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**THE STRATEGIC AND POLITICAL IMPACTS OF
COLLATERAL DAMAGE FROM STRIKE WARFARE**

by

Calvin M. Campbell, Jr.

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Thesis Advisor:
Second Reader:

Daniel Moran
David Anderson

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FROM STRIKE WARFARE**

Calvin M. Campbell, Jr.
Lieutenant Commander, United States Navy
B.A., Elon College, 2001

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requirements for the degree of

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March 2015**

Author: Calvin M. Campbell, Jr.

Approved by: Daniel Moran
Thesis Advisor

David Anderson
Second Reader

Mohammed Hafez
Chair, Department of National Security Affairs

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It is hard to argue that there is a more prevailing issue than collateral damage when discussing strike warfare today. The outlook of the United States and other militaries regarding bombing operations, particularly concern about collateral damage, is a historically contingent process. This thesis examines three case studies—the Korean War, the Vietnam War, and the Kosovo air campaign—to examine the impact of concern about collateral damage on U.S. policy and strategy. It analyzes the disparity between collateral damage effects at the strategic, operational, and tactical levels over the span of a half century.

A significant amount of research on the effects of collateral damage from strike warfare focuses on legal, humanitarian, and moral issues. To oversimplify, killing non-combatants is bad, but it happens, and not always by accident. Therefore, it is instructive to gain knowledge on how it affects policy and strategy. Depending on the conflict and time period, U.S. administrations and war strategists have put the priority of mitigating collateral damage at different levels. Understanding the reasoning and timing behind the political and military attitudes toward collateral damage is helpful to understanding how the potential for civilian casualties fits into military strategy as a whole.

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I. INTRODUCTION

It is hard to argue that there is a more prevalent issue than collateral damage when discussing strike warfare today.¹ The outlook of the United States and other militaries regarding bombing operations, particularly concern about the inevitable destruction of civilian lives and property, is a historically contingent process. Such concern has waxed and waned in the past, and may well do so in the future. Since the end of the Second World War, the enormous increase in attention that U.S. policy makers and military leaders have paid to collateral damage effects raises numerous questions. How does collateral damage resulting from strike warfare, specifically the killing of enemy non-combatants, impact U.S. policy and strategy? How has the concern for collateral damage at the strategic and political level evolved in the post-World War II era? What has been the connection between collateral damage effects at the tactical level and those at the strategic level? What factors have influenced this relationship over time?

This thesis examines three case studies—the Korean War, the Vietnam War, and the Kosovo air campaign—to examine the impact of concern about collateral damage on U.S. policy and strategy. It analyzes the disparity between collateral damage effects at the strategic, operational, and tactical levels over the span of a half century. By analyzing how the impact of collateral damage transformed over time, it leads to a better understanding of the current and future limitations put on strike warfare. Additionally, it helps identify what type of conflict might lead the United States to go back to a pre-Korean War model of bombing, in which civilian casualties are viewed in neutral or even positive terms. In essence, how high would the stakes have to be for both our moral scruples and political restraints to decrease?

This paper is organized into five chapters. The introduction identifies the significance of the research and examines the current literature on the topic, including a brief discussion on the legal implications of collateral damage. The three chapters

¹ For the purpose of this paper, collateral damage refers to the death of enemy non-combatants. It is difficult to find a precise definition of collateral damage within military manuals. The latest version of the official U.S. Air Force glossary does not give a definition of collateral damage. See U.S. Department of Defense, *Air Force Doctrine Document 1-2*, January 11, 2007, <http://fas.org/irp/doddir/usaf/afdd1-2.pdf>.

chronologically examine the case studies and compare and contrast the impact of collateral damage during each conflict. The conclusion examines the findings of the research as a whole and look at the possible effects on the future of strike warfare, mainly how it relates to a world where limited war and rogue non-state actors have become the standard.

A. SIGNIFICANCE OF THE RESEARCH

The three case studies chosen are evenly spaced throughout the second half of the twentieth century and well illustrate how various factors impacted the effects of collateral damage during different time periods. The factors affecting collateral damage have different values contingent upon which war is being analyzed. Broadly speaking, this study traces a shift in the outlook of both policy-makers and war-fighters, from a “total war” model in Korea with limitations based on the war’s global context; to a more self-consciously limited approach in Vietnam, driven partly by domestic and international public opinion; to Kosovo in which the actions of the adversary incited the United States and its allies to use a more precise method of bombing.

A significant amount of research on the effects of collateral damage from strike warfare focuses on humanitarian and moral issues. To oversimplify, killing non-combatants is bad, but it happens, and not always by accident. Therefore, it is instructive to gain knowledge on how it affects strategy. Depending on the conflict and time period, U.S. administrations and war strategists have put the priority of mitigating collateral damage at different levels. Understanding the reasoning and timing behind the political and military attitudes toward collateral damage is helpful to understanding how the potential for civilian casualties fits into military strategy and operations as a whole.

As important as the humanitarian and moral aspects are regarding collateral damage, they are topics that lend themselves to a substantial amount of subjectivity that this paper hopes to minimize. The legal aspect, although not the focus of this paper, cannot be ignored because of the implications on policy makers’ decisions in selecting air power as a tool for imposing the will of the United States. Since the 1949 Geneva Conventions, the United States—as evident in its reluctance to sign the succeeding

protocols to the original documents—has taken a more liberal approach than many other countries concerning collateral damage. Since the potential for collateral damage vis-à-vis targeting was a prominent issue in the three case studies being examined, it is instructive to understand the U.S. interpretation of what constitutes a legal target.

The U.S. military's past and current position on what it considers lawful targeting is best summed up in *The Commander's Handbook on the Law of Naval Operations* which states: "Only military objectives may be attacked. Military objectives are combatants, military equipment and facilities, and those objects which, by their nature, location, purpose, or use, effectively contribute to the enemy's war-fighting or war-sustaining capability and whose total or partial destruction, capture, or neutralization would constitute a definite military advantage to the attacker under the circumstances at the time of the attack."² With regard to attacking civilians, the handbook states that, "it is not unlawful to cause incidental injury to civilians, or collateral damage to civilian objects, during an attack upon a legitimate military objective."³ The phrase "contribute to the enemy's war-fighting or war-sustaining capability" in particular has afforded military commanders a good deal of flexibility when planning and executing attacks, without, however, dispensing entirely the anxiety about what constitutes justified destruction of civilian life and property. This issue always gets negotiated in real time, as operations proceed.

B. LITERATURE REVIEW

There is a limited amount of literature dedicated exclusively to the strategic effects of collateral damage from strike warfare. As a result, a significant amount of the thesis extracts information from various authors' description of collateral damage during each of the wars being examined. One of the few pieces of literature that solely addresses collateral damage as a result of strike warfare is Patrick Shaw's thesis *Collateral Damage*

² U.S. Department of the Navy, NWP 1-14M, *The Commander's Handbook on the Law of Naval Operations* (July 2007): 8-1, 8-3, <https://www.usnwc.edu/getattachment/a9b8e92d-2c8d-4779-9925-0defea93325c/>.

³ Ibid. Although a U.S. Navy publication, the language on collateral damage and targeting is consistent with previous Air Force publications, such as Air Force Pamphlet (AFP) 110-34, *Commander's Handbook on the Law of Armed Conflict*, July 25, 1980, that have since been rescinded or superseded.

and the United States Air Force, which discusses the progression of USAF concerns pertaining to collateral damage and argues that those concerns have led to a decrease in air power's effectiveness.⁴ This thesis looks to build off Shaw's argument by focusing on the strategic and political impacts of collateral damage and enhance the connection between the strategic and tactical levels.

Many books on the Korean and Vietnam wars analyze collateral damage in conjunction with other strategic bombing aspects such as political leaders' selection and approval of targets, the use of propaganda by the enemy, and the impact of precision guided munitions. As the effects of collateral damage became much more visible because of mass media during the latter part of the twentieth century, more literature was written about the topic. Although the Kosovo war produced a minuscule amount of collateral damage from bombing when compared to Vietnam and Korea, there are a number of journal articles on Kosovo that specifically address the topic.

1. Korea

The Korean War's proximity to World War II significantly impacted both politicians' and military leaders' attitudes toward collateral damage from strike warfare. The same leaders who relentlessly and indiscriminately bombed Japanese civilians just five years earlier were the individuals commanding the Korean War. This connection played an integral role in the decision-making processes for the strategic bombing of Korea. Although the Geneva Conventions of 1949 brought to light the legal and moral implications of collateral damage, the difficulty for some leaders to abandon their old habits was quite evident.

Mark Clodfelter's book, *The Limits of Air Power*, focuses mainly on the Vietnam War but also reviews how politicians and military leaders during the Korean War were influenced heavily by their World War II experiences.⁵ Clodfelter examines the transition from President Truman to President Eisenhower and its impact on the prioritization of the

⁴ Patrick M. Shaw, "Collateral Damage and the United States Air Force," (master's thesis, U.S. Air Force School of Advanced Air Power Studies, 1997) <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA391809>.

⁵ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln, NE: Bison Books, 2006), 12–26.

potential effects from collateral damage. Conrad Crane looks at the transformation in the military leaders' concern for civilian casualties over time in *American Airpower Strategy in Korea, 1950–1953* and *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*.⁶ Both authors portray an administration and group of military leaders that grew anxious to end the wars in Korea and Vietnam and reduced the limitations put on strategic bombing to force agreements. These restrictions included the concern for collateral damage and especially the potential for collateral damage if nuclear weapons were used.

Another theme often examined in the literature on Korea investigates the extent to which U.S. forces attempted to warn civilians of impending attacks to reduce collateral damage. Clodfelter and Crane both point out that actions such as dropping leaflets and warning civilians with loud speakers from low flying aircraft were employed by U.S. forces. On the contrary, Bruce Cummings mentions very little about precautions taken in his book *The Korean War* and gives a very critical view of the bombing campaign by equating it to genocide.⁷ Although Cummings portrays an American Air Force with no limitations put on them, in reality the Korean War was the first conflict among many throughout the second half of the twentieth century in which the United States fought a limited war with numerous restrictions put on its forces. The effects of these limitations are examined in Thomas Hone's chapter "Strategic Bombardment Constrained: Korea and Vietnam" in *Case Studies in Strategic Bombardment*, which looks at how political constraints impacted the Korean and Vietnam bombing campaigns.⁸ Hone's chapter and Stephen T. Hosmer's, "Constraints on U.S. Strategy in Third World Conflict," are

⁶ Conrad C. Crane, *American Airpower Strategy in Korea, 1950–1953* (Lawrence: University Press of Kansas, 2000); Conrad C. Crane, *Bombs, Cities, and Civilians: American Airpower Strategy in World War II* (Lawrence, KS: University Press of Kansas, 1993).

⁷ Bruce Cummings, *The Korean War* (New York: Random House, 2010), 149–161.

⁸ Thomas C. Hone, "Strategic Bombardment Constrained: Korea and Vietnam," in *Case Studies in Strategic Bombardment*, ed. R. Cargill Hall (Washington, DC: Air Force History and Museums Program, 1998), 469–519.

excellent sources on the limitations put on air power during Korea and Vietnam and complement this paper's argument.⁹

One of the most significant limitations put on aircraft to avoid collateral damage during the Korean War involved target selection. Robert Futrell takes an in depth look at the progression of target selection throughout the war and gives a great overview of the U.S. Air Force's role in the war in his book *The United States Air Force in Korea, 1950–1953*.¹⁰ Crane and Clodfelter both argue it was the decision to bomb irrigation dams in North Korea late in the war that had significant impacts, since it showed both the North Koreans and their sympathizers American leaders' decreasing concern for collateral damage and their willingness to take the next step with nuclear weapons. The gradual acceptance of collateral damage in the administration's target selection paralleled its desire to end the conflict, and consequently gave more freedom to commanders at the operational and tactical levels in the later stages of the war.

2. Vietnam

Many of the same issues that confronted political and military leaders in the Korean War were again evident during Vietnam. Nowhere was this more evident than in the ebb and flow of limitations put on strategic bombing throughout the war. The gap between the effects from collateral damage at the strategic and operational levels narrowed because of the politicians' fear of outside Communist intervention and the North Vietnamese's ability to exploit collateral damage incidents in the media. Air commanders were not afforded the same freedoms they were in Korea because of the immense amount of political oversight at the operational levels.

Although Vietnam was similar to Korea in the split between North and South, the bombing operations over North and South Vietnam were two significantly different campaigns with respect to their purpose. The Vietnam bombing campaign was also interrupted many times by political leaders and is most remembered by three distinct

⁹ Stephen T. Hosmer, "Constraints on U.S. Strategy in Third World Conflict," RAND Corporation (1985): 91, <http://www.rand.org/content/dam/rand/pubs/reports/2008/R3208.pdf>.

¹⁰ Robert F. Futrell, *The United States Air Force in Korea, 1950–1953*, rev. ed. (Washington, DC: Air Force History & Museums Program, 1983).

operations: Rolling Thunder, Linebacker I, and Linebacker II. Some literature looks at all three campaigns throughout the entire span of the war while others concentrate on the individual operations.

In addition to Clodfelter, Zalin Grant and Ronald B. Frankum Jr. both examine collateral damage effects during the entire span of the war in their books *Over the Beach* and *Like Rolling Thunder: The Air War in Vietnam, 1964–1975*.¹¹ John T. Smith looks specifically at the bombing of North Vietnam during 1972 in his book *The Linebacker Raids: The Bombing of North Vietnam, 1972*, and Bernard Nalty focuses on the campaign in the South in *Air War Over South Vietnam 1968–1975*.¹² All of these authors explore the difference between President Johnson’s approach to the bombing of Vietnam and that of Richard Nixon and show how the two presidents varied in their concern for the potential effects of collateral damage and adjusted their strategies accordingly. These books also look at the impact collateral damage had on North Vietnam’s sympathizers—specifically the Soviet Union and China—and how it impacted each President’s reluctance to bomb the North’s industrial capacity and population centers.

With the growth of mass media after the Korean War, the effects of collateral damage started to become more visible to the both citizens of the United States and the international community. As a result, the use of propaganda by the enemy increased in both amount and effectiveness. Both Grant and Smith point out the different methods used by the North Vietnamese to exploit the negative effects from collateral damage and the North’s attempts to use propaganda to turn the United States and international community against the U.S. war effort. Both authors contend that, although pilots actually went to considerable lengths to avoid killing civilians, the North Vietnamese were successful in their use of propaganda to negatively affect support for the war in the United States. This work builds on that by examining how pilots’ actions at the tactical

¹¹ Zalin Grant, *Over the Beach: The Air War in Vietnam* (New York: W. W. Norton, 2005); Ronald B. Frankum Jr, *Like Rolling Thunder: The Air War in Vietnam, 1964–1975* (Lanham, MD: Rowman & Littlefield, 2005).

¹² John T. Smith, *The Linebacker Raids: The Bombing of North Vietnam, 1972* (Wellington House, London: Arms & Armour, 1999); Bernard C. Nalty, *Air War Over South Vietnam 1968–1975* (Washington, DC: Air Force History and Museums Program, 2000).

level—even though they were of good intention—affected the strategic and political levels of the war.

