular, Marxist-Leninist organization responsible for more suicide terrorist attacks than any other group in history. *Dying to Win* is a startling work of analysis grounded in fact, not politics, that recommends concrete ways for states to fight and prevent terrorist attacks now. Transcending speculation with systematic scholarship, this is one of the most important studies of the terrorist threat to the United States and its allies since 9/11. "Invaluable . . . gives Americans an urgently needed basis for devising a strategy to defeat Osama bin Laden and other Islamist militants." —Michael Scheuer, author of *Imperial Hubris* "Provocative . . . Pape wants to change the way you think about suicide bombings and explain why they are on the rise." —Henry Schuster, CNN.com "Enlightening . . . sheds interesting light on a phenomenon often mistakenly believed to be restricted to the Middle East." —The Washington Post Book World "Brilliant." —Peter Bergen, author of *Holy War, Inc.*

In the pantheon of air power spokesmen, Giulio Douhet holds center stage. His writings, more often cited than perhaps actually read, appear as excerpts and aphorisms in the writings of numerous other air power spokesmen, advocates-and critics. Though a highly controversial figure, the very controversy that surrounds him offers to us a testimonial of the value and depth of his work, and the need for airmen today to become familiar with his thought. The progressive development of air power to the point where, today, it is more correct to refer to aerospace power has not outdated the notions of Douhet in the slightest. In fact, in many ways, the kinds of technological capabilities that we enjoy as a global air power provider attest to the breadth of his

vision. Douhet, together with Hugh “Boom” Trenchard of Great Britain and William “Billy” Mitchell of the United States, is justly recognized as one of the three great spokesmen of the early air power era. This reprint is offered in the spirit of continuing the dialogue that Douhet himself so perceptively began with the first edition of this book, published in 1921. Readers may well find much that they disagree with in this book, but also much that is of enduring value. The vital necessity of Douhet's central vision—that command of the air is all important in modern warfare—has been proven throughout the history of wars in this century, from the fighting over the Somme to the air war over Kuwait and Iraq.

From the author of the classic *The Wizards of Armageddon* and Pulitzer Prize finalist comes the definitive history of American policy on nuclear war—and Presidents' actions in nuclear crises—from Truman to Trump. Fred Kaplan, hailed by *The New York Times* as “a rare combination of defense intellectual and pugnacious reporter,” takes us into the White House Situation Room, the Joint Chiefs of Staff's “Tank” in the Pentagon, and the vast chambers of Strategic Command to bring us the untold stories—based on exclusive interviews and previously classified documents—of how America's presidents and generals have thought about, threatened, broached, and just barely avoided nuclear war from the dawn of the atomic age until today. Kaplan's historical research and deep reporting will stand as the permanent record of politics. Discussing theories that have dominated nightmare scenarios from Hiroshima and Nagasaki, Kaplan presents the unthinkable in terms of mass destruction and demonstrates how the nuclear war reality will not go away, regardless of the dire consequences.

Ultimately, this study is about a smaller Vietnam War than that which is commonly recalled. It focuses on expectations concerning the impact of air power on the ground war and on some of its actual effects, but it avoids major treatment of some of the most dramatic air actions of the war, such as the bombing of Hanoi. To many who fought the war and believe it ought to have been conducted on a still larger scale or with fewer restraints, this study may seem almost perverse, emphasizing as it does the utility of air power in conducting the conflict as a ground war and without total exploitation of our most awe-inspiring technology. Although the chapters in this study are intended to form a coherent and unified argument, each also offers discrete messages. The chapters are not meant to be definitive. They do not exhaust available documentary material, and they often rely heavily on published accounts. Nor do they provide a complete chronological picture of the uses of air power, even with respect to the ground war. Nor is coverage of areas in which air power was employed—South Vietnam, Laos, Cambodia, and North Vietnam—evenly distributed nor necessarily proportionate to the effort expended in each place during the war. Lastly, some may find one or another form of air power either slightly or insufficiently treated. Such criticisms are beside the point, for the objectives of this study are to explore a comparatively neglected theme—the impact of air power on the ground—and to encourage further utilization of lessons drawn from the Vietnam experience.

