

TURNING POINT: OPERATION ALLIED FORCE AND THE ALLURE OF AIR POWER

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Art of War Scholars

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14. ABSTRACT In 1999, NATO initiated Operation Allied Force (OAF), a campaign of airstrikes against the Serbian forces of Slobodan Milosevic in Kosovo. NATO intended for the airstrikes to stop Milosevic from carrying out ethnic cleansing against Kosovar Albanians. After seventy-eight days of bombing, Milosevic agreed to withdraw his army from Kosovo. This thesis explores how the U.S. public, policymakers, and military services perceived the use of air power before, during, and after OAF to determine the extent of mainstream belief in a "turning point" related to what air power can accomplish on its own. In addition, the paper examines how well the exclusive use of air power succeeded to determine whether OAF was a divergence from historical trends or a continuity in the necessity for air-ground cooperation to employ air power successfully. In 2011, encouraged by the Libyan rebel movement, NATO commenced Operation Unified Protector, an air campaign with the goal to stop Muammar Gaddafi's violence against civilians and compel him to step down from power. Members of President Barack Obama's national security team made decisions related to the Libya campaign based on their interpretation of air power's role in Kosovo, as both campaigns excluded the use of ground forces. Overlooked evidence regarding the role of counter-battery radars in Kosovo and the use of Twitter in Libya suggests that extensive coordination with ground forces actually brought about the success of air power in both campaigns. Finally, the study concludes on whether there is a growing inclination to use air power for limited interventions.					
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

TURNING POINT: OPERATION ALLIED FORCE AND THE ALLURE OF AIR POWER, by Robert H. Gregory, 263 pages.

In 1999, NATO initiated Operation Allied Force, a campaign of airstrikes against the Serbian forces of Slobodan Milosevic in Kosovo. NATO intended for the airstrikes to stop Milosevic from carrying out ethnic cleansing against Kosovar Albanians. After seventy-eight days of bombing, Milosevic agreed to withdraw his army from Kosovo.

This thesis explores how the U.S. public, policymakers, and military services perceived the use of air power before, during, and after Operation Allied Force to determine the extent of mainstream belief in a “turning point” related to what air power can accomplish on its own. In addition, the paper examines how well the exclusive use of air power succeeded to determine whether Operation Allied Force was a divergence from historical trends or a continuity in the necessity for air-ground cooperation to employ air power successfully. In 2011, encouraged by the Libyan rebel movement, NATO commenced Operation Unified Protector, an air campaign with the goal to stop Muammar Gaddafi’s violence against civilians and compel him to step down from power. Members of President Barack Obama’s national security team made decisions related to the Libya campaign based on their interpretation of air power’s role in Kosovo, as both campaigns excluded the use of ground forces. Overlooked evidence regarding the role of counter-battery radars in Kosovo and the use of Twitter in Libya suggests that extensive coordination with ground forces actually brought about the success of air power in both campaigns. Finally, the study concludes on whether there is a growing inclination to use air power for limited interventions.

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Finally, I recognize Robert O'Connell. Without knowing it, he planted the genesis of this work in my head during a graduate course discussion in January 2007. In class, he explained the premise of his book, *Of Arms and Men*, arguing that military professionals favor certain types of weaponry, and, as a consequence, tend to overlook the role of inconspicuous apparatuses. Thus, militaries develop and employ arms along symmetrical lines that shun or ignore deviance. Sometimes, innovative means or mechanisms have a great impact on military campaigns yet remain ignored by military institutions due to their cultural predilections. O'Connell's course inspired me, seven years later, to examine the role of radar and Twitter in recent air campaigns. What follows showcases all of my biases as a person who fights on land, but I hope, in the spirit of joint-mindedness, that it offers a new perspective on air power and the political motivation to employ it.

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ACRONYMS

AAA	Anti-Aircraft Artillery
AAR	After Action Review
ABCC	Airborne Command and Control Center
ADA	Air Defense Artillery
ADOCS	Automated Deep Operations Coordination System
AFRICOM	Africa Command
BCE	Battlefield Coordination Element
BG	Brigadier General
CAOC	Combined Air Operations Center
CENTCOM	Central Command
CIA	Central Intelligence Agency
COG	Center of Gravity
DOD	Department of Defense
EUCOM	European Command
FAC	Forward Air Controller
FRY	Former Republic of Yugoslavia
GEN	General
HQDA	Headquarters Department of the Army
IADS	Integrated Air Defense System
JDAM	Joint Direct Attack Munition
KLA	Kosovo Liberation Army
LTC	Lieutenant Colonel
LTG	Lieutenant General

MEAT	Mission Effectiveness Assessment Team
MG	Major General
NATO	North Atlantic Treaty Organization
NSC	National Security Council
NSC/DC	National Security Council Deputies Committee
NSC/PC	National Security Council Principals Committee
OAF	Operation Allied Force
ODF	Operation Deliberate Force
OOD	Operation Odyssey Dawn
OUP	Operation Unified Protector
PGM	Precision Guided Munition
PDD	Presidential Decision Directive
RAND	Research and Development—A nonprofit organization that aims to help improve decision-making through research and analysis.
SACEUR	Supreme Allied Commander Europe
SAM	Surface to Air Missile
SMS	Short Message Service (text message)
SIGINT	Signals Intelligence
SFOR	Stabilization Force
TF	Task Force
TRADOC	Training and Doctrine Command
UAV	Unmanned Aerial Vehicle
UN	United Nations
VJ	Vojska Jugoslavije (Yugoslav Armed Forces)

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CHAPTER 1

INTRODUCTION

Nothing comparable to this state of affairs had been known in the previous history of warfare, unless we take such a case as that of a nineteenth century warship attacking some large savage or barbaric settlement, or one of those naval bombardments that disfigure the history of Great Britain in the late eighteenth century.

— H.G. Wells, *The War in the Air*, 1908

Herbert George Wells coined the phrase “air power” in *The War in the Air*, a work of science fiction published in 1908.¹ Three years later, during the Italo-Turkish War, on 1 November 1911, Italian Lieutenant Giulio Gavotti wrote a letter to his father, stating: “Today I have decided to try to throw bombs from the aeroplane.”² Later that day, Gavotti flew on a reconnaissance mission over a Turkish encampment east of Tripoli, Libya.³ Unbeknownst to his chain of command, Gavotti brought along four hand grenades and tossed them out of his monoplane, trying to hit the Turkish soldiers below.⁴ The next day, newspaper headlines around the world read: “Aviator LT. Gavotti Throws Bomb on Enemy Camp. Terrorized Turks Scatter Upon Unexpected Celestial Assault.”⁵ It was an exaggeration. In reality, only one grenade exploded inside the camp, but it did not injure anyone.⁶ Another grenade was a dud and did not detonate.⁷ The Turkish infantry “stood their ground and let loose a hail of rifle fire” against subsequent air raids.⁸ Nevertheless, this moment was the dawn of aerial bombing.⁹ Gavotti’s primitive effort fit within the realm of air power—the use of flying contraptions to facilitate or deliver violence for a political aim. Along with aerial bombing, the comprehensive domain of air power includes the use of aircraft for transport, communications, and reconnaissance purposes.

Nearly one hundred years after Gavotti's bombing run, on 20 October 2011, near Sirte, Libya, a seventy-five vehicle military convoy sped westward across the Libyan Desert, kicking up a long trail of dust that was highly-visible from afar.¹⁰ At Creech Air Force Base in Nevada, from "a windowless bunker, lit by constantly flickering computer screens," a Predator drone operator zoomed in on the lead vehicle of the convoy and fired a laser-guided hellfire missile at it.¹¹ This action disrupted the convoy and its occupants. Subsequently, NATO warplanes belonging to France and Britain (guided by a Boeing E-3 Sentry flying forty miles from the Libyan coast) pounced on the convoy, destroying eleven vehicles.¹² Shortly thereafter, Muammar Gaddafi, the dictator of Libya for forty-two years, fled on foot from one of the vehicles in the convoy.¹³ From nearby, several Libyan rebel fighters spotted Gaddafi, closed on his position, and stabbed him with a bayonet.¹⁴ They filmed the event with a smartphone and shared the video on YouTube for a global audience.¹⁵ Air power had come a long way since an enterprising Gavotti tossed grenades from his airplane in 1911. Or so it seemed.

Operation Allied Force, NATO's 1999 air campaign to expel Slobodan Milosevic's 3rd Army from Kosovo, solidified the belief that air power could succeed in a limited military intervention that excluded the use of ground forces. The apparent success of air power in Kosovo inspired a similar air campaign, Operation Unified Protector, against Gaddafi's forces in Libya during 2011. At the start of both campaigns, without having anyone on the ground, or, at the very least, coordinating with rebel fighters on the ground, NATO could not employ air power effectively. Just as with Gavotti's bombing run in 1911, the initial stages of NATO's 1999 and 2011 air

campaigns proved ineffective—the bombs merely agitated the enemy, stiffening their resolve.

But in the latter part of each campaign, NATO stumbled to victory after inadvertently figuring out how to target the elusive ground forces of Milosevic and Gaddafi. During the last two weeks of Operation Allied Force, the U.S. Army's counter-battery radars—deliberately positioned near Albania's border with Kosovo—helped air forces destroy more than half of the artillery employed by the Yugoslav 3rd Army.¹⁶ This sensor-to-shooter linkage proved critical in aerial warfare. Accordingly, in Libya, during the second half of Operation Unified Protector, NATO embraced a unique form of sensor-to-shooter linkage. France and Britain—NATO's two largest contributors of strike sorties—coordinated openly with Libyan rebel fighters via Twitter. Consequently, a large network of dispersed rebels wielding smartphones tweeted friendly and enemy locations with accurate coordinates obtained from Google Earth. This helped NATO destroy over 1,000 of Gaddafi's heavy weapon systems and ultimately led to his demise.¹⁷ The popular perception forged in Kosovo, and carried forth in Libya, however, was that air power succeeded without the need for a ground contingent—this was an illusory view.

Background

On 24 March 1999 President William J. "Bill" Clinton addressed the nation from the oval office to announce that the United States, along with NATO allies, had initiated airstrikes against the Serbian forces of Slobodan Milosevic in Kosovo. Clinton reasoned that the airstrikes were meant to deter Milosevic from conducting genocide against the minority Kosovar Albanians and to limit the Serbian army's capacity to carry out genocide.¹⁸ NATO's air campaign, Operation Allied Force, commenced. After seventy-

eight days of bombing by NATO, without the introduction of significant ground forces, Milosevic agreed to withdraw from Kosovo with his army still largely intact. To some, it appeared a victory achieved solely from the employment of air power for the first time in the history of warfare.¹⁹

At the end of the conflict, prominent military historian John Keegan proclaimed, “Now there is a new turning point to fix on the calendar: June 3, 1999, when the capitulation of President Milosevic proved that a war can be won by air power alone.”²⁰

As a result of this event he predicted, “The new bomber barons will be heard with the greatest attention when future peace-making operations are discussed.”²¹ In contrast to Operation Desert Storm, the Kosovo campaign did not involve ground forces.

Consequently, the assumptions and perceptions of the U.S. public, policymakers, and military services regarding potential outcomes of the future *exclusive* use of air power in a campaign solidified after the “turning point” proclaimed by Keegan. Operation Unified Protector, NATO’s air campaign over Libya in 2011, magnified this trend—political decision-makers repeated the decision to rule out the use of ground forces.

On 10 August 2013, President Obama gathered his national security team to discuss the situation in Syria.²² When referring to the meeting, two former officials of the Obama administration, Ivo H. Daalder (former NATO ambassador) and Dennis B. Ross (Middle East policy advisor), suggested that Operation Allied Force was a “possible blueprint” for limited military intervention without a United Nations mandate in the event of a humanitarian crisis.²³ Limited military intervention, as best illustrated by gunboat diplomacy in the 19th century, is not a new phenomenon. The use of air power for limited military intervention, however, is an increasingly popular choice for the United States.

This is evident with the 2011 bombing campaign in Libya and the September 2013 period where President Barack Obama strongly considered intervening in the Syrian Civil War with air power. The decision to use air power against adversaries who might harm civilian populations implies optimistic underlying assumptions and perceptions about air power. This newfound faith in the effectiveness of airpower is due in part to a belief that technology allows air power to discriminate between targets just as well as a person on the ground. This flawed belief formed in the aftermath of Operation Desert Storm and solidified with Operation Allied Force.²⁴ Further study of this latter operation provides context for future decisions to intervene with air power in conflicts.

U.S. and NATO Objectives in Kosovo

At the onset of the air campaign, President Clinton stated three U.S. objectives—first, “to demonstrate the seriousness of NATO’s purpose,” second, “to deter an even bloodier offensive against innocent civilians,” and third, “if necessary, to seriously damage the Serbian military’s capacity to harm the people of Kosovo.”²⁵ He summed up U.S. objectives in Kosovo by saying, “if President Milosevic will not make peace, we will limit his ability to make war.”²⁶ He went on to say that U.S. ground forces would not be involved until later in the campaign, as part of a NATO peacekeeping force, and only after Milosevic accepted a peace agreement.²⁷ Clinton emphasized this point by saying “I do not intend to put our troops in Kosovo to fight a war,” thus implying that ground forces would not be used to influence Milosevic’s capitulation, although their later use as a peacekeeping force was a likely option.²⁸ Accordingly, the United States constrained the NATO military intervention in Kosovo to use air power exclusively to attain the campaign objectives. As the leading member of NATO, the United States predetermined

this constraint for the alliance member nations, although most other NATO countries were also hesitant to commit ground forces.²⁹

Due to concerns regarding the flow of refugees, the geographic proximity of various NATO members to Kosovo was a considerable factor in the degree of support each country was willing to commit for Operation Allied Force. Among the alliance's nineteen members, positions with respect to intervention varied. British Prime Minister Tony Blair had a hawkish stance on intervention, as evident with his call for using ground forces from the onset. Due to apprehension over refugee flows, Italy called for a temporary pause in the bombing after it had already committed aircraft. Greece was reluctant to participate in the conflict and attempted to remain neutral. Hungary, NATO's newest member at the time, was hesitant to intervene, due to its shared border with Serbia. Fourteen members of the NATO alliance committed aircraft, twelve of which also participated in air combat operations.³⁰ The twelve participants that flew actual combat sorties were the United States, Britain, France, Germany, Italy, Belgium, Canada, Denmark, the Netherlands, Norway, Spain, and Turkey.³¹

The United States contributed around 70 percent of the sorties during the campaign, yet it was highly dependent on NATO consensus for the overall success of the campaign.³² Strategically, alliance consensus presented a unified front against Milosevic. Operationally, consensus was necessary for the basing of aircraft and clearance of airspace. On 12 April 1999, NATO headquarters in Belgium issued a press release stating that air strikes would continue until President Milosevic complied with the following five demands:

1) a verifiable stop to all military action and the immediate ending of violence and repression; 2) the withdrawal from Kosovo of the military, police and paramilitary forces; 3) the stationing in Kosovo of an international military presence; 4) the unconditional and safe return of all refugees and displaced persons and unhindered access to them by humanitarian aid organisations; 5) the establishment of a political framework agreement for Kosovo on the basis of the Rambouillet Accords, in conformity with international law and the Charter of the United Nations.³³

These demands equated to the political objectives of NATO's air campaign and were reaffirmed on 23 April 1999 by all nineteen member nations.³⁴ NATO spokesperson Jamie Shea reinforced these objectives in daily press briefings throughout the conflict. Despite their disagreements throughout the campaign, the NATO alliance remained cohesive based on the premise that ground forces would not be used.

After the war, German General Klaus Naumann, who served as NATO's Military Committee chairman, reluctantly admitted, "the issue of ground forces was very divisive in the Alliance. Some nations without any necessity to do so ruled it out long before we started the bombing campaign. We knew that we would not get consensus on ground forces, so we backed off in order to maintain consensus."³⁵ Throughout the campaign, Milosevic hoped this consensus would break, and at times, it appeared on the verge of doing so.³⁶ The large influx of refugees across Italy's borders sparked Amadeo de Franchi, Italy's NATO representative, to call for a pause in the bombing due to worries that tourists might cancel plans to vacation in Venice during Easter.³⁷ Yet the alliance held strong and quelled this discord. An alliance official responded to Italy's proposal by asking, "Can you square your conscience with a bombing pause that gives President Slobodan Milosevic ten extra days to kill people?"³⁸ Critics such as retired Air Force General Buster Glosson, who ran the air campaign during the Gulf War, claimed that fighting a war by consensus limited U.S. strategy and caused the campaign to drag on

longer than necessary.³⁹ Nonetheless, maintaining NATO consensus was a central component of U.S. strategy in Kosovo. Various opinions regarding the intensity of the air campaign, the role of NATO, and the exclusion of ground forces predominate in literature published on the subject.

Literature Review

The main works on Operational Allied Force include government publications, works by political scientists, works by journalists, and documentaries. The biographies, autobiographies, and interviews of key participants in the campaign are also part of the literature, but these sources contain varying levels of bias. For example, in *Waging Modern War*, GEN Wesley Clark attributes shortcomings of the campaign to political constraints.⁴⁰ On the other hand, in *Without Hesitation*, GEN Hugh Shelton, Chairman of the Joint Chiefs of Staff during the operation, accuses GEN Clark of developing, “a very weak battle plan, one without a strategic plan and corresponding targets.”⁴¹

Operation Allied Force took place in an era where journalism, via the internet, preserved a large cache of primary source material. The official NATO website contains archives of press releases and daily updates from every single day in the campaign.⁴² Furthermore, all major newspapers maintain online archives of stories published throughout the campaign. At the strategic and operational level, the major works covered next are the most up to date synthesis of information regarding the campaign.

Five publications best synthesize the events of Operation Allied Force. The most comprehensive work is *Winning Ugly* by Ivo Daalder and Michael O’Hanlon, published in 2000. Both authors are political scientists, and their work stands as the most useful account of the conflict from the strategic viewpoint. Daalder worked for the Clinton

administration during the Kosovo campaign, and was recently the U.S. ambassador to NATO. O'Hanlon serves as a senior fellow at The Brookings Institution, and is a vocal proponent for American engagement and intervention throughout the world. This position is evident in the concluding sentence of *Winning Ugly*, which states, "The United States is more likely to underuse than to overuse its power, to the detriment of most."⁴³ Daalder and O'Hanlon believed that the United States had a morally justified motive to intervene in Kosovo. Based on this belief, the authors argue that Clinton's reluctance to use ground troops and Apache helicopters in Kosovo was, "an irresponsible way to go to war."⁴⁴ Instead, the authors argue that using a decisive level of force at the onset of the campaign, even if only from the air, would have been a better strategy.⁴⁵ Unsurprisingly, both authors were initially advocates of the U.S. intervention in Iraq in 2003, though they later reversed positions to varying degrees.⁴⁶

The most comprehensive government publications on Operation Allied Force are two studies done by Project Air Force in 2001. Project Air Force is a subsidiary of RAND that analyzes issues of concern for the leadership of the U.S. Air Force. The first of these studies, *NATO's Air War for Kosovo: A Strategic and Operational Assessment*, by Benjamin Lambeth, provides an extensive operational analysis of the campaign. Lambeth serves as a senior research associate at RAND and has published extensively on air power topics. As a civilian pilot, he has flying experience on over forty different U.S. and NATO aircraft, and was the first U.S. citizen to fly the Russian MiG-29 fighter.⁴⁷ He combines his technical experience from flying aircraft with his knowledge of political affairs to produce a thorough strategic and operational assessment of the campaign. At the operational level, he highlights setbacks due to the lack of interoperability between

alliance partners as well as within the U.S. joint community.⁴⁸ Lambeth concludes that the campaign was a success even though it was “clearly a suboptimal application of air power.”⁴⁹ Lambeth’s conclusions are very similar to those of Daalder and O’Hanlon. All three authors blame civilian policy makers for implementing an inefficient campaign by not calling for a more decisive use of air power at the onset, combined with a premature decision to rule out the use of ground forces.⁵⁰

In contrast, in *Why Milosevic Decided to Settle When He Did*, Stephen T. Hosmer argues that the air campaign applied well-ordered pressure, appropriately intensifying over time, to create an environment where Milosevic’s best option was a diplomatic settlement. In Hosmer’s view, the political constraints on the campaign actually made it more effective in terms of limiting civilian casualties and holding the alliance together.⁵¹ He argues that a more intense campaign at the onset would not necessarily have created an environment conducive to settlement. This is evident in his statement, “Attacking Belgrade heavily from the start of the campaign might have had a perverse effect of ‘killing the hostage’—that is, causing enough damage to convince the Serb leaders that they had little to lose by holding out longer.”⁵² Hosmer argues that bombing the Serbian army had no impact on its capacity to carry out genocide. Additionally, bombing the Serbian army did not influence Milosevic’s decision to capitulate. Instead, the bombing of civilian infrastructure, combined with Milosevic’s evolving view that NATO’s terms were also backed by Russia, motivated the Serbian leader to agree to a settlement before Serbia’s infrastructure was bombed beyond repair.⁵³ In Milosevic’s view, with the coming winter, he could no longer maintain popular support if there was no electricity in Belgrade. According to Hosmer, the second order effects of power outages included

impacts on heating, water supply, sewage, food storage, food processing, and food preparation.⁵⁴ Milosevic could only survive in power if Serbia's infrastructure was functioning at least partially.

The literature on Operation Allied Force focuses on the application of air power within self-imposed constraints. The authors mentioned here agree that air power alone was not effective in damaging the Serbian army. Lambeth, Daalder, and O'Hanlon argue that constraints on the use of the air power caused the campaign to last longer than necessary. GEN Clark and Hosmer argue that the constraints were appropriate because they held together NATO, limited civilian casualties, and fostered further international consensus for the cause. The truth probably lies somewhere in the middle. Regardless, NATO's campaign in Kosovo proved a significant event in the history of limited military interventions. Further interpretation of this event sheds light on the evolving manner in which states attempt to preserve international order.

This thesis differs from the current literature on Operation Allied Force by examining how assumptions and perceptions regarding air power evolved over time. To date, no work focuses exclusively on the views of the American public, policymakers, and military services before, during, and after the Kosovo conflict in regard to the use of air power. This work builds on existing accounts of the conflict by analyzing assumptions made by key actors before the bombing started, examining how these same actors perceived the campaign as it unfolded, and determining whether the campaign changed views regarding the future use of air power. To do this, chapter 2 covers the assumptions made by the public, civilian policy makers, NATO, and each of the military services prior to the commencement of Operation Allied Force. Next, chapter 3 traces the perceptions

of these key actors during the three operational phases of the air campaign, closing with a description of how ground forces, though not used in the conflict, jointly integrated their counter-battery radars to help air forces accurately strike Milosevic's artillery. Chapter 4 compares the results of the campaign, as determined by historical inquiry, with the key actors' view of the results. Chapter 5 highlights the use of Twitter for targeting purposes during the 2011 intervention in Libya. This campaign, which also excluded the use of ground forces from the onset, had significant parallels with the Kosovo intervention and occurred after the "turning point" proclaimed by Keegan at the end of Operation Allied Force. Finally, the concluding chapter comments on the implication of the Kosovo and Libya air campaigns toward the proclivity to use air power for future limited military interventions and the degree to which air power is effective on its own.

¹Herbert George Wells, *The War in the Air* (London: George Bell and Sons, 1908), 79.

²Alan Johnston, "Libya 1911: How an Italian pilot began the air war era," *BBC News*, 10 May 2011, <http://www.bbc.co.uk/news/world-europe-13294524> (accessed 18 May 2014).

³Eyder Peralta, "100 Years Ago, World's First Aerial Bomb Dropped Over Libya," *National Public Radio*, 21 March 2011, <http://www.npr.org/blogs/thetwoway/2011/03/21/134735395/100-years-ago-the-first-aerial-bomb-fell-over-libya> (accessed 17 May 2014).

⁴Gerard J. DeGroot, *The Bomb: A History of Hell on Earth* (London: Pimlico, 2005), 2.

⁵Raul Colon, "Newsflash: Italy Bombs the Turks," *Aeroflight*, 29 September 2007, http://www.aeroflight.co.uk/military/italy_turks.htm (accessed 18 May 2014).

⁶DeGroot, 2.

⁷Stephen Budiansky, *Air Power: The Men, Machines, and Ideas that Revolutionized War, From Kitty Hawk to Iraq* (New York: Penguin Books, 2005), 55.

⁸Ibid., 55.

⁹Martin van Creveld, *The Age of Airpower* (New York: Public Affairs, 2011), 19.

¹⁰Ben Farmer, “Gaddafi’s final hours: NATO and the SAS helped the rebels drive the hunted leader into endgame in a desert drain,” *The Telegraph*, 22 October 2011, <http://www.telegraph.co.uk/news/worldnews/africaandindianocean/libya/8843684/Gaddafi-final-hours-Nato-and-the-SAS-helped-rebels-drive-hunted-leader-into-endgame-in-a-desert-drain.html> (accessed 1 May 2014).

¹¹Ibid.

¹²Ibid.

¹³Damien McElroy, “Colonel Gaddafi died after being stabbed with a bayonet, says report,” *The Telegraph*, 17 October 2012, <http://www.telegraph.co.uk/news/worldnews/africaandindianocean/libya/9613394/Colonel-Gaddafi-died-after-being-stabbed-with-bayonet-says-report.html> (accessed 17 May 2014).

¹⁴Ibid.

¹⁵Ibid.

¹⁶See chapter 3.

¹⁷See chapter 5.

¹⁸CNN, “Bill Clinton Addresses Nation on Yugoslavia Strike,” 24 March 1999, <http://www.cnn.com/ALLPOLITICS/stories/1999/03/25/clinton.transcript/> (accessed 12 October 2013).

¹⁹John Walker, “Air Power for Coercion,” *RUSI Journal* 144, no. 4 (August 1999): 13.

²⁰John Keegan, “Please, Mr. Blair, Never Take such a Risk Again,” *London Daily Telegraph*, 6 June 1999.

²¹Ibid.

²²Mark Landler and Michael R. Gordon, “Air War in Kosovo seen as Precedent in Possible Response to Syria Chemical Attack,” *The New York Times*, 23 August 2013.

²³Ibid.

²⁴Creveld, *The Age of Airpower*, 336.

²⁵CNN, “Bill Clinton Addresses Nation on Yugoslavia Strike.”

²⁶Ibid.

²⁷Office of the Press Secretary, “Statement by the President to the Nation,” 24 March 1999, <http://clinton6.nara.gov/1999/03/1999-03-24-remarks-by-the-president-to-the-nation-on-kosovo.html> (accessed 16 April 2014).

²⁸William J. Clinton, *My Life* (New York, NY: Alfred A. Knopf, 2004), 852.

²⁹Barnaby Mason, “Europe Fifty days on: How credible is NATO?” *BBC News*, 12 May 1999, <http://news.bbc.co.uk/2/hi/europe/342324.stm> (accessed 5 November 2013).

³⁰Steve Bowman, *Kosovo and Macedonia: U.S. and Allied Military Operations* (Washington, DC: Congressional Research Service, 8 July 2003), 4-5. Total Sorties (37,200)—U.S.: 62 percent, Allies: 38 percent; Strike Sorties (9,500): U.S.: 53 percent, Allies: 47 percent; Intelligence/Reconnaissance Sorties (1,200): U.S.: 79 percent, Allies: 21 percent; Support Sorties (26,500): U.S.: 65 percent, Allies: 35 percent.

³¹Benjamin S. Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA: RAND, 2001), 276.

³²Gary P. Shaw, “Operation Allied Force: Case Studies in Expeditionary Aviation—USAF, USA, USN, and USMC” (Research Project, U.S. Army War College, Carlisle Barracks, PA, 2002), 3.

³³NATO, “The Situation in and Around Kosovo,” 12 April 1999, <http://www.nato.int/docu/pr/1999/p99-051e.htm> (accessed 14 April 2014).