The subject of target selection during Vietnam is completely dependent on whether one is discussing the bombing of the North or the South. The strategic bombing of North Vietnam focused on taking out industrial targets and any other entities that were helping the North Vietnamese support the war in the South; the bombing in the South consisted mostly of close air support of troops on the ground. The measures taken by pilots to support troops in the South is looked upon critically by Nick Turse in his book *Kill Anything that Moves: The Real American War in Vietnam*, which likens the air support to the indiscriminate bombing of World War II.¹³ The difficult process that commanders on the ground went through in calling in air strikes with the risk of collateral damage is looked at in Dave Grossman's *On Killing: The Psychological Cost of Learning to Kill in War and Society*.¹⁴

3. Kosovo

As the twentieth century drew to a close with the Kosovo conflict, the number of collateral damage incidents had decreased exponentially from that of Korea and Vietnam, but the effects of each individual incident was increasingly scrutinized. Because of this increased visibility, politicians and military leaders placed avoiding collateral damage among the highest objectives of the war. No longer was there the mindset of collateral damage just being a part of war; now it was something that had to be at the forefront of every aircrew's mind before deciding to drop a bomb.

Anthony Cordesman dedicates an entire chapter to the impacts of collateral damage during Kosovo in his book *The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo*. Cordesman examines the political sensitivity of collateral damage during the conflict and argues that NATO gave more priority to avoiding collateral damage than to military effectiveness. Cordesman is critical of U.S. military and political

¹³ Nick Turse, *Kill Anything That Moves: The Real American War in Vietnam* (New York: Metropolitan Books, 2013).

¹⁴ Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, Revised edition (New York: Back Bay Books, 2009).

leaders who have given the impression that technological advances in weapons systems and aircraft have resulted in wars that can be fought at a near “perfect” level.¹⁵ The future implication of making these types of assumption will be discussed in the conclusion of this paper.

Cordesman also brings to light the implications of target selection throughout the conflict. Similar to Korea and Vietnam, politicians and military leaders’ reluctance to bomb certain targets diminished as the conflict progressed. As William Arkin points out in his article “Operation Allied Force: ‘The Most Precise Application of Air Power in History,’” the potential for collateral damage initially restrained military leaders from bombing Belgrade to achieve objectives. Arkin gives an excellent analysis of the progression of targeting throughout the bombing campaign and discusses the ebb and flow of restrictions as collateral damage incidents occurred.¹⁶

Maintaining the cohesion among the 19 NATO participants—arguably the most exploitable vulnerability for Serbian leader Slobodan Milosevic—is discussed extensively in Paul Gallis’s report to Congress, “Kosovo: Lessons Learned from Operation Allied Force” and Ivo H. Daalder and Michael E. O’Hanlon’s book, *Winning Ugly: NATO’s War to Save Kosovo*.¹⁷ Daalder and O’Hanlon contend that there was a general consensus among NATO members on the strategic goals for the allies, but there were disagreements on the methods to be used and the acceptable amount of risk of collateral damage.¹⁸

¹⁵ Anthony H. Cordesman, *The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo*, (Westport, CT: Praeger, 2001), 95–137.

¹⁶ William M. Arkin, “Operation Allied Force: ‘The Most Precise Application of Air Power in History,’” in *War Over Kosovo: Politics and Strategy in a Global Age*, ed. Andrew J. Bacevich and Eliot A. Cohen (New York: Columbia University Press, 2001), 1–37.

¹⁷ Paul E. Gallis, “Kosovo: Lessons Learned from Operation Allied Force,” Congressional Research Service, Library of Congress, last updated November 19, 1999, <http://congressionalresearch.com/RL30374/document.php>; Ivo H. Daalder and Michael E. O’Hanlon, *Winning Ugly: NATO’s War to Save Kosovo* (Washington, DC: The Brookings Institution, 2000), 118–122.

¹⁸ *Ibid.*

C. POTENTIAL EXPLANATIONS

The strategic and political impacts of collateral damage have a very prominent role in military strategy. By understanding the strategic and political implications of killing enemy non-combatants, or not killing them, one can further the understanding of war strategy as a whole and use that knowledge to successfully employ strike warfare in future conflicts.

As politicians' sensitivity to potential and actual collateral damage resulting from strike warfare increased over the second half of the twentieth century, it subsequently increased the constraints put on strategic objectives. Factors including the development and availability of mass media, the advent of precision guided weapons, and various leaders' vulnerability to international and domestic pressure all played significant roles in the evolution of the political and strategic effects of collateral damage over the examined time period. The amount of weight each one of these factors held regarding collateral damage varied throughout each of the wars studied. As the three case studies show, the strategic bombing campaigns progressed from a World War II Armageddon model of strike warfare into a model centered on the precise removal of a rogue regime at the end of the twentieth century. In turn, it embodied a transformation from the idea that an entire society can be implicated in the war effort—and is therefore is a legitimate target—to the idea that the society under the government is actually a victim in which case the goal should be to harm it as little as possible while still eliminating the people in charge.

II. THE KOREAN WAR

Less than five years after the conclusion of World War II, the United States once again found itself entrapped in conflict, and though a short amount of time had passed since the unconditional surrender of Japan and Germany, the dynamics surrounding the Korean War were drastically different. The Korean War was the first in a series of limited wars the United States fought throughout the second half the twentieth century in which the political objectives and military actions did not always coincide. Because of the limited nature of these conflicts, the concern for collateral damage from strike warfare and its effects on political and strategic objectives played a critical role in how these wars were conducted. During the Korean War, disagreements between political and military leaders regarding potential and actual collateral damage from strategic bombardment were caused by a number of factors. Among the elements that influenced attitudes toward collateral damage were the proximity of the Korean War to World War II, the U.S. political leaders' desire to keep the war limited and avoid Soviet intervention, and America's ability to maintain support from its allies and the entire international community as a whole.

A. PROXIMITY TO WORLD WAR II

The proximity of the Korean War to the Second World War influenced both political and military leaders overseeing the war as well as the aviators who found themselves over the skies of Korea. Many of the military leaders who had developed and supported the plans to firebomb Tokyo and drop atomic bombs on Hiroshima and Nagasaki were once again asked to develop a strategic bombing campaign that would somehow cripple the enemy's war effort. This time however, the context of the war was completely different, and military leaders were challenged to adhere to political constraints. Throughout the war, three Army generals who were all veterans of World War II—Douglas MacArthur, Matthew Ridgeway, and Mark Clark—held the role of both commander of Far East Forces and commander in chief of the United Nations command. Their experience in the European and Pacific theaters during World War II caused them

to have diverse views on the numerous applications and effects of strategic bombing, but the stark difference in the political objectives of the two wars produced friction between them and policy makers throughout the conflict.

Perhaps equally important, the leading figures in the U.S. Air Force during the Korean War were all World War II veterans who went into Korea believing the air campaigns over Germany and Japan had vindicated the efficacy of strategic bombing.¹⁹ Leading up to the Korean War, air planners envisioned a predominantly unrestricted bombing campaign and were left frustrated when political constraints, largely due to the potential for collateral damage, limited certain strategic decisions on the use of air power.²⁰ For officers who fought in World War II with little to no political guidelines on bombing, Korea was very different and often produced confusion when they were trying to achieve military objectives.

Moreover, the perceived success of strategic bombing during World War II led the air commanders to believe the same tactics would work merely five years later in Korea, and although military leaders were not purposely trying to kill civilians during the Korean War, a large number of them carried over their belief that sometimes civilians are killed because war is a dirty business. Major General Emmett O'Donnell, head of the bomber command in Korea, summed up many Air Force leaders' vision for their service's expected role at the start of the war: "It was my intention and hope that we would be able to get out there and ... put a severe blow on the North Koreans, with an advance warning perhaps, telling them that they had gone too far in what we all recognized as being an act of aggression...and [then] go to work burning five major cities to the ground, and to destroy completely every one of about eighteen strategic targets."²¹ Political leaders did not share the same view as O'Donnell—at least not at the strategic and political level. In the administration's view, strategic bombardment no longer needed

¹⁹ Crane, *Bombs, Cities, and Civilians*, 147.

²⁰ Clodfelter, *Limits of Air Power*, 36.

²¹ Futrell, *United States Air Force in Korea*, 186.

to use all means necessary, which included a high toleration for collateral damage, to achieve limited objectives.²²

Although the significant amount of civilian deaths and suffering from World War II bombing raids was scrutinized by many observers around the world, U.S. political and military leaders—and a significant portion of the United States population—focused on the belief that the strategic bombing campaign in Germany and Japan was extremely effective in ending the war and preventing further U.S. casualties.²³ The politicians' positive assessment of the World War II bombing campaign, which was supported by an arguably subjective United States Strategic Bombing Survey that failed to address ethical or humanitarian concerns, gave policy makers inflated expectations for the precise use of air power in Korea.²⁴

If a more objective assessment of the bombing campaign over Germany and Japan had been done following the Second World War, the lessons may not have been applied easily to Korea. Not only was the industry and infrastructure of Korea much different than that of Germany and Japan, but also the political climate of the international community during World War II permitted indiscriminately destructive military actions that would have been scrutinized more critically during the Korean War.²⁵ During World War II, the objective of strategic bombing was twofold: to defeat the enemy's war-making capability and defeat the civilian populace's will to continue fighting. Events such as the firebombing of Tokyo, which killed thousands of civilians in a matter of hours, were thought to play an integral part in achieving the second objective. To this must be added an underlying view that the populations of Germany and Japan were complicit in the militarism and aggression of their governments, hence morally legitimate targets in a war of nations. In Korea, air commanders were still permitted to bomb industrial targets that contributed to North Korea's war efforts, but the concern for

²² Clodfelter, *Limits of Air Power*, 3.

²³ Crane, *Bombs, Cities, and Civilians*, 147.

²⁴ *Ibid.*

²⁵ *Ibid.*, 159.

reducing collateral damage constrained many of the attacks desired by military leaders.²⁶ International and American opinion also tended to view the aggression of the North as having arisen from ideological forces external to Korea. Precisely because the war was viewed as an expression of international communist expansionism, it was not easy to see it as a crime organically rooted North Korean society. These differences between the two wars drove policy makers to emphasize the importance of avoiding collateral damage at the strategic and political level even though many airmen over the skies of Korea were still using the same tactics they employed five years earlier.

B. THE IMPLICATIONS OF LIMITED WAR

The limited nature of the Korean War was the primary reason why the concern for collateral damage played such a significant role at the strategic and political level; the relationship between the limits placed on bombing efforts and collateral damage is the main focus of this chapter. Although fewer restrictions were enforced at the operational and tactical level, it does not discount the reality that the military commanders' objectives were always secondary to the overall policy and considerations of the administration at any given time during the conflict. When discussing U.S. strategy in Third World conflicts generally, Stephen Hosmer suggests that, "strategies have tended to evolve more from what the various administrations believed that the United States dare not or should not do than from what the battlefield situation of a particular conflict or crisis might optimally require."²⁷ The administration's concern for the potential negative consequences from expanding the war and creating more collateral damage were evident in President Truman's actions at the beginning of the conflict.

From the outset of the war, President Truman made it clear to both the international community and the American military that the bombing campaigns during the Korean War would be conducted in a manner unlike those in the Pacific. Instead of unconditional surrender, Washington's strategic objectives at the start of the war were to preserve South Korea's sovereign territory and avoid Soviet or greater Chinese intervention

²⁶ Clodfelter, *Limits of Air Power*, 9.

²⁷ Hosmer, "Constraints on U.S. Strategy," 91.

that might trigger a third world war. Within the first five days of the war, Truman expressed to the Nation Security Council his commitment to avoid “indiscriminate” bombing of North Korea, and on June 30, Truman issued a directive to General George Stratemeyer, Commander of Far East Air Forces (FEAF), to only attack “pure military targets” in North Korea.²⁸ General Stratemeyer informed his subordinates in the U.S. bomber command that they were forbidden to “attack urban areas as targets” but attacks on “industrial targets contributing to the combat effort of North Korean forces” were approved.²⁹ The language used in initial directives was heavily influenced by political considerations and highlighted the importance of avoiding direct attacks on civilians at the strategic level, yet it was still subjective enough to allow a certain amount of flexibility at the operational and tactical level. A similar compromise had prevailed in the Second World War, at least in Europe, where the United States always envisioned its strategic bombing campaign as directed against “industrial” rather than “civilian” targets; a distinction that proved difficult to enforce at the operational level.

In addition to the type of targets the administration authorized military to attack, the location of these targets was initially restricted as well. The restrictions placed on the nature of targets eventually decreased, but the area of operations in which U.S. bombers operated was constrained heavily throughout the entire conflict. Although military leaders implored Truman to allow them to attack bases beyond the northern border that were supplying the enemy, Truman remained persistent in his decision to keep the war confined to the peninsula. A significant reason for Truman’s reluctance for expanding the war into Manchuria was the fear that bombing Chinese bases would cause enormous amounts of collateral damage that the Chinese could exploit to encourage Soviet intervention. Moreover, if the decision to use nuclear weapons in Manchuria were made—which many military and political leaders thought would be inevitable if the war was expanded—it would have only exacerbated the problem of collateral damage and increased the probability of Soviet involvement.

²⁸ Futrell, *United States Air Force in Korea*, 41–42.

²⁹ Hone, “Strategic Bombardment Constrained,” 473.

Another limitation on the bombing campaign was the acceptable methods for destroying the enemy's infrastructure. At the start of the war, FEAF planners thought B-29s would be most effective in destroying North Korean industrial targets in urban areas through the use of incendiary bombs and radar bombing.³⁰ In addition to completely destroying the targets themselves, some military leaders believed the use of incendiaries may also diminish civilian morale and their willingness to support the communist government.³¹ Both MacArthur and Stratemeyer urged the Joint Chiefs of Staff (JCS) to allow them to move forward with these attacks, but the plan was deemed unacceptable to the JCS which was getting direct pressure from Washington. MacArthur was informed that "because of the serious political implications involved ... it is desired that you advise the Joint Chiefs of Staff, for clearance with higher authority, of any plans you may have before you order or authorize such an attack or attacks of a similar nature."³² Even with these restrictions in place, the strategic bombing campaign was effective in taking out a large number of targets without the stigma of indiscriminate bombing. Leading up to the Inchon invasion on September 15, 1950, hydroelectric plants and targets in close proximity to the border were still off limits because of their politically sensitive nature.³³ In the first four months on the war, the concern for collateral damage was imposing constraints at both the strategic and operational level; however, the disparity between the concerns for collateral damage at the strategic level and those at the tactical level would start to widen with China's entry into the war in early November.

By the time the Chinese entered the war—and due largely to MacArthur's success in pushing the North Koreans to the northern border—the Truman administration had adjusted its strategic objective from maintaining South Korea's sovereign territory to achieving a unified Korean peninsula. The Chinese offensive caused two additional shifts in Truman's policy. First, it forced the administration to change its strategic objectives

³⁰ Hone, "Strategic Bombardment Constrained," 473.