This paper will present a comparative review of two books both intended to describe successful methods for employing air power. Despite the similar goal, the books are designed for different audiences. Pape's, *Bombing to Win*, while informative to policymakers, is intended as a first step for social scientists to begin the study of the use of military coercion. Warden's, on the other hand, is aimed primarily at those who will be in a position to plan and conduct an air campaign. Both books rely heavily on information from secondary sources, but their approach to the issues varies greatly. Pape presents his theory of coercion and examines case studies from the use of air power in the 20th century to support that theory. Warden uses historical information as well, but his approach is to describe the roles of air power and provide guidelines on how to use them. Despite the two different audiences and methods, if one looks closely, both books come to some surprisingly similar conclusions. Conversely, they have some starkly contrasting views as well. Warden is clearly a proponent of air power and sees its utility in many different uses. Conversely, Pape sees the only valid use of air power as being attacks on fielded forces and vehemently defends that position. Now, turning to the books individually to examine their arguments in more detail.

World War II--“the good war”--is here viewed from a new angle of vision, one that sheds fresh light on how major decisions were reached. More than just a book on the strategy and outcome of American bombing in World War II, *Wings of Judgment* tells about choices in war, decisions that determined whether hundreds of thousands of people lived or died and whether famous cities and great monuments of civilization survived or were destroyed. It is about the bombing of Dresden and Berlin and of dozens of cities and towns all over Germany and about the preservation of Rome and Florence. It is about the incineration of Tokyo, the bombing of Hiroshima, and the sparing of one of Japan's most beautiful and holy places, the city of Kyoto. Describing U.S. air raids that terrified inhabitants of enemy nations and citizens of enemy-occupied countries, it raises serious questions about the military and moral effects of American bombing. It also tells of American efforts to avoid killing civilians needlessly. Taking us behind the scenes at military headquarters, Schaffer shows that even the toughest warriors occasionally found themselves offering moral arguments for their actions, arguing that they were made right by enemy atrocities, by the justness of the Allied cause, and by the numbers of lives of American servicemen that Allied bombing might save.

Coercion--the use of threatened force to induce an adversary to change its behavior--is a critical function of the U.S. military. U.S. forces have recently fought in the Balkans, the Persian Gulf, and the Horn of Africa to compel recalcitrant regimes and warlords to stop repression, abandon weapons programs, permit humanitarian relief, and otherwise modify their actions. Yet despite its overwhelming military might, the United States often fails to coerce successfully. This report examines the phenomenon of coercion and how air power can contribute to its success. Three factors increase the likelihood of successful coercion: (1) the coercer's ability to raise the costs it imposes while denying the adversary the chance to respond (escalation dominance); (2) an ability to block an adversary's military strategy for victory; and (3) an ability to magnify third-party threats, such as internal instability or the danger posed by another enemy. Domestic political concerns (such as casualty sensitivity) and coalition dynamics often constrain coercive operations and impair the achievement of these conditions. Air power can deliver potent and credible threats that foster the above factors while neutralizing adversary countercoercive moves. When the favorable factors are absent, however, air power--or any other military instrument--will probably fail to coerce. Policymakers' use of coercive air power under inauspicious conditions diminishes the chances of using it elsewhere when the prospects of success would be greater.

A major revision of our understanding of long-range bombing, this book examines how Anglo-American ideas about “strategic” bombing were formed and implemented. It argues that ideas about bombing civilian targets rested on--and gained validity from--widespread but substantially erroneous assumptions about the nature of modern industrial societies and their vulnerability to aerial bombardment. These assumptions were derived from the social and political context of the day and were maintained largely through cognitive error and bias. Tami Davis Biddle explains how air theorists, and those influenced by them, came to believe that strategic bombing would be an especially effective coercive tool and how they responded when their assumptions were challenged. Biddle analyzes how a particular interpretation of the World War I experience, together with airmen's organizational interests, shaped interwar debates about strategic bombing and preserved conceptions of its potentially revolutionary character. This flawed interpretation as well as a failure to anticipate implementation problems were revealed as World War II commenced. By then, the British and Americans had invested heavily in strategic bombing. They saw little choice but to try to solve the problems in real time and make long-range bombing as effective as possible. Combining narrative with analysis, this book presents the first-ever comparative history of British and American strategic bombing from its origins through 1945. In examining the ideas and rhetoric on which strategic bombing depended, it offers critical insights into the validity and robustness of those ideas--not only as they applied to World War II but as they apply to contemporary warfare.