³⁴Ibid.

³⁵Klaus Naumann, “How it was Fought: Transcript of Interview,” *PBS Frontline*, 22 February 2000.

³⁶Stephen T. Hosmer, *The Conflict Over Kosovo: Why Milosevic Decided to Settle When He Did* (Santa Monica, CA: RAND, 2001), 61.

³⁷Michael R. Gordon, “At NATO: Allies War by Consensus Limiting Strategy,” *The New York Times*, 3 April 1999.

³⁸Ibid.

³⁹Ibid.

⁴⁰Wesley Clark, *Waging Modern War: Bosnia, Kosovo, and the Future of Modern Conflict* (New York: Public Affairs, 2001), 424.

⁴¹Hugh Shelton, *Without Hesitation: The Odyssey of an American Warrior* (New York: St. Martin's Press, 2010), 370.

⁴²NATO, "NATO's role in relation to the conflict in Kosovo," 15 July 1999, <http://www.nato.int/kosovo/history.htm> (accessed 22 December 2013).

⁴³Ivo H. Daalder and Michael E. O'Hanlon, *Winning Ugly: NATO's War to Save Kosovo* (Washington, DC: Brookings Institution Press, 2000), 343.

⁴⁴*Ibid.*, 225.

⁴⁵*Ibid.*

⁴⁶This is evident in that both authors are signatories on documents published by the "Project for the New American Century," an organization that advocated intervention in Iraq.

⁴⁷RAND, "Biography of Benjamin S. Lambeth," http://www.rand.org/about/people/1/lambeth_benjamin_s.html (accessed 14 April 2014).

⁴⁸Lambeth, *NATO's Air War for Kosovo*, 161.

⁴⁹*Ibid.*, 276.

⁵⁰Daalder and O'Hanlon, 225. Daalder and O'Hanlon argue that Clinton pursued a "minimalist strategy" in a situation where "decisive military action" was a better strategy; Lambeth, *NATO's Air War for Kosovo*, 250. Lambeth is critical of the "gradualism" applied by NATO during Operation Allied Force.

⁵¹Hosmer, 125.

⁵²*Ibid.*, 129.

⁵³Milenko Vasovic, "Serbia's Incredible Reconstruction," Institute for War and Peace Reporting no. 115, 11 February 2000, <http://iwpr.net/report-news/serbias-incredible-reconstruction> (accessed 22 December 2013).

⁵⁴Hosmer, 104-105.

CHAPTER 2

BEFORE THE BOMBING

Assumptions made by each of the military services, the American public, Congress, civilian policy makers, and NATO regarding the use of air power leading up to the Kosovo War influenced planning for the operation. Within the U.S. military, each service had different assumptions relating to the employment of air power. These assumptions are evident in both service culture and doctrine. Public opinion polls and news articles reveal the U.S. public's underlying assumptions regarding intervention in Kosovo. Congressional assumptions are evident in resolutions and statements. President Clinton and key members of the National Security Council (NSC), including Vice President Albert "Al" Gore, Secretary of State Madeleine Albright, Secretary of Defense William Cohen, General Hugh Shelton, and NSC advisor Samuel "Sandy" Berger, publicly revealed their assumptions pertaining to air power through speeches and interviews in the years prior to the intervention. Additionally, summary notes of the NSC Principals and Deputies Committee meetings on Kosovo in the year prior to the bombing were declassified in 2009. These notes reveal NSC member assumptions on air power in conjunction with their diplomatic strategy. In the international environment, newspapers and polls reveal public opinion within the various NATO member nations. General Wesley Clark served as Supreme Allied Commander Europe (SACEUR) during the Kosovo War. In this role, GEN Clark's assumptions on how to best intervene in Kosovo were a critical component in driving NATO's campaign.

Assumptions of U.S. Military Services

Service culture, doctrine, and professional publications reveal what the U.S. armed forces assumed air power could accomplish in Kosovo. The functional grouping of those who employ similar weapon systems stabilizes the cultural inclinations of the military services.¹ Military technology and culture evolve at separate paces, with culturally-grounded thinking often steering a conservative approach in regard to the employment of new weaponry. Early air power theorists such as Billy Mitchell established modes of air power thinking that persisted in Operation Allied Force, indicating a continuity of the aerial arm's preference for targeting (with greater success) fixed objects deep in the heart of an opponent's territory rather than (with more difficulty) mobile ground forces that pose a direct threat to those in their immediate vicinity. Leading up to the U.S. intervention in Kosovo, the U.S. military services made assumptions regarding how they might be employed in future conflicts based upon their recent experiences in Operation Desert Storm in 1991 and Operation Deliberate Force in 1995.² In the aftermath of the Cold War, these two operations largely shaped how the services developed warfighting concepts and doctrine.

Yet it was the Cold War setting that sparked the idea, first introduced by Soviet Marshal Nikolai Ogarkov, Chief of the General Staff in the late 1970s and early 1980s, of an emerging "military-technical revolution."³ Ogarkov believed that precision conventional weapons would eventually be on par with nuclear weapons in terms of destructiveness, thus rendering the employment of mass armored formations obsolete.⁴ Andrew Marshall, director of the Pentagon's Office of Net Assessment since the Nixon administration, discovered Ogarkov's writings in Soviet military journals and used them

to extol the idea of a potential American “revolution in military affairs” based on the development of precision guided munitions (PGMs), computer networks, wide-area sensors, and other technologies.⁵

Marshall’s ideas became popular in U.S. defense circles in the 1990s due to the lopsided results of the 1991 Gulf War.⁶ He unintentionally sparked enthusiasm for the notion that technology could make war clean and risk-free, requiring minimal manpower, given sufficient investment in particular types of weapons technology. In the aftermath of Desert Storm, given looming defense cuts, one of Marshall’s main acolytes, retired Army Lieutenant Colonel Andrew Krepinevich, gave the following procurement advice:

Given tight defense budgets, less emphasis should be placed on maintaining force structure over the near-term future and more emphasis accorded to research and development of new military systems, doctrines, and organizations. Assume, for example, that long-range precision strikes will be a dominant military operation in future conflicts. Substantial changes in U.S. defense planning would then be needed. It would make sense for the Army to reduce funding and emphasis on direct-fire and short-range systems (tanks, armored fighting vehicles, and short-range artillery, for example) as well as the organizations built around them (armored divisions). At the same time the Army would increase its emphasis on long-range, precision-strike systems (satellites, unmanned aerial vehicles, attack helicopters, and extended-range missiles) and attempt to identify the new doctrines and organizations (a deep-strike brigade, for instance) that would employ the new systems in an optimal matter [sic]. This approach would apply to the other services as well.⁷

Krepinevich’s approach garnered momentum across several groups—from politicians and defense contractors to a public weary of maintaining large standing armies—all willing to place future of American military strategy on the altar of high-technology. Military professionals throughout the U.S. armed forces eagerly jumped on this bandwagon, without a full understanding of where it would take them.

U.S. Army

Those who employ force on land tend to view the adversary's army as the center of gravity during conflict.⁸ Given this mindset, the U.S. Army's targeting preferences for friendly air forces are typically enemy artillery, tanks, and mechanized vehicles—the heavy weapon systems capable of inflicting the most damage to forces in their direct path. During Operation Desert Storm, army leaders at multiple echelons were highly concerned with destroying enough Iraqi tanks and artillery from the air prior to the ground assault, due to Iraqi numerical superiority.⁹ A January 1991 estimate by the Defense Intelligence Agency indicated that Iraq possessed 4,200 tanks, 2,800 armored personnel carriers, and 3,100 artillery tubes.¹⁰ Therefore, accurate accounting of air force damage to Iraqi ground forces was critical in timing and developing the combined land offensive plan. From a purely ground perspective, the goal of the air campaign was to degrade the combat effectiveness of the Iraqi Army by 50 percent, quantified solely in terms of destroying Iraqi armor and artillery in corresponding amounts.¹¹

General Norman Schwarzkopf's air component commander during Operation Desert Storm was LTG Charles "Chuck" A. Horner. In examining bomb damage assessments of the air campaign, Schwarzkopf's Central Command (CENTCOM) staff concurred with the estimates of Horner's staff despite differing estimates from the national intelligence community. On the eve of the ground assault, CENTCOM's staff, conferring with those planning the air campaign, concluded that bombing destroyed 47 percent of Iraqi artillery and 39 percent of tanks.¹² In contrast, the Central Intelligence Agency and Defense Intelligence Agency estimated that air forces destroyed as few as 15-20 percent of Iraqi platforms prior the ground assault.¹³

General Colin Powell, Chairman of the Joint Chiefs of Staff, shared Schwarzkopf's optimistic assumptions about air power. Prior to the start of the ground campaign, he stated, "Air power is the decisive arm so far, and I expect it will be the decisive arm into the end of the campaign, even if ground forces and amphibious forces are added to the equation."¹⁴ Indeed, in the aftermath of the campaign, further bomb damage assessments, such as the Gulf War Air Power Survey, indicated that both theater and national-level intelligence estimates of the damage were too conservative. Authors of the Gulf War Air Power survey concluded that CENTCOM's damage estimates were short by 800 tanks and 600 artillery pieces, translating to 20 percent greater destruction, prior to the ground offensive, than previously thought.¹⁵ The Republican Guard's heavy divisions, however, which were estimated to have 34 percent attrition by planners during the war, actually only suffered 24 percent damage.¹⁶

After the ground offensive, the Iraqi Army suffered 76 percent attrition in tanks and 90 percent in artillery, with the exception of those tanks and artillery in the Republican Guard divisions which were still at 50 percent strength.¹⁷ This additional destruction was due to the effect of ground combat. The U.S. Army's ground-based target acquisition radars, linked by an automated fire direction system, allowed U.S. artillerymen to detect and "fire back at the Iraqi guns literally before the Iraqi barrage impacted the ground."¹⁸ This sensor-to-shooter linkage contributed to the high level of destruction of Iraqi artillery during ground combat.

During the Gulf War, overhead surveillance systems, such as Joint Surveillance Target Attack Radar Systems (JSTARS), U-2s, and reconnaissance satellites all used imaging sensors to find Iraqi ground forces and assess bombing damage from the air

campaign.¹⁹ These imaging systems were susceptible to being fooled by Iraq's use of decoys, camouflage, and digging in of forces. In fact, Iraq purchased thousands of dummy tanks and artillery from an Italian company prior to the Gulf War and Saddam colluded with Milosevic throughout the 1990s on how best to utilize this decoy equipment to fool American forces based on the Iraqi Army's experience.²⁰ After the Gulf War, UN observers noted that some Iraqi decoys were impossible to distinguish from actual equipment—even when observed on the ground from twenty-five yards away.²¹

The use of A/N TQP-36 and A/N TQP-37 counter-battery radars made up for the inadequacies of visual imaging systems when it came to targeting artillery accurately. Following the Gulf War, an Iraqi Army artillery battalion commander revealed shortcomings in the ability of air forces to target his artillery. He stated, “after a month of bombing, I had 17 of 18 tubes left . . . after one day of ground war . . . I had one tube left.”²² This statement indicated the effective use of A/N TQP-36 and A/N TQP-37 radars to locate Iraqi tubes in concert with accurate counter-battery artillery fire cued using data from these sensors. Artillery decoys may appear real from the air, but they cannot actually fire rounds. Compared to the airborne visual sensors that searched for Iraqi artillery, counter-battery radars cannot be fooled as easily because they track gun positions based on the trajectory of rounds fired. These new counter-battery radar systems, developed in the late 1970s and early 1980s, provided a significant capability for British and French artillery batteries in Bosnia in 1995, and were inadvertently brought into Albania along with Task Force Hawk in 1999. U.S. Marine aircraft eventually incorporated TF Hawk radar acquisitions, on the fly, to their target sets during

the last two weeks of Operation Allied Force.²³ This overlooked capability played “a very big part” in the final stages of the campaign, in June 1999, according to Air Force General John Jumper, commander of U.S. Air Forces in Europe (USAFE) at the time.²⁴ In Iraq, Bosnia, and Kosovo, counter-battery radars distinguished real artillery tubes from decoys when aerial sensors could not.

The U.S. Army’s capstone doctrinal publication during the time of the Kosovo Conflict was the 1993 FM 100-5, *Operations*. This series of manual underwent significant revisions in the aftermath of the 1991 Gulf War, including de-emphasis on the operational level of war.²⁵ One difference from the 1986 manual was that the 1993 version of FM 100-5, *Operations*, added a chapter entitled, “Operations Other Than War.”²⁶ Chapter one of this manual, in a section entitled “The American Way of War,” stated, “The American people expect decisive victory and abhor unnecessary casualties. They prefer quick resolution of conflicts and reserve the right to reconsider their support should any of these conditions not be met.”²⁷ These assumptions played out in 1999 with the Army’s deployment of Task Force Hawk, consisting of twenty-four Apache attack helicopters, which were not employed in the conflict. GEN Clark requested these helicopters in the early stages of the campaign, but GEN Hugh Shelton, Chairman of the Joint Chiefs of Staff, overruled their use due to concern for potential casualties. GEN Shelton claimed, “the anticipated benefit of employing the Apaches against dispersed forces in a high-threat environment did not outweigh the risk to our pilots.”²⁸

The Apache, though slow moving and vulnerable, exists because the U.S. Army believes that it cannot depend exclusively on the U.S. Air Force to provide air support for its deep battle constructs. This attack helicopter saw great success during Operation

Desert Storm when employed in concert with ground forces. After all, the U.S. Army designed the Apache specifically to destroy second and third echelon Soviet armor with hellfire missiles before these echelons joined battle at the forward line of troops. Apache helicopters destroyed approximately 500 Iraqi armored vehicles in the Gulf War.²⁹ Based on assumptions from that conflict, GEN Clark requested early in the Kosovo campaign that Apache helicopters be based in Macedonia for up-close employment against Serbian tanks.³⁰ Army attack aviation doctrine considers the employment of Apaches in a deep strike role, as envisioned in Kosovo, as “high-risk, high-payoff operations that must be executed with the utmost care.”³¹ Clark indicated a willingness to assume this risk, but was overruled by GEN Shelton. In fact, even President Clinton believed that the Apaches were “slow flying” and “vulnerable,” claiming that they were “wisely withheld from combat.”³²

U.S. Air Force

The early development of American air power doctrine took place within the U.S. Army, as the Air Corps was initially a subcomponent of the Army’s Signal Corps.³³ In 1913, Brigadier General George P. Scriven, Chief Signal Officer of the U.S. Army, testified before Congress that “the aeroplane is an adjunct to the cavalry.”³⁴ As such, airplanes could potentially spot hostile artillery from the air. Yet the notion of using aircraft solely in a reconnaissance role to support ground forces did not take root. During World War I, units of horse cavalrymen waited behind the trench lines to exploit a breakthrough that never occurred. Personnel in these unused units shifted to other roles. One such role was the newly formed units that flew airplanes.³⁵ Once these cavalrymen took flight, bypassing the trenches from above, their imaginations took flight also. In

cavalry spirit they held on to the concept of the decisive blow. In application, however, they no longer believed it necessary to deliver war's decisive blow against a fielded army. Instead, air forces could deliver war's decisive blow directly against an enemy's industry, logistics, and command centers. In 1931, Army Chief of Staff General Douglas MacArthur made an agreement with Admiral William Pratt, Chief of Naval Operations, whereby naval air forces would be based primarily in support of the fleet at sea while the army's air arm would be based primarily on land and pursue the development of strategic bombing at longer ranges.³⁶ On 18 September 1947, the U.S. Air Force ended a forty year association with the U.S. Army. Less than a year later, on 21 April 1948, the Key West Agreement further differentiated the roles of the Army, Navy, and Air Force, widening the divide between close air support and strategic bombing priorities in each service.³⁷

The cultural and policy underpinnings of U.S. Air Force doctrine shape its planning assumptions. Those who employ force from the air tend not to view the adversary's army as a high priority for targeting.³⁸ Instead, after attaining air superiority, industrial centers, key leaders, critical infrastructure, political centers of power, or even the enemy society are the potential targets for air power, due to their vulnerability. This view manifested itself during Operation Allied Force, as GEN Clark disagreed with his air component commander, LTG Short, over what constituted the enemy center of gravity.

LTG Short used the analogy of attacking a snake to describe how he preferred to wage the air campaign. With this analogy, Short implied that the head of the snake was Milosevic's political headquarters in Belgrade, along with critical infrastructure

supporting the city, rather than the Serbian army. The problem with the analogy is that a snake's head is both a weapon system and a control center for the body, with the latter being harmless. Following the logic of the analogy, the Serbian army represents the body of the snake. After the war, in Congressional testimony, LTG Short claimed that he was not allowed to go after targets he preferred to strike, stating,

I'd have gone for the head of the snake on the first night. I'd have turned the lights out, I'd have dropped the bridges across the Danube. I'd have hit five or six political-military headquarters in downtown Belgrade. Milosevic and his cronies would have woken up the first morning asking what the hell was going on.³⁹

This claim, though made after the bombing, was consistent with Short's assumptions before the bombing. In October 1998, during negotiations with Serbian leaders, LTG Short described to his counterpart, commander of the Serbian air force, how the bombing campaign would unfold if Milosevic did not concede to NATO's terms:

You've studied the Gulf war and the 1995 campaign in Bosnia. I know you believe you understand how I'm going to do my business. But you're not even close. No matter what you've done, you can't imagine what it's going to be like. The speed and violence and the lethality and destruction that is going to occur is beyond anything you can imagine. If, indeed, you're not going to accept my terms, we need to break this meeting right now. I suggest you go outside, get in your car and ride around the city of Belgrade. Remember it the way it is today. If you force me to go to war against you, Belgrade will never look that way again—never in your lifetime, or your children's lifetime. Belgrade and your country will be destroyed if you force me to go to war with you.⁴⁰

Thus, the U.S. Air Force entered the Kosovo campaign with very old assumptions established at air power's birth by those who first flew past the trenches—Mitchell, Douhet, and Trenchard—believing that the decisive blow could take place somewhere behind the gun lines.

These assumptions evolved through the years by others like Boyd and Warden, reaching a new pinnacle, with respect to precision bombing, in the late 1990s. According

to air power theorist John Warden, if enough “centers of gravity” are precisely struck at the same time, then a “system” will go into paralysis.⁴¹ LTG Short’s language, referring to cutting the head off of a snake and bombing specific targets in Belgrade, indicated that he bought into Warden’s theories to some degree. Leading up to the intervention in Kosovo, the U.S. Air Force assumed it could strike with an unprecedented level of accuracy, cleanly cutting off the “head of the snake” on the opening blow, like a cavalryman descending unseen from the sky, as the decisive arm in warfare, if not for political constraints.

U.S. Navy

The United States Navy maintains its own separate air force with carrier aviation. Aircraft carriers supported U.S. interventions in both Bosnia and Kosovo. The USS *Theodore Roosevelt* participated in both operations. Additionally, the U.S. Navy provided electronic warfare aircraft such as the EA6-B Prowler in both campaigns because the U.S. Air Force lacks this capability.⁴² At the onset of Operation Deliberate Force in 1995, *Theodore Roosevelt* was already in position to contribute sorties alongside the U.S. Air Force with a second carrier, the USS *America*, arriving the second week of September.⁴³ Leading up to the Kosovo campaign, however, the U.S. Navy moved an aircraft carrier out of the Mediterranean as part of its normally scheduled rotations. To be fair, the Navy is perpetually deployed, in war or peace, and manages its forces accordingly for purposes of maintenance, upgrade, overhaul, and crew morale. Regardless, by adhering to a strict schedule for the rotation of carriers, the Navy indicated its assumption that the U.S. Air Force sufficed to handle the situation in Kosovo, provided that a few ships and submarines remained on station in a supporting role with tomahawk cruise missiles.

As it had done in Bosnia during Operation Deliberate Force and Operation Joint Endeavor, the U.S. Navy had to balance participation in the Kosovo campaign with the requirement to provide carrier aviation in support of patrolling no-fly zones in Iraq (Operation North Watch and Operation Southern Watch). Additionally, in March 1999 it also had to account for a training exercise with Brazil and several NATO navies, and long-standing requirements in the Pacific. In the view of James Phillips and James Anderson, two critics of Clinton's Balkans policy, intervening in Kosovo left the United States unprepared to defend other interests because it "forced the U.S. Navy to reshuffle its deployment of aircraft carriers, leaving forces assigned to defend South Korea without a carrier presence."⁴⁴ They went on to say, "Operation Allied Force also severely depleted the U.S. arsenal of conventionally armed air-launched cruise missiles, which the United States would need in the event of a crisis in the Persian Gulf or on the Korean Peninsula."⁴⁵ In actuality, the Navy did not "reshuffle" its carrier schedule for the conflict. Chief of Naval Operations Admiral Jay Johnson and Secretary of the Navy Richard Danzig denied GEN Clark's request for the USS *Enterprise*, a second aircraft carrier, holding firm to the Navy's rule of only keeping aircrews and sailors at sea for six months at a time.⁴⁶

In addition to carrier aviation, cruise missiles fired from ships or submarines provide a significant long-range precision strike capability, and were used extensively throughout the 1990s—particularly in the opening stages of the Operation Desert Storm, Operation Deliberate Force, Operation Infinite Reach, Operation Desert Fox, and Operation Allied Force. In August 1998, as a response to embassy bombings by al Qaeda in Kenya and Tanzania, the United States launched seventy-five cruise missiles, as part of

Operation Infinite Reach, on suspected terrorist bases of Osama bin Laden in Afghanistan and a pharmaceutical factory in Sudan alleged to be developing chemical weapons for al Qaeda.⁴⁷ In the aftermath of this attack, bin Laden, who reportedly departed the Afghanistan site a few hours prior to the strike, jokingly said, “the attack only killed camels and chickens.”⁴⁸ Once again, in December 1998, three months before Operation Allied Force, the United States fired naval cruise missiles (as well as air launched ones from B-52s) against Iraq during Operation Desert Fox.⁴⁹ By the time of the Kosovo campaign, cruise missile diplomacy was so commonplace that Congress became concerned about depleting the inventory of these missiles.⁵⁰ In context, each of these five campaigns, compared individually, used more cruise missiles than were fired on Afghanistan in 2001.⁵¹

The U.S. Navy viewed its capability to project air power from carriers and fire cruise missiles from other vessels as useful in contingency operations. This assumption pre-supposed accurate targeting data for locating the enemy. Moreover, the Navy believed it could project air power without disrupting its regular carrier rotations. Thus, only a minor surge in naval operations sufficed, in the Navy’s view, for Operation Allied Force.

U.S. Marines

Like the U.S. Navy, the U.S. Marine Corps has an organic air force consisting of both rotary and fixed-wing aircraft. Unlike the Navy, however, Marine pilots specialize in close air support, viewing their air assets as supplemental firepower for vulnerable ground forces.⁵² This perspective allowed the Marines to effectively integrate with elements of Task Force Hawk, the U.S. Army’s only commitment during Operation

Allied Force, despite the absence of a land component commander. The primary doctrinal role for Marine air power is fire support for ground commanders because Marines do not have the same tactical staying power and logistical backbone as U.S. Army units. This view of Marine air support emerged during World War II.

The U.S. Marines prefer to retain operational control of their air component, as part of the Marine Air Ground Task Force concept. This originates from Marine perpetuation of the institutional memory that they were dropped on the beach during the Battle of Guadalcanal and abandoned by the U.S. Navy without air support. This fear of abandonment has been written into their doctrine in the form of the Marine Air Ground Task Force, which calls for limited commitment of Marine air forces for employment in support of other services (than the Navy) unless there are “excess sorties.”⁵³

Subsequent to World War II, tension over Marine Air Ground Task Force doctrine emerged in operations where joint command structures consolidated the air elements of all services under the direction of a single air component commander at the theater level. For example, in the Korean War, an Air Force command amalgamated all air assets to achieve theater-level efficiencies.⁵⁴ Marines vowed that this would never happen again. Yet during the Vietnam War, General Westmoreland’s air deputy, General Joseph H. Moore (USAF), consolidated the air assets of the services under its Tactical Air Control System (TACS), contrary to Marine preferences.⁵⁵ Again, during Desert Storm, General Schwarzkopf wanted to maintain control of all joint air forces under a single commander, LTG Charles “Chuck” A. Horner, in order to plan and execute the bombing campaign centrally. Nevertheless, a compromise was struck whereby Marines would put aircraft on the Air Tasking Order (ATO) that would remain in vicinity of their

ground forces and under their control.⁵⁶ In Operation Allied Force, however, there were no U.S. Marines on the ground, so the tension normally generated when organic assets were placed outside their command was less evident. Instead, Marines' concern was that they might be called upon for an unforeseen contingency elsewhere, with their organic air assets meanwhile tied up in Kosovo. This same type of argument—that Kosovo was a sideshow tying up resources that might be needed in a more serious crisis elsewhere—manifested itself at the policy level and in public opinion.

U.S. Public and Congress Assumptions

Presidential policy is often informed by public opinion and Congressional influence. Prior to the start of Operation Allied Force, only 46 percent of Americans approved of using military force to intervene in Kosovo.⁵⁷ Despite this, President Clinton believed the situation warranted military involvement on both moral (humanitarian) and strategic (regional stability) grounds. Given the low level of public support for intervention, Clinton decided on “a low-risk military strategy specifically designed to minimize U.S. casualties in hopes of increasing domestic support for intervention,” according to Thomas Knecht in a study on the impact of public opinion on foreign affairs.⁵⁸ Public and Congressional assumptions regarding the use of air power fit well with this “low-risk” approach. Recent events such as Operation Desert Storm and the 1995 intervention in Bosnia shaped these optimistic assumptions.

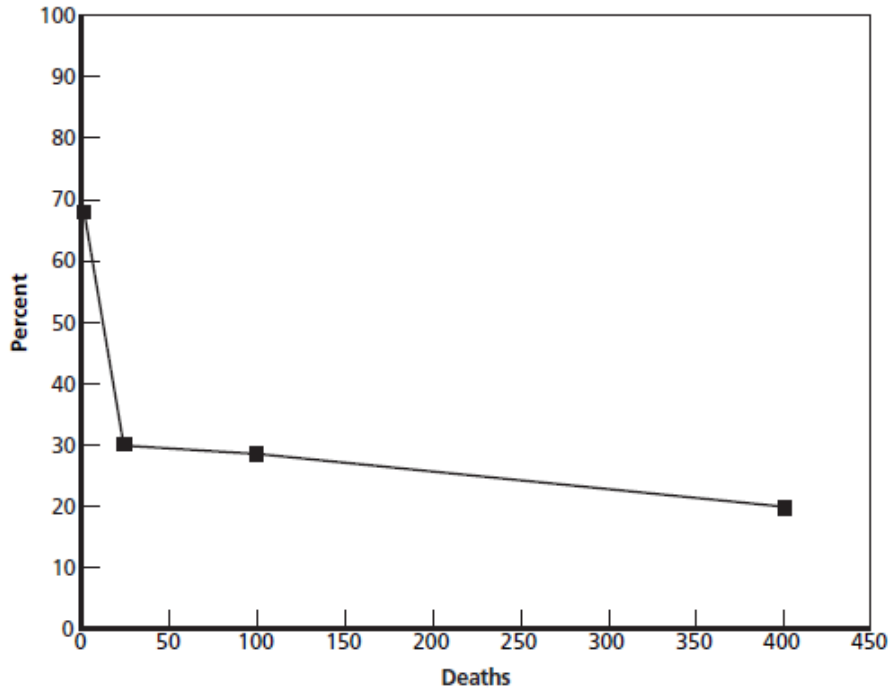
The perceived success of air power during the Gulf War encouraged its future use as a coercive instrument with “awesome potential” that could be employed with “low cost in American lives,” according to three analysts working for RAND in 1999.⁵⁹ In relative terms, however, the U.S. public was less inclined to intervene in Kosovo than in

the 1991 Gulf War.⁶⁰ Nevertheless, public support for intervention in Kosovo was higher than it was for intervention in Bosnia in 1995.⁶¹ The variance in public opinion hinged on the potential role of ground forces. Americans did not support the notion of employing ground forces concurrently with air forces in a hostile environment.⁶² On the other hand, Americans supported the idea of troops conducting peacekeeping operations in a permissive environment, subsequent to an agreement compelled by bombing.⁶³ Only in the aftermath of the Gulf War could such a view of operations emerge—an illusory one that entailed air forces bombing adversaries into submission and ground forces mopping up afterwards to safeguard peace. With limited strategic objectives, considering a public that was predictably casualty averse in situations that did not entail national survival, air power offered President Clinton a seemingly fitting means to intervene in Kosovo. President Clinton’s 1995 intervention in Bosnia brings to light political considerations regarding potential military casualties that were also a factor in the Kosovo intervention. Public opinion polls indicate, unsurprisingly, that the willingness of Americans to intervene in conflicts depends on what is at stake (interests) and the potential for casualties (risk). As a result of the failed 1993 intervention in Somalia, the American public was unwilling to put military lives at risk for interventions deemed as humanitarian in nature.⁶⁴

Table 1, which follows, indicates how this trend manifested itself in public willingness to intervene in Bosnia, considering various levels of potential casualties. RAND obtained the data in this table from a Gallup poll taken in late October 1995 with a sample size of 1,229. Surveyors asked the respondents, “Suppose that you knew that if the United States sent U.S. troops to Bosnia as part of an international peacekeeping

force, that no American soldiers would be killed. With this in mind, would you favor or oppose sending U.S. troops to Bosnia? (Then asked if respondent would support with 25, 100, and 400 U.S. troops killed.)”⁶⁵

Table 1. Willingness to Tolerate Casualties in Bosnia, 1995.