³¹ The effect bombing would have on civilian morale was debated throughout the military during this time. Although many Air Force leaders believed WWII had vindicated bombings effects on enemy morale, others such as U.S. Army Chief of Staff General Lawton Collins were skeptical on incendiaries effectiveness in decreasing the morale of the North Korean civilians. *Ibid.*, 474.

³² Futrell, *United States Air Force in Korea*, 42.

³³ Hone, "Strategic Bombardment Constrained," 477.

once again—this time to securing an armistice that kept the border between the North and the South close to its original location. The second shift in policy dealt directly with degree of limitations placed on the military, specifically the controls placed on strategic bombers. This turning point in the war demonstrated that the political leaders’ acceptance of collateral damage as a byproduct of strategic bombing paralleled how high the stakes were at any given time. The Chinese offensive in November of 1950 had raised those stakes.³⁴

General MacArthur, undoubtedly surprised by the severity of the Chinese attacks, immediately requested to escalate the bombing efforts into Manchuria to cripple the war making capacity of the Chinese. Truman and his staff, fearing large numbers of Chinese civilian casualties and the threat of Soviet intervention, denied MacArthur’s request to expand the bombing campaign beyond the North Korean border.³⁵ Truman still intended to have positive control over the possibility for collateral damage at the strategic and political level; however, within the borders of Korea, he started to increase his tolerance for acceptable bombing methods and suitable locations for bombing attacks.

General Stratemyer, using every ounce of leeway given to him as the Far East Air Force Commander, authorized the use of incendiaries to counter the Chinese offensive and destroy Korean cities thought to be “virtual arsenals and important communication centers.”³⁶ Stratemyer’s instructions to the head of bomber command were explicit, if improbable: “Taking care to avoid hospitals, General O’Donnell was expected to burn the cities to the ground.”³⁷ On November 5, twenty one B-29 bombers dropped 170 tons of incendiaries on the town of Kanggye resulting in over 65 percent of the town’s built-up area being destroyed.³⁸ Other incendiary attacks like this followed, and by the end of November, at least nine other cities—including ones along the Yalu River border with China—had been firebombed. Even with constraints lifted on the

³⁴ Allen Millett, *The War for Korea, 1950–1951: They Came from the North* (Lawrence: University of Press Kansas, 2010), 307–8, 311–15.

³⁵ Hosmer, “Constraints on U.S. Strategy,” 17–18.

³⁶ Futrell, *United States Air Force in Korea*, 221.

³⁷ Ibid.

³⁸ Ibid.

methods of attack, General MacArthur emphasized to air commanders to avoid flying into Chinese territory and stressed that for political reasons, “the border cannot and must not be violated.”³⁹

In addition to prohibiting planes from crossing the border, the administration still kept other strategic limitations in place to overshadow the increased probability of collateral damage at the operational and tactical levels. For example, although the restriction on the overall use of incendiaries was lifted, their use against the North Korean capital was still proscribed, and cities such as Rashin, a critical North Korean port in close proximity to the Soviet border, were still off limits to air attacks.⁴⁰ In Truman and the JCS’s view, even with Chinese intervention and the coalition army being driven south, the stakes were not high enough to risk the repercussions from hitting those politically sensitive targets. For the pilots dropping the bombs, the circumstances were different. Many pilots knew there was a good chance the straw-thatched roofs on which they were dropping napalm could contain civilians, but they also trusted the intelligence reports on the nature of the targets and were ultimately trying to survive each flight and contribute to the war effort.⁴¹ Like the men dropping bombs over the skies of Tokyo, many pilots during the Korean War were not overly concerned whether it was incendiary bombs or atomic ones, they were focused on trying to achieve their mission without dying rather than worrying about the overall political consequences of their actions.⁴²

The North Korean response to the U.S. expansion of its bombing effort during this time was twofold. At the tactical level, communist forces moved mostly at night to avoid being seen by American bombers and used deception by removing a section of a railway or bridge during the night to make it appear as if the targets had already been struck or were unserviceable.⁴³ Although moving at night seemed viable to the communists as a method of avoiding American air power, in reality, it just increased the

³⁹ Futrell, *United States Air Force in Korea*, 221, 226.

⁴⁰ Crane, *American Airpower*, 65.

⁴¹ *Ibid.*, 65–66.

⁴² *Ibid.*, 143.

⁴³ Clodfelter, *Limits of Air Power*, 21–22.

likelihood of collateral damage because of the reduced visibility for American pilots. At the political and strategic level, the North Korean military and government attempted to exploit the decrease in constraints to support their propaganda efforts. When restrictions were lifted on the use of incendiaries on the North Korean capital in early January, 1951, radios throughout Pyongyang reported that “the entire city burned like a furnace for two whole days” despite most reports that stated approximately 35 percent of the city’s built up area was destroyed.⁴⁴ Although limited by the insignificant amount of media coverage of the war, North Korean officials used other diplomatic channels like the armistice talks to express their disapproval with U.S. bombing tactics.

From the start of armistice negotiations in July 1951 until the end of the war, air power was the primary means for both destroying the enemy’s military and forcing a settlement that suited American leaders. Since ground operations had come to a virtual standstill with each side dug in on opposite sides of the 38th parallel in a fashion similar to the First World War, political and military leaders contemplated the best way strategic bombing could achieve their political objectives and end the war. Frustrated by the strategic bind they found themselves in, U.S. decision makers once again removed constraints on U.S. air power in the spring of 1952 by authorizing an “air pressure” strategy intended to convince the communists to agree to an armistice.⁴⁵ The decrease in limitations on air power during this period reduced the gap between concern for collateral damage at the strategic and tactical levels hitherto unseen.

The air pressure campaign in 1952 had more resemblance to Curtis Lemay’s strategic bombing campaigns of World War II than the earlier campaigns of the Korean War. Brigadier General Jacob Smart, the deputy FEAF Commander, stated, “Whenever possible, attacks will be scheduled against targets of military significance so situated that their destruction will have a deleterious effect up on the morale of the civilian population actively engaged in the logistic support of enemy forces.”⁴⁶ Air commanders switched the emphasis back to destroying targets within the North Korean capital, which had not

⁴⁴ Futrell, *United States Air Force in Korea*, 278.

⁴⁵ Clodfelter, *Limits of Air Power*, 16.

⁴⁶ Quoted in *Ibid.*, 17.

been bombed for close to a year, and attacked previously forbidden hydroelectric plants that supplied power to both North Korea and China.⁴⁷ The language used by Smart—not specifically naming civilians as bombing targets but nonetheless subjective in its nature—mirrored that of the administration, which was trying to maintain the moral high ground regarding collateral damage while increasing the pressure on communist leaders at the strategic and operational levels.

North Korean leaders saw the increase in bombing efforts as an opportunity to step up their propaganda campaign. As armistice talks continued, the chief Communist negotiator, North Korean General Nam Il, proclaimed, “In fact it is only by relying on indiscriminate and inhuman bombing and bombardment by your Air and Naval Forces in violation of the international law that the present positions of your ground forces are barely and temporarily maintained.”⁴⁸ Such statements were meant to draw the attention of the international community to the methods used by U.S. bombers and also demonstrate the tenacity of the communists regardless of the intensification of U.S. bombing efforts.

At the start of the conflict, to try and refute claims of indiscriminate attacks on North Korean cities, U.S. policy makers ordered that prior to any major operations, leaflets be dropped warning civilians of impending air attacks. As the war progressed however, disparity of views grew between the administration and military leaders on the effectiveness of dropping leaflets. What most air commanders thought was a humane gesture to the North Korean population was starting to be construed as a potential political liability by policy makers. In August 1952, at the height of the air pressure campaign, air commanders planned to announce to the press the planned bombing of 78 North Korean centers. Stressing the likelihood that the communists would use these warnings for propaganda purposes, the State Department informed the military to cancel the message, which may, in turn, have caused more civilian casualties.⁴⁹ The debate over

⁴⁷ Clodfelter, *Limits of Air Power*, 17.

⁴⁸ Crane, *American Airpower*, 76.

⁴⁹ Futrell, *United States Air Force in Korea*, 518.

whether leaflet drops effectively warned civilians or provided propaganda confirmed the discrepancy in perception at the strategic and tactical levels.

After taking office in 1953, President Eisenhower raised the stakes once again by threatening to expand the war to China and considering the use of nuclear weapons.⁵⁰ In addition to the threat of expanding the war outside of Korea, limits were again lifted on targets inside the country. Of particular significance was the decision to bomb North Korea's irrigation dams in the spring of 1953, which resulted in extensive amounts of flooding throughout the region and the destruction of the vital rice crop used to feed much of the North Korean and Chinese populations in the surrounding areas. In order to cover themselves at the political level, air commanders emphasized the attacks on the dams were inundating the rail system and other key lines of communication rather than focusing on the devastation of the rice crop, which could potentially starve the population.⁵¹ It was an indirect method of threatening the North Korean population that did not involve dropping weapons on population centers and was acceptable at both the strategic and operational levels.

Although Eisenhower was still reluctant to expand the war for the same reasons as Truman, he took a less cautious approach to break the stagnation in the armistice talks and to get U.S. troops home from a war that was losing credibility among the American population. The administration's willingness to use nuclear weapons and its decrease in target limitations at the operational and tactical level confirmed the transformation in the concern for collateral damage over the course of the war. As the stakes were continuously raised throughout the war, both political and military leaders adjusted their strategies to deal with the increased possibility of civilian casualties.

⁵⁰ President Truman had not discounted the use of nuclear weapons, but the political setting and stagnation of the war made Eisenhower's threats of nuclear force appear more substantial. See Burton Kaufman, *The Korean War: Challenges in Crisis, Credibility, and Command* (New York: Newberry Award Records, Inc., 1986), 111–13, 304–05.

⁵¹ Clodfelter, *Limits of Air Power*, 18.

C. THE IMPACT OF OUTSIDE PRESSURE

Although the United States had the most at stake militarily, economically, and politically out of all the UN countries involved in the Korean war, it still tailored its actions heavily to maintain the support of its allies—specifically the United Kingdom. Preserving a strong alliance with Western Europe was essential to the United States if the Soviet Union decided to enter the war, and it also legitimized the legality and political approval for going to war with a nation many people in the Western world knew nothing about.⁵² More generally, the Korean War was viewed from the start as one element in a global struggle against communist aggression, and its conduct was always conceived in light of that larger, inherently multilateral contest.⁵³ The allies' influence at the strategic and political level accordingly had far greater impacts on the war than their actual military support.⁵⁴ Britain's concern for the potential consequences of a bombing campaign similar to the one they had inflicted on Germany influenced U.S. decision making at the strategic level throughout the war. Furthermore, since U.S. objectives in Korea were limited, unlike those of World War II, the stakes were simply not high enough for policy makers to completely disregard world opinion.

The reservations felt by President Truman and many political leaders were a direct result of the pressure put on them from the international community to avoid the same indiscriminate death and destruction bombers caused during the Second World War. Leading up to and during the war, media outlets from various countries—including nations that were neutral—reminded the world of the tactics used by strategic bombers during World War II and questioned whether the same methods were being employed in Korea. One Indian newspaper drew special attention from U.S. leaders in the fall of 1950 for its scathing assessment of the decision to drop atomic weapons on Japan.⁵⁵ Because of articles like these, bombing tactics used during the first few months of the Korean War

⁵² Hosmer, "Constraints on U.S. Strategy," 81.

⁵³ *Ibid.*, 4.

⁵⁴ In 1953, UN countries had contributed approximately 39,000 troops to the conflict in Korea compared to over 300,000 provided by the United States. *Ibid.*, 83.

⁵⁵ Futrell, *United States Air Force in Korea*, 41–42.

drew even more attention from outsiders, which put a significant amount of political pressure on the administration. U.S. political leaders were continuously trying to balance the international community's perception of the bombing campaign in Korea with employing a successful military campaign at the operational and tactical levels.⁵⁶

After the Chinese entered the war, U.S. military leaders looked to policy makers to reduce a majority of the constraints on air power, yet they were met with resistance due largely to pressure being put on the Truman administration from Europe to keep the war contained in Korea. The British and the French, already spread thin because of their forces in Malaya and Indochina, were weary of expanding the bombing campaign (undoubtedly causing more civilian casualties) into Manchuria because of the possibility of igniting a third world war—in which case they would need the United States' resources for their defense rather than consumed by a war in Asia.⁵⁷ When the United Nations General Assembly met on December 14, 1950, and adopted a resolution supporting a negotiated settlement to end the conflict in Korea, European leaders implored the United States to use diplomatic means rather than military escalation to resolve the conflict.⁵⁸

Although Britain demanded the United States consult with it on major strategic moves—particularly those that expanded the bombing efforts—as the war continued and the United States found itself as the primary stakeholder, concern for the allies' approval at the operational and strategic level seemed to decrease in parallel. In 1952, when the decision was made to bomb the previously forbidden hydroelectric power plants, Washington failed to notify Britain of its intentions causing a short-lived degradation in relations between the two countries.⁵⁹ With Eisenhower in office, the administration's apprehension to expand the bombing campaign—including the option to use nuclear weapons and their accompanying collateral damage effects—declined significantly. Despite the decline, the European allies' fear that expanding the war would make their

⁵⁶ Crane, *American Airpower*, 184.

⁵⁷ Hosmer, "Constraints on U.S. Strategy," 83.

⁵⁸ See, for example, Kaufman, *Korean War*, 100–103.

⁵⁹ Hone, "Strategic Bombardment Constrained," 491; Kaufman, *Korean War*, 227–28.

territory susceptible to a retaliatory nuclear strike by the Soviet Union was still a primary factor restraining Eisenhower.⁶⁰ As the pressure built to break the stagnation and get American troops home during the summer of 1953, Eisenhower concluded that if the atomic offensive was successful “the rifts so caused could, in time, be repaired.”⁶¹

Both Truman and Eisenhower’s substantial regard for collateral damage was essential for maintaining the allies’ support and keeping the international community’s accusations of an unjust and inhumane war to a minimum. Even with that in mind, similar to the gradual decrease in limits placed on U.S. bombing as the war evolved, the political leaders’ concern regarding negative impressions of U.S. operations and tactics diminished as the stakes were raised by the adversaries. Also significantly important, the availability and advancement of media resources at the time reduced the North Koreans’ ability to wage the same aggressive and influential propaganda campaign that the North Vietnamese did twenty years later.⁶² The limited amount of coverage on the Korean War significantly hampered the world’s ability to see what was occurring below the strategic and political levels.

D. CONCLUSION

During the Korean conflict, the three main factors discussed in this chapter—the proximity to World War II, the limited nature of the war, and the pressure from outside entities—all impacted the disparity between collateral damage effects at the strategic level versus those at the operational and tactical level. At the strategic level, the potential for collateral damage directly imposed restraints such as forbidding airmen to cross the North Korean border, restricting the use of incendiaries at the start of the war, and preventing pilots from bombing certain industrial targets until much later in the war. Conversely, at the operational and tactical levels, many of the pilots executing the missions, and many of the military leaders giving them their orders, were far enough

⁶⁰ Edward C. Keefer, “President Dwight D. Eisenhower and the End of the Korean War,” *Diplomatic History* 10, no. 3 (1986): 272, doi:10.1111/j.1467-7709.1986.tb00461.x.