In *Selling Air Power*, Steve Call provides the first comprehensive study of the efforts of post-war air power advocates to harness popular culture in support of their agenda. In the 1940s and much of the

1950s, hardly a month went by without at least one blatantly pro-air power article appearing in general interest magazines. Public fascination with flight helped create and sustain exaggerated expectations for air power in the minds of both its official proponents and the American public. Articles in the Saturday Evening Post, Reader's Digest, and Life trumpeted the secure future assured by American air superiority. Military figures like Henry H. "Hap" Arnold and Curtis E. LeMay, radio-television personalities such as Arthur Godfrey, cartoon figures like Steve Canyon, and actors like Jimmy Stewart played key roles in the unfolding campaign. Movies like Twelve O'Clock High!, The Court-Martial of Billy Mitchell, and A Gathering of Eagles projected onto the public imagination vivid images confirming what was coming to be the accepted wisdom: that America's safety against the Soviet threat could best be guaranteed by air power, coupled with nuclear capability. But as the Cold War continued and the specter of the mushroom cloud grew more prominent in American minds, another, more sinister interpretation began to take hold. Call chronicles the shift away from the heroic, patriotic posture of the years just after World War II, toward the threatening, even bizarre imagery of books and movies like Catch-22, On the Beach, and Dr. Strangelove. Call's careful analysis goes beyond the public relations campaigns to probe the intellectual climate that shaped them and gave them power. Selling Air Power adds a critical layer of understanding to studies in military and aviation history, as well as American popular culture.

Following the cataclysmic losses suffered in World War I, air power theorists in Europe advocated for long-range bombers to overfly the trenches and strike deep into the enemy's heartland. The bombing of cities was seen as a means to collapse the enemy's will to resist and bring the war to a quick end. In the United States, airmen called for an independent air force, but with the nation's return to isolationism, there was little appetite for an offensive air power doctrine. By the 1930s, however, a cadre of officers at the US Army Air Corps Tactical School (ACTS) had articulated an operational concept of high-altitude daylight precision bombing (HADPB) that would be the foundation for a uniquely American vision of strategic air attack. In Lectures of the Air Corps Tactical School and American Strategic Bombing in World War II editor Phil Haun brings together nine ACTS lecture transcripts, which have been preserved in Air Force archives, exactly as delivered to the airmen destined to lead the US Army Air Forces in World War II. Presented is a distinctive American strategy of high-altitude daylight precision bombing as told through lectures given at the ACTS during the interwar period and how these airmen put the theory to the test. The book examines the Air Corps theory of HADPB as compared to the reality of combat in World War II by relying on recent, revisionist histories that have given scholars a deeper understanding of the impact of strategic bombing on Germany.

An exploration of how technology and best intentions collide in the heat of war A New York Times Book Review Editors' Choice In The Bomber Mafia, Malcolm Gladwell weaves together the stories of a Dutch genius and his homemade computer, a band of brothers in central Alabama, a British psychopath, and pyromaniacal chemists at Harvard to examine one of the greatest moral challenges in modern American history. Most military thinkers in the years leading up to World War II saw the airplane as an afterthought. But a small band of idealistic strategists, the "Bomber Mafia," asked: What if precision bombing could cripple the enemy and make war far less lethal? In contrast, the bombing of Tokyo on the deadliest night of the war was the brainchild of General Curtis LeMay, whose brutal pragmatism and scorched-earth tactics in Japan cost thousands of civilian lives, but may have spared even more by averting a planned US invasion. In The Bomber Mafia, Gladwell asks, "Was it worth it?" Things might have gone differently had LeMay's predecessor, General Haywood Hansell, remained in charge. Hansell believed in precision bombing, but when he and Curtis LeMay squared off for a leadership handover in the jungles of Guam, LeMay emerged victorious, leading to the darkest night of World War II. The Bomber Mafia is a riveting tale of persistence, innovation, and the incalculable wages of war.

Examines the U.S. Air Force strategic bombing campaign of Iraq & Iraqi armed forces occupying Kuwait from January 17th through February 28th, 1991 . Describes the aircraft & weapons, changes in technology & the reexamination & reapplication of traditional strategic bombing theory by USAF planning officers. Provides a chronological review of the campaign with an analysis of the results. Photos, maps, graphs & tables. Includes suggested readings.