Source: Eric V. Larson and Bogdan Savych, *American Public Support for U.S. Military Operations from Mogadishu to Baghdad* (Santa Monica, CA: RAND, 2005), 68.

Naturally, if the stakes are low, as perceived by Americans in the case of distant humanitarian or peacekeeping efforts, then the public is not willing to risk lives. Given this dynamic, assuming an intervention entails virtually zero casualties, the American public will be overwhelmingly supportive. The trend held true in Bosnia. In November 1996, eleven months after the first U.S. troops deployed to Bosnia, Clinton announced that troops would remain for another eighteen months. Writing at this time, *New York*

Times correspondent Elaine Sciolino noted, “In the absence of American casualties in Bosnia, the public no longer seems to be so intent on knowing just when its troops will return from a mission overseas.”⁶⁶

Public assumptions regarding the use of air power, as shaped by widely held interpretations of the Gulf War, combined with initial concerns over the use of ground forces for peacekeeping operations in Bosnia, influenced how politicians in Congress represented their constituencies with regard to intervention in Kosovo.

The divide in public opinion on U.S. foreign policy concerning Kosovo manifested itself in Congress through chaotic voting on various resolutions. In theory, the legislature of a representative democracy votes in a manner that mirrors the society it represents. By design, the House of Representatives is more fluid than the Senate, where positions move slowly.⁶⁷ On 11 March 1999, the House passed (219 to 191) a Republican-sponsored resolution authorizing the President to deploy U.S. armed forces to Kosovo as part of a NATO peacekeeping force, provided the size of the force did not exceed 15 percent of the combined NATO commitment.⁶⁸ This resolution did not pass in the Senate.⁶⁹ Leading up to operations in Kosovo, however, the Senate endorsed air strikes whereas the House did not.⁷⁰ Overwhelmingly, despite partisan rhetoric, members of Congress supported the intervention by providing full funding for supplemental expenditures related to the conflict. Yet this support must be examined in the context of conflicting Congressional resolutions during the conflict. These resolutions indicated a lack of consensus on the issue of Presidential power to use military force in international conflicts.

Congressional positions on Kosovo did not exclusively follow party lines. The majority of Republican leaders were initially reluctant to take a stance on war in the Balkans, purposefully restraining their comments as a political strategy to later saddle blame on the President if the campaign proved unsuccessful.⁷¹ Alternatively, at a time when his party was tentative in its views on intervention, Senator John McCain (R-AZ) voiced support for intervention in Kosovo.⁷² As with Bosnia four years earlier, most Democratic members of Congress took a hawkish stance against Milosevic's actions in the prelude to intervention.⁷³ In contrast to this prevailing trend, Senator Robert Byrd (D-WV) strongly asserted Congressional prerogative over military intervention by pressing for a vote on the matter.⁷⁴ Nevertheless, when it came time to cast votes, Byrd fell in line with his party, voting to authorize the President to intervene with military air operations.

In a more pronounced position against intervention, Senator Kay Bailey Hutchison (R-TX) wrote a piece in the *Wall Street Journal* entitled, "One Balkan Quagmire is Enough."⁷⁵ Fellow Texan Senator Phil Gramm (R-TX) asked that Hutchison's article be entered into the Congressional Record, as it encapsulated his position also.⁷⁶ Hutchinson's commentary stated, "There is no reasonable number of American ground troops that can end this crisis."⁷⁷ She went on to argue, "Again, as in Bosnia, the U.S. finds itself serving the purposes of the most unsavory elements in an ethnic crisis. We are trying to divide the acceptable center between Serbian strongman Milosevic on the one side and a violent insurgency group, the KLA, on the other." One year after these comments, both Texas senators held firm with their positions and voted against the intervention.

On 23 March 1999, one day prior to initiation of Operation Allied Force, the Senate voted to approve Senate Concurrent Resolution 21 (S. Con. Res. 21) by 58 to 41.⁷⁸ The resolution stated: “the President is authorized to conduct military air operations and missile strikes in cooperation with our NATO allies against the Federal Republic of Yugoslavia.”⁷⁹ Senator Joseph “Joe” Biden, Jr. (D-DE) sponsored this resolution together with several Republican co-sponsors, including Senators Theodore “Ted” Stevens (R-AK), Charles “Chuck” Hagel (R-NE), and Mitchell “Mitch” McConnell (R-KY), indicating support across party lines for U.S. intervention. Senator Stevens initially attempted to add language to the resolution barring funding for ground forces, but decided to drop this provision prior to voting at the request of his Republican colleagues.⁸⁰

In a 24 February 1999 op-ed in the *Washington Post*, Henry Kissinger stated, “Kosovo is no more a threat to America than Haiti was to Europe.”⁸¹ Kissinger implied that Europeans should deal with regional burdens on their own, just as the United States did in neighboring Haiti. Kissinger added, “We must take care not to stretch ourselves too thin in the face of far less ambiguous threats in the Middle East and Northeast Asia.”⁸² Ironically, Kissinger’s concern was that Kosovo might become a quagmire like Vietnam. His view struck a chord with Senator James Inhofe (R-OK), who quoted Kissinger’s statement in Congressional testimony on 23 March 1999, leading up to the vote on S. Con. Res 21.⁸³

The day of the vote, in responding to Senator James Inhofe’s concern of getting involved in a “quagmire,” Biden responded, “This is not a Tonkin Gulf Resolution, which was clearly open ended,” referring to the 1964 resolution that paved the way for greater

U.S. involvement in Vietnam.⁸⁴ In further Senate debate, Inhofe stated, “people may lie to you and say this is going to be an airstrike. Anybody who knows anything about military strategy and warfare knows you can’t do it all from the air.”⁸⁵ Inhofe went on to argue that ground troops would be needed, and that their eventual deployment would detract from the ability to respond to a more serious crisis elsewhere.⁸⁶

Notably absent from S. Con. Res. 21 was any mention of intervening with ground forces. This issue would resurface in the Senate later in the conflict, despite Clinton’s reluctance to pursue ground options.⁸⁷ Nevertheless, the President entered the conflict with the majority support of the Senate, an irresolute House, and a weary public. Clinton and his party attained political consent for the Kosovo intervention by excluding the use of ground forces at the onset of the campaign.

Policy Level Assumptions

The President, National Security Council (NSC), and Joint Staff make up the key actors in forming strategic policy. Policy level assumptions regarding U.S. intervention in Kosovo with air power were mostly optimistic due in part to views shaped by Operation Desert Storm. In addition, the recent success of Operation Deliberate Force, which took place from 30 August to 20 September 1995, involved many of the same key administration officials within the NSC and Joint Staff.⁸⁸ Alongside this perceived success, however, the failed intervention in Somalia in 1993 still loomed as a cautionary tale in foreign policy decisions entailing the use of ground forces during the Clinton administration. The NSC and Joint Staff served as the medium through which policy assumptions flowed—in both directions—between the President and the armed forces. President Clinton and General Clark were both Rhodes Scholars, two years apart in age,

who grew up fifty miles apart from each other in Arkansas. Despite this commonality, Clinton communicated with GEN Clark “seldom, and formally,” mainly to keep him in check, as Clinton believed, “Clark wanted to win so badly that he was not above leaking his doubts about their [NSC and Joint Staff] commitment,” according to Taylor Branch, author of *The Clinton Tapes* and former roommate of Clinton.⁸⁹

President Clinton’s Assumptions

During the 1992 presidential campaign, Governor Clinton criticized his opponent, President George H.W. Bush, for inaction in dealing with “the renegade regime of Slobodan Milosevic,” and called for the United States to “take the lead” and conduct “air strikes” against Serbian forces that were interfering with humanitarian aid deliveries in Bosnia.⁹⁰ In the same speech, Clinton compared Slobodan Milosevic to Saddam Hussein due to both individuals similarly being “responsible for the slaughter of innocent civilians.”⁹¹ These statements invoked a response from the Bush administration, which claimed that Clinton’s proposal for intervention in the Balkans was a “reckless approach” to the complex political situation in Yugoslavia.⁹² Upon assuming office, Clinton fulfilled his campaign rhetoric by deepening U.S. involvement in the Balkans, spurred in part by the July 1995 massacre at Srebrenica where the Serbian army slaughtered 8,000 Bosnian Muslims.⁹³ On 30 August 1995, the eve of Operation Deliberate Force, Clinton handwrote a note to his chief foreign policy speechwriter Tony Blinken calling for more discussion of the Srebrenica massacre in future speeches.⁹⁴ A month after the campaign Clinton sent Blinken a *Washington Post* article with the following two sentences circled:

The accounts now available indicate that the massacres in the Srebrenica area during the week starting July 11 were the worst atrocities committed in Europe since World War II. . . . According to numerous eyewitnesses, the operation to

round up draft age Muslim men was personally supervised by Mladic, who was indicted by the International War Crimes Tribunal in The Hague in July for his alleged participation in earlier atrocities.⁹⁵

The atrocity at Srebrenica was the justification and impetus for NATO's military intervention in Bosnia in 1995.

The apparent success of Operation Deliberate Force shaped Clinton's optimistic assumptions regarding the use of air power in Kosovo. Yet it also shaped his caution in employing ground forces. On 15 November 1996, ten days after being re-elected to a second term, Clinton announced that the United States would keep troops in Bosnia for an additional eighteen months. He initially alluded to a one year timetable when the first U.S. troops arrived in Bosnia in December 1995.⁹⁶ During a 3 December 1995 presidential speech at Smith Army Barracks in Germany to deploying soldiers of the 1st Armored Division and their family members, a woman in the crowd held up a sign that read, "The President Who Stole Christmas."⁹⁷ Another sign stated, "Draft Dodger Go Home."⁹⁸ It was amidst this backdrop of criticism that Clinton also approached the Kosovo intervention, though he was no longer as concerned with public opinion during his second term.⁹⁹ In his autobiography, *My Life*, Clinton wrote that he "hoped we [NATO] could avoid sending ground troops [to Kosovo] until their mission was to keep the peace," but later stated, "I was ready to send troops in if necessary, but I still believed [in May 1999] the air war would succeed."¹⁰⁰

Based on the U.S. experience in Bosnia, Clinton assumed that air power could set the conditions whereby ground forces could be employed in a risk-free manner. The cruise missile strikes in Afghanistan and Sudan, along with the brief bombing campaign in Iraq, both in 1998, indicated that Clinton had few reservations about the political

fallout from employing air power unilaterally against nations without the capacity to respond in kind. Within an alliance framework, his reservations were probably even less so. Early in the Kosovo bombing campaign, Clinton stated, “the reason we went forward with air actions is because we thought there was some chance it would deter Mr. Milosevic based on two previous examples—number one, last October in Kosovo, when he was well poised to do the same thing; and number two, in Bosnia, where there were 12 days of NATO attacks over a 20-day period.”¹⁰¹

Throughout his presidency, Clinton’s schedule had three hours per day blocked off for reading books suggested by his staff and other close advisors. In February 1999, while on a trip to Mexico with Senator Biden, Clinton found an opportunity to discuss the Kosovo situation to get a feel for the Senate’s position on intervention. Biden recalled, “All the way down on the plane I was reading a book about the Balkans and he saw me reading it. . . . And you know how he is, he asked me to give it to him to read. And I said, ‘No, get your own copy.’”¹⁰² The book was *History of the Balkans* by Barbara Jelavich, part of a two volume series.¹⁰³ The first volume deals with movements for national sovereignty in the Balkans during the nineteenth century while volume two deals with internal development of states in the region in the twentieth century, with a particular focus on the Cold War and internal development of regimes in the 1980s.¹⁰⁴ Biden assumed Clinton later read the book.¹⁰⁵ In any case, it was widely reported that Clinton read *Balkan Ghosts* by Robert Kaplan, but it is highly unlikely that he bought into the thesis that “ancient passions and intractable hatreds for outsiders” would make it difficult for outside powers to influence the region with success.¹⁰⁶ Regardless of his views on air

power, it is probable that Clinton was well-versed in the political intricacies of the Balkan region from a variety of perspectives.

National Security Council Assumptions

Under President Clinton, the National Security Council (NSC) operated based on guidance outlined in the 1993 *Presidential Decision Directive/NSC-2*, which expanded membership of the NSC to include the Secretary of the Treasury, the U.S. Representative to the United Nations, the Assistant to the President for Economic Policy, and the Chief of Staff to the President. The Attorney General attended meetings pertaining to covert activities on an invitational basis. Additionally, a provision was added for permanent and *ad hoc* Interagency Working Groups (IWGs), established at the direction of the Deputies Committee.¹⁰⁷

Leading up to the U.S. intervention in Kosovo, the key members of the National Security Council were Vice President Albert “Al” Gore, Secretary of State Madeleine Albright and Secretary of Defense William Cohen. In addition, Chairman of the Joint Chiefs of Staff General Hugh Shelton and Director of Central Intelligence George Tenet attended meetings as statutory advisors. Several of the first term NSC principals, particularly Defense Secretaries Les Aspin and William Perry, General Colin Powell, General John Shalikashvili, and National Security Advisor Anthony Lake, played an influential role in curtailing Balkan intervention during crises in Clinton’s first term. From 1997 to 2001, National Security Advisor Samuel R. “Sandy” Berger chaired meetings of the Principals Committee and played a key role in shaping Kosovo policy.¹⁰⁸

As President Clinton’s special Balkans envoy, Richard “Dick” Holbrooke, gave advice to NSC principals during the Bosnian and Kosovo interventions, mentioning in

“eyes only” diplomatic cables to the NSC principal advisors that he recommended brief periods of bombing as part of a negotiation strategy.¹⁰⁹ He concluded one of his cables to Perry, Lake, Albright, and Shalikhvili during Operation Deliberate Force by stating: “This recommendation should not be read as a call for a sustained and prolonged campaign. We are not Sarajevo’s air force and this is not ‘Rolling Thunder.’”¹¹⁰ Earlier in the same cable, referencing another air campaign during the Vietnam War, Holbrooke said, “This is not a recommendation for a Linebacker-type campaign. Indeed, there will undoubtedly come a time when, from a political/diplomatic point of view, suspending the bombing will be more useful than continuing it.”¹¹¹ This statement highlighted the view among most of the NSC that bombing was more useful for gaining diplomatic leverage than in physically compelling Milosevic’s army to cease its activities. The Vice President shared this mindset, yet he focused mostly on gaining diplomatic leverage over Milosevic through talks with allies rather than by employing military force.

Vice President Al Gore supported the idea of air strikes in Kosovo, but was strongly against the idea of using ground forces.¹¹² As a leading Democratic contender for the upcoming 2000 elections, Gore did not want to be associated with the intervention if things went sour, so he rarely voiced his opinions on Kosovo in official meetings.¹¹³ In public, however, Gore championed the humanitarian aspects of U.S. policy in the Balkans, announcing that the U.S. would take in refugees from Kosovo.¹¹⁴ Additionally, he assisted with diplomatic components of U.S. strategy by personally calling Russian Prime Minister Yevgeny Primakov to notify him of the impending bombing on the eve of NATO’s campaign and by being the administration’s primary contact with Viktor Chernomyrdin, Russian Special Envoy for Kosovo.¹¹⁵ Leon Fuerth served as the national

security advisor for Gore. In this role, Fuerth attended both the NSC Principals and Deputies meetings on Kosovo.¹¹⁶ Fuerth's previous experience as a Foreign Service officer in the Balkans proved useful in garnering international support for sanctions against Milosevic.¹¹⁷ Fuerth represented Gore's position on Kosovo in NSC meetings, and focused mainly on diplomatic solutions to the crisis.¹¹⁸

In contrast, Secretary of State Madeleine Albright became most associated with military intervention in Kosovo. Born in Prague in 1937, Albright's strong conviction to stop Milosevic stemmed from her upbringing. During World War II, her family fled their native Czechoslovakia after the Nazis invaded in March 1939.¹¹⁹ Several of her family members died during the Holocaust.¹²⁰ Given this background, Albright felt a personal connection with refugees that were evicted from Balkan regions by Milosevic's regime.¹²¹ In 1999, *Time Magazine* correspondents frequently referred to the intervention in Kosovo as "Madeleine's War," a phrase echoed by supporters and critics alike.¹²² Surrounded by a cabinet from the Vietnam generation, Albright highlighted the different context in which she saw events,

My mind-set is Munich; most of my generation's is Vietnam . . . I saw what happened when a dictator was allowed to take over a piece of country and the country went down the tubes. And I saw the opposite during the war when America joined the fight. For me, America is really, truly the indispensable nation. I've never seen America as an imperialist or colonialist or meddling country.¹²³

In April 1993, Albright advised President Clinton to use air strikes to destroy Bosnian Serb heavy weaponry and bridges used to support these forces' resupply.¹²⁴ General Colin Powell, Chairman of the Joint Chiefs of Staff, convinced Clinton to abstain from using force.¹²⁵ During an exchange with Powell on this matter, Albright forcefully stated, "What's the point of having this superb military you're always talking about if we

can't use it?"¹²⁶ In his autobiography, Powell recalled Albright's confrontation with him over the Bosnia matter, saying in frustration, "I thought I would have an aneurysm."¹²⁷ Powell found support for his position, however, with National Security Advisor Anthony Lake, who compared the situation to Vietnam. Lake took Powell's side, saying that military officers did not speak up against the Vietnam War, as Powell was duly interjecting in the case of Bosnia.¹²⁸ Nevertheless, after exactly four years as Chairman of the Joint Chiefs of Staff and five months after his confrontation with Albright, Powell retired. His successor, General John Shalikashvili, assumed the JCS chairman position on 25 October 1993, and served until 20 September 1997.¹²⁹

On 9 August 1993, Secretary of Defense Leslie "Les" Aspin sent President Clinton a memorandum that recommended either General Shalikashvili, a U.S. Army officer, or Marine General Joseph "Joe" Hoar as the next JSC chairman, upon General Powell's retirement.¹³⁰ The memorandum's enclosures had detailed biographical papers on both candidates, including selected comments dating back from officer evaluations on Hoar as a young captain, as well as Defense Secretary Aspin's comments on how each general might advise the President (and speak in public) on the use of force for limited interventions.¹³¹ Included within the recommendation package were video segments of Shalikashvili and Hoar's testimony (as NATO and CENTCOM commanders, respectively) before the Senate Armed Services Committee on 20 April 1993.¹³²

On 13 August, President Clinton read the files of both candidates and watched recordings of their recent Senate testimonies in order to prepare for interviews with each general.¹³³ At one point during Shalikashvili's testimony, Senator Samuel "Sam" Nunn (D-GA) asked Shalikashvili whether air strikes might be successful against Serbian

artillery.¹³⁴ At the time, the Serbian army shelled various Muslim towns and cities in Bosnia, sparking calls for intervention.¹³⁵ Shalikashvili carefully responded, “militarily, it can be done,” but later admitted, based on questioning from Senator John Warner (R-VA), that “the effectiveness of air attacks would decline over time as the Serbs hid their artillery.”¹³⁶ Secretary Aspin urged Clinton to watch this particular section of the testimony, highlighting: “When asked by Senators about the use of airpower to suppress artillery in the Balkans, he [Shalikashvili] stressed that in the future, we should expect to see artillery deployed next to churches and hospitals rather than in the classic manner.”¹³⁷ Additionally, Aspin noted that Shalikashvili had “the perfect Army wife” and described Hoar as “an Irish Gary Cooper” whose wife, Charlie, was a talented psychologist.¹³⁸ As revealed through Clinton’s interview notes, the reason he selected General Shalikashvili, a U.S. Army officer, over General Hoar, who would have been the first Marine to serve as JCS chairman if selected, was due in part to the different answers each general gave to Clinton’s first two questions regarding Balkan intervention and peacekeeping operations during their separate interviews.¹³⁹

From 1997 to 2001, General Hugh Shelton served as JCS chairman. General Shelton had a personal dislike for General Wesley Clark, the SACEUR. In his autobiography, *Without Hesitation*, Shelton accuses Clark of being overly concerned with his career.¹⁴⁰ He condescendingly refers to him as a “Rhodes scholar and West Point valedictorian” who could “brief well in front of the cameras” but was unable to come up with a “solid plan” for Kosovo.¹⁴¹ In describing Clark, Shelton writes, “both Cohen and I thought he tended to be somewhat of a loose cannon at times, and absolutely in it for whatever was best for Wes.”¹⁴²

Secretary of Defense William Cohen, a former Republican Senator from Maine, joined Clinton's cabinet in 1997 as the second Republican Defense Secretary to work for a Democratic President.¹⁴³ As a Senator, Cohen expressed disagreement with Clinton's decision to intervene in Bosnia. During his confirmation hearing, this issue resurfaced when Senator John Warner (R-VA) asked about an exit strategy for peacekeepers stationed in Bosnia. Warner pointed out that Cohen opposed the intervention in the first place, saying, "You and I took the floor many times on the issue of Bosnia, and we stood toe to toe in resisting that because we did not recognize it as vital."¹⁴⁴ Cohen responded by defending Clinton's eighteen month timeline, saying, "it's telling our European friends that we're not going to make an unlimited commitment to that region."¹⁴⁵ At his confirmation hearing, Cohen clearly differentiated between "vital" and "less than vital" interests, with Balkan intervention falling into the latter category.¹⁴⁶ Cohen went on to explain that less than vital interests could turn into vital interests, in the case of Bosnia, if instability spread further in the region.¹⁴⁷

As National Security Advisor, Sandy Berger quietly shaped policy behind the scenes, while other principal actors, such as Albright, were more publicly associated with the Kosovo intervention. In early 1998, Berger expressed doubts about whether a bombing campaign could be explained to Congress.¹⁴⁸ Yet in considering the actual application of air power, Berger stated,

We had an advantage of 100-to-1 / 1000-to-1 from the air. If we were forced to go in on the ground in deep summer, it would have been maybe 3-to-1 or 2-to-1. Milosevic would have been able to be on much more equal grounds with NATO as we came over these mountains, through the caves that Tito had built in Yugoslavia. An equally good school of thought says that Milosevic would have loved to get us into a ground war.¹⁴⁹

In NSC Principal and Deputy meetings from June 1998 to March 1999, Berger worked closely with other members of the committee to outline U.S. objectives, garner NATO support, and synchronize the timing of the NATO activation order with administration statements.¹⁵⁰ The potential employment of ground forces was not discussed in these meetings.¹⁵¹ At the onset of policy level planning, in a 19 June 1998 meeting, the NSC outlined a strategy of “sticks” and “carrots” that applied in different ways to both Milosevic and Kosovars, as both sides appeared as potential instigators in escalating the conflict.¹⁵² Within this framework, Berger viewed the “graduated use of air power” as just another “stick” to be used in negotiations.¹⁵³

NATO Assumptions

NATO’s European policy makers contended with varying levels of public support, as indicated in table 2. Given this context, each nation’s policy makers and military forces had different assumptions relating to the intervention. In addition, the 1995 intervention in Bosnia shaped the political and military assumptions of NATO’s European members. As the NATO commander, General Clark played a critical role in holding the alliance together. Clark and his staff faced disparate challenges in maintaining alliance cohesion based on the varying levels of public opinion within NATO member nations.

Table 2. European Public Opinion of NATO Intervention

Country	Approve	Disapprove
United Kingdom	67	29
France	62	32
Germany	54	44
Italy	51	40
Belgium	42	45
Portugal	41	51
Spain	39	49
Greece	2	97

Source: Ivo H. Daalder and Michael E. O’Hanlon, *Winning Ugly: NATO’s War to Save Kosovo* (Washington, DC: Brookings Institution Press, 2000), 161.