⁶¹ Dwight D. Eisenhower, *Mandate for Change, 1953–1956: The White House Years* (Garden City, N. Y.: Doubleday, 1963), 15.

⁶² Hosmer, “Constraints on U.S. Strategy,” 58.

away from the flag pole to have some flexibility in the tactics they were using to accomplish their mission. Since actions taken at the tactical level, such as the bombing of the irrigation dams, were not publicized in the same detail the President and high ranking military leaders' statements were, the concern for collateral damage and the measures taken to avoid killing civilians were less of a priority at the lower levels. This in no way argues that the U.S. pilots in Korea did not care about the innocent lives of the civilian populace, it simply implies that the quest for survival and the desire to accomplish their mission made collateral damage a more acceptable byproduct of the war.

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III. THE VIETNAM WAR

Many of the lessons learned from the bombing campaign over Korea could have been applied to the Vietnam War, but the thought among political and military leaders prior to Vietnam centered on the next major war involving the Soviet Union, in which case nuclear weapons would dominate air power strategy. Consequently, the relationship between collateral damage effects at the strategic, operational, and tactical levels became largely obscured since it was assumed that civilian deaths would assuredly be a byproduct of nuclear war. To the air planners' surprise, the United States found itself entangled in another limited war with significant political constraints being applied to air power that were due largely to collateral damage considerations. As the war unfolded, the political leaders responsible for executing the Vietnam bombing operations not only cared deeply about the effects of collateral damage, but they also took extensive measures to avoid it. After giving a brief background of the war and the three major air campaigns, this chapter examines the campaigns over North and South Vietnam separately and compares and contrasts some of the same collateral damage considerations seen during the Korean War.

Broadly speaking, two of the primary strategic objectives for the United States entering the Vietnam War were to stop the spread of communism, and as a direct result, help the South Vietnamese defend themselves from the Northern Communists and preserve the South's independence. Similar to the Korean War, the United States attempted to achieve these objectives through a limited military campaign. As the war progressed, the primary objective of defeating the North Vietnamese communists slowly shifted to implementing Vietnamization, saving the lives of American prisoners of war, and somehow attempting to achieve peace with honor, meaning the withdrawal of U.S. forces on terms that would allow an independent regime in the South to survive.⁶³

Although the Johnson and Nixon administrations both oversaw bombing Vietnam from 1965 to 1972, they each took different approaches to the strategy and tactics

⁶³ Clodfelter, *Limits of Air Power*, 204.

employed. Similar to the gradualist approach implemented in Korea, President Johnson and his first Secretary of Defense, Robert McNamara, engaged in a slow escalation of aggression aimed at threatening the North into concessions and establishing an independent, non-communist South Vietnam.⁶⁴ They employed this strategy through Operation Rolling Thunder, which lasted from March 2, 1965, to November 1, 1968. McNamara imagined that giving the Vietnamese a glimpse of U.S. power, specifically from the air campaigns, would cause them to reconsider their attempted takeover of the South.⁶⁵ In Johnson and McNamara's view, the quick and decisive employment of air power would obtain their political objectives without raising the stakes to the point of Soviet or Chinese intervention. This strategy became popularly referred to as "enough but not too much."⁶⁶

President Nixon took a different approach in his oversight of Operation Linebacker I and II, which took place between May and December of 1972. Since the landscape of the war had changed significantly since the end of Rolling Thunder, Nixon used air power as a tool to achieve his objective of gradually withdrawing American troops while keeping the South from completely collapsing.⁶⁷ Contrary to Johnson's attempt to get the North to see him as someone always willing to negotiate, Nixon wanted the North Vietnamese to view him as unpredictable and prepared to go to any lengths to end the war on favorable terms.⁶⁸ At one point, Nixon told his aide H.R. Haldermann, "I want the North Vietnamese to believe I've reached the point where I might do anything to stop the war. We'll just slip the word to them that, for God's sake, you know, Nixon is obsessed about communism. We can't restrain him when he's angry and he has his hand on the nuclear button."⁶⁹ Although Nixon was known for this type of rhetoric, he was still apprehensive about escalating the war for fear of Soviet or Chinese intervention. Nixon often used such gestural language to overcome the unmistakable impression that his aim

⁶⁴ Clodfelter, *Limits of Air Power*, 204.

⁶⁵ Ibid.

⁶⁶ Grant, *Over the Beach*, 113.

⁶⁷ Clodfelter, *Limits of Air Power*, 174.

⁶⁸ Smith, *Linebacker Raids*, 43.

⁶⁹ Smith, *Linebacker Raids*, 44.

was not to end the war but to leave the war. Regardless of the different strategies of each administration, both were concerned with the effects of collateral damage and its implications throughout the war.

A. THE AIR CAMPAIGN IN NORTH VIETNAM

The strategic goals and objectives of the bombing campaign of North Vietnam centered on taking out specific industrial targets and preventing supplies from getting to the NVA and Vietcong in the South—all while minimizing civilian casualties. The ways and means of executing this strategy was a major point of contention between military leaders and the Johnson administration. Many U.S. air commanders were veterans of World War II and Korea who believed the objective in the North should be to completely destroy any and all of the North's industrial war-making capacity, regardless of its proximity to civilians.⁷⁰ Although they did not advocate purposely killing Vietnamese civilians with air strikes, the military leaders' acceptable number of civilian casualties was much higher than their civilian counterparts. They continuously fought the Johnson administration on restricting the location of air strikes and limiting the number of targets struck. The disparity in views of the military and political leaders on the proper bombing strategy demonstrated the gap between the concern for collateral damage at the political, operational, and tactical levels.

Under the Nixon administration, the relationship between civilian and military leaders was more unified. Unlike Johnson, President Nixon gave considerably more autonomy to his military leaders, and where Johnson had chastised air commanders for being too aggressive, Nixon found them too cautious.⁷¹ One of the biggest factors restraining Nixon from all-out bombardment of the North, besides outside intrusion, was the political repercussion of restarting the bombing campaign after Johnson's decision to halt it in 1968.⁷² When the bombing did resume over North Vietnam in 1972, the handcuffs placed on military leaders and pilots were loosened significantly. In response

⁷⁰ Clodfelter, *Limits of Air Power*, x.

⁷¹ Grant, *Over the Beach*, 265.

⁷² *Ibid.*

to his decision to resume the bombing campaign after the North Vietnamese's 1972 Easter offensive, Nixon said, "I cannot emphasize too strongly that I have determined that we should go for broke...he has gone over the brink, and so should we."⁷³ As the air campaign in the North progressed, one tactic the two administrations differed greatly on was targeting.

Designing a targeting campaign for the North was first assigned to Air Force General Curtis Lemay with the help of the Pacific Command Headquarters. Famous for his relentless bombing campaign against the Japanese during World War II, Lemay assembled a list of 94 targets in the summer of 1964 that encompassed the vital war-making capacity of the North.⁷⁴ Unlike the indiscriminate bombing campaign of Japan in which Lemay coined the term "bonus damage" to describe the destruction of civilian life and property, his initial target plan for Vietnam did not specifically target civilian populations.⁷⁵ Nonetheless, Johnson and McNamara disapproved of the plan and a continuous debate over targeting between military and civilian leaders ensued. As a way to avoid opposition from military leaders, many strategic and operational decisions (including targeting) occurred during Johnson's Tuesday luncheons, which lacked any military representation for much of the Rolling Thunder campaign.⁷⁶

The potential effects of collateral damage from bombing urban areas in North Vietnam, specifically areas close to Hanoi and Haiphong, was one of the tripwires Johnson feared would provoke Chinese or Soviet intervention. The deaths of civilians in a country to which the Chinese and the Soviets had offered assistance and de facto protection put their own credibility at risk. Additionally, there were Chinese and Soviet civilian and military personnel in North Vietnam whose deaths may have ignited intervention from the PRC or the USSR.⁷⁷ To ensure urban areas remained safe from American aircraft, Johnson placed a thirty mile restricted area around Hanoi and a ten

⁷³ Grant, *Over the Beach*, 267.

⁷⁴ Clodfelter, *Limits of Air Power*, 76.

⁷⁵ *Ibid.*, 76–77.

⁷⁶ *Ibid.*, 122.

⁷⁷ Qiang Zhai, *China and the Vietnam Wars, 1950–1975* (Chapel Hill: University of North Carolina Press, 2000), 180–81.

mile restricted area around Haiphong. Within that, prohibited areas were formed ten miles and four miles around each city respectively where no overflight was to occur.⁷⁸

Johnson's advisers feared that mining the Haiphong harbor coupled with striking SAM sites and airbases housing Vietnamese aircraft would result in outside involvement; therefore, those targets were off limits to American pilots during Rolling Thunder.⁷⁹ The hesitance by Johnson's administration to destroy these vital targets early in the war had enormous strategic repercussions. It permitted the North Vietnamese to build one of the most sophisticated and lethal air defense systems of that era, and it allowed supplies from the Soviets and Chinese to reach the North Vietnamese through Haiphong harbor.⁸⁰ Nixon finally approved mining the harbor in 1972.

The bombing campaign over North Vietnam during the two Linebacker operations attacked many of the same targets taken out during Rolling Thunder because of the time given to the North to rebuild them. Unlike Rolling Thunder, bombing during the Linebacker operations were persistent rather than gradual, and pilots were less restrained politically in defining targets of opportunity. Nixon's administration was still keen on keeping civilian casualties to a minimum, but the handcuffs enforced by Johnson were loosened. In contrast to the multiple targeting constraints prescribed by Johnson, only two major restrictions were enforced in 1972. First, pilots could not strike any targets within 25 to 30 nautical miles of the Chinese boarder; second, any targets within a ten mile radius of Hanoi had to be approved by the JCS.⁸¹ Nixon's trust in the JCS to manage the prospective collateral damage associated with targets in the North was a huge leap from the former administration and still kept civilian casualties reasonably low compared to previous wars.⁸²

Despite careful efforts by both civilian and military leaders to minimize collateral damage in the North, it still occurred. This was due largely to civilians' proximity to the

⁷⁸ Frankum, *Rolling Thunder*, 44.

⁷⁹ Frankum, *Rolling Thunder*, 31.

⁸⁰ Grant, *Over the Beach*, 14.

⁸¹ Clodfelter, *Limits of Air Power*, 163.

⁸² *Ibid.*, 164..

fixed targets being struck rather than American pilots bombing heavily populated areas. Before laser guided munitions entered the war in 1972, it was inevitable that bombs were not always going to directly hit the target, especially with the inaccuracies of the B-52 bombing system. Military leaders seemed to accept this reality much better than their political counterparts. In response to McNamara's bombing restrictions, Admiral Grant Sharp, commander of U.S. forces in the Pacific, claimed, "This war is dirty business, like all wars. We need to get hardheaded about it...When Hanoi complains about civilians being killed, is it not possible to say, 'Perhaps some were killed, we tried to avoid that, but this is a war and some civilians are bound to get killed.'"⁸³ To Sharp's dismay, political pressure and the American public's growing discontent with the war prevented Johnson and his advisers from aligning their views with military leaders.

The strategic and political effects of collateral damage during the Vietnam War had a direct impact on the methods of employment at the tactical level unseen in the Korean War. To try and reduce the collateral damage resulting from the B-52's inaccurate bombing system, military leaders were instructed to design bombing routes that avoided or minimized collateral damage by restricting final attack headings of the aircraft. Bombers flew the same routes each time and attacked targets from the same direction.⁸⁴ This tactic to avoid collateral damage proved disastrous since it allowed the North Vietnamese to predict the flight path of incoming B-52s and react accordingly with surface-to-air missiles and guns. The result was fifteen B-52s lost and nine severely damaged during the eleven days of Linebacker II operations.⁸⁵

During Rolling Thunder, the CIA estimated 200 thousand tons of bombs caused 29,600 civilian casualties.⁸⁶ The North Vietnamese estimated that 1300 civilians around Hanoi and 300 civilians around Haiphong were killed during the Linebacker raids.⁸⁷ On the surface these numbers may seem like a lot, but when compared to previous air

⁸³ Grant, *Over the Beach*, 124.

⁸⁴ Smith, *Linebacker Raids*, 120.

⁸⁵ *Ibid.*, 138.

⁸⁶ Clodfelter, *Limits of Air Power*, 136.

⁸⁷ Smith, *Linebacker Raids*, 202.

campaigns of the twentieth century, the collateral damage from air warfare in Vietnam was low. American B-29 bombers killed more than 83,000 civilians in one night during the Tokyo bombing campaign.⁸⁸ Even critics of the war such as American jurist Telford Taylor, a prosecutor at the Nuremberg Trials, conceded that the bombing campaign was not aimed at killing civilians. After visiting Hanoi following the Linebacker II raids Taylor wrote, “Despite the enormous weight of bombs that were dropped, I rapidly became convinced that we were making no effort to destroy Hanoi.”⁸⁹ To this extent, at least, civilian deaths in North Vietnam were genuinely “collateral,” rather than part of an effort to degrade the enemy’s morale by killing his population. Perception played a pivotal role though, and not everyone—including much of the American public—held the same view as Taylor. This anti-war sentiment was a U.S. vulnerability the North Vietnamese knew they could exploit politically, and it was one of many ways they responded to the air campaign in the North.

The North Vietnamese response to the bombing of their territory was something the United States both miscalculated and underestimated. Days before Operation Rolling Thunder started, the North Vietnamese started preparing for the destruction of their homeland. Expecting nothing short of the atrocious bombing campaign the U.S. imposed on Japanese cities during World War II, the Central Committee of the Communist Party prepared their citizens for the total destruction of Hanoi and Haiphong.⁹⁰

Two days before the bombing campaign of the North began in 1965, North Vietnamese leadership started evacuating civilians from Hanoi and Haiphong with priority given to women and children not directly involved in the war effort.⁹¹ By the end of 1967, the population of Hanoi was reduced from 600,000 to less than 400,000 while Haiphong’s population had dropped from 400,000 to 250,000.⁹² In addition to evacuating their citizens, the North Vietnamese built massive quantities of bomb shelters to prepare

⁸⁸ Smith, *Linebacker Raids*, 202.

⁸⁹ *Ibid.*, 163.

⁹⁰ Grant, *Over the Beach*, 114.

⁹¹ *Ibid.*

⁹² Clodfelter, *Limits of Air Power*, 137.

for what they thought was going to be an indiscriminate and ruthless bombing campaign by the Americans. It was estimated that close to 21 million bomb shelters were built in North Vietnam with the goal of a three to one ratio of shelters to citizens.⁹³ The motto of the North Vietnamese became “The bomb shelter is your second home.”⁹⁴ In conjunction with air-raid sirens alerting civilians of impending attacks, the bomb shelters became a routine part of North Vietnamese daily life. Civilians became proficient at discerning when it was imperative they take shelter and when they had a few extra minutes to continue repairing their war-damaged territory.⁹⁵

As a result of the administrations’ concern for collateral damage, U.S. bombers were heavily restricted from hitting high value structures within the confines of Hanoi and Haiphong. Ironically though, the North Vietnamese essentially solved much of the collateral damage problem for the United States by evacuating civilians and building shelters. This misunderstanding and miscalculation of the other side’s intentions heavily favored the North Vietnamese since they were able to maintain their vital industrial structures and still exploit collateral damage that occurred despite U.S. efforts to avoid it.