This unique book examines a number of common myths and misconceptions about the effectiveness of airpower. Contents include: Chapter 1 - Between the world wars, even though the US Army Air Corps received more than its fair share of funds from the Army, it continued to complain, agitate, and ask for more. * Chapter 2 - Entering World War II, the Air Corps' unbalanced doctrine and force structure leaned too heavily towards strategic bombing. Thus, air support of ground forces was inadequate and largely ignored by airmen. * Chapter 3 - The Air Corps entered World War II with a "Douhetian" concept of air war that emphasized area bombing and the waging of war on women and children * Chapter 4 - Airmen thought they could win the war alone * Chapter 5 - The fact that German production, especially of aircraft, continued to increase throughout 1944 proves that the Combined Bomber Offensive (CBO) was ineffective and that the resources devoted to it would have been better spent elsewhere * Chapter 6 - Bombing was ineffective because it actually stiffened rather than lowered enemy morale. * Chapter 7 - The atomic bombs were unnecessary because Japan was about to surrender; even if it had not given up, an invasion or continued blockade would have been more humane * Chapter 8 - Overall, strategic bombing was a wasted effort that produced only minor effects * Chapter 9 - Airpower was a failure in Vietnam, losing the war and letting the Army down. Why even have an Air Force if it can't beat a fourth-rate power like North Vietnam? * Chapter 10 - Strategic bombing failed in Vietnam because Rolling Thunder did not break the will of Ho Chi Minh and his cohorts to continue the war in the south * Chapter 11 - Airpower was an indiscriminate weapon that killed excessive numbers of Vietnamese civilians * Chapter 12 - Too focused on strategic attack during the Persian Gulf War, the Air Force provided inadequate support to ground forces. * Chapter 13 - Air attack is nothing more than "recreational bombing"; pilots fly so high they can't possibly hit their targets accurately * Chapter 14 - Despite all the talk by airmen, the employment of airpower remains an indiscriminate use of military force that deliberately targets civilians

Cutting the Fuse offers a wealth of new knowledge about the origins of suicide terrorism and strategies to stop it. Robert A. Pape and James K. Feldman have examined every suicide terrorist attack worldwide from 1980 to 2009, and the insights they have gleaned from that data fundamentally challenge how we understand the root causes of terrorist campaigns today—and reveal why the War on Terror has been ultimately counterproductive. Through a close analysis of suicide campaigns by Al Qaeda and other terrorist organizations in Iraq, Afghanistan, Pakistan, Lebanon, Israel, Chechnya, and Sri Lanka, the authors provide powerful new evidence that, contrary to popular and dangerously

mistaken belief, only a tiny minority of these attacks are motivated solely by religion. Instead, the root cause is foreign military occupation, which triggers secular and religious people alike to carry out suicide attacks. Cutting the Fuse calls for new, effective solutions that America and its allies can sustain for decades, relying less on ground troops in Muslim countries and more on offshore, over-the-horizon military forces along with political and economic strategies that empower local communities to stop terrorists in their midst.

Air University is proud to have joined the Air Staff and the International Security Studies Program of the Fletcher School of Law and Diplomacy at Tufts University in sponsoring the April 1991 conference on aerospace challenges and missions that produced this collection of essays. Written by a distinguished group of specialists from academia, the military, government, business, and the media, these essays examine American national security policy and Air Force issues from a variety of perspectives. Aside from their remarkable perceptiveness, the contributions of the authors are especially timely because they address the pivotal role of air power in the war with Iraq. The essays leave no doubt that the employment of both established and innovative methods of air combat in that crisis has important implications for the global-security environment of the future. In that sense, this book provides a foundation for evaluating the complex policy challenges that we face in the 1990s and into the next century."Charles G. BoydLieutenant General, United States Air ForceCommander, Air University

No single human invention has transformed war more than the airplane—not even the atomic bomb. Even before the Wright Brothers' first flight, predictions abounded of the devastating and terrible consequences this new invention would have as an engine of war. Soaring over the battlefield, the airplane became an unstoppable force that left no spot on earth safe from attack. Drawing on combat memoirs, letters, diaries, archival records, museum collections, and eyewitness accounts by the men who fought—and the men who developed the breakthrough inventions and concepts—acclaimed author Stephen Budiansky weaves a vivid and dramatic account of the airplane's revolutionary transformation of modern warfare. On the web: <http://www.budiansky.com/>

American air power is a dominant force in today's world. Its ascendancy, evolving in the half century since the end of World War II, became evident during the first Gulf War. Although a great deal has been written about military operations in Desert Shield and Desert Storm, this deeply researched volume by Dr. Diane Putney probes the little-known story of how the Gulf War air campaign plan came to fruition. Based on archival documentation and interviews with USAF planners, this work takes the reader into the planning cells where the difficult work of building an air campaign plan was accomplished on an around-the-clock basis. The tension among air planners is palpable as Dr. Putney traces the incremental progress and friction along the way. The author places the complexities of the planning process within the context of coalition objectives. All the major players are here: President George H. W. Bush, General H. Norman Schwarzkopf, General Colin Powell, General Chuck Horner, and Secretary of Defense Richard Cheney. The air planning process generated much debate and friction, but resulted in great success - a 43-day conflict with minimum casualties. Dr. Putney's rendering of this behind-the-scenes evolution of the planning process, in its complexity and even suspense, provides a fascinating window into how wars are planned and fought today and what might be the implications for the future.