NATO Member Nation Assumptions

In concert with public sentiment, British and French heads of state favored intervening in Kosovo. British Prime Minister Tony Blair appeared as the most hawkish of NATO’s leaders due to his belief that Milosevic’s actions were similar to the genocide committed by Nazis during World War II. Because of this, he felt a moral imperative to act, and was backed by overwhelming public support for intervention.¹⁵⁴ Blair said, “I saw it essentially as a moral issue.”¹⁵⁵ In addition, Blair was more in favor of introducing ground troops than any other member of NATO.¹⁵⁶ At the same time, French President Jacques Chirac, during a 19 February 1999 conference in the White House with President Clinton, stated “our agreement on the present problems in Kosovo is an unqualified agreement, it’s a complete agreement.”¹⁵⁷ Leading up to the Kosovo intervention, the French Parliament was marginalized; its members learned of French participation in airstrikes via television rather than by official notification from their head of state.¹⁵⁸

Alternatively, parliament received notification from Chirac forty-eight hours after the air campaign commenced, contrary to the spirit of the French constitution.¹⁵⁹ In contrast, other European leaders sought approval from their parliaments prior to their participation in the bombing.¹⁶⁰

Italy and Germany's closely divided public opinion regarding intervention mirrored the positions expressed by their political leaders. Italians preferred an all-or-none approach in terms of military force for the Kosovo intervention due to concerns that a drawn-out campaign would create problems with the flow of refugees into their country.¹⁶¹ Italy provided more basing for NATO aircraft than any other country participating in the campaign.¹⁶² Italian Prime Minister Massimo D'Alema and Defense Minister Carlo Scognamiglio suggested that Italy would provide troops for a ground war if NATO went that route.¹⁶³ Italian Foreign Minister Lamberto Dini did not support the use of ground troops, however.¹⁶⁴ In any case, it is likely that D'Alma and Scognamiglio would have prevailed in Italian debate over ground troops had Clinton not ruled it out. Like NATO's other members, Italy made assumptions pertaining to Kosovo based on the 1995 Bosnia intervention. Prime Minister D'Alma stated, "We looked to the Bosnian precedent when limited air raids had brought him [Milosevic] to the negotiating table."¹⁶⁵

Operation Allied Force was Germany's first major combat operation since World War II, and the German Luftwaffe would bomb some of the same locations that the Nazis had attacked fifty years earlier.¹⁶⁶ It was amidst this historic sensitivity that German political leaders approached the Kosovo intervention. Despite significant opposition from the pacifist Green Party, German Chancellor Gerhard Schroder garnered political support

for participation in the air campaign.¹⁶⁷ In contrast to Italy, however, Chancellor Schroder publicly opposed the use of ground forces.¹⁶⁸

The overwhelming Greek opposition to intervention in Kosovo stemmed more so from anti-American sentiment than from common ties with Serbia. Greek journalist Alexis Papachelas summed up this perspective, saying, “the Greek reaction to the Kosovo crisis was the result of 80 percent of the Greek anti-American feelings and only 20 percent of the Greek solidarity towards the Serbian people.”¹⁶⁹ This animosity was due in part to U.S. policy vis-à-vis Macedonia, where the U.S. deployed a small contingent of troops to deter Serbian aggression in 1993.¹⁷⁰ As with Italy, Greek politicians were also concerned about the potential for a massive refugee influx due to instability generated by the imminent bombing. Kostas Karamanlis, president of the Greek Conservative Party, stated that NATO’s intervention would spur, “the emergence of a great wave of refugees who will seek shelter in neighbouring and more prosperous countries such as Greece.”¹⁷¹ Greek Conservative Party Members also expressed concern that U.S. interests in the Balkans stemmed from the area’s significance for the flow of oil and gas supplies from the Caucasus since other regions had similar humanitarian problems that the United States was not as interested in.¹⁷²

In a speech at Princeton University in January 1999, Greek Prime Minister Apostolos Kaklamanis attempted to provide Americans with the Greek perspective on Kosovo intervention, saying,

The Americans have to seriously consider the consequences of this war; especially the possibility of causing permanent instability in the whole Balkan Peninsula. Perhaps for the United States this is not a major issue, because Americans are thousands of miles away from the conflict. How would they feel if this war was taking place on their own continent?¹⁷³

Despite this sentiment, Greek politicians were also concerned with maintaining their long-standing NATO ties and elected to remain somewhat neutral in the conflict rather than diminish their long-term strategic role in the alliance.¹⁷⁴ It was quite unlike the outcome of the Melian dialogue in Thucydides' *History of the Peloponnesian War*, though the sentiments were similar.¹⁷⁵

NATO Commander and Military Assumptions

As NATO commander, General Clark's assumptions regarding military intervention and the use of air power shaped the manner the alliance carried out the war. In contrast, Britain and France, who were more apt to use ground forces, had different assumptions, and played an overlooked role in the 1995 Bosnia campaign. During the Bosnia campaign, Clark's experiences as a military advisor to Richard Holbrooke, U.S. Assistant Secretary of State for European and Canadian Affairs, solidified political assumptions formed early in his career. In his thesis for a master's in military art and science in 1975, as a student at the Command and General Staff College, Captain Wesley Clark wrote,

interventions whose purpose is to support friendly governments or stabilize political situations have quite justifiably had to accept a high degree of constraint, down to the lowest tactical levels. Such operations are intrinsically civil-military in nature and seem to work best when the shock effect of military power can be exerted in coordination with civil and international law and without reliance on overt violence. . . . The desirability of any particular objective will often be in inverse proportion to the violence necessary to effect its seizure. . . . At every level the political and diplomatic impact of military actions must be carefully considered in military decision-making.¹⁷⁶

His views were based upon examination of seven contingency operations conducted by the U.S. military during the Cold War. These views foreshadowed the nature of operations in Kosovo, and indicated that Clark had an understanding of the type of

challenges he would face later on in his career. In *Waging Modern War*, Clark recounted how he and many of his peers were concerned about the “fallacies of gradualism” after their personal involvement in Vietnam.¹⁷⁷ In fact, these concerns inspired him to write the thesis while a student at Fort Leavenworth.¹⁷⁸

One of the contingencies Clark examined in his 1975 thesis was Operation Rolling Thunder, an air campaign in Vietnam that took place from 1965 to 1968.¹⁷⁹ In 2001, when thinking back to his thesis research in 1975, Clark wrote, “It was clear that the U.S. effort to halt North Vietnamese support of the fighting in South Vietnam by ‘signaling’ U.S. resolve through carefully constrained, politically designed bombing, which avoided seeking a decisive impact, had been a failure.”¹⁸⁰ In *Waging Modern War*, Clark argued that the failure in Vietnam was because the “pace and intensity of the campaign” was insufficient due to political constraints.¹⁸¹ In the same section of the book, fast forwarding past the Gulf War, Clark revealed his assumptions on how military technology had evolved since the Vietnam War.

In addition to these broad-based foundational assumptions on military interventions, in *Waging Modern War*, Clark revealed his assumptions pertaining to the advancement of precision strike weapons technology in the 1990s. He wrote that the Gulf War brought public awareness of these types of weapon systems.¹⁸² Since the Gulf War, according to Clark, additional advances, such as Global Positioning System (GPS) guided munitions and “precision intelligence” offered an even greater capability.¹⁸³ In contrast, his assumptions about the capabilities of ground forces were less optimistic. Clark wrote,

Ground forces had a few new weapons also, but they lacked the combination of reliable striking power, action from a distance, and controlled risk-taking that airplanes and missiles can provide. Ground combat retains the possibility of

turning nasty and unpredictable at close quarters; its weapons—tanks, ground artillery, and infantry fighting vehicles—tend to be more numerous and less controllable than the air platforms; and the crews are less experienced, and more vulnerable.¹⁸⁴

Thus, Clark viewed air power as more precise and less risky than the use of ground forces—a view shared by policy makers in the United States as well as some, but not all, NATO allies. In contrast, Britain and France had more optimistic assumptions on the utility of ground forces, mirrored by their high public support for intervention.

The contribution of artillery by Britain and France during Operation Deliberate Force in 1995 indicates an overlooked aspect of military technology that proved highly capable—more so than air power—at shorter ranges. In synchronization with NATO artillery and bombing, the Croatian and Bosnian armies launched significant ground offensives against the Serbs.¹⁸⁵ After the United States, Britain and France contributed the most sorties to Operation Deliberate Force, as indicated in table 3:

Table 3. All Sorties, 30 August–14 September 1995, Operation Deliberate Force

Nation	Sorties	Percent
United States	2,318	65.9
United Kingdom	326	9.3
France	284	8.1
Netherlands	198	5.6
NATO AEW force	96	2.7
Turkey	78	2.2
Germany	59	1.7
Italy	35	1.0
Spain	12	0.3
Other	109	3.1

Source: John A Tirpak, “Deliberate Force,” *Air Force Magazine* 80, no. 10 (October 1997): 39.

The United States perceived air power as the decisive contribution to the Bosnian campaign in 1995. Yet in all the sorties, allied air forces only expended 708 precision-guided munitions and 318 non-precision bombs.¹⁸⁶ Bad weather, combined with a four-day bombing pause for political reasons, limited the number of days of bombing to only twelve out of twenty.¹⁸⁷ In comparing the challenges of Bosnia to those of bombing in flat open desert with clear skies, former Air Force Chief of Staff General Merrill McPeak said, “Imagine flying over the Blue Ridge Mountains at 600 miles an hour . . . in overcast . . . and picking out the right target down there somewhere in the woods.”¹⁸⁸

Alongside the air commitment, the British Army provided two batteries of 105mm towed artillery, consisting of twelve guns, combined with one battery of the French Army’s 155mm self-propelled artillery, consisting of eight guns.¹⁸⁹ In addition, the French Foreign Legion and Royal Netherland Marines provided three companies of 120mm mortars.¹⁹⁰ Altogether, NATO referred to this combined package as the “Rapid Reaction Force” (RRF), led by British Royal Marine Major General David Penneyfeather.¹⁹¹ The combined RRF package established its guns at Mount Igman, Bosnia and Herzegovina.¹⁹² From this location, less than twenty kilometers from Sarajevo, the allied artillery could range the Serbian guns that had besieged Sarajevo since 5 April 1992.¹⁹³

To find the Serbian guns, the Royal Netherlands Army provided one platoon of A/N TQP-36 counter-battery radars.¹⁹⁴ In addition to the radars, the British Army brought along a newly developed system known as HALO (short for Hostile Artillery Locator).¹⁹⁵ The British Army contracted a company to develop this system on a six-month timeline specifically for employment in Bosnia to break the siege of Sarajevo.¹⁹⁶ In comparison to

large radars such as Northrop Grumman's A/N TQP-36, the HALO system consists of small eight-pound devices placed on the ground, with coordinates plotted by GPS, and connected by a digital network to a computer that runs algorithms to determine the location of artillery by triangulating sounds.¹⁹⁷ The HALO system is passive, consisting only of directional microphones, so it does not emit a radar signature that gives away its location.¹⁹⁸ The technique of sound ranging to determine the location of hostile artillery is low-tech and originated during World War I.¹⁹⁹ Yet the addition of a networking, computers, and GPS plotting of known positions brings capacity to this old technique that is far beyond what the human ear, compasses, and paper maps could achieve in 1917. Low-tech microphones and high-tech radars lack the glamor of jet aircraft, so it is natural that the role of British and French artillery in Bosnia is forgotten.

Each of the British and French guns could fire at a sustained rate of six rounds per minute in any weather, day or night. Given these rates of fire, the sixteen gun positions at Mount Igman, excluding mortars, were capable of firing 7,200 rounds in just one hour—far more rounds than the 1,026 bombs dropped by aircraft during the entire campaign.²⁰⁰ To be exact, artillery requires additional time to adjust and fire at new positions, so it is unlikely that the maximum mathematical hourly volume of fire was shot in Bosnia. Furthermore, artillery rounds have far less explosive impact than the 2,000 pound GBU-10 or GBU-28 dropped by NATO aircraft. Nevertheless, in the weeks leading up to the start of the air campaign, HALO and A/N TQP-36 tracked Serbian artillery locations using their sensors. On 30 August 1995, the opening day of the campaign, British and French guns fired around 600 rounds per hour, according to *The Herald*, a Scottish newspaper.²⁰¹ Even with this conservative estimate of artillery fire, British and French

guns delivered, in just a few hours, far more ordinance than NATO aircraft did in the entire campaign.²⁰²

Forty-eight hours into the campaign, the United Nations headquarters in New York discovered that the RRF was conducting counter-battery fire missions, and ordered it to stop what the UN deemed as “offensive” operations.²⁰³ Yet the air campaign went on for ten more days, though Sarajevo, for the first time since 1992, experienced none of the daily casualties associated with Serbian shelling. The Serbian guns were finally silenced around Sarajevo, but not at the hands of air power, as commonly viewed by Americans.²⁰⁴ Meanwhile, NATO’s future commander would make different assumptions concerning the employment of military force during the 1995 Bosnia campaign.

Wesley Clark’s thinking on military interventions, from a political perspective, was also shaped by the 1995 intervention in Bosnia. During the U.S. intervention in Bosnia, LTG Clark served as a military advisor to Richard Holbrooke.²⁰⁵ In this role, he gained a firsthand account of the political negotiations with Milosevic. In the middle of Operation Deliberate Force, from 1-5 September 1995, General George Joulwan had ordered a bombing pause to allow time for negotiations.²⁰⁶ Initially, Joulwan intended the pause to be for only twenty-four hours.²⁰⁷ Holbrooke and Clark requested a longer pause to buy more time to strike a deal, and GEN Joulwan reluctantly agreed.²⁰⁸ Milosevic agreed to withdraw from Bosnia, but on 5 September 1995, NATO reconnaissance assets observed Serbian heavy weapons still in the vicinity of Sarajevo, so bombing resumed.²⁰⁹ LTG Clark’s assumptions, shaped by Vietnam, were reaffirmed by Bosnia—there would be no bombing pause during the Kosovo campaign.

Summary of Assumptions

At the strategic level, policymakers' assumed that ground forces were not required to accomplish the stated political objectives in Kosovo. This speaks to a larger underlying assumption—common among policy makers, military leaders, and the general public—regarding the efficacy of air power to degrade the capacity of mobile ground forces. The divergence in military opinions centered on the preferred technique rather than the actual capability of air power. Leading up to Operation Allied Force, the U.S. Army and Air Force had differing views on how to limit the capacity of the Serbian military. The 1991 Gulf War and the 1995 campaign in Bosnia shaped military service perspectives on air power. From the U.S. Army perspective, destroying tanks and artillery through precision aerial bombing limited Serbian military capacity. On the other hand, from the U.S. Air Force perspective, bombing Serbian leadership, command centers, critical infrastructure, and resources (fuel, ammunition, power generation, etc.) indirectly degraded the effectiveness of the Serbia's fielded forces more so than targeting them directly. Nevertheless, both viewpoints assumed that air power could quickly accomplish the Kosovo campaign objectives, albeit with different techniques.

The U.S. strategy in Kosovo, by exclusively relying upon air power, did not link to the three stated U.S. objectives in Kosovo. Ruling out the use of ground forces worked in contradiction of the first objective, demonstrating NATO's resolve, by revealing that the United States perceived the NATO alliance as so fragile that it might fall apart if called upon to employ the full depth of its resources. Using air power to achieve the second objective, deterring genocide, assumed that bombing would not spur increased levels of atrocity. Lastly, solely using air power to achieve the third objective, limiting

the Serbian military's capacity to harm Kosovars, was the most noteworthy assumption in terms of the operational capability of air forces to find and destroy ground forces. This latter assumption is the primary focus of the next two chapters, with implications resonating beyond Operation Allied Force.

¹Robert L. O'Connell, *Of Arms and Men* (New York: Oxford University Press, 1989), 7.

²Robert C. Owen, *Deliberate Force: A Case Study in Effective Air Campaigning* (Maxwell: Air University Press, January 2000), 95.

³Williamson Murray and Macgregor Knox, "Thinking About Revolutions in Warfare," in *The Dynamics of Military Revolution, 1300-2050*, eds. MacGregor Knox and Williamson Murray (Cambridge, UK: Cambridge University Press, 2001), 3.

⁴Ibid.

⁵Ibid., 2.

⁶Barry D. Watts, "The Evolution of Precision Strike," Center for Strategic and Budgetary Assessments, 2 November 2013, <http://www.csbaonline.org/2013/11/02/precision-strike-an-evolution/> (accessed 3 December 2013), 8.

⁷Andrew F. Krepinevich, "Keeping Pace with the Military-Technological Revolution," *Issues in Science and Technology* 10, no. 4 (Summer 1994): 27. Also significant is the fact that Krepinevich is one of the authors of the Air-Sea Battle Concept, which similarly calls for continued investment in long range strike systems. See: Jan Van Tol, Mark Gunzinger, Andrew Krepinevich, and Jim Thomas, *AirSea Battle: A Point-of-Departure Operational Concept* (Washington, DC: Center for Strategic and Budgetary Assessments, 18 May 2010).

⁸William G. Pierce and Robert C. Coon, "Understanding the Link between Center of Gravity Analysis and Mission Accomplishment," *Military Review* (May-June 2007): 78.

⁹John T. Correll, "The Strategy of Desert Storm," *Air Force Magazine* 89, no. 1 (January 2006): 31.

¹⁰Eliot Cohen et al, *Gulf War Air Power Survey*, Volume 1 (Washington, DC: Government Printing Office, 1993), 8.

¹¹Ibid., 102.

¹²Richard Hallion, *Storm Over Iraq: Air Power and the Gulf War* (Washington, DC: Smithsonian Institute Press, 1992), 205.

¹³*Ibid.*

¹⁴*Ibid.*, 201.

¹⁵Cohen et al., *Gulf War Air Power Survey*, 106.

¹⁶Hallion, 201.

¹⁷*Ibid.*

¹⁸Jonathan House, *Combined Arms Warfare in the Twentieth Century* (Lawrence, KS: University Press of Kansas, 2001), 273.

¹⁹JSTARS uses Synthetic Aperture Radar with Moving Target Indicator software to detect and image moving ground forces.

²⁰Hallion, 202; For Saddam's collusion with Milosevic and use of decoys see: Lambeth, *NATO's Air War for Kosovo*, 130.

²¹Cohen et al, *Gulf War Air Power Survey*, 86.

²²Donald Rumsfeld, "Prepared Statement on the Crusader Recommendation before the senate Committee on Armed Services," 16 May 2002, http://www.globalsecurity.org/military/library/congress/2002_hr/rumsfeld516.pdf (accessed 5 December 2013), 12.

²³Boyd L. Dastrup, *King of Battle: A History of the U.S. Army's Field Artillery Branch* (Fort Monroe: Office of the Command Historian of the United States Army Training and Doctrine Command, 1992), 305; The latter two points, regarding the use of counter-battery radars in Bosnia and Albania, will be covered in the section on NATO assumptions, and again in Chapter 3, respectively.

²⁴Lambeth, *NATO's Air War for Kosovo*, 157.

²⁵Jonathan House, the phrase "significant revisions" was added based on comments from draft on 7 January 2013.

²⁶Department of the Army, FM 100-5, *Operations* (Washington, DC: Government Printing Office, 1993), table of contents.

²⁷*Ibid.*, 1-3.

²⁸Lambeth, 151.

²⁹*Ibid.*, 148.

³⁰Ibid., 147-148; The request was not approved until later on in the campaign, but not for employment in Macedonia, as that would violate provisions of the Dayton Accords. Instead, the Apaches ended up deploying to Albania, which had a lesser developed infrastructure to support their deployment.

³¹Department of the Army, FM 1-112, *Attack Helicopter Operations* (Washington, DC: Government Printing Office, 2 April 1997), 1-7; Also see: “Chapter 3: Employment.”

³²Taylor Branch, *The Clinton Tapes: Wrestling History with the President* (New York: Simon and Shuster, 2009), 547.

³³Thomas Green, *The Development of Air Doctrine in the Army Air Arm 1917-1941* (Washington, DC: Office of Air Force History Government Printing Office, 1985), 2.

³⁴Military.com. “History of U.S. Air Force Organization,” *Air Force News*, 18 September 2013, <http://www.military.com/air-force-birthday/history-of-us-air-force-organization.html> (accessed 13 December 2013).

³⁵O’Connell, *Of Arms and Men*, 262.

³⁶Green, 69.

³⁷James Forrestal, “Functions of the Armed Forces and the Joint Chiefs of Staff,” Photocopy of Annex I of Memorandum Outlining Agreements made at Key West, 21 April 1948 (Fort Leavenworth, KS: Combined Arms Research Library), 11.

³⁸John Warden, “Strategy and Airpower,” *Air and Space Power Journal* 25. no. 1 (Spring 2011): 68.

³⁹Anthony Cordesman, “Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo” (Revised 17 September 2003; Initial version published by Greenwood Publishing Group in 2001), <http://csis.org/publication/lessons-and-non-lessons-air-and-missile-campaign-kosovo> (accessed 14 December 2013), 63.

⁴⁰Hosmer, *The Conflict Over Kosovo*, 20.

⁴¹Warden, “Strategy and Airpower,” 71.

⁴²Robert Wall and David A. Fulghum, “Air Force Embraces Jammer, But Plots Independent Course,” *Aviation Week and Space Technology* 156, no. 21 (27 May 2002): 30.

⁴³Daniel J. Murphy Jr., “Statement of Vice Admiral Daniel J. Murphy, Jr., U.S. Navy, Commander, U.S. Sixth Fleet, and Striking and Support Forces, Southern Europe,”

Kosovo: U.S. Naval Lessons Learned During Operation Allied Force, March-June 1999 (Washington, DC: Naval Historical Center, 26 October 1999), 16.

⁴⁴James Phillips and James H. Anderson, "Lessons from the War in Kosovo," The Heritage Foundation, 22 July 1999, <http://www.heritage.org/research/reports/1999/07/lessons-from-the-war-in-kosovo> (accessed 4 December 2013).

⁴⁵*Ibid.*, 1.

⁴⁶Lambeth, 34.

⁴⁷Richard J. Newman, et al., "American Fights Back," *U.S. News and World Report*, 23 August 1998, http://www.usnews.com/usnews/news/articles/980831/archive_004624.htm (accessed 5 December 2013).

⁴⁸Paul Eckert, "Here's What Happened the Last Few Times the US Bombed Countries to Teach Them a Lesson," *Business Insider*, 4 September 2013, <http://www.businessinsider.com/what-happened-after-us-bombings-2013-9> (accessed 15 December 2013).

⁴⁹John Hooper, "Claims that China paid Bin Laden to see cruise missiles," *The Guardian*, 19 October 2001, <http://www.theguardian.com/world/2001/oct/20/china.afghanistan> (accessed 5 December 2013).

⁵⁰Ronald O'Rourke, *Cruise Missile Inventories and NATO Attacks on Yugoslavia: Background Information* (Washington, DC: Congressional Research Service Report for Congress, 20 April 1999).

⁵¹Greg Seigle, "Recent Conflicts Leave Cruise Missiles in Short Supply," *Sun Sentinel*, 20 September 2001.

⁵²Ian Horwood, *Interservice Rivalry and Airpower in the Vietnam War* (Fort Leavenworth, KS: Combat Studies Institute Press, 2006), 24.

⁵³Department of the Navy, Headquarters United States Marine Corps, Marine Corps Doctrinal Publication 1-0, *Marine Corps Operations* (Washington, DC: Government Printing Office, 2011), 1-4.

⁵⁴Horwood, 9.

⁵⁵*Ibid.*, 96.

⁵⁶Victor Holman, "Marine Air-Ground Task Force: A Model for Future U.S. Air Force and U.S. Army Operations" (Monograph, School of Advanced Military Studies, 1996), 30.

⁵⁷Thomas Knecht, *Paying Attention to Foreign Affairs: How Public Opinion Affects Presidential Decision Making* (University Park, PA: Penn State Press, 2010), 1. Additionally, some Americans believed that Operation Allied Force was meant as a distraction from the Monica Lewinsky scandal and a *Wag the Dog* political strategy.

⁵⁸Knecht, 1.

⁵⁹Daniel Byman, Matthew Waxman, and Eric Larson, *Air Power as a Coercive Instrument* (Santa Monica: RAND, 1999), 130.

⁶⁰Eric Larson and Bogdan Savych, *American Public Support for U.S. Military Operations from Mogadishu to Baghdad* (Santa Monica: RAND, 2005), 76.

⁶¹*Ibid.*

⁶²Jonathan Marcus, “Ground Troops: Why Nato says no,” *BBC News*, 30 March 1999, http://news.bbc.co.uk/2/hi/special_report/1998/kosovo2/307387.stm (accessed 22 December 2013).

⁶³Larson and Savych, 78. This divide is indicated by polling data showing a higher level of support for air operations than ground combat or peace enforcement operations. Alongside this data, peacekeeping operations, which are assumed to take place after air operations, have the highest level of support.

⁶⁴*Ibid.*, 66.

⁶⁵*Ibid.*, 68.

⁶⁶Elaine Sciolino, “Loosening the Timetable for Bringing G.I.s Home,” *New York Times*, 17 November 1999.

⁶⁷Richard B. Cheney and Lynne V. Cheney, *Kings of the Hill* (New York: Touchstone, 1996), xii. The authors describe the atmosphere in the House with the following: “They brought all the passion of the larger society to the chamber in which they served, and although this concentration made for much drama, it fostered little efficiency.”

⁶⁸U.S. Congress, House, “Peacekeeping Operations in Kosovo Resolution,” H. Res.421, 106th Cong., 1st sess., 11 March 1999, <https://www.govtrack.us/congress/bills/106/hconres42/text> (accessed 27 November 2013).

⁶⁹*Ibid.*

⁷⁰Julie Kim, *Kosovo and the 106th Congress* (Washington, DC: Library of Congress, 18 January 2001), 1.

⁷¹*Ibid.*, 2.

⁷²Dan Balz, “Kosovo Conflict Gives McCain Prominence,” *The Washington Post* 7 April 1999, A4.

⁷³Kim, *Kosovo and the 106th Congress*, 2

⁷⁴*Ibid.*

⁷⁵U.S. Congress, Senate, “The Crisis in Kosovo,” 105th Cong., 2nd sess. Congressional Record, S 2141, 17 March 1998.

⁷⁶*Ibid.*

⁷⁷*Ibid.*

⁷⁸Kim, 10.

⁷⁹U.S. Congress, Senate, “Authorizing the President of the United States to conduct military air operations and missile strikes against the Federal Republic of Yugoslavia,” S. Res. 21, 106th Cong., 1st sess., 23 March 1999, 1.

⁸⁰Miles A. Pomper, “Members Rally Around Kosovo Mission Despite Misgivings About Strategy,” *Congressional Quarterly Weekly Report*, 27 March 1999, 763-764.

⁸¹*Ibid.*

⁸²*Ibid.*

⁸³*Ibid.*

⁸⁴U.S. Congress, Senate, “The Kosovo Quagmire,” 106th Cong., 1st sess. Congressional Record, Vol. 145, Part 4, 23 March 1999, 5180.

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⁸⁶*Ibid.*

⁸⁷Jeanne Meserve and Wolf Blitzer, “Congress faces debate over ground troops in Kosovo,” *CNN*, 11 April 1999, <http://www.cnn.com/US/9904/11/us.kosovo.01/> (accessed 29 November 2013).

⁸⁸Daalder and O'Hanlon, 92.

⁸⁹Branch, *The Clinton Tapes*, 547.

⁹⁰Andrew Rosenthal, “The 1992 Campaign: The Republicans; Clinton Attack of Foreign Policy,” *New York Times*, 28 July 1992, A1.

⁹¹William J. Clinton, “Partial Text of Clinton on Yugoslavia Plan,” *Los Angeles Times*, 28 July 1992, 14.

⁹²*Ibid.*

⁹³Graham Jones, “Srebrenica: Worst European Atrocity since WWII,” *CNN*, 26 May 2011, <http://www.cnn.com/2011/WORLD/europe/05/26/Serbia.Mladic.Srebrenica/> (accessed 13 December 2013).

⁹⁴William J. Clinton, “Urgent Message to Tony Blinken for Staffing,” 30 August 1995, FOIA Request Collection 2006-0647-F (Records of genocide in the former Yugoslavia), National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.

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⁹⁷Todd S. Purdam, “Clinton Rallies Edgy Troops for Bosnia,” *The New York Times*, 3 December 1995, <http://www.nytimes.com/1995/12/03/world/clinton-rallies-edgy-troops-for-bosnia.html> (accessed 2 December 2013).

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⁹⁹Maureen Dowd, “The 1992 Campaign,” *The New York Times*, 17 February 1999, A12.

¹⁰⁰Clinton, *My Life*, 852-855.

¹⁰¹Daalder and O’Hanlon, 92.

¹⁰²Elaine Sciolino and Ethan Bronner, “How a President, Distracted by Scandal, Entered Balkan War,” *The New York Times*, 18 April 1999, 1.

¹⁰³*Ibid.*

¹⁰⁴Barbara Jelavich, *History of the Balkans* (Cambridge: Cambridge University Press, 1983), cover.

¹⁰⁵*Ibid.*, inside cover.

¹⁰⁶Robert D. Kaplan, *Balkan Ghosts: A Journey through History* (New York: St. Martin’s Press, 1996), inside cover.

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¹¹⁴Sanders, 1.

¹¹⁵Richard Lister, “Chernomyrdin threatens Russian withdrawal.” *BBC News*, 27 May 1999, <http://news.bbc.co.uk/2/hi/europe/354872.stm> (accessed 1 December 2013).

¹¹⁶National Security Council, “Summary and Conclusions for the Principals and Deputies Committee (PC/DC) meetings of the National Security Council on Kosovo” 19 June 1998 to 20 March 1999, Declassified 19 June 2008 to 23 March 2009, The William J. Clinton Presidential Library, <http://www.clintonlibrary.gov/declassified.html#DeclassifiedRecords> (accessed 30 November 2013).

¹¹⁷“Background of Leon Fuerth,” Elliott School of International Affairs: Faculty Background, <http://elliott.gwu.edu/fuerth> (accessed 1 December 2013).