Once the North Vietnamese realized they could survive the bombing onslaught by the United States, they took pride in their strategy of endurance and used both the attacks and the collateral damage effects to bolster support both internally and externally. Even during the relentless eleven day bombing campaign of Linebacker II at the end of 1972, North Vietnamese leadership was prepared to accept further bombing rather than give into American demands.⁹⁶ They viewed the war as a military one on the battlefield, and a political one in the South. Le Duc Tho, the head of the Vietnamese Communist Party, stated, “We can only win at the conference table what we have won on the battlefield.”⁹⁷ The North’s long-term strategy had one other aspect working for it toward the end of 1972—the U.S. Congress and American public’s distaste for continuing the war.

⁹³ Grant, *Over the Beach*, 114.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Smith, *Linebacker Raids*, 164.

⁹⁷ Ibid.

Throughout the war, the North Vietnamese used propaganda as a precise weapon and fine-tuned their skills employing it the same way they had done with their surface-to-air systems. Movie stars and journalists who sympathized with the North were given access to the country while objective reporters were kept out.⁹⁸ Harrison Salisbury, a *New York Times* reporter, was invited by the North Vietnamese in late 1966 to report on the damage in North Vietnam caused by American bombers. Salisbury, to the North's dismay, was actually quite surprised at the low number of civilian casualties in urban areas and was more astonished by the United States' targeting priorities. Nonetheless, since the majority of the American public was ill informed on the bombing campaign and thought U.S. planes were striking targets without incurring any civilian casualties, Salisbury's reporting had the effect on the American public the North Vietnamese were hoping for. Soon after Salisbury's articles appeared in U.S. newspapers, a debate on the legitimacy of the U.S. air campaign began and anti-war sentiment increased exponentially.⁹⁹

Moreover, the political oversight at the operational and tactical levels remained strong because of the American public's backlash regarding the morality of the bombing campaign. The North Vietnamese had not only avoided more civilian casualties in their major cities than they had originally expected, but they also successfully used the negative effects of collateral damage against the Americans. To the North Vietnamese leaders, the number of civilian deaths was "acceptable" considering the propaganda it provided and the subsequent restraints it put on the American bombing campaigns.

B. THE AIR CAMPAIGN IN SOUTH VIETNAM

Whereas the bombing campaign over North Vietnam centered on destroying specific targets and avenues for getting supplies to the South, the bombers over South Vietnam focused on supplementing ground troops through Close Air Support (CAS) and eliminating the Vietcong. By supporting both South Vietnamese troops on the ground and working hand in hand with South Vietnamese air commanders, U.S. forces hoped to

⁹⁸ Grant, *Over the Beach*, 118.

⁹⁹ *Ibid.*, 120–22.

boost morale in the South, keep political cohesion intact, and save the South Vietnamese citizens from an enemy they both feared and hated.¹⁰⁰ Similar to the bombing campaign in the North, matching these political goals with military objectives was challenging and avoiding collateral damage became even more difficult in the South. Since avoiding civilian casualties was more challenging, actions at the tactical level had more direct and immediate impacts on the political and strategic level.

Military and political leaders met in January 1966 to ensure the political and military goals for the air war over South Vietnam coincided. They agreed on four objectives for the campaign's future: make it challenging and expensive for the North to get supplies to the South, preserve South Vietnamese territory by driving the enemy from their bases of operation, eliminate the Viet Cong south of the 17th parallel, and continue to deter Chinese intervention or eliminate Chinese troops if China blatantly entered the war.¹⁰¹ Early in the war, these objectives were coupled with General William Westmoreland's war of attrition strategy; however, it became apparent very quickly that the enemy's will to fight proved Westmoreland's strategy both ineffective and costly for the United States.¹⁰²

Another problem with the attrition strategy was finding the enemy among the South Vietnamese population and then eliminating them without killing innocent bystanders. Until the North Vietnamese engaged in a more conventional approach in 1972 with the Easter offensive, the enemy fought the war in the South using hit and run tactics dispersing themselves throughout South Vietnamese villages. This not only made it difficult for troops on the ground to avoid collateral damage, but also for the pilots attempting to strike targets and support ground forces from 20,000 feet above them. This discretion was particularly challenging when it came to choosing legitimate targets.

Targets in the South included enemy troop concentrations, convoys, and supply routes, but when the enemy integrated themselves into South Vietnamese villages, the

¹⁰⁰ Nalty, *Air War*, 306.

¹⁰¹ Frankum, *Rolling Thunder*, 69.

¹⁰² *Ibid.*

target list expanded to ensure the enemy was removed from their strongholds. By the middle of 1966, hospitals, temples, and schools had become military targets because they were being used as bases by the enemy.¹⁰³ In rural areas, military leaders considered sparsely constructed mud huts military targets since they often housed the Vietcong.¹⁰⁴ Since many targets in the South were in close proximity to both civilians and friendly forces, certain rules of engagement were put in place to try and minimize collateral damage.

Despite the time critical nature of responding to ground forces taking enemy fire, South Vietnamese commanders and their American counterparts had to agree on the targets before air strikes could take place in the South. Furthermore, before conducting planned strikes on NVA and VC bases, aircraft were used to warn South Vietnamese civilians of the impending strikes by dropping leaflets and encouraging them to leave the area via loud speaker. Tear gas and direct fire weapons were given priority if the battlefield encompassed large civilian populations so that collateral damage could be minimized.¹⁰⁵

Even with rules of engagement in place to reduce collateral damage, the assimilation of the enemy and the South Vietnamese population resulted in unintended civilian casualties. Contrary to evacuating citizens in the North to prepare for air strikes, the enemy was now purposely integrating itself among the South Vietnamese citizens to force the United States and its allies to risk collateral damage to achieve objectives. In the battle to regain Ben Tre after the 1968 Tet Offensive, it was estimated that close to 500 non-combatants were killed—more than the number of soldiers killed.¹⁰⁶ Because the enemy was using a town filled with innocent civilians as a base for operations, Ben Tre transformed itself into a battlefield without the permission of the people living there. The mismatch of ends, ways, and means in the South became evident when an anonymous U.S. army major speaking about Ben Tre claimed, “It became necessary to destroy the

¹⁰³ Turse, *Kill Anything*, 80.

¹⁰⁴ *Ibid.*

¹⁰⁵ Nalty, *Air War*, 26.

¹⁰⁶ *Ibid.*, 22.

town in order to save it.”¹⁰⁷ It brought into question, to the delight of the North Vietnamese, whether the United States could retain the support and political cohesion of the South Vietnamese while it was destroying massive amounts of their territory with air strikes.¹⁰⁸ It also demonstrated the decreasing disparity between actions at the operational level and their impact at the political level.

Ben Tre was just one of many villages that became a battlefield for the NVA and VC. In Quang Tri, the northernmost province in South Vietnam, it was estimated that only eleven of the 3,500 villages avoided being struck during the war.¹⁰⁹ When friendly villages were overrun by the enemy, tactical decisions often clashed with overall objectives. Commenting on the decision to strike villages which had been taken over by the enemy, one Air Force officer said, “When we are in a bind like we were [here,] we unload on the whole area to try to save the situation. We usually kill more women and kids than we do Vietcong but the government troops just aren’t available to clean out the villages so this is the only answer.”¹¹⁰ The pressure to support ground troops and the urgency to prevent enemy forces from seizing more territory often resulted in blanket clearances by South Vietnamese air commanders to bomb large areas and blurred the rules of engagement. Furthermore, since pilots often were concerned only with saving the lives of their brethren on the ground, they often employed weapons without thinking about the collateral damage repercussions at the strategic and political levels.

The enemy’s response to the bombing campaign in South Vietnam mirrored that of the North in many ways, but differences in how the war was fought in the South offered the North Vietnamese additional ways to exploit the effects of collateral damage. By mixing themselves into the general population and turning normal cities and villages into battlegrounds, the North Vietnamese were able to negatively affect both U.S. and South Vietnamese morale. The South Vietnamese commanders were calling in air strikes on their own citizens—and in some cases their own family and friends—resulting in the

¹⁰⁷ Nalty, *Air War*, 22.

¹⁰⁸ *Ibid.*

¹⁰⁹ Turse, *Kill Anything*, 81.

¹¹⁰ *Ibid.*, 86.

destruction of their homeland, while the United States was often forced to attack populations known to have women and children in order to protect troops on the ground. Furthermore, confiscated documents later revealed that during the North's spring offensive of 1968, North Vietnamese troops employed rocket attacks near civilian populations with the sole purpose of provoking a U.S. response that would cause collateral damage.¹¹¹ By inducing these responses, the North Vietnamese were forcing the United States to take tactical actions that would have strategic and political impacts.

The guerilla warfare employed by the Vietcong in response to the conventional battle being fought by the United States aided the North's political objectives in the South. By assimilating with the South's population, the NVA and Vietcong were able to simultaneously fight the enemy and exploit the damage caused by American forces to turn South Vietnamese citizens against their own government. In villages where bombings transformed civilians into refugees in the blink of an eye, the Vietcong convinced many citizens including women and children to fight for the other side. Although the South Vietnamese did not rally to the communists completely, the population was certainly weary and discouraged at the end, which eventually helped lead the NVA to victory.

In turn, the civilians the United States and its allies protected one week could take up arms against them the next after being exposed to the North's propaganda. After civilians were persuaded to fight for the Vietcong, U.S. and South Vietnamese troops were again faced with the decision to kill what often appeared to be innocent women and children. In a personal interview, Troung "Mealy," a former Vietcong agent in the Mekong Delta, stated, "Children were trained ... to throw grenades , not only for the terror factor, but so the government or American soldiers would have to shoot them. Then the Americans feel very ashamed. And they blame themselves and call their soldiers war criminals."¹¹² This tactic worked against the American public, and it also attempted to persuade the rest of the international community to sympathize with the North Vietnamese. Although by the end of the war international sympathy for the North

¹¹¹ Nalty, *Air War*, 72.

¹¹² Grossman, *On Killing*, 267.

Vietnamese was not all that great, these tactics provided potential negativity toward the American war effort and added pressure to U.S. policy makers.

Propaganda was particularly effective with the Chinese and the Soviets who did not need much convincing to support the North Vietnamese war effort in the first place. In a bipolar world where the United States and the Soviet Union had become the lone superpowers, it was not hard for communist sympathizers to support the underdog, especially when encouraged by propaganda showing the killing of “innocent” civilians in the South. The North Vietnamese boasted after the war how they had successfully used propaganda to encourage anti-war sentiment and help their goal of removing U.S. soldiers from their territory.¹¹³ In the South, the enemy’s use of propaganda was a deliberate tactic to exploit the negative effects of collateral damage, and it provided another example of how the United States miscalculated the North Vietnamese’s determination to achieve victory.

C. CONCLUSION

By the end of the twentieth century, avoiding or minimizing collateral damage was at the forefront of every political and military leader’s mind. The air campaigns during the Vietnam War were the significant starting points for this evolution of thought because of civilian and military leaders’ genuine concern for collateral damage’s implications. Notched in between the indiscriminate bombing campaigns of World War II and the current day tactics that rely extensively on GPS guided weapons, Vietnam provided concrete examples of how the effects from collateral damage politically and militarily impacted U.S. strategy.

The potential effects of collateral damage during Vietnam forced U.S. decision makers to adjust their tactics and strategy throughout the war. It also tightened the relationship between collateral damage effects at the strategic, operational, and tactical levels. This more closely intertwined relationship was more exaggerated than the Korean War in which collateral damage largely only influenced major strategic decisions such as border incursions rather than strict operational oversight. Fearing that bombing

¹¹³ Grant, *Over the Beach*, 118.

populations close to Hanoi and Haiphong would provoke outside intervention, the Johnson administration severely restricted targets around North Vietnam's major population centers and its main harbor. This allowed supplies to flow freely into the North and subsequently down to the Vietcong in the South; it also allowed the North to build a complex surface-to-air defense system that wreaked havoc on U.S. pilots throughout the war.

The prospect of collateral damage from the Vietnamese side resulted in unparalleled preparation for World War II style bombing. Not realizing North Vietnamese leaders had solved much of the problem for them, U.S. policy makers acted cautiously and left many vital targets standing until the 1972 counter to the North's Easter offensive. At that point, U.S. strategy had shifted to Vietnamization and the continued drawdown of American troops. Over the course of the entire war, the prospects of collateral damage had profound impacts on strategy and policy for both sides.

The United States failed to look extensively at the effects of collateral damage from a strategic perspective and instead focused on the consequences from a humanitarian standpoint. Political and military leaders adjusted their tactics from their World War II roots to minimize civilian casualties, but they underestimated the tenacity of the North Vietnamese to use whatever means necessary to outlast the American war effort. For the North Vietnamese, exploiting the negative effects of collateral damage coincided with their military, political, and strategic objectives of the war. For U.S. leaders, collateral damage effects were a microcosm of the no-win situation they found themselves in from the war's start.

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IV. THE KOSOVO CONFLICT

The time that elapsed time between the end of the American War in Vietnam in 1973 and NATO's intervention in Kosovo in 1999 produced significant improvements in both U.S. military capabilities and global communications. Yet even with these important developments, there were still common threads linking OPERATION ALLIED FORCE in Kosovo to the bombing campaigns over Korea and Vietnam, and some of the same factors that impacted collateral damage concerns in those conflicts were apparent again in Serbia and Kosovo. Two elements that largely influenced the concern for potential and actual collateral damage during Kosovo were the limited nature of the war and the U.S. ability to maintain NATO's cohesion throughout the conflict. Within these two elements, factors such as improvements in weapons capabilities and the speed at which information could be disseminated worldwide played critical roles in political and military leaders' attempts to deal with the political and strategic effects of collateral damage. The advances in technology leading up to the bombing campaign in Kosovo decreased the disparity between collateral damage effects at the strategic level and those at the operational and tactical level previously unseen during Korea and Vietnam.

A. NEW LIMITS AND NEW CHALLENGES

Although advances in technology and communications distinguished the Kosovo conflict from Korea and Vietnam, there were still many similarities among the three wars that had direct impacts on the bombing campaigns and collateral damage considerations. With Kosovo, the United States was once again engaged in a conflict with limited political and strategic objectives that had many critics questioning if the conflict was a vital American interest. The report for Congress on the lessons learned from OPERATION ALLIED FORCE states that "NATO had limited political objectives in the conflict, most of which were at least partially met. Key considerations, such as avoiding civilian casualties and losses to NATO forces, affected the design of the military strategy supporting these objectives."¹¹⁴ Concerns for collateral damage and the measures

¹¹⁴ Gallis, "Kosovo: Lessons Learned from Operation Allied Force."

implemented to mitigate civilian casualties were certainly not new concepts, but the pressure to avoid collateral damage in Kosovo was greater than any other conflict up to that point because of advances in technology.¹¹⁵ In addition, the stakes in Kosovo were smaller for the United States than in Korea and Vietnam. Whereas the Korean and Vietnam wars were framed by a global ideological struggle, Kosovo was an intervention against a “rogue”; in turn, there was more emphasis on not harming the victims of the rogue regime.