Originally published: London: Oxford University Press, 1936.

An incisive account of the Persian Gulf War, Storm Over Iraq shows how the success of Operation Desert Storm was the product of two decades of profound changes in the American approach to defense, military doctrine, and combat operations. The first detailed analysis of why the Gulf War could be fought the way it was, the book examines the planning and preparation for war. Richard P. Hallion argues that the ascendancy of precision air power in warfare—which fulfilled the promise that air power had held for more than seventy-five years—reflects the revolutionary adaptation of a war strategy that targets things rather than people, allowing one to control an opposing nation without destroying it.

Airpower, more than any other factor, has shaped war in the twentieth century. In this fascinating narrative history, Martin van Creveld vividly portrays the rise of the plane as a tool of war and the evolution of both technology and strategy. He documents seminal battles and turning points, and relates stories of individual daring and collective mastery of the skies. However, the end of airpower's glorious age is drawing near. The conventional wisdom to the contrary, modern precision guided munitions have not made fighter bombers more effective against many kinds of targets than their predecessors in World War II. U.S. ground troops calling for air support in Iraq in 2003 did not receive it any faster than Allied forces did in France in 1944. And from its origins on, airpower has never been very effective against terrorists, guerrillas, and insurgents. As the warfare waged by these kinds of people grow in importance, and as ballistic missiles, satellites, cruise missiles and drones increasingly take the place of quarter-billion-dollar manned combat aircraft and their multi-million-dollar pilots, airpower is losing utility almost day by day. From Iraq to Bosnia to North Korea, the first question in American foreign policy debates is increasingly: Can air power alone do the job? Robert A. Pape provides a systematic answer. Analyzing the results of over thirty air campaigns, including a detailed reconstruction of the Gulf War, he argues that the key to success is attacking the enemy's military strategy, not its economy, people, or leaders. Coercive air power can succeed, but not as cheaply as air enthusiasts would like to believe. Pape examines the air raids on Germany, Japan, Korea, Vietnam, and Iraq as well as those of Israel versus Egypt, providing details of bombing and governmental decision making. His detailed narratives of the strategic effectiveness of bombing range from the classical cases of World War II to an extraordinary reconstruction of airpower use in the Gulf War, based on recently declassified documents. In this now-classic work of the theory and practice of airpower and its political effects, Robert A. Pape helps military strategists and policy makers judge the purpose of various air strategies, and helps general readers understand the policy debates.

One of the first analyses of the pure art of planning the aerial dimensions of war. Explores the complicated connection between air superiority and victory in war. Focuses on the use of air

forces at the operational level in a theater of war. Presents fascinating historical examples, stressing that the mastery of operational-level strategy can be the key to winning future wars. 20 photos. Bibliography.

Except in a few instances, since World War II no American soldier or sailor has been attacked by enemy air power. Conversely, no enemy soldier or sailor has acted in combat without being attached or at least threatened by American air power. Aviators have brought the air weapon to bear against enemies while denying them the same prerogative. This is the legacy of the U.S. Air Force, purchased at great cost in both human and material resources. More often than not, aerial pioneers had to fight technological ignorance, bureaucratic opposition, public apathy, and disagreement over purpose. Every step in the evolution of air power led into new and untrodden territory, driven by humanitarian impulses; by the search for higher, faster, and farther flight; or by the conviction that the air was the best way. Warriors have always coveted the high ground. If technology permitted them to reach it, men, women, and an air force held and exploited it – from Thomas Selfridge, first among so many who gave that “last full measure of devotion”; to “Women’s Airforce Service Pilot Ann Baumgartner, who broke social barriers to become the first American woman to pilot a jet; to Benjamin Davis, who broke racial barriers to become the first African American to command a flying group; to Chuck Yeager, a one-time non-commissioned flight officer who was the first to exceed the speed of sound; to John Levitow, who earned the Medal of Honor by throwing himself over a live flare to save his gunship crew; to John Warden, who began a revolution in air power thought and strategy that was put to spectacular use in the Gulf War. Industrialization has brought total war and air power has brought the means to overfly an enemy’s defenses and attack its sources of power directly. Americans have perceived air power from the start as a more efficient means of waging war and as a symbol of the nation’s commitment to technology to master challenges, minimize casualties, and defeat adversaries. This eight-two page book concludes that “future conflicts will bring new challenges for air power in the service of the nation.”

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