¹¹⁸During Operation Allied Force, Leon Fuerth’s focus on diplomatic matters is further evident in email correspondence between his secretary, Leslie Davison, and that of White House staff members. In several of these emails, Davidson attempted to obtain for Fuerth the memorandums of correspondence (MEMCONs) between President Clinton and British Prime Minister Tony Blair before they were ready for distribution. Ralph H. Sigler, “Subject: FW: Request by OVP for PM Blair MEMCON from 18 May,” Email Message, Sent 19 May 1999, 2056 hours, FOIA Request Collection 2006-0217-F, Box 7, National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.

¹¹⁹Thomas Blood, *Madam Secretary: A Biography of Madeleine Albright* (New York: St Martin’s Griffin, 1997), inside cover.

¹²⁰Ibid.

¹²¹Walter Isaacson and Douglas Waller, "Madeleine's War," *Time Magazine* 153, no. 19 (9 May 1999): 26.

¹²²Ibid.

¹²³Elaine Sciolino, "Madeleine Albright's Audition," *The New York Times*, 22 September 1999, A63.

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¹²⁵Ibid.

¹²⁶Colin Powell, *My American Journey* (New York: Random House, 1996), 561.

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¹³¹Ibid., 1-25.

¹³²Ibid., "Notes on Video Tape of General Shalikashvili," 8; "Notes on Video Tapes of General Hoar," 12.

¹³³Ibid., 1. Aspen's papers are stamped, "The President Has Seen," with the date 13 August 1993.

¹³⁴Michael R. Gordon, "NATO General is Reticent About Air Strikes in Bosnia," *The New York Times*, 21 April 1993, <http://www.nytimes.com/1993/04/21/world/nato-general-is-reticent-about-air-strikes-in-bosnia.html> (accessed 11 April 2014).

¹³⁵Chuck Sudetic, "Serbian Artillery Shells Sarajevo But Some Relief Flights Resume," *The New York Times*, 9 February 1993, <http://www.nytimes.com/1993/02/09/world/serbian-artillery-shells-sarajevo-but-some-relief-flights-resume.html> (accessed 11 April 2014).

¹³⁶Gordon, 1.

¹³⁷Aspen, 6.

¹³⁸*Ibid.*, 5 and 9.

¹³⁹William J. Clinton, “Interview Questions for Generals Shalikashvili and Hoar,” 9 August 1993, FOIA Request Collection 2009-1055-F, National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.

¹⁴⁰Shelton, *Without Hesitation*, 108.

¹⁴¹*Ibid.*, 372-3.

¹⁴²*Ibid.*, 373.

¹⁴³Henry L. Stimson, who served as Secretary of War under President Roosevelt from 1940 to 1945 was the first. Also see: Kwame Holman, “Transcript: Cohen At Defense,” *PBS News Hour*, 22 January 1997, http://www.pbs.org/newshour/bb/politics/jan-june97/cohen_01-22.html (accessed 1 December 2013).

¹⁴⁴U.S. Congress, Senate, “Confirmation Hearing of the Senate Armed Services Committee, Subject: Confirmation of Former Senator William Cohen to be Secretary of Defense” (Transcript by Federal News Service, Washington, DC, 22 January 1997), 24.

¹⁴⁵*Ibid.*

¹⁴⁶*Ibid.*, 23.

¹⁴⁷*Ibid.*

¹⁴⁸Harris, “Berger’s Caution Has Shaped Role of U.S. in War.”

¹⁴⁹Samuel Berger, “How it was Fought: Transcript of Interview,” *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/> (accessed 3 December 2013).

¹⁵⁰National Security Council, “Summary and Conclusions for the Principals and Deputies Committee (PC/DC) meetings of the National Security Council on Kosovo.”

¹⁵¹*Ibid.*

¹⁵²*Ibid.*

¹⁵³Sandy Berger, “Memorandum for the President, Subject: Preparing for an Ultimatum,” 24 September 1998, The Clinton Presidential Library, Declassified 15 November 2012 per Executive Order 13526, <http://www.clintonlibrary.gov/assets/storage/Research%20-%20Digital%20Library/Declassified/Kosovo.pdf> (accessed

2 January 2014); President Clinton checked “approve” on the memo, indicating that he supported Berger’s approach.

¹⁵⁴Oliver Daddow, “Tony’s War? Blair, Kosovo and the Interventionist Impulse in British Foreign Policy,” *International Affairs* 85, no. 3 (May 2009): 547.

¹⁵⁵Owen Bowcott, “Tony Blair: Military Intervention in Rogue Regimes ‘more necessary than ever,’” *The Guardian*, 1 September 2010.

¹⁵⁶Tony Blair, “How it was Fought: Transcript of Interview,” *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/> (accessed 8 December 2013).

¹⁵⁷Office of the Press Secretary, “Joint Press Conference by President Clinton and President Jacques Chirac of France,” 19 February 1999.

¹⁵⁸Eric Rouleau, “French Diplomacy Adrift in Kosovo,” *Le Monde Diplomatique*, 4 December 1999, <http://mondediplo.com/1999/12/04rouleau> (accessed 8 December 2013).

¹⁵⁹Ibid.

¹⁶⁰Ibid.

¹⁶¹Daalder and O’Hanlon, 163.

¹⁶²Ibid., 148.

¹⁶³Ibid., 163

¹⁶⁴Ibid.

¹⁶⁵Osvaldo Croci and Amy Verdun, *The Transatlantic Divide: Foreign and Security Policies in the Atlantic Alliance from Kosovo to Iraq* (Manchester, UK: Manchester University Press, 2006), 160.

¹⁶⁶Daalder and O’Hanlon, 163.

¹⁶⁷Ibid.

¹⁶⁸Ibid.

¹⁶⁹Anna-Elisabeth Tsakona, “Anti-Americanism in Greece: the case of Kosovo, 1999” (The 2nd LSE PhD Symposium on Modern Greece: Current Social Science Research of Greece, Peterhouse, University of Cambridge, UK, 2002), 2.

¹⁷⁰Ted Galen Carpenter, “Cato Institute Foreign Policy Briefing No. 30: U.S. Troops in Macedonia: Back Door to War?” *The CATO Institute*, 17 March 1994, 1.

¹⁷¹Ibid., 5.

¹⁷²Ibid., 19.

¹⁷³Ibid., 6.

¹⁷⁴Daalder and O'Hanlon, 164.

¹⁷⁵Thucydides, *History of the Peloponnesian War*, Translated by Richard Crawley (Chicago: Encyclopedia Britannica, 1952), 504-508. The passage from the Melian dialogue follows: "For ourselves, we shall not trouble you with specious pretenses—either of how we have a right to our empire because we overthrew the Mede, or are now attacking you because of wrong that you have done us—and make a long speech which would not be believed; and in return we hope that you, instead of thinking to influence us by saying that you did not join the Spartans, although their colonists, or that you have done us no wrong, will aim at what is feasible, holding in view the real sentiments of us both; since you know as well as we do that right, as the world goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must."

¹⁷⁶Wesley K. Clark, "Military Contingency Operations: The Lessons of Political-Military Coordination" (Master's Thesis, U.S. Command and General Staff College, Fort Leavenworth, KS, 1975), 143-43.

¹⁷⁷Clark, *Waging Modern War*, 5.

¹⁷⁸Ibid.

¹⁷⁹Clark, "Military Contingency Operations," 95-108.

¹⁸⁰Clark, *Waging Modern War*, 5.

¹⁸¹Ibid., 5.

¹⁸²Clark, *Waging Modern War*, 9.

¹⁸³Ibid., 9-10.

¹⁸⁴Ibid., 10.

¹⁸⁵Daalder and O'Hanlon, 93.

¹⁸⁶John A Tirpak, "Deliberate Force," *Air Force Magazine* 80, no. 10 (October 1997): 40.

¹⁸⁷Daalder and O'Hanlon, 92.

¹⁸⁸Tirpak, 39.

¹⁸⁹Tim Ripley, *Operation Deliberate Force: The UN and NATO Campaign in Bosnia in 1995* (Lancaster University, UK: Centre for Defence and International Security Studies, 1999), see order of battle appendix.

¹⁹⁰Ibid.

¹⁹¹David L. Dittmer and Stephen P. Dawkins, *Deliberate Force: NATO's First Extended Air Operation* (Alexandria, VA: Center for Naval Analyses, June 1998), 13.

¹⁹²Ibid., 17.

¹⁹³Sylvia Poggioli, "Two Decades After Siege, Sarajevo Still a City Divided," *National Public Radio*, 5 April 2012, <http://www.npr.org/2012/04/05/150009152/two-decades-after-siege-sarajevo-still-a-city-divided> (accessed 8 December 2013).

¹⁹⁴Ripley, *Operation Deliberate Force*, order of battle appendix.

¹⁹⁵Selex Galileo, "HALO Hostile Artillery Locating System Brochure" (Essex, UK: Selex Sensors and Airborne Systems Limited, 2008), 1.

¹⁹⁶Ibid.

¹⁹⁷Ibid., 1-2.

¹⁹⁸Ibid.

¹⁹⁹House, *Combined Arms Warfare in the Twentieth Century*, 60.

²⁰⁰Two batteries of French 155mm and one battery of British 105mm equals twenty guns (not including mortars). With a rate of fire of six rounds per minute, with sixty minutes in an hour, the following formula indicates the maximum firepower these guns can dish out in one hour. $20 \times 6 \times 60 = 7,200$. Of course, each shell weighs less than bombs, so the total tonnage of artillery versus aerial bomb ordinance varies in comparison.

²⁰¹Ian Bruce, "UN Comes of Age as an Enforcer," *The Scotland Herald*, 31 August 1995, <http://www.heraldscotland.com/sport/spl/aberdeen/un-comes-of-age-as-enforcer-1.664014> (accessed 3 December 2013).

²⁰²Daalder and O'Hanlon, 93.

²⁰³Dittmer and Dawkins, 22.

²⁰⁴Michael G. Roskin. "The Bosnian-Serb Problem: What We Should and Should Not Do," *Parameters* (Winter 1992-93): 21. In 1992, at the start of the siege of Sarajevo, Roskin identifies the potential for counter-battery radars to facilitate silencing Serbian artillery, given the limitations of airpower. He writes, "Air strikes would not easily locate

the Serbian artillery tucked away in the folds and woods. The U.S. Air Force may have done a good publicity job in Desert Storm, making it look easy to destroy targets with pinpoint accuracy. But targeted buildings don't move. Serbian howitzers and mortars do."

²⁰⁵Dittmer and Dawkins, 28.

²⁰⁶Ibid., 27

²⁰⁷Ibid.

²⁰⁸Ibid., 28.

²⁰⁹Banja Luka, "Bosnian Serbs Win A Pause In NATO Bombing," *The Sun Sentinel*, 18 September 1995; Also see Dittmer and Dawkins, 32.

CHAPTER 3

THE BOMBING BEGINS

The newspapers and magazines that fed the American mind—for books upon this impatient continent had become simply material for the energy of collectors—were instantly a coruscation of war pictures and of headlines that rose like rockets and burst like shells.

— H.G. Wells, *The War in the Air*, 1908

On 24 March 1999 NATO initiated Operation Allied Force, a campaign of airstrikes against the Serbian forces of Slobodan Milosevic. At the start of the operation, NATO had 344 military aircraft positioned at bases in Europe.¹ Of these, 214 were U.S. aircraft and 130 belonged to NATO allies.² In addition, two B-2s flew fifteen hours from Whiteman Air Force Base in Missouri and dropped thirty-two Joint Direct Attack Munitions (JDAMs) in their combat debut on the opening night of the operation.³ In relative terms, the overall size of the initial Kosovo air package was one tenth of that committed to Operation Desert Storm in 1991, and similar in size to the force committed for Operation Desert Fox, the four day bombing of Iraq in 1998.⁴ By June 1999, the total number of NATO aircraft in Europe was over 1,000.⁵ Alongside this commitment, the U.S. Army deployed twenty-four Apache helicopters to Albania, though these were not used in the conflict.⁶ In the course of the operation, the U.S. commitment swelled to 731 aircraft, while that of the Allies doubled to a size of around 300 aircraft.⁷

Operation Allied Force consisted of three phases. Phase I covered the first three days of the air campaign and focused on Serbian air defense systems. Phase II started on day four of the campaign and encompassed strikes against military targets in Kosovo and parts of Serbia below the 44th parallel. NATO transitioned to Phase III on day nine of the

campaign. This phase added operations north of the 44th parallel, which included Belgrade, and incorporated strikes on civilian infrastructure. This latter phase was the most lengthy of the campaign, lasting until 10 June 1999, when the bombing ended.

The perceptions of allied leaders, U.S. policy makers, the American public, the U.S. Congress, and military leaders evolved during the campaign. Initially, these groups shared the common outlook of a short operation—with Milosevic capitulating after a few days of bombing. As the campaign dragged on, however, perceptions were less optimistic and began to diverge. Two days into the campaign, Italy called for a bombing pause in order to renew diplomatic efforts.⁸ A few days later, on 31 March 1999, Pope John Paul II echoed this sentiment by proposing a bombing pause during Easter weekend.⁹ When General Wesley Clark transitioned to phase three of the operation, France, Germany, Italy, and Greece resisted, arguing that they did not want to “escalate the bombing” past what they established in “war plans” on 13 October 1998.¹⁰ Subsequently, during the third phase of the operation, U.S. policy makers and members of Congress (from both parties) elevated debate over the possibility of introducing ground troops.¹¹

Amidst the growing political fervor for introducing ground troops, U.S. public support for a ground option steadily dropped, from a high of 46 percent in favor of ground combat in April 1999, to a low of only 26 percent in favor by the final week of the campaign in June.¹² The drop in public support for ground combat was likely due to a growing perception that the air campaign was working. Alongside polls indicating a lack of support for using ground forces, however, other polls indicated that Americans were willing to support a ground war if the air campaign failed. An *ABC News/Nightline* poll

taken in April 1999 (shown on table 4) demonstrated this proclivity, tempered with the likelihood of casualties:

Table 4. Support for Ground Troops with Varying Casualty Levels

	Support	Oppose
If air war fails,		
send ground troops	57%	39
... if some casualties	44	50
... if 100 casualties	37	27
... if 500 casualties	31	62
... if 1,000 casualties	26	66

Source: “Support for Action in Kosovo Is Tempered by Risks of War,” *ABC News/Nightline Poll*, 9 April 1999, <http://abcnews.go.com/images/pdf/788a1Kosovo.pdf> (accessed 14 April 2014).

Political and military leaders in the United States mirrored the sentiments revealed in polling data concerning the commitment of ground forces. Despite President Clinton’s initial reluctance for a ground option, Madeleine Albright argued for “a credible threat of ground invasion.”¹³ Additionally, in a 28 March 1999 interview with *The New York Times*, General Michael Ryan, Air Force Chief of Staff, stated, “I don’t know if we can do it without ground troops.”¹⁴ At the same time, GEN Clark requested a team of officers from the School of Advanced Military Studies at Fort Leavenworth, Kansas, to develop plans for an “opposed-entry land invasion” should the air campaign fall short of its objectives.¹⁵ These statements and actions, combined with the introduction of the U.S. Army’s Task Force Hawk (consisting of twenty-four Apache helicopters, thirty-one support helicopters, a rocket artillery battalion, and a battalion-

sized ground maneuver element for protection), raised the specter of ground combat to a degree that caused Serbian leaders to notice.¹⁶ Indeed, the Serbian army made defensive preparations along potential invasion routes and placed 80,000 mines on Kosovo's border with Albania.¹⁷ By 18 May 1999, President Clinton reversed his earlier position of ruling out the use of ground forces by stating, "I don't think we or our allies should take any options off the table, and that has been my position from the beginning."¹⁸

Of course, this was not Clinton's position at the beginning of the campaign. Nor was it a position shared by his key advisors from the onset. The chaotic tides of war shifted throughout the conflict, altering the perceptions and inclinations of various key actors during each phase of the operation. Despite fighting a war for less-than-vital interests with a minimalist strategy based on optimistic air power assumptions, President Clinton and other NATO leaders gradually raised the stakes to avoid losing and preserve NATO's standing as a functional alliance.

Phase I—24 March to 26 March 1999

NATO's first wave of attacks consisted of cruise missiles. As part of NATO psychological operations, several Serb generals received phone calls threatening their impending doom. Serbian 3rd Army commander, General Nebojsa Pavkovic (related to Milosevic by marriage) recounted, "There was a moment when my mobile rang, and a voice that spoke in bad Serbian informed me that the bombing was about to start—that it was going to be a lot more intense than Iraq, and that I had a chance to save the Serbian people."¹⁹ Pavkovic ignored this plea. On the morning of 24 March 1999, CNN's live footage of eight B-52s taking off from RAF Fairford in Britain (Gloucestershire, England) alerted the Serbian air defense command in Zenum that an attack was

imminent.²⁰ Two of the eight aircraft were “spares” and returned to base, while six continued their mission.²¹ At around 2000 hours Kosovo time, six U.S. Air Force B-52s fired the opening shots of the war.²² The B-52s launched AGM-86C Conventional Air-Launched Cruise Missiles (CALCMs) from outside Kosovo’s airspace. In addition, from the Adriatic Sea, three surface ships (USS *Gonzalez*, USS *Philippine Sea*, USS *Nicholson*) and three submarines (consisting of the USS *Albuquerque*, USS *Miami*, and HMS *Splendid*) fired Tomahawk Land Attack Missiles (TLAMs) into Kosovo, Montenegro, and Serbia.²³

Altogether, the United States and Britain launched fifty-five cruise missiles against twenty-three targets on the first night of the operation.²⁴ These cruise missiles struck targets in Pristina (Kosovo’s capital), Batajnica (Serbia’s main military airfield), and Golobovci (the largest airport in Montenegro).²⁵ The targets at all three locations encapsulated components of the Serbian air defense system. At Pristina, cruise missiles damaged the electric power grid in an attempt to force Serbian radar operators to rely on backup generators for power, with the secondary impact of turning the lights out in the city.²⁶ At Batajnica and Golobovci the missiles damaged airfields and command centers as part of an effort to gain air supremacy without directly engaging the Serbian air force.²⁷

The second wave of attacks continued throughout the night of 24 March and consisted of strikes from aircraft based out of Italy, Spain, France, Germany, and the United Kingdom.²⁸ Serbian air defenses remained functional despite the first wave of cruise missile strikes and detected NATO’s approaching strike package. In response, the Serbian air force scrambled four MiG-29 fighters to intercept the threat.²⁹ NATO’s E-3A

Sentry, an airborne early warning and control (AWACS) aircraft, vectored Dutch F-16s and U.S. Air Force F-15Cs to protect the strike package from the MiG-29s.³⁰ A British Royal Air Force (RAF) Nimrod R1 electronic surveillance aircraft helped with the effort by confirming that the MiG-29s were Serbian.³¹ Subsequently, Dutch and American aircraft shot down three of the MiG-29s with air-to-air missiles fired from beyond visual range.³²

In addition to fighter aircraft, the Serbians fired several SA-3 and SA-6 surface to air missiles (SAMs) on the opening night, but to no avail.³³ Nevertheless, the threat posed by Serbian air defense artillery (ADA), shoulder-fired rockets (SA-7s), and SAMs persisted, forcing NATO aircraft to fly above 15,000 feet during hours of darkness throughout the conflict.³⁴ At this elevation NATO aircraft were safe from small arms fire and shoulder-fired rockets, yet still vulnerable to SAMs.³⁵ At the onset of the air campaign, Serbian SAM operators switched to passive optical tracking in lieu of radar tracking.³⁶ By turning off their radars, the Serbian military degraded allied SEAD (Suppression of Enemy Air Defense) capability, which relied on radar emissions to detect SAM battery locations.³⁷ Faced with this tactic, the U.S. Navy's AGM-88 High-speed Anti-Radiation Missile (HARM) proved unable to destroy SAM sites, as this missile, by design, homed in on enemy radar emissions.³⁸ Nevertheless, by forcing the enemy to turn off their radars, the presence of the HARMs seriously degraded Serb air defenses. To maintain a persistent air defense threat, Serbian SAM operators "adapted their tactics to balance lethality with survivability" and exhibited "greater firing discipline than the Iraqis did during Desert Storm," according to Benjamin Lambeth of RAND.³⁹

In all, NATO flew 400 sorties and struck forty targets on the first night of the operation.⁴⁰ In addition to air defenses, the day one targets included five airfields, several army barracks, communications centers, and military storage sites.⁴¹

On the second night of the bombing, which again commenced at 2000 hours local time, sixty-four aircraft participated alongside naval forces that launched additional cruise missiles.⁴² Combined, these forces struck Serbian army barracks at Urosevic and Prizen in Kosovo and airfields at Nis and Golubovci.⁴³ At NATO's daily press conference, spokesman Jamie Shea declared, "Milosevic now knows NATO is serious and that he is in a grave situation."⁴⁴ In the same press conference, however, Air Commodore David Wilby revealed that the Serbs had released "some 300 hard line Serbian prisoners who have been added to the ranks of the paramilitary troops," foreshadowing an escalation of the attacks on Kosovar Albanians through means air power could not target.⁴⁵

At the tactical level, Serbian air defenders responded to the air attacks by firing around ten SAMs on the second day, again with no hits, and dispatching additional fighters.⁴⁶ A pair of U.S. Air Force F-15s shot down two more MiG-29s, which had apparently lost communication with their headquarters and drifted into Bosnia.⁴⁷ The two Serbian pilots ejected into a sector patrolled by Russian troops serving as peacekeepers within NATO's Stabilization Force (SFOR) in Bosnia, prompting strategic-level interplay between Russia, Serbia, Bosnia, and the United States.⁴⁸

In a press conference, Patricia Kelly of *CNN* asked what would happen if the Russians picked up the downed pilots before other SFOR troops. NATO spokesman David Wilby responded, "I'm sure if the air crew come [sic] down into a Russian sector,

and they are part of SFOR, they will deal with the prisoners carefully, sensitively, and they will bring them to the authorities very quickly.”⁴⁹ Instead, the Russians rescued the downed pilots and promptly returned them back into Serbian hands.⁵⁰ This act indicated Russia’s initial position vis-à-vis Kosovo, one of tenuous support for both sides. Indeed, both Clinton and Milosevic sought the support of Russian President Boris Yeltsin during the conflict. In a secret communication with Yeltsin, Clinton stated, “Milosevic must not feel that he can split us,” revealing the pivotal role played by Russian diplomacy throughout the campaign.⁵¹ Alternatively, Milosevic hoped for eventual Russian aid, bolstered by the communist led-Duma’s vote of 279 to 30 in favor of sending military aid and advisors to Serbia.⁵²

The third night of bombing was similar to the previous night, with targets in Mali Mokri Lug, Ayala, Vozdovac, and the outskirts of Belgrade.⁵³ Another downed Serbian fighter brought NATO’s tally to five aircraft shot down in air-to-air combat.⁵⁴ The Serbian air force subsequently ceased challenging NATO aircraft.⁵⁵ Likewise, Lieutenant General Short claimed that Serbian pilots “lost any semblance of air situational awareness and, as a result, set themselves up as easy prey for the F-15.”⁵⁶ That same day, however, an AWACS detected a flight of Mi-8 HIP helicopters violating Bosnian airspace.⁵⁷ Upon detection, the helicopters dropped into a valley and escaped back into Serbia unharmed, despite being pursued by a pair of F-15Cs.⁵⁸ Day three marked the end of NATO’s focus on Serbian air defenses, as the plan transitioned to the next phase. Meanwhile, concerns within the alliance over reports of “killing, looting, harassing, and the intimidation of ethnic Albanians inside Kosovo” altered the focus of the campaign.⁵⁹ The Serbs adjusted to a new level of discomfort and accelerated their campaign of ethnic cleansing.

During NATO's daily press conference on 27 March 1999, Mark Laity of the *BBC* asked,

you are talking about the urgency of the crisis in the field in Kosovo, but you are attacking targets that are supporting those forces in the field, not those forces in the field who are able to operate reasonably independently given that they're just doing things like house clearing, so when will you be able to attack those targets in the field and actually get them effectively before it's too late?⁶⁰

This question revealed three significant features of waging an air-only campaign against an opponent that was concurrently waging a counterinsurgency operation against a declared terrorist organization (the KLA). First, the question magnified a recurring theme in targeting debates between General Clark and Lieutenant General Short, who each had differing views on what to target during the operation.⁶¹ Second, on a fundamental level, the question exposed a problematic linkage between the ends (limiting genocide) and ways (air campaign) of NATO's strategy. Finally, the question revealed widely-held assumptions concerning the efficacy of air power to halt a ground campaign's effort to depopulate Kosovo of Albanians.

Initial Perceptions of Key Actors

Both political and military leaders initially expected that the airstrikes would last for three days. On the first day of the campaign, *PBS News Hour* anchor Jim Lehrer interviewed Madeleine Albright. In his interview, Lehrer asked Albright to give an estimate on the potential duration of the campaign. She bluntly replied, "I don't see this as a long term operation. I think this is something . . . achievable within a relatively short period of time."⁶² Military leaders echoed this attitude, though with slightly less conviction. Even GEN Clark believed there was a "40 percent chance that Milosevic would fold" after three days of bombing.⁶³ This trend in thinking manifested at the

operational level, as NATO's original bombing plan encompassed only a few days worth of targets.⁶⁴ General Charles Krulak, Marine Corps Commandant, said, "The fact that we ran out of targets so quickly would somewhat indicate to you that, in fact, they were thinking of a short campaign."⁶⁵

The initial targeting focus on Serbian air defense systems spurred members of the press to question if the air campaign would target Serbian ground forces.⁶⁶ GEN Clark responded to this questioning by saying that attacking Serbian air defenses was a "preparatory step" taken to protect NATO aircraft before targeting ground forces.⁶⁷ By the end of phase one, however, GEN Clark admitted that NATO was unable to destroy the Serbian air defense system.⁶⁸ Yet it was Milosevic's ground forces that carried out the campaign of ethnic cleansing, so these forces were naturally the centerpiece of journalistic inquiry, intelligence assessments, and military planning.

Serbian Response to the Bombing

In February 1999, the Director of Central Intelligence (DCI), George Tenet, predicted that Serbian forces "*might* respond" to a bombing campaign by "redoubling their effort" to intimidate ethnic Albanians into leaving Kosovo and to crush the Kosovo Liberation Army (KLA).⁶⁹ Regardless of whether NATO intervened, the CIA assessed that Milosevic intended to commence a renewed campaign, dubbed "Operation Horseshoe," to eliminate the KLA permanently in the spring of 1999.⁷⁰ NATO's bombing likely accelerated Milosevic's actions.

Upon the commencement of NATO's campaign, Serbian Deputy Prime Minister Vuk Draskovic said, "All Serbs all over the world are from now in a state of war with our enemies."⁷¹ He went on to explain, "We are not ready to make any difference between

the bombs of Adolf Hitler from 1941 and the bombs of NATO.”⁷² Thus, Serbia viewed NATO’s limited war in terms closer to that of a total war, at least in a rhetorical context.