The gradualist approach to the bombing campaign was another characteristic that OPERATION ALLIED FORCE shared with Korea and Vietnam. Collateral damage concerns affected directly the hesitation to use overwhelming and decisive force from the beginning of the conflict. Gradual escalation was perhaps easier for the public to accept and thus was politically more acceptable. Also consistent with Korea and Vietnam, as the conflict perpetuated and bombing efforts increased, the list of acceptable targets grew. Unlike previous conflicts, however, the amount of collateral damage did not increase because of constraints being lifted on targets. This positive result was due partly to the advance in weapons systems that will be discussed later, but it was also a result of the close connection between actions at the tactical level and their subsequent strategic implications.

Though the bombing campaigns of Kosovo, Korea, and Vietnam resembled each other in many aspects, there were also some stark differences that impacted the effects of collateral damage. Most obvious, NATO relied on air power as the only military means to achieve the stated objectives, which subsequently exposed particular strengths and weaknesses in a strategy that was based solely on air power alone.¹¹⁶ The air power only approach meant there was no threat to U.S. or allied ground forces, but it also meant that each mission conducted by NATO aircraft was examined under a microscope.

¹¹⁵ Benjamin S. Lambeth, *NATO's Air War for Kosovo: Strategic and Operational Assessment*, (Santa Monica, CA: RAND, 2001), 136.

¹¹⁶ Bruce R. Nardulli et al., *Disjointed War: Military Operations in Kosovo, 1999*, (Santa Monica, CA: RAND, 2002), 44.

Since there were no NATO ground forces employed into Kosovo during OPERATION ALLIED FORCE, the Kosovo Liberation Army (KLA) was the only ground force fighting against the Serbs. Consequently, the mission of close air support—and the associated potential for collateral damage—both decreased. NATO aircraft still supported the KLA by bombing tactical targets such as tanks and military personnel, but coordination between troops on the ground and pilots overhead did not match the level seen during Korea and Vietnam. The absence of NATO ground troops mitigated some of the ROE concerns relating to close air support seen in previous conflicts, but other constraints on ROE because of the fear of collateral damage seemed to more than make up for it.

Throughout the conflict, NATO leaders were constantly preoccupied with taking whatever measures necessary to avoid civilian casualties. Major General Charles Wald, the deputy director of strategic planning for the Joint Staff, described the ROE for the bombing campaign “as strict as I’ve seen in my 27 years in the military.”¹¹⁷ The meticulous oversight of civilian leaders, specifically regarding targets classified as politically sensitive, approached levels unobserved since President Lyndon Johnson scrutinized targets lists during the Vietnam War.¹¹⁸ Ramifications felt by political leaders because of incidents of collateral damage resulted in immediate adjustments to ROE at the operational and tactical levels. Instead of looking at each incident within the larger context of the war, politicians demanded that their military commanders modify the ROE to meet strategic objectives.¹¹⁹ The ROE adjustments produced modifications in the types of weapons authorized, the acceptable methods of attack, and target identification procedures.

One amendment to the ROE that received a substantial amount of attention was the decision to allow pilots to descend below 15,000 feet for attacks in order to reduce the risk of collateral damage. The rationale for keeping pilots above 15,000 feet was to keep

¹¹⁷ Quoted in Lambeth, *NATO’s Air War*, 136.

¹¹⁸ Arkin, “Operation Allied Force,” 28.

¹¹⁹ On May 4, the Department of Defense reported that 99.93 percent of the bombs dropped did not result in collateral damage. For detailed information see Cordesman, *Lessons and Non-Lessons*, 120.

them out of range of Serbian anti-aircraft artillery and man portable anti-aircraft missiles that were largely ineffective at targeting aircraft at medium altitudes. Some scholars have argued that NATO's decision initially to restrict pilots to operating above 15,000 feet was a direct contributing factor to collateral damage. These assertions are speculative and show a lack of understanding of the aircrafts' weapons systems and tactical capabilities. Some critics such as Edward Luttwak, have referred to the medium altitude used by NATO aircraft as "ultra-safe" which completely ignores the reality that Serbia possessed—and employed—radar guided surface-to-air missiles with ranges upward of 40,000 feet.¹²⁰

After hearing numerous people criticize the directive to restrict aircraft above 15,000 feet, many Air Force officers came to the defense of NATO leaders by endeavoring to educate the general public that in most cases—specifically with precision guided munition—employing weapons from medium altitudes is actually more, not less accurate.¹²¹ Despite the Air Force officers' attempts to inform both the general public and the policy makers, the ROE was amended to give pilots the option to descend to lower altitudes after two collateral damage incidents in early April caused major political backlash.¹²² This modification to the ROE was largely a reaction to political repercussions and not a direct order for pilots to fly below 15,000 feet for employment. Other amendments to the ROE because of outside criticism and concern for collateral damage were the prohibition of cluster munitions by the United States after May 7, and a

¹²⁰ Edward N. Luttwak, "Give War a Chance," *Foreign Affairs* 78, no. 4 (1999): 40, EBSCOhost (00157120). See also Tania Voon, "Pointing the Finger: Civilian Casualties of NATO Bombing in the Kosovo Conflict," *American University International Law Review* 16, no. 4 (2001): 1112–13, www.lexisnexis.com/hottopics/lnacademic.

¹²¹ The rebuttal to these claims is based on the author's own knowledge as an F/A-18 Weapons System Officer in the U.S. Navy. For more discussion on the topic, see William M. Arkin, "Challenge to the '15,000-Foot Myth' Consumes Air Force Planners," *Defense Daily*, March 2, 2000, <http://www.defense.daily.com/>.

¹²² W.J. Fenrick, "Targeting and Proportionality during the NATO Bombing Campaign against Yugoslavia," *European Journal of International Law* 12, no. 3 (2001): 501, <http://www.ejil.org/pdfs/12/3/1529.pdf>. The two incidents were an attack on a bridge that struck a train carrying civilians and the bombing of a misidentified civilian convoy on April 12 and 14, respectively.

restriction on attacking lines of communication during hours when civilians could potentially be in the immediate area.¹²³

Compared to previous conflicts, the actual amount of civilian casualties from bombing during the 78 day campaign was astonishingly low. The most agreed upon number for the total amount of civilian casualties for the war is around 500, with a large portion of those deaths resulting from a small number of attacks.¹²⁴ The first week of the operation resulted in only a single civilian casualty, yet General Wesley Clark, NATO's Supreme Allied Commander Europe, spent much of the time reassuring allied militaries and policy makers that measures were in place to ensure collateral damage was being avoided.¹²⁵ In his first press conference after the start of the campaign, General Clark stated, "We are taking all possible measures to minimize collateral damage or damage to innocent civilians or nearby property that is not associated with the target."¹²⁶

The substantially low number of civilian casualties at the beginning of the conflict was also consistent with the gradualist approach to the bombing campaign. The number of sorties flown in the first week was significantly lower than later portions of the war. Another reason for the small amount of collateral damage during the initial phase of operations was that of precision guided weapons accounting for all the drops.¹²⁷ The employment of these weapons was both a blessing and a curse for U.S. forces throughout the conflict.

¹²³ Fenrick, "Targeting and Proportionality," 501.

¹²⁴ In this context, incidents and attacks are synonymous. To put the word "small" in context, the Department of Defense final report in January 2000 concluded there were 12,600 strike attack sorties flown during the Kosovo Operation. A study completed by Human Rights Watch concluded that there were as few as 489 and as many as 528 Yugoslav civilian deaths in 90 separate incidents during the bombing campaign. The total number of deaths assessed by HRW is consistent with NATO's assessments although the total number of incidents reported by HRW is higher than what was reported by NATO. In the January 2000 report, NATO put the number of incidents at 38. For a more detailed discussion see "Civilian Deaths in the NATO Air Campaign – The Crisis in Kosovo," Human Rights Watch, accessed February 7, 2014, <http://www.hrw.org/reports/2000/nato/Natbm200-01.htm>.; Cordesman, *Lessons and Non-Lessons*, 102–103,120.

¹²⁵ Arkin, "Operation Allied Force," 15.

¹²⁶ Wesley K. Clark quoted in *Ibid.*, 14–15.

¹²⁷ Between March 24 and 29, all weapons were either laser-guided or GPS guided munitions. The first unguided, or "dumb" bomb, was dropped on the fifth day of the war. See *Ibid.*, 12.

The use of stealth technology, significant increases in the use of laser guided and GPS guided weapons, and a much more robust and sophisticated command and control systems were all advances that were absent in the Korean and Vietnam wars. One would think that the increase in capabilities due to advanced technology would align perfectly with the limited aims of NATO and its attempt to reduce the effects of collateral damage, but in many cases, it simply raised expectations to an unrealistic level.¹²⁸ In particular, the availability and use of precision guided weapons gave both domestic and international audiences the false impression that the United States and NATO were capable of what Cordesman refers to as a “perfect” and “bloodless” war.¹²⁹ Most likely unbeknownst to them at the time, U.S. policy makers and military leaders were contributing to the impracticable expectations of air power by overtly celebrating the weapons’ success.¹³⁰ With this in mind, it is easy for one to see how actions taken at the operational and tactical levels had immediate strategic and political consequences.

The United States often concentrated its efforts on exposing the falsities of the enemy’s propaganda campaigns, yet U.S. leaders were just as guilty of bending the facts in ways that harmed overall objectives. Although NATO officials did not completely discount the possibility of collateral damage, many of the briefings and weapons system video supported the commanders’ assertions that bombing efforts were being conducted in a nearly perfect manner. The statements made by political and military leaders concerning the accuracy of the weapons being delivered were truthful, but they were carefully tailored in a way that gave anyone not intimately familiar with the bombing campaign the impression that every weapon being employed was going to result in a direct hit.¹³¹

A further complication was that the policy makers’ definition of accuracy was based seemingly more on the political sensitivity of incidents rather than how close the

¹²⁸ For a similar idea see Scott Stephenson, “The Revolution in Military Affairs: 12 Observations on an Out-of-Fashion Idea,” *Military Review* (May-June 2010): 38–46, http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20100630_art007.pdf.

¹²⁹ Cordesman, *Lessons and Non-Lessons*, 95.

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

bombs actually came to hitting the desired impact point. Due to their subjective reporting of the bombing campaign, U.S. officials mislead many outside observers by not separating avoidable mistakes from the inevitable repercussions of war. If the United States and NATO would have taken a more open and objective stance on the reporting of collateral damage, it can be argued that it would have given NATO more credibility. Since the efficiency of the air war was unprecedented to begin with, American candor may have exposed Serbian propaganda for what it was. Objective reporting could potentially have set a more realistic standard for politicians regarding their expectations for air power in future conflicts.¹³²

Despite the attention given to laser and GPS guided weapons, only a third of the bombs dropped during OPERATION ALLIED FORCE were precision-guided munitions, and the majority of them were employed in the first weeks of the campaign.¹³³ Consistent with previous conflicts, as the stakes were raised and the urgency to end the conflict grew, the restrictions on attacks decreased. The acceptance of unguided munitions as a viable method of attack did not however, increase the amount of collateral damage. Two collateral damage incidents in mid-April that received a significant amount of criticism—an attack on a bridge that struck a train carrying civilians and the bombing of a misidentified civilian convoy—were both conducted using precision-guided munitions.¹³⁴ The most publicized incident of collateral damage, the accidental bombing of the Chinese embassy in May 1999, was also struck using precision-guided weapons.¹³⁵ The reality that three of the most highly visible collateral damage incidents all involved precision-guided weapons demonstrates clearly that advances in technology did not produce a perfect bombing campaign, it only raised expectations to unrealistic levels and misguided the general public on the realities of war.

¹³² Cordesman, *Lessons and Non-Lessons*, 121.

¹³³ Most documents put the number somewhere between 30–35 percent, with 35 percent seemingly the consensus. See Arkin, “Operation Allied Force,” 21.

¹³⁴ Michael Dobbs and Karl Vick, “Airstrikes Kill Scores of Refugees,” *Washington Post*, April 15, 1999, <http://www.washingtonpost.com>; Lambeth, *NATO's Air War*, 138.

¹³⁵ This attack was the result of bad intelligence on the target location rather than a malfunction of the weapons or aircrew error. For a more detailed discussion see Cordesman, *Lessons and Non-Lessons*, 103–119.

Moreover, NATO's expectations of little to no collateral damage and its impact on the international media must not be ignored. Since military and political leaders gave impressions of a near perfect campaign—which subsequently discredited the normal friction of war as the cause of errors—each occurrence of collateral damage, no matter how big or small, became front page news both domestically, and especially abroad. If the international media was under the impression that zero to few civilian deaths was the standard by which strategic success was being measured, they were happy to question any collateral damage incidents that challenged that assumption. Additionally, the media often omitted factors such as bad weather and weapon malfunctions that contributed factors to collateral damage and instead concentrated solely on the macro level implications.¹³⁶ This subsequently put doubts into the minds of outside observers who were previously convinced of the bombing campaign's efficacy and also fueled the Serbian propaganda machine.¹³⁷

Milosevic used the high standard set by NATO regarding collateral damage to exploit each incident where civilian casualties occurred and discredit claims that strict limitations were being enforced on NATO bombers to avoid killing noncombatants. Much like the North Vietnamese during the Vietnam War, Milosevic and his followers engaged in a complex and persuasive propaganda campaign that attempted to maximize the propaganda value of each occurrence of collateral damage. A distinct advantage the Serbians had over the North Vietnamese, however, was the speed at which information traveled around the globe. The ability to produce near real time images of bomb damage made each case of collateral damage increasingly more politically sensitive, which consequently had major strategic implications.¹³⁸ From the start of the campaign until the last bomb was dropped, Serbia used the Internet, state-run media, and Serbian expatriates to fuel its propaganda efforts and challenge U.S. assertions that it was doing everything

¹³⁶ Daalder and O'Hanlon, *Winning Ugly*, 120. General Clark estimated that after the first 21 days of the campaign, they had good weather for seven of them, and on ten of the days more than 50 percent of the sorties were cancelled due to weather.

¹³⁷ Lambeth, *NATO's Air War*, 139.