While facing NATO air attacks, Serbia waged a separate war against the KLA and Kosovar Albanians with regular and paramilitary forces. The regular forces, armed with at least 1,000 heavy weapons (tanks, artillery, APCs, and helicopters), used indiscriminate force to intimidate the population.⁷³ Meanwhile, the paramilitary forces used tactics such as rape and pillage to compel Kosovar Albanians into leaving.⁷⁴ With ranks swelled by the calculated release of prisoners, these forces had a monetary incentive to loot, as this was their only source of income.⁷⁵ Working in concert, the regular forces formed cordons around towns while the irregular forces intimidated the population inside. The surrounding cordon allowed only Kosovar Albanians to flee.⁷⁶ In counterinsurgency terms, Operation Horseshoe sought to “drain the sea in which the rebel fish swam by forcibly removing the local population.”⁷⁷ Subsequently, the KLA, devoid of sanctuary from a nonexistent population, fell victim to direct attack by the Serbians due to their exposure like fish out of water.⁷⁸

Tank Plinking

On 26 March 1999, in a *CNN* interview with Christiane Amanpour, GEN Clark explained, “It was always understood, from the outset, that there was no way we were going to stop these (Serb) paramilitary forces who were going in and murdering civilians in these (Kosovo) villages.”⁷⁹ Resonating this, in response to a question from *BBC* reporter Jonathan Marcus during NATO’s daily press conference, spokesperson Jamie Shea frustratingly admitted, “I’ve never pretended from this podium that NATO is able to stop, or anybody for that matter is able to stop, every armed Serb knocking on every door

in any village and looting or intimidating or forcibly evacuating, or whatever, people inside. It's not possible to do that from the air."⁸⁰ He continued, however, explaining that "We are not going to systematically target troops but we are going to systematically target the heavy artillery and tanks and the equipment without which the troops would not be able to carry out their brutal repression."⁸¹ Consequently, a recurring theme emerged in NATO's daily press conferences. Each day members of the press asked GEN Clark, "How many tanks did you kill today?"⁸² In turn, political leaders frequently asked Clark the same question. According to U.S. Air Force General Joseph Ralston, vice chairman of the Joint Chiefs of Staff, "All of a sudden this [destroying tanks] became the measure of merit that had nothing to do with reality." He added, "The tank, which was an irrelevant item in the context of ethnic cleansing, became the symbol for Serb ground forces."⁸³

GEN Clark's focus on destroying Serb heavy weapons frustrated his air component commander, LTG Michael C. Short. The majority of U.S. Air Force officers on LTG Short's staff equated what they referred to as "tank plinking" with "the fruitless hunt for Scud missiles batteries during the Persian Gulf War."⁸⁴ In an interview with *Air Force Magazine*, LTG Short stated, "I never felt that the [Serb] 3rd Army in Kosovo was a center of gravity."⁸⁵ According to LTG Short, GEN Clark's "No. 1 priority, which he expressed to me every day on the [video-teleconference session], was the fielded forces in Kosovo. And we all understood that and followed the direction of the SACEUR."⁸⁶ Accordingly, throughout the campaign, air assets primarily targeted Serbian forces in Kosovo.⁸⁷ LTG Short loyally followed GEN Clark's guidance, mainly targeting the 3rd Army, yet admitted, "I used the rest of my assets to attack that target set that I genuinely believe to be compelling."⁸⁸ Eventually, in LTG Short's view, he convinced GEN Clark

to target “more lucrative and compelling targets . . . in Serbia proper.”⁸⁹ Of course, in a nineteen member alliance, Clark was not the final decision-maker on targeting matters, so Short’s interpretation of events is not entirely accurate. Nevertheless, tension between GEN Clark and LTG Short over “tank plinking” persisted throughout the campaign.

Congress Reacts

During the first three days of the air campaign, Congressional leaders expressed varying levels of support. Trent Lott (R-MS), the Senate majority leader, voiced support for the NATO attack despite policy disagreements. He stated, “Whatever reservations about the President’s actions in the Balkans, let no one doubt that the Congress and the American people stand united behind our men and women who are bravely heeding the call of duty.”⁹⁰ Further support was evident from Senator John H. Chafee (R-RI) in his declaration, “The danger of inaction in Kosovo—of doing nothing—greatly exceeds the dangers of the action begun today.”⁹¹

Amidst these general statements of support, other members of Congress indicated less support and optimism for the air campaign. Most insightfully, Representative John P. Murtha (D-PA), a ranking Democrat and ex-Marine from Pennsylvania, predicted a prolonged air war against dug-in Serbian forces in saying, “I think it could go on for a month.”⁹² In contrast, Senator Mitch McConnell (R-KY) believed he had a better idea on how to intervene in Kosovo, saying “Arming the Kosovars would be a lot cheaper, less dangerous to American troops and wouldn’t put us in the middle of a civil war.”⁹³ Yet from the onset, Clinton’s strategists approached supporting the KLA with extreme caution. Secretary of Defense William Cohen warned, “My concern was that NATO not be seen as the air force of the KLA.”⁹⁴

Phase II—27 March to 31 March 1999

On 27 March the air campaign entered its second phase. The focus of targeting shifted from suppression of air defenses to interdiction. On the first night, sixty-six aircraft flew in two waves, attacking seventeen targets.⁹⁵ Targets included bridges, storage facilities, assembly areas, and a small number of Serb heavy weapons spotted from the air.⁹⁶ Admiral James O. Ellis, the commander of Allied Forces, Southern Europe in Naples, Italy, noted that “the only thing new in Phase II were eight bridges to be struck,” as all other targets were either the same as those in phase one or entailed too much risk of collateral damage.⁹⁷ At the beginning of phase two, in an interview with *The Washington Post*, General Clark warned, “There’s nothing that air power can do by itself to deter paramilitary forces from committing acts of brutality.”⁹⁸

During phase two, NATO averaged around fifty strikes per night, and the U.S. Air Force added five B-1 bombers to its sorties.⁹⁹ The B-1s employed the newly developed Raytheon ALE-50 towed decoy and successfully diverted SAMs by attracting them to the decoy’s larger radar cross section.¹⁰⁰ Despite technological inferiority, however, the Serbs proved adept at countering NATO’s efforts. At the end of phase two, in a telephone interview with the *New York Times*, GEN Clark stated, “We’re up against an intelligent and capable adversary who is attempting to offset all our strategies.”¹⁰¹

Three significant NATO setbacks occurred during phase two. First, the Serbs shot down an American F-117A Nighthawk stealth aircraft. Second, the region’s refugee predicament reached, according to NATO spokesperson Jamie Shea, “the likes of which have not been seen in Europe since the closing stages of World War II,” threatening the internal stability of alliance countries neighboring Kosovo.¹⁰² Third, on the last day of

phase two, Serbs captured three American soldiers of the 1st Infantry Division serving in Macedonia on a border-monitoring patrol in the mountains.¹⁰³

Downing of “Stealth” Aircraft

At 1945 hours (Zulu time) on 27 March 1999, the Serb’s 250th Air Defense Brigade, under the command of Colonel Zoltan Dani, downed an American F-117A Nighthawk stealth aircraft piloted by U.S. Air Force Lieutenant Colonel Dale Zelko.¹⁰⁴ After ejecting, while descending into a corn field from the “stealth” aircraft’s brightly colored orange and white parachute, LTC Zelko sent emergency radio messages of his last known position, revealing that he was alive.¹⁰⁵ After he hid in thick vegetation near the crash site for eight hours, special operations forces rescued LTC Zelko.¹⁰⁶ U.S. Air Force Captain James Cardoso led a five and a half hour flight of three MH-53 Pave Low helicopters to Zelko’s location.¹⁰⁷ One of the three MH-53 helicopters was struck with small arms fire in the rescue attempt, but managed to continue the mission.¹⁰⁸ After less than a minute on the ground, pararescue personnel on board the helicopters secured LTC Zelko and the MH-53s returned to the sky, flying at 100 feet to avoid radar detection.¹⁰⁹

The Serbian operational chain of efforts to down the F-117A started in Italy. Spies observing activity at Aviano air base monitored the takeoff and landing of military aircraft, notifying the Serbian air defense command of each instance.¹¹⁰ These takeoff notifications, coupled with further analysis of egress routes from where bombs fell, determined the readiness posture at the SAM batteries. Upon spotting aircraft, air defenders followed strict standard operating procedures, handing over the acquisition from a series of positions, using a combination of optical and radar tracking methods.¹¹¹ At the tactical level, rather than talk by radio (which emitted signals that could be

exploited by SIGINT), the Serbs orchestrated their actions using landline communications and carefully turned on radars for only twenty seconds at a time to keep their positions concealed.¹¹² In the course of the war, COL Zoltan's batteries travelled over 100,000 kilometers, constantly repositioning to avoid detection.¹¹³ According to Benjamin Lambeth of RAND, "by remaining dispersed and mobile, and activating their radars only selectively, the Serb IADS operators yielded the short-term tactical initiative in order to present a longer-term operational and strategic challenge to allied air operations."¹¹⁴

To his credit, COL Zoltan developed a method of tracking the F-117 when its bomb bay doors opened (or when the aircraft was wet) by modifying his radars (Russian-made SNR-125 Neva/Pechora "Low Blow" I/D-band; 1S91 "Straight Flush" G/H band; and P-18 "Spoon Nest" VHF) to operate on longer wavelengths.¹¹⁵ With information from the radars, the 2nd Battalion of the 250th Air Defense Brigade identified the F-117 from twelve kilometers away.¹¹⁶ Upon detection of the aircraft, COL Zoltan ordered his batteries to fire a barrage of SA-3 missiles, one of which hit the F-117 at altitude of 23,000 feet.¹¹⁷ Thus, with Soviet technology from the 1960s, COL Zoltan and his determined air defenders brought down America's state-of-the-art "stealth" aircraft—a symbolic event, given American fervor for the technological wherewithal of the U.S. armed forces. In an interview with *USA Today*, COL Zoltan said, "Long before the 1999 war, I took a keen interest in the stealth fighter and on how it could be detected. . . . And I concluded that there are no invisible aircraft, but only less visible."¹¹⁸ He went on to add, "The Americans entered the war a bit overconfident. They thought they could crush us without real resistance."¹¹⁹

The U.S. Air Force exemplified its overconfidence in stealth technology by its decision to retire the EF-111 “Raven” electronic warfare aircraft.¹²⁰ The use of stealth, a passive measure, gained favor in the late 1970s, with popularity reaching new heights during the 1991 Gulf War. After this war, the U.S. Air Force decided to retire the Raven, disregarding their highly effective employment over Iraq against SAM operators. In 1995, when defending the decision to retire the EF-111, Air Force Chief of Staff General Ronald R. Fogleman, under the pretext of joint-mindedness, argued, “When [the military services] can only afford to have one standoff jammer, then it has to be carrier-capable.”¹²¹ After retirement of the Raven, the U.S. Navy’s EA-6B Prowler became the only jamming aircraft in the U.S. inventory. In contrast with stealth, standoff jamming is an active measure. The Prowler, as the mainstay of U.S. aerial jamming capability, can take off from carriers, and supported Operation Allied Force in 1999.¹²²

In 1965, the U.S. Air Force began development the “Wild Weasel” series of aircraft specifically to counter the SAM threat in North Vietnam. With the “here kitty, kitty” technique, also known as “weasel-ing,” pilots used their airframes as bait to incite SAM operators to turn on their radars.¹²³ The ensuing radar emissions compromised the location of the SAM batteries, allowing other aircraft to deliver fatal blows to the SAM sites. During Operation Allied Force, the F-16 CJ served in the “Wild Weasel” role, attempting to provoke SAM radar operators to turn on their systems. If the radars turned on, F-16 CJ’s subsequently engaged the source of the radar emissions with HARM radar-seeking missiles.

Due to concerns with weather, on the night of 31 March 1999, LTC Zelko’s F-117A embarked on its mission without an accompanying Prowler package for jamming

support or fighters (F-16 CJ) equipped with HARM radar-seeking missiles.¹²⁴ This decision indicated the U.S. Air Force's confidence that stealth aircraft could hide from Serbia's extensive SAM threat. It was a perfect storm for Zelko and his F-117.

The day after LTC Zelko's rescue, he received phone calls from General Clark and President Clinton thanking him for his service and expressing gratitude for his safety. During the first phone conversation, GEN Clark urged LTC Zelko to participate in a scheduled media event celebrating his rescue.¹²⁵ Zelko refused, saying that he did not want his name released as this would preclude him from continuing to fly Nighthawks due to operational requirements pertaining to the disclosure of pilot identities in the "stealth" community.¹²⁶ According to Zelko, "in an annoyed tone" Clark said, "I guess it's your call."¹²⁷ Hours later, in the next phone call, someone named "Tony" asked, "Are you the pilot?" then said to standby for the president.¹²⁸ Next on the line, President Clinton expressed that he was "deeply relieved" Zelko was safe because of "what it would have meant had you been captured," referring to potential setback at the strategic level if the Serbs acquired prisoners of war.¹²⁹

Humanitarian Crisis Unfolds

At the start of phase two, according to NATO's estimates, Kosovo had half a million persons displaced from their homes—over 25 percent of the population.¹³⁰ Among these, some remained internally displaced while others headed for Kosovo's borders with Albania, Macedonia, and Montenegro. At the border, Serb authorities removed license plates from cars and seized identification papers—with the intent to prevent Kosovar Albanian refugees from ever returning.¹³¹ The slide depicted in figure 1,

used at NATO's press conference on 29 March, summarized the incidents of phase two, along with a geographic tally of displaced persons by this point in the operation:

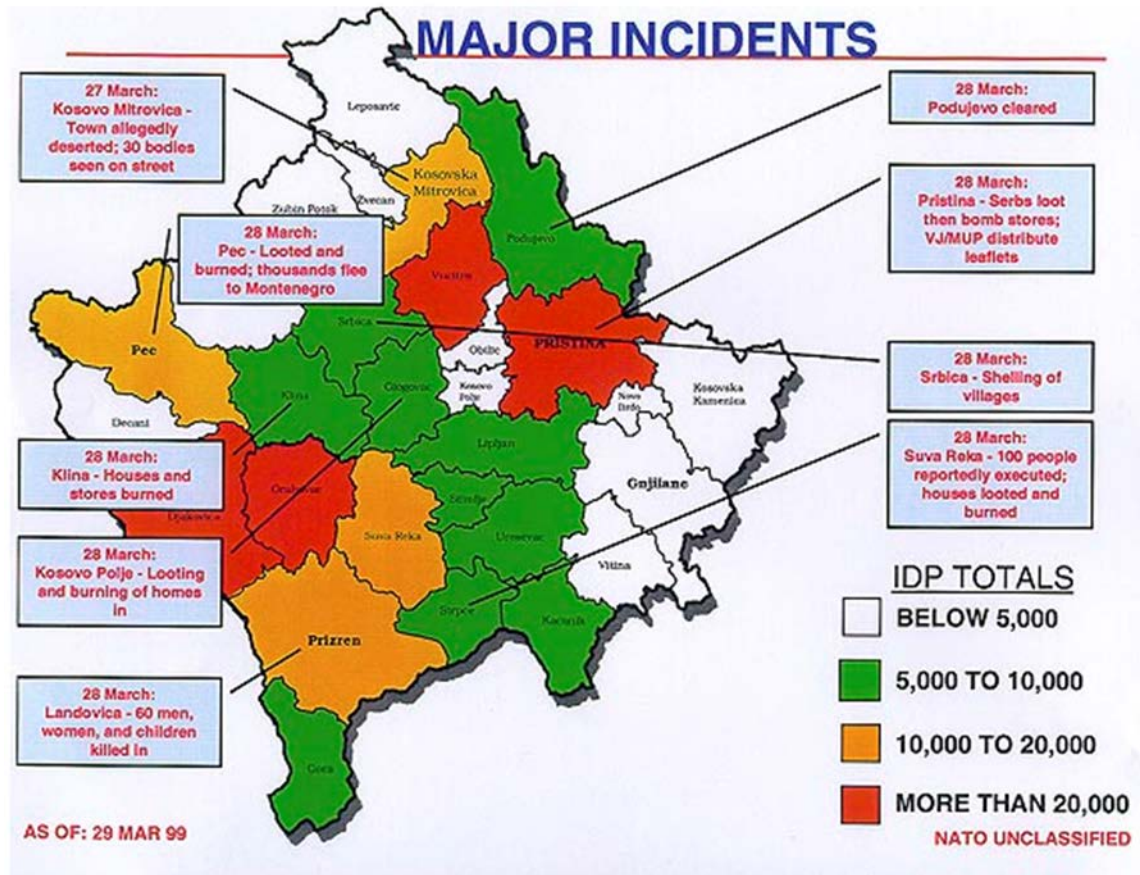


Figure 1. Humanitarian Incidents During Phase II

Source: Press Conference Slide Archive (Brussels, NATO HQ, 29 March 1999), <http://www.nato.int/kosovo/all-frce.htm> (accessed 14 April 2014).

Paramilitary units under the command of Zeljko Raznatovic, known by the nickname Arkan, terrorized the cities of Kosovska Mitrovica and Velika Hoca.¹³² In addition, the Interior Ministry troops, known as MUP, under the control of Franco

“Frenki” Simatovic, roamed Kosovo in small armored units consisting of around twenty personnel, intimidating Albanians.¹³³ The paramilitary and MUP forces often wore “carnival masks with images of vampires” or black balaclavas, and executed civilians in villages to generate a “climate of terror.”¹³⁴ The public execution of a few key individuals or groups in each town was sufficient to generate widespread fear and motivation for the survivors to evacuate. The Serbian 3rd Army, under the command of General Nebojsa Pavkovic was the backbone of these evacuation operations, forming cordons around towns then subsequently announcing to civilians an open path for their departure that led to the border.¹³⁵

Capture of American Soldiers

On 31 March 1999, five kilometers from Serbia, the section leader of a three-Humvee patrol in the mountains of Macedonia, received the following radio transmission from another Humvee in his section: “We’re in contact, we’re taking direct fire.” He responded, “You better not be bullshitting me, are you?” To which his subordinate replied, “No, we’re taking direct fire. We’re trapped. They’re all around us. We can’t get out.”¹³⁶ This final transmission, received at 1434 hours Macedonia time, was the last message heard from the three soldiers in the Humvee until they emerged on Serb state-run television nineteen hours later.¹³⁷ In the television broadcast, the three captured soldiers appeared bloodied and beaten; one with cuts on his face and another with a bashed nose—all three looking haggard.¹³⁸

The prisoners, Staff Sergeants Christopher J. Stone and Andrew A. Ramirez, along with driver Specialist Steven M. Gonzales, were part of screening mission to provide early warning of any Serbian incursion into Macedonia.¹³⁹ Their three-Humvee

scout section reportedly “split up to do some individual training” with the intent of rallying at a central location later in the day.¹⁴⁰ Their unit was Bravo Troop, 1st Squadron, 4th Cavalry Regiment, 1st Infantry Division, based out of Schweinfurt, Germany.¹⁴¹ This cavalry squadron was part of the larger United Nations Preventive Deployment Force (UNPREDEP), an ongoing mission since 31 March 1995 that included 1,500 allied troops, with 350 from the United States.¹⁴² The day after their capture, members of the media asked Department of Defense spokesperson Kenneth Bacon what kind of “training” were the three soldiers doing near the border.¹⁴³ General Clark wrote of the incident, “Some of my subordinates believed that the three soldiers had strayed into Serbia. I didn’t.”¹⁴⁴ Instead, Clark believed it was a pre-planned Serbian gambit taken as an alternative means to capture Americans after failing to nab downed pilots.¹⁴⁵

At the Oval Office, upon learning the incident, Vice President Al Gore exclaimed, “Mr. President, General Shelton owes you a *goddamn* explanation . . . you were explicitly told just yesterday that our troops had been pulled back five kilometers from that border.”¹⁴⁶ President Clinton calmly responded, “Well, Al, you know we are in a war over there, and sometimes in a war things just don’t play out the way we hope they would.”¹⁴⁷ After Gore settled down, GEN Shelton went on to brief the details of the incident, explaining that the U.S. military had no idea of the whereabouts of the three soldiers, and could not find their Humvee, despite sending out a search party consisting of American, British, French, and Italian helicopters that combed the mountains overhead the last known location of the patrol, staying inside Macedonian airspace.¹⁴⁸ A decade later, in summing up the incident in his autobiography, Shelton wrote, “It’s what Sun Tzu called ‘the fog of war.’”¹⁴⁹

On 11 May 1999, after thirty-two days of captivity, Serbia released the prisoners. To secure their release, the Reverend Jesse Jackson traveled to Belgrade with a religious delegation that met with Milosevic. Prior to Jackson's trip, however, White House spokesman David Leavy cautioned that the members of Jackson's delegation "do not have the authority to negotiate on behalf of the United States government."¹⁵⁰ In addition, national security advisor Sandy Berger met privately with Jackson, urging that he not make the trip.¹⁵¹ Nevertheless, after the prisoners returned to their unit, Major General David Grange, the commander of 1st Infantry Division, acknowledged Jackson's role in obtaining the soldiers' release, stating, "[Jackson] had told me it was a 'tough sell,' but that he would be successful—and he was."¹⁵² Even after the release of the American prisoners, the U.S. military continued to hold several Serbian military prisoners as a bargaining chip in the event of future incidents.¹⁵³ Meanwhile, despite Jackson's insistent calls for a bombing pause (particularly when he was in Belgrade), NATO's campaign continued for another month, broadening in scope and size.¹⁵⁴

Owing to the Clinton administration's deep concern over the captured prisoners and its impact on public opinion, General Shelton devoted nearly half of his writing on the Kosovo section of his memoirs to the captured prisoner saga.¹⁵⁵ After the incident, Shelton and Cohen increased the frequency of their media interviews, continually calling for Milosevic to release the prisoners. Describing this effort, Shelton wrote, "Our battlefield would be the airwaves, our weapons TV cameras, microphones, and newspaper reports."¹⁵⁶ In contrast, due to his preoccupation with holding the fragile NATO alliance together, General Clark described the incident in less than a page in *Waging Modern War*.¹⁵⁷

Phase III–1 April to 10 June 1999

After eight hours of arguing, at around 0200 Brussels time on 1 April 1999, the nineteen NATO ambassadors of the North Atlantic Council (NAC), the political governing body of NATO, reluctantly agreed to expand the target list for Operation Allied Force in line with Phase III of the plan.¹⁵⁸ At the meeting, Germany's General Klaus Naumann, chairman of NATO's military committee, borrowed LTG Short's analogy of the snake, saying that it was time to go after "both ends of the snake by hitting the head and cutting off the tail."¹⁵⁹ His use of this "bellicose-sounding metaphor" spurred the length of the debate by upsetting Greek and Italian representatives who were reluctant to expand the campaign.¹⁶⁰ In addition, the French ambassador relayed President Jacques Chirac's belief in purposefully limiting the bombing as a negotiating strategy to ensure Milosevic had more to lose in the future than in the past.¹⁶¹ Otherwise, in the French view, "if he [Milosevic] feels like he's already lost everything, he'll have no incentive to stop."¹⁶² Nevertheless, GEN Naumann prevailed in the debate by reminding officials that Milosevic had expelled thousands of ethnic Albanians since the campaign started, and would continue this endeavor unchecked if the campaign relented.¹⁶³ Thereafter, NATO's nineteen political representatives voted to give GEN Clark authority to broaden the scope of the bombing.¹⁶⁴ Nine days into Operational Allied Force, the campaign entered its third and longest phase.

At the strategic level, resolve further solidified with the unanimous agreement of NATO's campaign objectives during the 23 April 1999 gathering in Washington, DC that celebrated NATO's fiftieth anniversary.¹⁶⁵ All nineteen NATO heads of state attended the summit.¹⁶⁶ Among the terms that they agreed on, one was new: "the withdrawal from

Kosovo of the military, police and paramilitary forces.”¹⁶⁷ In essence, members of NATO alliance raised the stakes, calling for a total withdrawal of Serbian military forces from Kosovo—terms more severe than that which Milosevic walked away from at talks in Rambouillet prior to the bombing. The text of the 23 February 1999 Rambouillet accords allowed the Serb MUP and border police to remain in Kosovo.¹⁶⁸ In a private meeting on the eve of the summit, President Clinton urged Britain’s Tony Blair to stop talking publicly about a ground invasion, as this might prevent the Russians from helping exert diplomatic pressure on Milosevic.¹⁶⁹ On the day of the summit, Turkey agreed to base additional NATO aircraft.¹⁷⁰ Meanwhile, back in Europe, bombs destroyed the last intact bridge across the Danube River in the city of Novi Sad.¹⁷¹ U.S. public support for the war reached its highest level—65 percent—during the NATO summit, but dropped to an all-time low of 49 percent in the week after.¹⁷²

At the start of phase three, NATO averaged fifty sorties per night.¹⁷³ On 6 April 1999, the USS *Theodore Roosevelt* arrived in theater, adding U.S. Navy carrier aviation to the bombing campaign.¹⁷⁴ On May 2, Serbs shot down an F-16, but NATO rescued the pilot. Halfway through the operation, General Clark had around 1,000 allied aircraft at his disposal.¹⁷⁵ In the final weeks of the campaign, NATO’s effort swelled to an average of six-hundred sorties per night.¹⁷⁶ At the peak of operations in June, NATO aircraft flew over 1,000 sorties per day.¹⁷⁷ Likewise, the initial target list expanded, growing from 169 to 973 targets by June 1999.¹⁷⁸ Nearly half of these targets (421 of 973) were stationary.¹⁷⁹ By its own account, NATO destroyed only 35 percent (135 of 421) of these fixed sites.¹⁸⁰ Although NATO destroyed about seventy Serbian aircraft and 30 percent of SAMs during phase three, it never attained air superiority—the stated goal of phase

one.¹⁸¹ By the end, air defense jamming efforts consumed half of the U.S. Navy and Marines' inventory of Prowler aircraft, with only one squadron remaining stateside in the event of another contingency.¹⁸² In all, NATO flew 496 missions with unmanned aerial vehicles (UAVs), relying on their employment to spot a determined adversary while avoiding military casualties.¹⁸³ Serbs shot down fifteen UAVs during the war.¹⁸⁴

During the bombing, NATO had no idea of its success in bombing mobile Serb forces, yet claimed progress in this endeavor anyway, despite the Serb 3rd Army's replenishment of losses from its 2nd Army, and the extensive use of paramilitary forces that easily blended within their surroundings.¹⁸⁵ To the chagrin of France, when bombing mobile forces proved fruitless, the alliance increasingly targeted civilian infrastructure in and around Belgrade, attempting to cause civil unrest.¹⁸⁶ In the end, NATO prevailed without any combat casualties, after flying 38,018 sorties.¹⁸⁷ Serb forces withdrew from Kosovo, and the allied peacekeepers of KFOR (Kosovo Force) arrived, remaining until the time of this writing, nearly fifteen years after the first bombs fell.¹⁸⁸ Ultimately, nearly a million refugees returned, many to destroyed homes and the mass graves of deceased relatives.¹⁸⁹ Back in America, the high-priests of military technology lauded the triumph, ushering a new era of expenditures in the latest gadgetry.¹⁹⁰

Several key events occurred during phase three. First, as in previous phases, domestic politics within the United States, Russia, and Serbia weighed heavy in the strategic considerations of Presidents Clinton, Yeltsin, and Milosevic. Second, the international news media continued to influence the course of the campaign, repeatedly drawing attention to target selection matters and whether Serbian ground forces could be hit from the air. In light of this dynamic, Secretary of Defense Cohen restricted General

Clark's encounters with the media, due in part to Clark's blunt assessments of the bombing's effectiveness.¹⁹¹ Third, as the scope and intensity of the bombing increased, NATO mistakenly bombed the Chinese embassy in Belgrade, sparking a diplomatic crisis. Fourth, the decision to introduce Task Force Hawk, the U.S. Army's deployment of Apache helicopters, proved fruitless. NATO did not employ the helicopters, yet they produced the war's only friendly casualties when an Apache crashed during preparatory training flights. Finally, after seventy-eight days of bombing, with Serbia's growing perception that Russia backed NATO terms, Milosevic conceded.

Domestic Politics

Phase three of the operation involved the greatest volume of Congressional debate over Kosovo, as the next Presidential election neared, and the conflict dragged on longer than expected. In Russia, the state Duma urged President Yeltsin to send Russia's latest air defense missiles, the S-300 (known by NATO as SA-10), to the Serbian military.¹⁹² With secret communications, President Clinton succeeded in convincing Yeltsin to ignore the growing Russian domestic pressure to send military aid to Serbia. Meanwhile in Serbia, popular defiance of NATO's attacks solidified support for Milosevic during the first weeks in April 1999.¹⁹³ By late May and early June, however, domestic attitudes in Serbia waned amidst growing discomfort generated by the bombing.¹⁹⁴

When questioned in April 1999 by the Senate Armed Services Committee about why the use of ground forces was ruled out prior to the bombing, Secretary of Defense William Cohen stated:

At that time, you may recall there was great discontent up here on Capitol Hill. If I had come to you at that time and requested authorization to put a ground force in—U.S., unilaterally, acting alone—I can imagine the nature of the questions I

would have received. You'd say, 'Well, No. 1, where are our allies? And No. 2, who's going to appropriate the money? No. 3, how long do you intend to be there? How many? How long? How much? And what's the exit strategy?'¹⁹⁵

Given this perspective, Congress nonetheless interposed debate on whether to use ground troops in the ongoing campaign. On 20 April, Senators John McCain (R-AZ) and Joseph Biden (D-DE) introduced S.J. Res. 20 which authorized the President to use "all necessary force" to meet NATO objectives.¹⁹⁶ As opposed to the phrase "military air operations and missile strikes," written in S. Con. Res 21, the phrase "all necessary force" implied a ground invasion.¹⁹⁷ In proceedings, Senator McCain emphasized, "we are in it; now we must win it."¹⁹⁸ In contrast, rather than take ownership of an American war, Representative Robin Hayes (R-NC) referred to the intervention as "Clinton's War" in an effort to distance his party from any potential failure for the bombing to stymie Milosevic's aims.¹⁹⁹

After eight hours of debate, on 3 May, the Senate voted 78 to 22 to table the McCain-Biden resolution rather than put it to an up-or-down vote.²⁰⁰ Among those voting to table the resolution, Senate Minority Leader Tom Daschle (D-SD) argued that Clinton was ruling out the use of ground forces based on sound military advice, "It isn't just the president. It is all of his Joint Chiefs of Staff. It is everybody in the Pentagon who advises the president who have said, 'This is not the time.'"²⁰¹ Due in part to Clinton's urging through private channels, key members of the U.S. Senate voted to drop the issue of using ground troops. After losing the vote, McCain, who was running for president in the upcoming election, attempted to discredit Clinton, saying, "The president of the United States is prepared to lose a war rather than do the hard work, the politically risky work, of

fighting it.”²⁰² McCain continued, saying that he intended for Clinton to “take courage” from the resolution and “adopt a tougher strategy” against Milosevic.²⁰³

The War Powers Resolution of 1973 sought to limit Presidential power to commit military forces to a conflict without the consent of Congress. On 28 April, one month into Operation Allied Force, S. Con. Res. 21 (which passed in the Senate on 23 March) failed to gain the simple majority required in the House of Representatives, with a tied vote of 213, and eight members not voting. The nay votes were primarily Republican (187 of 213).²⁰⁴ Yet the tied vote kept the war raging on without a constitutional check on wartime powers. Prior to this vote, Representative Tom Campbell (R-CA) took matters a step further, going against party lines, invoking the War Powers Resolution of 1973 in an effort to end America’s intervention in Kosovo.²⁰⁵ His attempt to force a negative vote on a formal declaration of war against Serbia failed.

Seen alongside their votes on funding the conflict, congressional banter opposed to the air campaign was not credible. In early May 1999, the U.S. House of Representatives approved more than \$13 billion in extra funds for Operation Allied Force, twice the amount requested by President Clinton in April.²⁰⁶ Despite any misgivings, the era of budget surplus made it easy for Congress to unshackle the sinews of war.

American support for the air war fluctuated throughout the campaign. Nevertheless, domestic backing for air strikes stayed above 50 percent throughout most of the campaign. U.S. public support reached its highest levels at two points in the campaign—first, during NATO’s fiftieth anniversary summit in April 1999, and second, in June, when Milosevic capitulated. Table 5 indicates these trends:

Table 5. U.S. Public Approval of NATO Air Strikes.

	Approve/ Support	Disapprove/ Oppose	Don't know/Refused	N
1999, 11-14 March ^a	26	62	12	1,515
1999, 23 March ^b	47	47	6	534
1999, 24 March ^c	50	30	20	527
Men	57	30	13	
Women	44	29	27	
1999, 24-28 March ^d	60	30	10	1,488
1999, 25 March ^e	49	36	15	?
1999, 25 March ^f	44	40	16	1,049
1999, 25 March ^g	53	43	4	544
1999, 26 March ^h	60	31	9	518
1999, 26-28 March ^e	51	37	12	793
1999, 28 March ^h	55	33	12	895
1999, 30 March ^h	55	33	11	939
1999, 1 April ^c	51	34	15	411
1999, 5 April ^h	68	29	3	509
1999, 5 April ⁱ	64	27	9	503
1999, 5-6 April ^c	58	33	9	811
1999, 6 April ^h	67	30	3	1,011
1999, 8 April ^h	64	32	4	506
1999, 13-14 April ^c	59	29	12	878
1999, 15-16 April ^e	62	29	9	751
1999, 15-18 April ^d	62	29	9	1,000
1999, 17-19 April ⁱ	60	32	8	1,006
1999, 22 April ^c	55	32	13	450
1999, 25-26 April ^h	65	30	5	757
1999, 1-2 May ^c	53	35	12	1,151
1999, 11 May ^c	49	36	15	578
1999, 12-16 May ^d	53	38	9	1,179
1999, 16 May ^h	59	38	3	761
1999, 9-13 June ^d	62	32	6	1,153

Source: "The Kosovo Conflict in the Polls," Compiled from multiple sources (*ABC News*, *CBS News*, Princeton Survey Research Associates/ *Newsweek*, Yankelovich Partners for *Time/CNN*, *Los Angeles Times*, *NBC News/Wall Street Journal*) <http://media.leidenuniv.nl/legacy/Poll%20Data%20Kosovo.pdf> (accessed 16 April 2014); Respondents were asked: Do you approve or disapprove of the United States and NATO conducting military air strikes against Serbian targets?

Although the Cold War was over, Russia continued its typical rivalry against the United States with undercurrents of diplomatic power. As the first-ever elected president of the newly formed Russian Federation, Boris Yeltsin was well-aware of attitudes

among his domestic political constituency. In solidarity to their fellow Slavs, many Russians felt bound to support Serbia in fighting NATO. In one such action, at 1230 hours (Eastern Standard Time) on 24 March 1999, signaling Russian displeasure, Prime Minister Yevgeny Primakov reversed course on a diplomatic flight bound for Washington.²⁰⁷ Three hours prior, after a refueling stop in Shannon, Ireland, Primakov called Al Gore to check if airstrikes could be averted.²⁰⁸ Gore urged Primakov to hold position in Ireland to avoid arriving in America at the onset of NATO's campaign, giving an appearance of collaboration in the bombing. Instead, Primakov's flight took off, continuing for Washington, yet turned around over the Atlantic after a second phone call from Gore, purposefully dramatizing the spectacle for Russian audiences, making it appear that America closed the door on an attempt at friendly relations.²⁰⁹ In another instance, still early in the campaign, Deputy Secretary of State Strobe Talbot worked to convince Russia not to provide Serbia with S-300 missiles, suggesting that NATO might lose twenty aircraft if Serbia employed these.²¹⁰

Through public rhetoric, President Yeltsin appealed to conservative forces that aimed to safeguard Russia's military prestige, but in private, he circumvented a reoccurrence of Cold War belligerence. On 7 April 1999, the Duma, Russian parliament's lower house, voted 279 to 30 in favor of sending military aid to Serbia.²¹¹ In response to this vote, Clinton sent a private message to Yeltsin, warning, "NATO's air campaign will continue. I have discussed this problem at length with Jacques, Gerhard, and Tony, and we are in full agreement. I know developments in Kosovo have strained relations between our countries."²¹² In the message, Clinton reiterated, "What is most important is that we stay as united as possible in our message to Belgrade."²¹³ On 14 April, Clinton

called Yeltsin again, offering a deal where Russian troops would contribute to peacekeeping operations.²¹⁴ That same day, Yeltsin appointed Viktor Chernomyrdin as his chief Balkans envoy, signaling his intention to “salvage” relations with the West.²¹⁵ In mid-May, faced with a two percent approval rating, Yeltsin narrowly survived an impeachment vote in the Duma.²¹⁶ Clinton believed that Russia’s participation in peacekeeping operations might allow Yeltsin to appease Russian “ultra-nationalists” while simultaneously offering Milosevic a “face-saving way out” that protected Serb minorities with “Russian presence.”²¹⁷

At the onset of phase three, Serb state television compared the bombing over Easter weekend to that of the Luftwaffe in April 1941, with the latter killing 16,000 civilians in Belgrade.²¹⁸ For the most part, Serbs initially rallied around their leader, as evident from crowds wielding posters of Milosevic and chanting, “Slobo! Slobo!” on 4 April 1999.²¹⁹ Two months later, this support faded, as Serbian unemployment rose to over 50 percent.²²⁰ According to a RAND study, as the bombing progressed, the price of cigarettes doubled in Belgrade, spurring long lines at street vendors possessing the remaining supplies of this commodity.²²¹ On 22 April 1999, NATO bombed Milosevic’s Beli Dvor villa on 15 Uzicka Street in Belgrade’s luxurious Dedinje district.²²² After this incident, according to one journalist, graffiti appeared throughout the capital that translated, “Slobo, when we needed you most you were not at home,” alluding to Serb displeasure and what might happen with the tides of war in full churn.²²³ In fact, NATO was not attempting to assassinate Milosevic, but instead hoped to pressure him indirectly by irritating his wife, Mirjana over the bombing of their home.²²⁴

Earlier in April, the Dutch government refused to approve the Beli Dvor target because it contained a Rembrandt painting somewhere inside.²²⁵ In a meeting, an exasperated General Naumann told the Netherlands' NATO ambassador: "It isn't a good Rembrandt."²²⁶ On 20 April, President Clinton called Dutch Prime Minister Willem "Wim" Kok to get concurrence for the target.²²⁷ In a 27 April press briefing, General Clark reiterated that NATO was not targeting Milosevic personally; there was a command-and-control facility they aimed to destroy in the villa.²²⁸ To alleviate a French reporter's concern, Clark explained that several NATO military members visited Beli Dvor during negotiations prior to the bombing and were aware of the positioning of Rembrandt inside; the painting would be unharmed.²²⁹

As the bombs fell, Serbian civilians shared Americans' belief in precision air power, yet with a different interpretation of NATO efforts. Near the end of the campaign, after interviewing dozens of Belgrade residents, *New York Times* reporter Steven Erlanger noted, "NATO missiles have largely been so precise that many Serbs no longer believe that NATO ever bombs in error, even if the damage is to the Chinese Embassy or a hospital."²³⁰

At 2200 hours on Sunday 2 May 1999, NATO bombed a hydroelectric plant in Obrenovac, just west of the capital, plunging Belgrade and areas of Serbia into darkness for seven hours.²³¹ Only twelve hours prior to the bombing, Reverend Jesse Jackson had departed Belgrade bringing the three captive soldiers back to their base in Germany.²³² The next day, NATO destroyed a major oil refinery at Novi Sad and tank factories.²³³ According to Belgrade taxi driver Kocha Bulbuk, civilian gas rations dropped from ten gallons per month to five.²³⁴ Due to a lack of income and rising food prices, Bulbuk

claimed his family could no longer feed scraps to their family dog, a huge Rottweiler.²³⁵ Referring to the dog, Bulbuk said, “He doesn’t know we might end up eating him.”²³⁶

Along with the strikes on refineries and power stations, NATO aircraft dropped leaflets with a picture of Milosevic and the words, “No gasoline, no electricity, no trade, no freedom, no future.”²³⁷ Initial attacks on power infrastructure used carbon-fiber filaments to short out electrical transmission lines temporarily.²³⁸ In subsequent attacks, however, NATO used high-explosives to cause damage that took longer to repair. Most significantly, on 24 May, coalition aircraft shut off power to 80 percent of Serbia by bombing five power transmission stations.²³⁹ Although NATO aircraft had trouble hitting mobile Serb ground forces, bombing stationary infrastructure signaled clear NATO resolve to Serbian citizens. Of course, there were initial reservations about these strikes among some in NATO, particularly France.²⁴⁰ With the United Kingdom, Germany, and Italy already on board, President Clinton—who personally approved striking the infrastructure targets—called President Chirac of France and got him on board with the intensified bombing plan.²⁴¹

Among Belgrade residents interviewed by the *New York Times* on 24 May 1999, Dejan Sumrak, with opinions possibly bolstered by state-run television, said he believed NATO purposefully bombed heavily on the night Rev. Jesse Jackson arrived in Belgrade and likewise during visits from Russian envoy Viktor Chernomyrdin.²⁴² Foretelling that the end was near, another resident, Sandra, a thirty year old office worker said, “He’s [Milosevic] ruined our lives, the best years of our lives. We just can’t take it [the bombing] anymore. We all thought it would get better, but it just gets worse.”²⁴³

America exploited the growing resentment for Milosevic by attempting to turn his inner military circle against him. On 6 June 1999 General Shelton reached out to his counterpart General Dragoljub Ojdani, Chief of Staff of the Serbian Army. GEN Shelton asked his intermediary, the Bulgarian Chief of Defense, to relay the following to Ojdani:

He's [Ojdani] got to understand that his boss [Milosevic] is hanging on by the thinnest of threads, and one day he is going to be carted off and hung for war crimes. I need you to tell him that if he and the rest of his military try to rally around Milosevic, and protect him in any way—then the United States and eighteen other nations would consider them to be vital elements of Milosevic's team, and they will be taken down just as quickly as he will go down. On the other hand, short of those who have committed war crimes, we would consider everybody else to have been honorable soldiers with none of the repercussions the others would most certainly be facing.²⁴⁴

As the fabric of Serbian society tore, so too did its domestic military-political structure. NATO purposefully exploited these developments with robust psychological operations. In addition, Clinton, Gore, Cohen, and Shelton led behind-the-scenes diplomatic efforts to increase the pressure on Milosevic's regime. Meanwhile, from Brussels, General Clark's headquarters orchestrated an intensification of the bombing at the operational level while publicly attempting to garner support for NATO's endeavor by explaining the details of the bombing campaign to an ever-inquisitive media.

Secretary Cohen Bans General Clark from Appearing on Television

In April 1999, NATO Secretary General Javier Solana, sensitive to public affairs from a European perspective, asked GEN Clark to fire NATO spokesperson David Wilby.²⁴⁵ After a press conference where Wilby made a poor attempt to explain why NATO was bombing Serbian television stations, Solana exclaimed, "This is unacceptable. . . . There have been too many mistakes in public affairs. You must find a new spokesman."²⁴⁶ In the first half of April, both Clark and Wilby made unsuccessful

explanations to the media of the military value of bombing Serbian television transmitters.²⁴⁷ At one press conference, on 8 April, Wilby angrily thundered:

Serb radio and tv is an instrument of propaganda and repression, it has filled the air waves with hate and with lies over the years and especially now. It is therefore a legitimate target in this campaign. If President Milosevic would provide equal time for Western news broadcasts in its programmes without censorship three hours a day between noon and 1800 and three hours a day between 1800 and midnight, then his tv could become an acceptable instrument of public information.²⁴⁸

Mark Laity of the *BBC* interpreted Wilby's statement literally, assuming that NATO intended to bomb Serb television until they changed their programming.²⁴⁹ Nevertheless, Wilby failed to mention that the Serb military integrated television transmitters with their command and control architecture, which would have bolstered his argument.²⁵⁰ Consequently, members of the media had a hard time understanding why NATO bombed television stations in Serbia that housed their own networks' correspondents, so NATO adjusted its targeting efforts in this area.²⁵¹ Yet the media war raged on.

On 13 April 1999, GEN Clark appeared at another press conference and played six cockpit videos from bombing sorties to show the progress of the air campaign.²⁵² Clark used one of the videos to explain how NATO unintentionally struck a passenger train on two separate passes while actually aiming for a railroad bridge. As he played the video of the first pass, he said, "Look very intently at the aim point, concentrate right there and you can see how, if you were focused right on your job as a pilot, suddenly that train appeared. It was really unfortunate."²⁵³ In the ultimate irony, NATO missed a stationary target but actually hit something moving on the ground, though unintentionally. More significantly, global audiences could not make a logical connection between the goal of limiting ethnic cleansing and the decision to bomb railway bridges.

Next, when playing a video of the same aircraft's second bombing pass, Clark said, "Focus intently right at the center of the cross [aimed at opposite end of the same bridge]. He is bringing these two crosses together and suddenly he recognizes at the very last instant that the train that was struck here has moved on across the bridge and so the engine apparently was struck by the second bomb."²⁵⁴ At the end of the video (and end of the press conference too), the train appeared burning in a large cloud of smoke, though the bridge still supported its weight.²⁵⁵ Of course, the pilot did not intend this collateral damage, yet it appeared questionable on camera to audiences conditioned by Hollywood action films. Adding to the debacle, the media discovered that the cockpit tape played at three times normal speed during the press conference, falsely strengthening claims that there was no time to react.²⁵⁶ After a Department of Defense investigation, Pentagon spokesman P.J. Crowley admitted, "There is a normal acceleration that goes on through this process of converting the gun camera footage."²⁵⁷ Despite this realization, NATO kept playing the fast forward versions of cockpit videos.²⁵⁸

Just over a month into the campaign, at a 27 April 1999 press conference, GEN Clark gave the impression that the bombing was not weakening Serb ground forces. John Dugberg of *The Los Angeles Times* asked if Clark could give a specific estimate on Serb army losses from the bombing. Clark responded:

With respect to the ground forces and what we've done to them, the reason we're avoiding any specific bean-counting on the ground forces is because without being there on the ground it's very difficult to give reliable information. We see the tanks that we've struck, we've shown you some pictures of some trucks that we've hit, I'm sure that those are destroyed but as I indicated, he is bringing in reinforcements continually from the Second Army and others so if you actually added up what's there, if one could do this you might actually find out that he has strengthened his forces in there and that's going to be a phenomenon until we can further cut the lines of supply and go more intensively against his forces.²⁵⁹

Upon watching this press conference, Defense Secretary Cohen got the impression that Clark indicated the bombing was not working in an attempt to advocate a NATO ground offensive. In turn, Cohen asked GEN Shelton to call GEN Clark and relay the following message verbatim, “*get your fucking face off the TV. No more briefings, period. That’s it* [italics in original].”²⁶⁰ Consequently, Clark did not speak to the press on television again until 29 May, and only briefly.

At the 29 May media engagement, Clark appeared alongside NATO Secretary General Solana at Aviano air base in Italy.²⁶¹ Both focused on the accomplishments of the pilots, air crews, and maintenance personnel in prepared statements. This time, when asked about Serb army losses, Clark said, “Every day they are losing tanks, artillery, air defense systems, trucks, all of the stuff of war.”²⁶² In the last question of the event, Jennifer Griffin of *Fox News* said, “the time is approaching when a decision on a land invasion will have to be made,” then asked, “Is this correct?”²⁶³ Clark clarified, “I have said that the time is approaching when a decision will have to be made to keep all the options open.”²⁶⁴ After this question, Secretary General Solana interrupted and said that it was time for him and Clark to depart the briefing.²⁶⁵ Subsequently, NATO did not conduct another official press conference with GEN Clark in attendance until after the war on 16 September 1999.²⁶⁶ Accordingly, Clark stayed off the airwaves during the time frame that NATO mistakenly bombed the Chinese embassy. This incident required more explaining than that of the mistaken train bombing. Instead of Clark, Secretary General Solana explained the embassy bombing in the corresponding NATO press conference.

Bombing of the Chinese Embassy

General Clark pushed the envelope with air operations during phase three, gambling with the Air Tasking Order (ATO) by personally adding targets not yet approved by political authorities.²⁶⁷ This ploy sent forth aircraft that Clark subsequently recalled if political approval for their targets did not come in time.²⁶⁸ General Short was infuriated by this practice because he did not want to hurriedly send pilots in harm's way for targets not yet approved.²⁶⁹ Admiral Ellis noted, "We don't like this kind of process where something could be left on by omission."²⁷⁰ In retrospect, NATO's combined air operations center (CAOC) in Vicenza, Italy successfully managed Clark's additions to the ATO without fail, never mixing up those sorties aligned against targets not approved with those that were. Nevertheless, it was Clark's drive in pushing air operations to the limit that spurred the unfortunate bombing of the Chinese embassy.

To increase the intensity of the air campaign, General Clark demanded that his staff come up with 2,000 targets for allied aircraft.²⁷¹ Staff officers could not find this many targets and believed that such a number was arbitrary and too large, given the fact that Serbia was merely the size of Ohio.²⁷² Combined with Kosovo, the area of operations was no bigger than Kentucky. Nevertheless, amidst this pressure, the target list expanded from an initial 169 targets to 973 by the war's end.²⁷³ To find more targets, NATO planners harvested interagency support, calling upon the Central Intelligence Agency (CIA).²⁷⁴ In response, the CIA's Counter-Proliferation Division, which had little expertise in targeting matters, ended up providing the CIA's first target nomination in the war effort.²⁷⁵

On 7 May 1999, B-2 bombers from Whiteman Air Force Base in Missouri dropped five GPS-guided Joint Direct Attack Munitions (JDAMs) on the Chinese embassy in Belgrade, killing four occupants and hospitalizing twenty-six staff members.²⁷⁶ The intended target, across the street, was an arms warehouse of the Yugoslav Federal Directorate for Supply and Procurement used by Zeljko Raznatovic (aka “Arkan”) and his paramilitary “Arkan Tigers.”²⁷⁷ In fact, U.S. intelligence had the correct address for the intended target—2 Bulevar Umetnosti Street, but plotted it incorrectly on outdated maps using archaic methods.²⁷⁸

Conspiracy theorists believed that NATO intentionally bombed the Chinese embassy because the JDAMs precisely struck the part the building housing China’s signals intelligence (SIGINT) gathering cell, which was likely in cahoots with the enemy.²⁷⁹ The bombing was not intentional, but the Chinese intelligence collection effort probably did take place, as most all embassies have people that do this sort of thing. There was plenty of evidence, however, to generate suspicion of devious machinations within NATO. First, American diplomats had previously visited the embassy, so the United States knew its position, despite claims otherwise.²⁸⁰ At the time of the incident, the embassy’s address was in the phone book, the U.S. Department of State’s diplomatic contact lists, and Serbian maps.²⁸¹ Second, the use of B-2 bombers based out of Whiteman Air Force Base in Missouri drew suspicion because the United States managed these aircraft separately from NATO’s combined Air Tasking Order (ATO). Third, signals picked up by NATO electronic intelligence indicated that the site rebroadcasted transmissions for the Serbian army.²⁸² According to *The Guardian*, an unnamed intelligence officer told them:

NATO had been hunting the radio transmitters in Belgrade. When the President's [Milosevic's] residence was bombed on 23 April, the signals disappeared for 24 hours. When they came on the air again, we discovered they came from the embassy compound. The success of previous strikes had forced the VJ [military] to use Milosevic's residence as a rebroadcast station. After that was knocked out, it was moved to the Chinese embassy.²⁸³

Though plausible, it is highly unlikely that a democratic alliance could maintain the level of operational security necessary to avoid leaking such a stratagem. Furthermore, it made no sense to purposely damage relations with China and strain the fragile NATO alliance for some limited tactical advantage.²⁸⁴

President Clinton dispatched Thomas R. Pickering (third-in-charge at the State Department) and a team of other high-ranking diplomats, along with second-in-charge deputies from the CIA and DIA, to offer Chinese officials in Beijing an apology and explanation for the mistake.²⁸⁵ Pickering explained that members of the CIA compared three outdated maps—one from 1989—to get the general location of the target.²⁸⁶ After this, they plotted the location on a newer 1997 map, but used antiquated methods more suitable for navigation than targeting. As a Chinese translator tried to keep up, Pickering explained in detail the methods used by the CIA to plot the target:

A 1997 National Imaging and Mapping Agency (NIMA) map was first used to display the grid pattern of the streets in New Belgrade. Next, in order to identify locations to use as reference points, they identified and drew on the NIMA map to locate the Hyatt Hotel, the Intercontinental Hotel, and the Serbian Socialist Party Headquarters. Each of these buildings—which were clearly labeled on the maps being used—were approximately one mile east of Bulevar Umetnosti. Using these locations and their street addresses as reference points, parallel lines were drawn that intersected both the known addresses and Bulevar Umetnosti. In what proved to be a fundamental error, those same numbers were then applied to locations on Bulevar Umetnosti, assuming that streets were numbered in the same fashion along parallel streets. The effectiveness of this method depends on the numbering system being the same on parallel streets, that the numbers are odd and even on the same sides of the street and that the street numbers are used in the same parallel sequence even if the street names change. Unfortunately, a number of these assumptions were wrong.²⁸⁷

After this process, the CIA sent the proposed target to NATO. At alliance headquarters, planners checked the target coordinates against the “no strike” database that listed friendly embassies, hospitals and other key locations.²⁸⁸ The old location of the Chinese embassy, on the other side of the Danube, was mistakenly still in NATO’s database.²⁸⁹

Political leaders directed a two week halt on bombing targets in Belgrade in order to examine targeting procedures.²⁹⁰ Meanwhile, the bombing continued elsewhere.²⁹¹ After a preliminary investigation, on 11 May 1999, Secretary of Defense Cohen concluded that the bombing was the result of an “institutional error” and not from human or mechanical mistakes.²⁹² On 20 May, NATO resumed strikes in Belgrade.²⁹³ On that night, NATO inadvertently bolstered its claim of mistakenly bombing the Chinese embassy by errantly bombing the residences of the Swedish, Spanish, Norwegian and Swiss ambassadors along with the Libyan embassy and a civilian hospital—all after developing new “iron-clad” procedures to prevent errors.²⁹⁴ In light of these events, the United States had an easier time convincing the Chinese that it bombed their embassy due to incompetence rather than malice.

Serbian reactions to the Chinese embassy bombing varied. For the most part, Serbian residents believed that the United States purposely targeted the Chinese embassy. One Belgrade resident, Vlade Smiljanic, interviewed by Carlotta Gall of the *New York Times* said, “Would you believe that with all their sophisticated weapons, they can miss?”²⁹⁵ Another resident, Zoran Arsic, said, “They did it on purpose to show the whole world that they are the only remaining superpower. To say to us: ‘How can such a small power do anything, when the U.S. can do this to China?’”²⁹⁶ Several residents believed that NATO would bomb the Russian embassy next.²⁹⁷ On the other hand, Serbian

military leaders, upon learning of the intended target through NATO's media apology, had different concerns.²⁹⁸

The CIA's Counter-Proliferation Division typically focused on preventing the spread of dangerous weapons and technology. The Serbs possessed sixty kilograms of highly enriched uranium at a nuclear research facility at Vinca, Serbia (15 km from Belgrade).²⁹⁹ The facility was once part of a nuclear weapons program that started under the leadership of Jozef Broz Tito in 1948.³⁰⁰ Serb General Pavkovic thought that NATO might target the nuclear facility at Vinca. In an interview with the *Nedeljni Telegraf*, he said, "Can you imagine what would have happened had they struck Vinca . . . we know that in Iraq they attacked nuclear and chemical facilities . . . they could have attacked a facility like that here too. In that event, all of Belgrade would have had to be evacuated to a distance of 100 km."³⁰¹ Of course, NATO never targeted this location.³⁰²

Task Force Hawk Arrives

Task Force Hawk was the U.S. Army's most visible contribution to the Kosovo campaign. At 0800 hours Brussels time on 1 April 1999, General Clark gathered with Lieutenant General John W. "Jay" Hendrix and Major General Dave McKiernan to go over slides pertaining to the proposed Apache mission that they would brief to the Secretary of Defense and all of the Service Chiefs a few hours later via video teleconference.³⁰³ A section of the brief covered risks with a three page list indicating all of the Serb weapons capable of penetrating the skin of an Apache.³⁰⁴ GEN Clark believed this portion of the brief would make their audience reluctant to approve the mission and exclaimed in frustration: "Jay, do you guys want to do this or not? If you don't, just say so; don't submarine it in the brief."³⁰⁵ To alleviate Clark's concerns, LTG Hendrix said,

“Sir, We can do this mission . . . We just were showing some of the dangers involved, and, anyway, these slides can be changed.”³⁰⁶ And so they were. Instead of covering the original list of risks, LTG Hendrix briefed Secretary Cohen and the group on how the Army would mitigate risks to the Apaches by using artillery to suppress Serb air defenses before the Apaches went on their deep strike missions.³⁰⁷ This latter idea inadvertently presented a new dynamic in the campaign.