¹³⁸ Cordesman, *Lessons and Non-Lessons*, 102.

possible to limit collateral damage. On the first day of air strikes, they already had started claiming that innocent civilians had been killed.¹³⁹

As the war progressed, Serbia found creative ways to manipulate the media's coverage of collateral damage. Often times military vehicles and combat casualties were removed from collateral damage scenes to make reports appear that the only casualties to occur were civilian. In other instances debris was trucked in to make the "scene" appear much worse, and bodies were positioned in a way to increase the dramatic effect. Serbian television was especially prone to modifying the battlefield for propaganda purposes. The Serbian media blatantly deceived their viewers by reporting on incidents well after they had happened, using the same baby doll in different locations for humanitarian effects and creating scenes that did not coincide with the physical damage around them.¹⁴⁰

In the Kosovo conflict, the United States and NATO encountered a political and strategic climate in which the media's uninhibited ability to report on collateral damage had significantly improved since Vietnam and Korea. Although the limited nature of the conflict heavily constrained military and political leaders at the strategic and operational levels, the conflict demonstrated that regardless of the limits imposed, minimizing collateral damage was still a critical element of modern strike warfare and tactical mistakes had immediate strategic consequences.

B. MAINTAINING THE ALLIANCE'S COHESION

If one were to determine a single vulnerability of OPERATION ALLIED FORCE throughout the conflict it would certainly be the cohesion among NATO members. Like the Korean War, the United States bore the major share of the political, economic, and military burden among all NATO countries involved and therefore dedicated a significant amount of time and resources to maintaining support domestically, internationally, and within the 19 members that contributed to the operation. Keeping collateral damage at an acceptable level for all the allied participants was a continuous challenge for political and

¹³⁹ Arkin, "Operation Allied Force," 15.

¹⁴⁰ Cordesman looked extensively at the Serbian television coverage of the war and found numerous inconsistencies with their reporting. For more see Cordesman, *Lessons and Non-Lessons*, 102,121-22.

military leaders and was essential for keeping a united front against Milosevic and his supporters. Two key elements that tested NATO's unity throughout the conflict were reaching a consensus on targeting and denying Milosevic the ability to use propaganda to exploit NATO's cohesion and disrupt international support. Managing the effects from collateral damage at both the strategic and tactical level played a critical role in NATO's attempts to achieve its overall objectives.

From the outset of the war, there were disagreements among both NATO members and U.S. military leaders on which targets were the most lucrative for getting Milosevic to capitulate. Prior to the campaign, NATO had come up with more than 40 different iterations of the air campaign.¹⁴¹ Although there was a general consensus among members on how the war should be fought at the strategic level, the issue of collateral damage prompted many disagreements on which targets were acceptable to attack, and which ones should be off limits—at least until there could be an assessment made of the effectiveness of the initial attacks.¹⁴² Lt. General Michael Short, the air commander during the war, was one of the biggest critics of the gradualist approach to the campaign. Testifying to Congress after the war, General Short exclaimed, “I’d have gone for the head of the snake on the first night...I’d have turned the lights out...dropped the bridges across the Danube...hit five or six political-military headquarters in downtown Belgrade.” According to Short, “Milosevic and his cronies would have woken up the first morning asking what the hell was going on.”¹⁴³ Unfortunately for Short, the political climate and the risk of large amounts of collateral damage did not allow for a decisive and overwhelming application of air power from the start—a caution he could have surmised from Korea and Vietnam.

For the planners and executors of the air campaign, the political sensitivity component of targeting was the dominant factor when deciding what could and should be

¹⁴¹ Arkin, “Operation Allied Force,” 4.

¹⁴² Daalder and O’Hanlon, *Winning Ugly*, 121.

¹⁴³ Lt. Gen. Michael Short testimony before the House Armed Service committee, quoted in Arkin, “Operation Allied Force,” 27.

destroyed.¹⁴⁴ General Henry Shelton, chairman of the Joint Chiefs of Staff, defended the target selection process by assuring that every target was “looked at in terms of [its] military significance in relation to collateral damage or the unintended consequences that might be there. Then every precaution [was] made...so that collateral damage is avoided.¹⁴⁵ Although certain countries—specifically the United States, Britain, and France— had a more direct line to NATO Secretary General Javier Solana (who was ultimately responsible for scrubbing the target list) based on the resources they contributed, there is ample evidence that shows inputs from many allied countries carried significant weight.¹⁴⁶ Due to the concerns regarding the legality of certain targets and the potential for collateral damage, it often took as many as nine or more people in various locations to agree on a single target; if twenty or more civilians might be killed as a result of bombing a particular target, the process became even more thorough. Each time a collateral damage incident occurred, the target approval procedures became more complex and arduous.¹⁴⁷ The targeting process throughout the operation highlighted the magnitude of political oversight and demonstrated the close connection between decisions made at the strategic level and those at the operational level regarding potential for collateral damage.

Of particular concern for many of the members of NATO was the legitimacy and efficacy of bombing dual use targets, which included headquarters and ministry buildings, dual-purpose industry buildings, and civilian television and radio stations.¹⁴⁸ At the start of the campaign the majority of these targets were off limits. After the first weeks, however, frustration caused by Milosevic’s refusal to capitulate prompted an increase in the amount of dual use targets struck, especially in Belgrade.¹⁴⁹ Even with the

¹⁴⁴ Cordesman, *Lessons and Non-Lessons*, 136.

¹⁴⁵ General Henry Shelton testimony before the House Armed Service committee, quoted in Arkin, “Operation Allied Force,” 12.

¹⁴⁶ Daalder and O’Hanlon, *Winning Ugly*, 123.

¹⁴⁷ Cordesman, *Lessons and Non-Lessons*, 129–30.

¹⁴⁸ Arkin, “Operation Allied Force,” 7.

¹⁴⁹ Ward Thomas, “Victory by Duress: Civilian Infrastructure as a Target in Air Campaigns,” *Security Studies* 15, no. 1 (2006): 8, Taylor and Francis (10.1080/09636410600666238).

increase, the political sensitivity of certain targets constrained military leaders. According to General Clark, “I certainly wanted to generate more targets, but my more pressing concern was political approval to go after the sensitive targets aimed at the command and control at the source of the problem.”¹⁵⁰ Clark felt this pressure from both the U.S. government and also the governments of some of the United States’ major allies.

The governments of Germany, Italy, Greece, and France were all hesitant on attacking dual use targets and asked that they be “informally consulted” before politically sensitive targets were attacked.¹⁵¹ In Vietnam, of course, this type of allied consultation was not required. The CRS report on the lessons learned from the conflict pointed out: “In the Kosovo conflict...key allies such as the German and Italian governments were urging restraint in attacking targets they believed might cause high numbers of civilian casualties. Exclusion of such governments from the decision-making process would have robbed NATO of the important tool of a united political front.”¹⁵² France often expressed concern that attacking the wrong targets or ones that had a large potential for collateral damage might strengthen Milosevic’s cause. One British official praised the French for thinking in political rather than strictly military terms when it came to targeting, although a significant amount of evidence points to the increase of bombing dual use targets as a key factor for Milosevic’s capitulation.¹⁵³ Nonetheless, finding a consensus among NATO members on which targets were acceptable for attack was a struggle for the majority of the campaign, and by tailoring their target lists so they were acceptable to the countries with the most sensitivity to collateral damage, air planners were directly affecting the strategy of the war.¹⁵⁴

Realizing that certain countries’ governments and civilian populations were sensitive to the civilian casualties that collateral damage incidents produced, Milosevic

¹⁵⁰ Wesley K. Clark, *Waging Modern War* (New York: PublicAffairs, 2001), 265.

¹⁵¹ Daalder and O’Hanlon, *Winning Ugly*, 118.

¹⁵² Gallis, “Lessons Learned from Operation Allied Force.”

¹⁵³ Daalder and O’Hanlon, *Winning Ugly*, 118–124.

¹⁵⁴ For a more detailed discussion on NATO’s attempt to agree on targets see Steven Lee Myers, “All in Favor of This Target, Say Yes, Si, Oui, Ja,” *New York Times*, April 25, 1999, <http://www.newyorktimes.com/>.

seized every opportunity possible to degrade international support and weaken the alliance's cohesion by propagandizing collateral damage and exploiting each NATO mistake. In many cases, media outlets such as CNN were happy to oblige with widespread coverage of civilian casualties from incidents like the Serb television station bombing, the accidental bombing of a passenger train, and especially the Chinese embassy bombing. Because of the limited nature of the war militarily, exploiting images of collateral damage was Milosevic's primary tool for generating any type of impetus against the bombing campaign at the international level. In comparison to the Korean and Vietnam Wars, the amount of media resources and the speed at which information traveled gave Milosevic a distinct advantage over the two previous conflicts in propagandizing the bombing campaign.

In the end, Milosevic's attempts to exploit collateral damage were largely unsuccessful. Because of the extent of the propaganda produced and the speed at which it was disseminated, however, there were some constraints on the nature of targets attacked and additional authorization requirements early in the conflict. Furthermore, the close connection between mistakes made at the tactical level and the consequences at the strategic and political level was evident in the amount of resources and time NATO invested in explaining each collateral damage incident in order to maintain support.¹⁵⁵

As both the Korean and Vietnam wars demonstrated, Western involvement in any conflict always incorporates a battle for domestic approval, and, as Operation Allied FORCE continued to drag on, Kosovo proved no different. The conflict in Kosovo did not, however, support the argument that public opinion demands a war absolutely free of both risks to American military and collateral damage.¹⁵⁶ In reality, it was the American politicians and media that were more sensitive than the general public to civilian casualties caused by NATO's bombing errors. As Cordesman correctly points out, the policy makers and the media's high expectations of a nearly collateral damage free war "helped ensure that neither NATO political leaders nor the Western media was really

¹⁵⁵ Frank. P. Harvey, "Getting NATO's Success in Kosovo Right: The Theory and Logic of Counter-Coercion," *Conflict Management and Peace Science* 23, no. 2 (2006): 151, Taylor and Francis (10.1080/07388940600665842).

¹⁵⁶ Cordesman, *Lessons and Non-Lessons*, 99–101.

prepared to deal with the fact that even when bombing is ‘surgical’ people still die on the operating table.”¹⁵⁷ The quest for wars with little to no collateral damage is a function of the strategic and political impacts civilian casualties produce more than the public’s aversion to risks associated with strike warfare.¹⁵⁸

C. CONCLUSION

The Kosovo air campaign was distinct in many ways from the bombing that took place over Korea and Vietnam. Although the total amount of collateral damage during Kosovo was minimal in comparison to the two earlier conflicts, some of the same trends regarding collateral damage’s impacts were repeated and new concerns were highlighted. Many of the new trends arose from the decrease in the disparity between actions taken at the operational and tactical level and their subsequent consequences at the strategic and political level. Ironically, the improvements in war fighting capabilities and the speed at which information traveled, in part, had negative effects on potential and actual collateral damage concerns. The Kosovo conflict proved that even with significant advances in technology since the Korean and Vietnam wars, problems associated with collateral damage and its impact at the strategic and political levels do not go away, they simply transform into new challenges.

¹⁵⁷ Cordesman, *Lessons and Non-Lessons*, 137.

¹⁵⁸ *Ibid.*

V. CONCLUSION

As the characteristics of strike warfare evolved after the Second World War, so too did the concern for collateral damage. Restrictions based on the fear of harming civilians have become a central feature of international norms governing the conduct of war, and the violation of those norms has become more consequential for political leaders.¹⁵⁹ The nature of the conflict and the political and military leaders overseeing the operations played a significant role in determining the degree to which collateral damage considerations impacted strategic and political decisions. Although each war was distinct in many ways, there were still common threads among the Korean, Vietnam, and Kosovo conflicts that influenced policy makers' strategic decisions regarding collateral damage. Components consistent in all three conflicts, which were linked closely to the concern for collateral damage, were the limited aims (and corresponding risks) of the conflicts, the gradualist and incremental approach to the bombing campaigns, and the influence of the international community and U.S. allies. Within these elements, factors such as the speed at which information traveled, the reluctance to expand the war, and the development of precision guided weapons all had prominent impacts on strategic and political effects from collateral damage.

A. THE FUNCTIONALITY OF COLLATERAL DAMAGE

The transformation in the functionality of collateral damage is an important aspect uncovered by the progression of collateral damage concerns over the span of a half century. During World War II, decision makers and military leaders believed there was substantial value in the indiscriminate bombing campaigns over Germany and Japan.¹⁶⁰ The bombing during these air attacks aimed to destroy the war making capacity of the enemy, and also, simultaneously but independently, to erode the will of the enemy to continue fighting.¹⁶¹ Political and military leaders believed that the amount of collateral

¹⁵⁹ Thomas, "Victory by Duress," 33.

¹⁶⁰ Clodfelter, *Limits of Air Power*, 4–7.

¹⁶¹ *Ibid.*

damage resulting from the bombing was acceptable compared to the strategic leverage gained from those attacks, particularly since most enemy citizens were judged to be aiding the war effort in some capacity, if only by their political complicity in the regime.¹⁶² Consequently, there was utility in the destruction of civilian life and property, and concern about it did not have a significant constraining effect on strategic decisions, particularly as the wars dragged on.

During the Korean and Vietnam wars, many air power enthusiasts believed there was still some functionality in collateral damage for achieving the desired political objectives. The limited nature of those conflicts, however, led political leaders to abandon the idea that collateral damage concerns could be entirely subordinated to strategic and political objectives. The disparity between political and military thoughts on the utility of collateral damage resulted in an increase in the amount of political control imposed on military commanders.¹⁶³ Throughout each conflict, rules of engagement were modified continuously and preventive measures such as proscribing the bombing of major cities were put in place to try and limit civilian casualties and the destruction of civilian property.¹⁶⁴ There were still enormous amounts of civilian casualties and property destroyed during the Korean and Vietnam wars, but strategic factors like preventing outside communist intervention and pressure to end the war from U.S. allies decreased the perceived strategic value of collateral damage compared to the past.

Vietnam and Korea also demonstrated that inflicting civilian casualties for the purpose of defeating the enemy's will to fight did not have the same utility military leaders previously thought.¹⁶⁵ Instead of decreasing the morale of the enemy government and troops, collateral damage effects from bombing ignited a fury that inspired the enemy to keep fighting. The three conflicts examined all proved that making life challenging for both enemy troops and the civilian populace did not always render them ineffective.¹⁶⁶

¹⁶² Shaw, "Collateral Damage," 31.

¹⁶³ Hosmer, "Constraints on U.S. Strategy," vi.

¹⁶⁴ *Ibid.*, 56.

¹⁶⁵ Hone, "Strategic Bombardment Constrained," 474.

¹⁶⁶ Arkin, "Operation Allied Force," 15.

This was contrary to the World War II model on which many military leaders during Korea and Vietnam still based their strategic decisions.

By the time the United States was engaged in the Kosovo conflict, the functionality of collateral damage had transformed completely from 50 years earlier. Instead of accepting collateral damage as a byproduct of war that was proportionally appropriate to the objectives gained, avoiding or minimizing civilian casualties became a primary political objective, independent of other objectives. New factors emerged that increased the political and strategic incentives to avoid large amounts of collateral damage. For instance, the United States was responsible for “cleaning up” the damage it caused during bombing operations, so it did not behoove political leaders to bomb indiscriminately. Coupled with the obvious moral and legal implications, destroying large amounts of property and killing civilians resulted in more resources needed to rebuild the enemy’s infrastructure and explain each collateral damage incident to the international community.¹⁶⁷ The development of precision guided weapons helped decrease the problem of widespread damage, but “precise” did not mean that large amounts of damage did not occur to the intended target—and to some extent—the surrounding area.

Additionally, at the end of the twentieth century, the technological advances in communication made it possible for political leaders to exert immediate and direct control down to the tactical level.¹⁶⁸ Because of this level of control, military commanders in Kosovo were not afforded the same amount of flexibility as they were during the Korean and Vietnam wars. It can be argued that military leaders such as MacArthur and Lemay took full advantage of the sluggish speed of communications to tailor operations to their liking, whereas General Clark did not enjoy that same opportunity. Over time, improved communications have contributed greatly to the tendency to interpret actions at the tactical level as having immediate strategic consequences; which often means, in turn, that they do have them.¹⁶⁹

¹⁶⁷ Harvey, “Getting NATO’s Success in Kosovo Right,” 151.

¹⁶⁸ Hosmer, “Constraints on U.S. Strategy,” 48.

¹⁶⁹ Lambeth, *NATO’s Air War*, 139.

B. FUTURE IMPLICATIONS

In future conflicts, the concern for collateral damage will undoubtedly be an important factor in every phase of war. The unique context of each of the case studies presented demonstrates that the type of war the United States engages in will have a direct impact on the strategic and political effects of collateral damage. A war with global characteristics similar to World War II is unlikely, but worth examining, because it may be the only scenario in which collateral damage is recognized as an acceptable byproduct of strike warfare on a grand scale.¹⁷⁰ In such a case, nuclear weapons may be employed and conventional attacks would not be limited to precision guided munitions. If the use of nuclear weapons were avoided, reliance on precision guided weapons may decrease because their aptitude for mitigating collateral damage would be nullified by the immense destructive nature of the conflict. There is a high likelihood that U.S. bombers may find themselves in a GPS denied environment that could potentially have an effect on both weapon selection and the accuracy of bombing, which would increase the probability of collateral damage.

Moreover, the gap between actions at the strategic level and those at the operational and tactical levels would likely remain similar to that seen during Kosovo due primarily to the technological advances in communication and the media's ability to conduct near real-time reporting. Because of the increased speed at which information travels, the Korean and Vietnam scenarios in which tactical level engagements sometimes had delayed or little impact at higher levels is no longer realistic. In turn, decision makers would have to accept that the indiscriminate death of civilians and destruction of property would be highly visible to the international community. This underscores how catastrophic the situation would have to be for our moral principles and political restraint to be abandoned completely.

Additionally, in a war of such magnitude, pressure to conduct a near perfect bombing campaign would likely not exist, which may allow policy makers and military leaders more freedom when planning and executing operations. It would also bring to the

¹⁷⁰ Shaw, "Collateral Damage," 95.

forefront the realization that collateral damage was inevitable—and in fact expected and acceptable—which would alleviate trying to defend every collateral damage incident after it occurred. This may prevent the enemy from effectively using propaganda techniques seen during Vietnam since there would be no upfront expectation for a clean and “bloodless” war.¹⁷¹ Under these unrestricted circumstances, U.S. political and military leaders may once again adopt the mindset of dropping bombs first, and asking questions later.

In contrast to a war of World War II proportions, the United States will almost certainly continue to find itself in wars with limited political objectives against rogue regimes or non-state actors. In these types of conflicts, the enemy will use all means possible to exploit collateral damage incidents and capitalize on U.S. policy makers’ sensitivity to the political backlash created from inadvertently killing innocent civilians. In the case of a rogue regime, the United States may find that bombing operations that disrupt the civilian population do not expose the political vulnerability of the leader in charge, as was the case with Milosevic. Conversely, the scenario might more closely mirror that of Vietnam in which the United States thought the enemy was politically vulnerable, but underestimated the persistence of North Vietnamese political leaders to outlast the U.S. effort while propagandizing collateral damage to their advantage along the way.

Non-states actors present an even bigger challenge to U.S. leaders because there are no leverages associated with sovereign territory or a single political leader to use against them, yet collateral damage can still be exploited by these groups and employed as a political weapon. Groups such as the Islamic State engage openly in the killing of innocent civilians and their willingness to use human shields and assimilate with the local populace will continue to test the restraint of U.S. leaders. Finding effective bombing methods that do not afford the enemy an opportunity to portray negatively U.S. bombing operations presents challenges to war planners.

¹⁷¹ Cordesman, *Lessons and Non-Lessons*, 137.

Regardless of whether the future enemy is a rogue regime or non-state actors, U.S. political and military leaders must find effective ways to deal with collateral damage impacts at the political and strategic level. To achieve this, leaders must understand that the disparity between collateral damage effects at the tactical and strategic level are not what they were during the Korean and Vietnam wars. With that knowledge, U.S. policy makers and military leaders must give an honest assessment of the potential for collateral damage from the start of a conflict and communicate that assessment openly to the American public, the international community, and especially the media.¹⁷² It appeared the White House was attempting to take a more realistic approach in October 2014 when it announced it was easing the policy on civilian casualties in Iraq and Syria to fight the Islamic State.¹⁷³ It remains to be seen, however, if this was an actual attempt to curb expectations of a collateral damage free operation, or a statement to cover the legality of the bombing.¹⁷⁴

Above all, this process needs to begin with military leaders educating policy makers on the realistic capabilities of both the aircrafts' weapons systems and the aircrew, and they must avoid creating the impression that advancements in technology allow bombing operations to be conducted in a "perfect" manner.¹⁷⁵ Failure to recognize the limitations associated with bombing efforts and overinflating the capabilities of weapons will result in a repeat of Kosovo in which political leaders found themselves scrambling to explain every collateral damage incident because of the unrealistic expectations they outlined initially.¹⁷⁶ This creates a disservice not only to the audience of leaders who portray perfection, but also to the airmen who are expected to execute

¹⁷² Cordesman, *Lessons and Non-Lessons*, 137.

¹⁷³ Jim Acosta and Kevin Liptak, "White House Exempts ISIS Strikes from Civilian Casualty Guidelines," CNN, accessed February 22, 2015, <http://www.cnn.com/2014/10/01/politics/wh-isis-civilians/index.html>.

¹⁷⁴ Ken Dilanian, "Obama Administration Eases Policy on Preventing Civilian Casualties in Iraq, Syria," *The Rundown: A Blog of News and Insight*, PBS, accessed February 26, 2015, <http://www.pbs.org/newshour/rundown/civilian-casualty-standard-eased-iraq-syria/>.

¹⁷⁵ Cordesman, *Lessons and Non-Lessons*, 137.

¹⁷⁶ Arkin, "Operation Allied Force," 29.

missions perfectly despite factors such as weapons malfunctions or weather, which are out of their control.

Social media and other outlets that allow information to be disseminated at lightening quick speeds will only make controlling the effects of collateral damage more challenging in the future. Since the turn of the 21st century, U.S. enemies have been remarkably effective at using information technology to exploit collateral damage effects and to rally support against bombing operations. As new and quicker ways of publicizing information have emerged, adversaries have aligned their propaganda tactics to take full advantage of the technology. This is another reason why policy makers need to be more upfront and honest about collateral damage being an unavoidable byproduct of war. If an administration openly justifies and accepts a proportional amount of collateral damage from bombing, it may potentially decrease the effectiveness of enemy propaganda by setting realistic expectations.¹⁷⁷

As long as there are bombs being dropped from aircraft, there will be a potential for collateral damage. Advancements in technology will not eliminate the concern about the inevitable destruction of civilian lives and property; on the contrary, recent history suggests they may amplify it, by suggesting that such damage is always the result of avoidable error. American aircraft and pilots have become extraordinarily adept at putting bombs precisely on target in a variety of difficult scenarios, but it does not mean they are perfect. A thorough understanding of the strategic and political implications of collateral damage will certainly breed success for future bombing operations and allow U.S. political and military leaders to remain one step ahead of the adversary.

¹⁷⁷ Cordesman, *Lessons and Non-Lessons*, 137.

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LIST OF REFERENCES

- Acosta, Jim, and Kevin Liptak. "White House Exempts ISIS Strikes from Civilian Casualty Guidelines." CNN. Accessed February 22, 2015. <http://www.cnn.com/2014/10/01/politics/wh-isis-civilians/index.html>.
- Arkin William M. "Operation Allied Force: 'The Most Precise Application of Air Power in History.'" In *War Over Kosovo: Politics and Strategy in a Global Age*, edited by Andrew J. Bacevich and Eliot A. Cohen, 1–37. New York: Columbia University Press, 2001.
- . "Challenge to the '15,000-Foot Myth' Consumes Air Force Planners." *Defense Daily*. March 2, 2000. <http://www.defense.daily.com/>.
- Clark, Wesley K. *Waging Modern War: Bosnia, Kosovo, and the Future of Combat*. New York: PublicAffairs, 2002.
- Clodfelter, Mark. *The Limits of Air Power: The American Bombing of North Vietnam*. Lincoln, NE: Bison Books, 2006.
- Cordesman, Anthony H. *The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo*. Westport, CT: Praeger, 2001.
- Crane, Conrad C. *American Airpower Strategy in Korea, 1950–1953*. Lawrence, KS: University Press of Kansas, 2000.
- . *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*. Lawrence, KS: University Press of Kansas, 1993.
- Daalder, Ivo H., and Michael E. O'Hanlon. *Winning Ugly: NATO's War to Save Kosovo*. Washington, DC: Brookings Institution, 2004.
- Dilanian, Ken. "Obama Administration Eases Policy on Preventing Civilian Casualties in Iraq, Syria." *The Rundown: A Blog of News and Insight*. PBS. Accessed February 26, 2015. <http://www.pbs.org/newshour/rundown/civilian-casualty-standard-eased-iraq-syria/>.
- Dobbs, Michael, and Karl Vick. "Airstrikes Kill Scores of Refugees." *Washington Post*, April 15, 1999. <http://www.washingtonpost.com>.
- Eisenhower, Dwight D. *The White House Years: Mandate for Change 1953–1956*. Garden City, NY: Doubleday, 1963.
- Fenrick, W.J. "Targeting and Proportionality during the NATO Bombing Campaign against Yugoslavia." *European Journal of International Law* 12, no. 3 (2001): 489-502. <http://www.ejil.org/pdfs/12/3/1529.pdf>.

- Frankum, Ronald B., Jr. *Like Rolling Thunder: The Air War in Vietnam, 1964–1975*. Lanham, MD: Rowman & Littlefield, 2005.
- Futrell, Robert F. *The United States Air Force in Korea, 1950–1953*. Revised edition. Washington, DC: Air Force History & Museums Program, 1983.
- Gallis Paul E. *Kosovo: Lessons Learned from Operation Allied Force*. Washington, DC: Congressional Research Service. Last updated November 19, 1999. <http://congressionalresearch.com/RL30374/document.php>.
- Grant, Zalin. *Over the Beach: The Air War in Vietnam* New York: W. W. Norton, 2005.
- Grossman, Dave. *On Killing: The Psychological Cost of Learning to Kill in War and Society*. Revised edition. New York: Back Bay Books, 2009.
- Harvey, Frank P. “Getting NATO’s Success in Kosovo Right: The Theory and Logic of Counter-Coercion.” *Conflict Management and Peace Science* 23, no. 2 (2006): 139–158. Taylor and Francis (10.1080/07388940600665842).
- Hone, Thomas C. “Strategic Bombardment Constrained: Korea and Vietnam.” In *Case Studies in Strategic Bombardment*, edited by R. Cargill Hall, 469–526. Washington, DC: Air Force History and Museums Program, 1998.
- Hosmer, Stephen T. *Constraints on U.S. Strategy in Third World Conflict*. Santa Monica, CA: RAND 1985. <http://www.rand.org/content/dam/rand/pubs/reports/2008/R3208.pdf>.
- Human Rights Watch. “Civilian Deaths in the NATO Air Campaign—The Crisis in Kosovo.” Accessed February 7, 2014. <http://www.hrw.org/reports/2000/nato/Natbm200-01.htm>.
- Kaufman, Burton I. *The Korean War: Challenges in Crisis, Credibility, and Command*. Philadelphia: Temple University Press, 1986.
- Keefer, Edward C. “President Dwight D. Eisenhower and the End of the Korean War.” *Diplomatic History* 10, no. 3 (1986): 267–289.
- Lambeth, Benjamin S. *NATO’s Air War for Kosovo: A Strategic and Operational Assessment*. Santa Monica, CA: RAND, 2001.
- Luttwak, Edward N. “Give War a Chance.” *Foreign Affairs* 78, no. 4 (1999): 36–44. EBSCOhost (00157120).
- Millet, Alan R. *The War for Korea, 1950–1951 They Came from the North*. Lawrence, KS: University of Kansas Press, 2010.

- Myers, Steven Lee. "All in Favor of This Target, Say Yes, Si, Oui, Ja." *New York Times*, April 25, 1999. <http://www.newyorktimes.com/>.
- Nalty, Bernard C. *Air War Over South Vietnam 1968–1975*. Washington, DC: Air Force History and Museums Program, 2000.
- Nardulli, Bruce, Walter L. Perry, Bruce R. Pirnie, John IV Gordon, and John G. McGinn. *Disjointed War: Military Operations in Kosovo, 1999*. Santa Monica, CA: RAND, 2002.
- Shaw Patrick M., "Collateral Damage and the United States Air Force." Master's thesis, U.S. Air Force School of Advanced Air Power Studies, 1997. <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA391809>.
- Smith, John T. *The Linebacker Raids: The Bombing of North Vietnam, 1972*. Wellington House, London: Arms & Armour, 1999.
- Stephenson, Scott. "The Revolution in Military Affairs: 12 Observations on an Out-of-Fashion Idea." *Military Review* (May-June 2010): 38–46. http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20100630_art007.pdf.
- Thomas, Ward. "Victory by Duress: Civilian Infrastructure as a Target in Air Campaigns." *Security Studies* 15, no. 1 (2006): 1–33. Taylor and Francis (10.1080/09636410600666238).
- Turse, Nick. *Kill Anything That Moves: The Real American War in Vietnam*. New York: Metropolitan Books, 2013.
- U.S. Department of Defense. Air Force Doctrine Document 1–2, *Air Force Supplement to the Department of Defense Dictionary of Military and Associated Terms*. January 11, 2007. <http://fas.org/irp/doddir/usaf/afdd1-2.pdf>.
- U.S. Department of the Navy, U.S. Department of Homeland Security. NWP 1–14M, *The Commander's Handbook on the Law of Naval Operations*. July 2007. <https://www.usnwc.edu/getattachment/a9b8e92d-2c8d-4779-9925-0defea93325c/>.
- Voon, Tania. "Pointing the Finger: Civilian Casualties of NATO Bombing in the Kosovo Conflict." *American University International Law Review* 16, no. 4 (2001): 1083–1113. www.lexisnexis.com/hottopics/lnacademic.
- Zhai, Qiang. *China and the Vietnam Wars, 1950–1975*. Chapel Hill, NC: University of North Carolina Press, 2000.

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