After the 1 April video teleconference, General Shelton recommended a compromise to Secretary Cohen where the Apaches would be sent but not used in combat until the Joint Chiefs reached a consensus.³⁰⁸ On 3 April 1999, President Clinton signed the Apache deployment order, but retained the final say on whether to employ the helicopters.³⁰⁹ Based on Clark’s 1 April briefing, however, the total force package consisted of more than just a few helicopters.

To protect and support the vulnerable twenty-four Apaches (with the commitment later growing to 48 helicopters), the army brought along 5,350 troops, twenty-six utility helicopters, fourteen Bradley infantry fighting vehicles, fifteen Abrams tanks, thirty-eight Humvees equipped with TOW antitank missiles, a 155mm howitzer battery, a Multiple Launch Rocket System (MLRS) battalion from V Corps, an engineer company, a Bradley stinger missile-equipped air defense battery, a military intelligence platoon, a smoke generation platoon, a military police platoon, the 2-505th Parachute Infantry Regiment of the 82nd Airborne Division, a combat service support team, ninety shipping containers, and enough spare parts for forty-eight Apaches.³¹⁰ The Abrams and Bradleys came from 2nd Brigade, 1st Armored Division while the Apaches from 11th Aviation Regiment, and the utility helicopters from the 12th Aviation Regiment.³¹¹ In what turned out to be an

unintended yet important contribution, the artillery units brought their standard assortment of counter-battery radars. LTG Hendrix (dual-hatted as V Corps commander) commanded this ad hoc contingent dubbed Task Force Hawk. LTG Hendrix had two deputy commanders—one for aviation and the other for fire support. Brigadier General Richard Cody was in charge of aviation operations and Colonel Raymond T. Odierno was in charge of fire support and ground operations.³¹²

On 4 April 1999, Department of Defense spokesperson Kenneth Bacon announced that Task Force Hawk would take ten days to deploy, generating false expectations among public and media audiences.³¹³ GEN Clark initially requested permission to base Apache helicopters in Macedonia, but their government refused, citing the 1995 Dayton Accords, which prohibited basing “offensive forces” along the boundaries of the former Yugoslavia.³¹⁴ Ironically, back in 1995 Clark was the military assistant to Assistant Secretary of State Richard Holbrooke, and worked on the details of the Dayton agreements.³¹⁵ The previous Serbian border incursion that captured the three American soldiers, overcrowding from refugees, and the deployment of 1,800 British troops (with 14 Challenger tanks and 40 Warrior APCs), overwhelmed the Macedonian government, spurring them to reject the American request for basing Apaches at the NATO airfield in Skopje.³¹⁶ Instead, NATO based the helicopters at an airfield in Tirana, Albania, which had a much less developed infrastructure to support their deployment.³¹⁷

Figure 2 shows the expected ten day deployment timeline alongside key events in the actual timeline, which took twenty-two days:

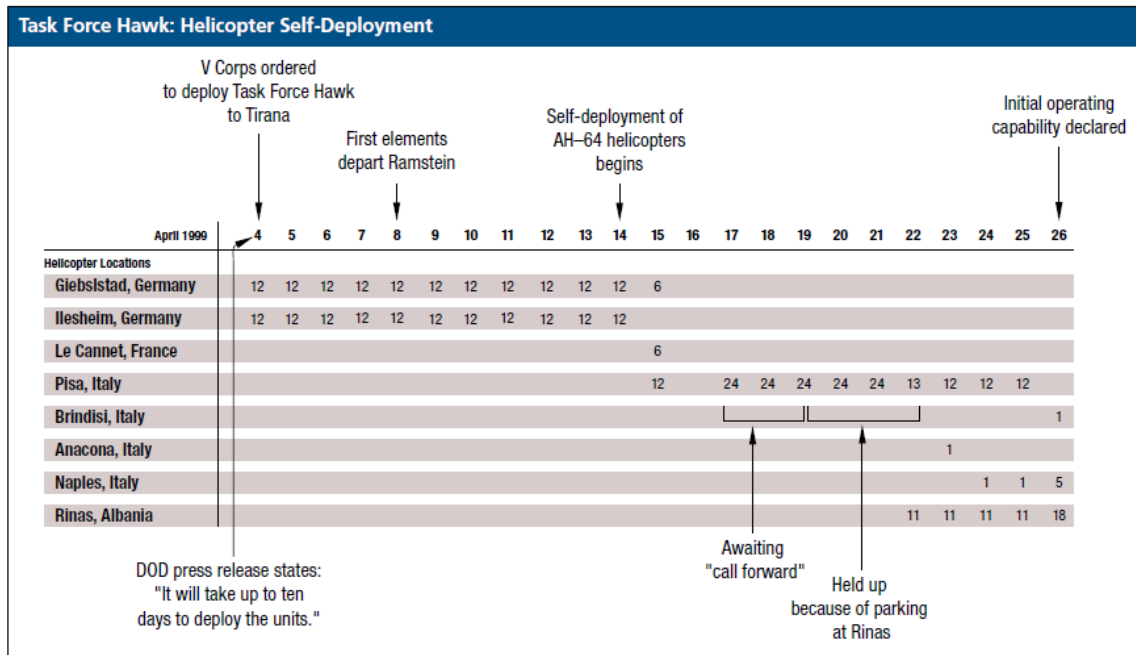


Figure 2. Timeline for Deployment of Task Force Hawk

Source: John Gordon, Bruce Nardulli, and Walter Perry, "The Operational Challenges of Task Force Hawk," *Joint Forces Quarterly* (Autumn/Winter 2001-02): 52-57.

In all, deployment of the twenty-four Apaches and their associated 22,000 short tons of supporting equipment required over 500 sorties of C-17s (the runway at Tirana was too short for the larger C-5 cargo aircraft).³¹⁸ In reaction to the media stir surrounding the Apaches, LTG Hendrix stated, "I didn't realize the whole world was waiting to see an Apache landing in Albania."³¹⁹ Critics of the Task Force Hawk debacle contend that the U.S. Army deployed an inefficiently large contingent to Albania because its doctrine still focused on fighting the Soviet Union on the Fulda Gap with massive armored formations.³²⁰ After the war, the U.S. Army attempted to lighten its forces.³²¹

Based on the 1 April 1999 brief, General Clark intended for the rocket (MLRS) and tube (155mm howitzers) artillery of Task Force Hawk to pave the way for Apache

deep strikes against dispersed Serbian armored forces throughout Kosovo. The MLRS fired the Army Tactical Missile System (ATACMS), which had a 165 to 300 kilometer range depending on the variant.³²² Each missile's warhead contained 950 M74 submunitions that distributed thousands of marble-sized pieces of steel over a 33,000 square meter area to suppress the enemy by cutting through radar dishes, soft-skinned vehicles, and other exposed equipment.³²³ The "bomblet-spewing ATACMS" would certainly suppress Serb air defenses if employed, but the indiscriminate scattering of shrapnel would also kill or injure anyone in the open over a several kilometer area.³²⁴ According to the plan, after the ATAMCS suppressed a path, the Apaches would fly from their base in Tirana, Albania to destinations nearly 200 kilometers away in Kosovo and then have five minutes to find targets and fire their Hellfire missiles before having to return to base low on fuel.³²⁵

Joint interoperability became a problem when the possibility of employing Apache helicopters introduced friction between the standard operating procedures of the services. General Clark never designated a joint land component commander since Operation Allied Force was mostly an air campaign. Doctrinally, a land component commander manages the functions of ground elements from the U.S. Army and Marines, and stands on equal footing with the special operations, air, and maritime component commands.³²⁶ In the Kosovo campaign, such a headquarters may have added a larger ground perspective regarding the use of air power. Without such a headquarters, military leaders improvised. Tension emerged between LTG Hendrix and LTG Short over how to incorporate the Apaches.³²⁷ One unidentified U.S. Air Force officer on LTG Hendrix's

staff expressed his frustrations to Elaine Grossman of *Inside the Pentagon*, who quoted him as saying:

they do not know, nor do they want to know, the detailed information required to get the Prowler to jam the priority threats, provide acquisition jamming on the correct azimuth, etc . . . The benefits of integrating with platforms like Compass Call, Rivet Joint and others are off their radar scope.³²⁸

General Clark read Grossman's article on 20 May and concluded that the problems the "disgruntled Air Force officer" described "if real then [20 May], had been corrected" shortly thereafter.³²⁹ Perhaps Clark's looking into the matter spurred some staff officers to integrate their methods on a joint level. Although NATO never employed the Apaches, the joint sharing of information from the counter-battery radars and other sensors associated with Task Force Hawk proved very useful in finding Serbian artillery and command nodes during the latter stages of the campaign.³³⁰

The Serbian army used telephone poles painted black and laid on old truck axles to appear as the barrel of artillery tubes.³³¹ Flying at 15,000 feet, pilots could not tell the difference. Camouflage also hindered air efforts. Many U.S. Navy pilots had to drop their bombs on "dump sites" after not finding targets but needing to lighten their load in order to bring their landing weights to the maximum allowed for safe landing aboard the USS *Theodore Roosevelt*.³³² By NATO's estimates, most Serb decoys mimicked artillery, while a secondary effort also imitated tanks.³³³

Initially, the intelligence section of Task Force Hawk used its collection assets and analysts to develop engagement areas and targets for the Apaches.³³⁴ Among these assets were the Hunter Unmanned Aerial Vehicle (UAV), the EH-60 electronic warfare helicopter, and the RC-12 Guardrail electronic warfare aircraft.³³⁵ Starting in 1971, NATO used RC-12 aircraft to monitor Soviet troop movements in Czechoslovakia and

East Germany by intercepting radio traffic.³³⁶ In May 1999, using creative techniques, analysts in Albania used the Hunter UAVs to determine if Serb forces were nearby. According to U.S. Army Colonel Mike Howell, “They look to see if children are playing or wash is on the clothes lines because that is an indication of whether or not the bad guys are bothering people in that particular village on a given day.”³³⁷ Aerial sensors got the counter-battery radars pointed in the right direction. Together, these sensors needed one more element to narrow down the location of Serb artillery—the guns had to actually fire.

After realizing that NATO would not use the Apaches, starting on 25 May, the intelligence analysts (G2 section) of Task Force Hawk passed around 600 targets to the combined air operations center (CAOC).³³⁸ After double checking to ensure the targets were not near refugees or KLA forces, the CAOC radioed the targets to the airborne command and control center (ABCCC) circling overhead.³³⁹ Next, the ABCCC passed the targets on to airborne forward air controllers (AFACs) for action. In turn, NATO aircraft bombed the targets. At its best, this process took five minutes from the time of first identifying the target to the release of ordinance.³⁴⁰ To smooth over the process, Task Force Hawk loaned the battlefield coordination element (BCE) of the CAOC some laptops that ran the automated deep operations coordination system (ADOCS) software with which they were accustomed to using.³⁴¹ This software processed automated fire missions. The fact that it takes too many acronyms to explain how two military services exchanged information alludes to the complexity of joint operations. Nevertheless, determined staffs worked around friction, establishing a system, depicted in figure 3, whereby counter-battery acquisitions could be passed to NATO aircraft loitering over Kosovo.

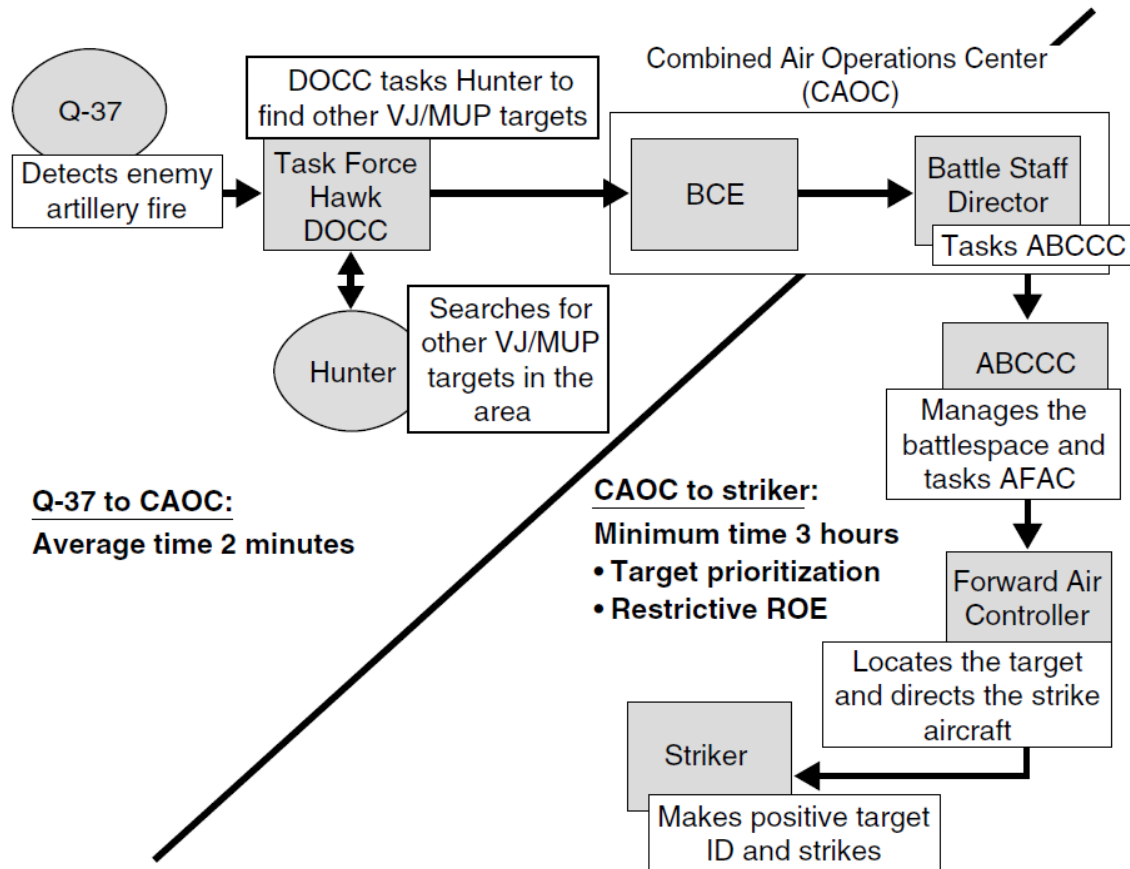


Figure 3. Incorporation of Counter-Battery Radar Acquisitions

Source: Bruce R. Nardulli, Walter L. Perry, Bruce Pirnie, John Gordon IV, and John G. McGinn, *Disjointed War* (Santa Monica, CA: RAND, 2002), 91.

Another missing piece in the operational puzzle came on 26 May, when the KLA (with the encouragement of the CIA) launched a major offensive to establish supply lines through Serb army-held territory.³⁴² The Albanian army backed the KLA offensive with artillery fire.³⁴³ The Serb artillery returned fire, halting the KLA advance in the area of Mount Pastrik, pinning them down with indirect fires.³⁴⁴ All this commotion sparked radio chatter picked up by U.S. Army signals intelligence systems, such as the Guardrail

and EH-60, which then determined the sources of the transmissions. Finally, using the ad hoc system whereby Task Force Hawk exchanged laptops with the CAOC, electronic systems passed on the counter-battery radar acquisitions of the A/N TQP-36 and A/N TQP-37 to NATO aircraft circling overhead.³⁴⁵ Each Serb shot of artillery gave away the location of a gun. Each radio transmission gave away the position of a ground command post. The NATO alliance checked General Pavkovic's 3rd Army at Mount Pastrok. From 26 May onward, NATO aircraft pummeled Serbian ground forces with more accuracy than at any point prior, flying over 900 sorties per day until the end.³⁴⁶

By 10 June 1999, NATO aerial reconnaissance observed Serb ground forces withdrawing from Kosovo in accordance with Milosevic's compliance with NATO's five terms.³⁴⁷ Ten days later, the last of over 40,000 Serb ground troops left Kosovo eleven hours ahead of the midnight deadline agreed upon by Serb generals.³⁴⁸ At critical choke points, overhead reconnaissance efforts counted 220 tanks, 300 armored personnel carriers, and 308 artillery pieces moving back across the border into Serbia, loaded on trucks.³⁴⁹ From the air, it was hard for NATO to discern the operational status of this equipment.

In the aftermath of the air campaign, the alliance turned to two other matters. The first was trying to incorporate Russian peacekeepers without having them form a separate peacekeeping sector that turned a blind eye to continued Serbian repression of minorities. The second was attempting to dissuade KLA rebel groups from pursuing the withdrawing Serbs.³⁵⁰ At 1300 hours on 20 June 1999, at the Renaissance Hotel in Cologne, Germany, President Clinton, along with Albright, Berger, and Talbott, met with President Yeltsin and four Russian ministerial officials to discuss the role of Russian peacekeepers in

Kosovo.³⁵¹ Next, at 1830 hours, from the Hyatt Hotel in Cologne, Germany, President Clinton gathered with interpreter Lindita Imami and called the leader of the KLA, Hashim Thaci, warning him to keep his rebels from retaliating against the Serbs.³⁵² America tried to restrain the forces it unleashed in order to hold together a fragile peace.

Just as in Bosnia during Operation Deliberate Force in 1995, counter-battery radars detected the location of Serbian artillery tubes when decoys fooled aerial sensors. According to retired Army Lieutenant General Theodore G. Stroup, “The result was that NATO air power was finally able to precisely hit the Serb army in the field. The Kosovars acted as the anvil and TF Hawk the eyes and ears of the blacksmith so that the hammer of air power could be effective.”³⁵³ Reinforcing this notion, U.S. Air Force General John P. Jumper, commander of U.S. air forces in Europe, stated that counter-battery radars played “a very big part” at the end of the campaign. Aside from these two acknowledgements, few senior military officers focused on the accomplishments of Task Force Hawk’s sensor capability and joint-minded staff officers who shared their Apache targets with air forces. Instead, the mainstream attention went toward the potential role of the Apaches. Overall, Task Force Hawk was a secondary effort in the air campaign. Within Task Force Hawk, COL Odierno’s fire support assets, with their radars, were merely a shaping effort for the helicopters. In the end, at the operational level of war, Task Force Hawk’s sensors turned out as the cog in an ad hoc arrangement of military systems that GEN Clark sought to wreak havoc on Serbia’s 3rd Army with. Once allied air forces bombed something other than wooden telephone poles, perhaps Milosevic’s crony generals took NATO air power seriously.³⁵⁴

Operation Allied Force Ends–10 June 1999

In a 10 June 1999 interview with Jim Lehrer on *PBS News Hour*, Secretary of State Madeleine Albright said, “I never thought it [the campaign] was going to be short. I said [in the 24 March interview] ‘relatively short’ . . . that is what it has been.”³⁵⁵ Later in the interview, in referring to John Keegan’s frequently publicized misgivings in the *London Daily Telegraph* regarding the sole use of air power, Albright stated:

Well, I think that there have certainly been an awful lot of armchair strategists, but I’ve been very interested even in the last 24 hours about some of them. Mr. Keegan, for instance, a leading military expert who just flat out came out and said that he was wrong. I think that that takes a lot of courage, and I would hope that some of the others might do the same thing.³⁵⁶

Indeed, many other commentators wrote about the efficacy of air power in the aftermath of the campaign, spurred by Keegan’s statement. In the article with his often-quoted statement, Keegan called for further study on the campaign, saying:

There will have to be a new strategic bombing survey and it will perhaps take years to compile before air forces and governments can understand what was achieved and why the effects of the bombing yielded the results they did. Nevertheless, the air forces have won a triumph, [and] are entitled to every plaudit they will receive and can look forward to enjoying a transformed status in the strategic community, one they have earned by their single-handed efforts.³⁵⁷

What follows is an attempt to show how various key actors interpreted the outcome of the campaign. Subsequent to Operation Allied Force, several studies explained how the bombing yielded its results. Conditioned by scientific spirit, army professionals focused on the destruction of military equipment rather than measuring intangibles. In particular, the profession persisted in counting the destruction of tanks, artillery, and other military vehicles, as analysts tracked these implements during the intelligence “bean counting” of the Cold War, and used them as an operational measure of success during the 1991 Gulf War.

¹William S. Cohen and Henry H. Shelton. *Department of Defense Kosovo/Operation Allied Force After-Action Report to Congress* (Washington: Department of Defense, 31 January 2000), 31.

²Ibid.

³Chris Hellman, "Lessons of Kosovo: More B-2 Bombers?" *Weekly Defense Monitor* 3, no. 24 (24 June 1999). Six of these aircraft rotated in pairs from Whiteman, conducting around fifty missions throughout the conflict.

⁴Daalder and O'Hanlon, 103.

⁵Cohen and Shelton, 32

⁶John Gordon IV, Bruce Nardulli, and Walter L. Perry, "The Operational Challenges of Task Force Hawk," *Joint Forces Quarterly* (Autumn/Winter 2001-02): 54.

⁷Ibid.

⁸Mark Urban, "NATO's Inner Kosovo Conflict," *BBC World News*, 20 August 1999, <http://news.bbc.co.uk/2/hi/europe/425468.stm> (accessed 26 December 2013).

⁹Michael R. Gordon and Eric Schmitt, "Thwarted, NATO Agrees to Bomb Belgrade Sites," *The New York Times*, 30 March 1999, <http://www.nytimes.com/learning/students/pop/articles/033199kosovo-us.html> (accessed 27 December 2013).

¹⁰Urban, 2.

¹¹Daalder and O'Hanlon, 132.

¹²Larson and Savych, 78.

¹³Daalder and O'Hanlon, 132.

¹⁴Elizabeth Becker, "Conflict in the Balkans: The Air Commander: A Leader Who Climbed the Ranks, as His Father Did, to Become the Chief of Staff," *The New York Times*, 29 March 1999, <http://www.nytimes.com/1999/03/29/world/conflict-balkans-air-commander-leader-who-climbed-ranks-his-father-did-become.html> (accessed 27 December 2013).

¹⁵Lambeth, *NATO's Air War for Kosovo*, 45.

¹⁶United States. General Accounting Office, *Kosovo Air Operations: Army Resolving Lessons Learned regarding the Apache Helicopter: Report to the Chairman, Committee on Armed Services, House of Representatives* (Washington, DC: U.S. G.A.O., 2001), 6.

¹⁷Gordon et al., 57.

¹⁸R. W. Apple Jr., “A Domestic Sort With Global Worries,” *The New York Times*, 25 August 1999, <http://www.nytimes.com/1999/08/25/world/a-domestic-sort-with-global-worries.html?pagewanted=all&src=pm> (accessed 27 December 2013).

¹⁹Nebojsa Pavkovic, “Interview with Yugoslav 3rd Army General Povkovic,” *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/pavkovic.html> (accessed 3 December 2013).

²⁰Tim Ripley, *Conflict in the Balkans 1991-2000* (Oxford: Osprey Publishing, 2013), 53.

²¹Tim Hunter, “Operation Noble Anvil: 2nd Air Expeditionary Group RAF Fairford, February–June 1999,” <http://sharpshooter-maj.com/html/profil05.htm> (accessed 28 December 2013).

²²Dag Henriksen, *NATO’s Gamble: Combining Diplomacy and Airpower in the Kosovo Crisis* (Annapolis, MD: Naval Institute Press, 2007), 175.

²³Lambeth, 20.

²⁴Joel Hayward, “NATO’s War in the Balkans: A Preliminary Analysis,” *New Zealand Army Journal*, no. 21 (21 July 1999): 11.

²⁵Carl Rochelle, Brent Sadler, and Christiane Amanpour, “Airstrikes on Yugoslavia suspended, more attacks likely,” *CNN*, 25 March 1999, <http://www.cnn.com/WORLD/europe/9903/25/kosovo.strikes.01/> (accessed 28 December 2013).

²⁶Chris Gray and Boris Worrall, “Bombs over Belgrade; Wave of NATO Air Strikes as Milosevic Remains Defiant,” *The Birmingham Post*, 25 March 1999, 1

²⁷*Ibid.*

²⁸Lambeth, 21.

²⁹Ripley, *Conflict in the Balkans*, 53.

³⁰*Ibid.*

³¹*Ibid.*

³²Lambeth, 23.

³³Cordesman, “Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo,” 187.

³⁴With exceptions. General Short stated in a *PBS Frontline* interview that forward air controllers could drop below this level if unable to confirm targets.

³⁵Michael Short, “Transcript of Interview” *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/short.html> (accessed 16 April 2014).

³⁶Lambeth, 115.

³⁷Naval Air Systems Command, “Aircraft and Weapons,” (Patuxent River, MD: Public Affairs Office), <http://www.navair.navy.mil/index.cfm?fuseaction=home.display&key=AF4153AA-5454-44D2-B01A-AA69417C5B49> (accessed 28 December 2013).

³⁸*Ibid.*

³⁹Lambeth, 22.

⁴⁰NATO, “Transcript of Press Conference by Secretary General, Dr. Javier Solana and SACEUR, Gen. Wesley Clark,” NATO HQ, 25 March 1999, <http://www.nato.int/kosovo/press/p990325a.htm> (accessed 23 December 2013).

⁴¹Lambeth, 22.

⁴²NATO, “Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby,” NATO HQ, 26 March 1999, <http://www.nato.int/kosovo/press/p990326a.htm> (accessed 23 December 2013).

⁴³Lambeth, 23.

⁴⁴Jamie Shea, “Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby,” NATO HQ, 26 March 1999, <http://www.nato.int/kosovo/all-frce.htm> (accessed 16 April 2014).

⁴⁵David Wilby, “Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby,” NATO HQ, 26 March 1999, <http://www.nato.int/kosovo/all-frce.htm> (accessed 16 April 2014).

⁴⁶*Ibid.*

⁴⁷Wilby, “Transcript of Press Conference,” 26 March 1999.

⁴⁸Ripley, *Conflict in the Balkans*, 54.

⁴⁹David Wilby, “Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby,” NATO HQ, 27 March 1999, <http://www.nato.int/kosovo/all-frce.htm> (accessed 16 April 2014).

⁵⁰Ripley, *Conflict in the Balkans*, 54.

⁵¹William J. Clinton, "Message of President Clinton to be Delivered by Russian Ambassador or Deputy Chief of Mission to President Yeltsin," 3 April 1999, The Clinton Presidential Library, Declassified 29 April 2010, <http://www.clintonlibrary.gov/declassified.html> (accessed 28 December 2013).

⁵²Hosmer, *The Conflict Over Kosovo*, 33; Also see: Celestine Bohlen, "Don't Push Us, Yeltsin Warns West On Balkans," *The New York Times*, 10 April 1999.

⁵³Lambeth, 24.

⁵⁴Wilby, "Transcript of Press Conference," 27 March 1999.

⁵⁵Lambeth, 23.

⁵⁶*Ibid.*

⁵⁷Jamie Shea, "Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby," 27 March 1999, <http://www.nato.int/kosovo/all-free.htm> (accessed 16 April 2014).

⁵⁸Ripley, *Conflict in the Balkans*, 54.

⁵⁹Shea, "Transcript of Press Conference," 27 March 1999.

⁶⁰Mark Laity, "Transcript of Press Conference by NATO Spokesman Jamie Shea and Air Commodore David Wilby" NATO, HQ, 27 March 1999.

⁶¹John A. Tirpak, "Short's View of the Air Campaign," *Air Force Magazine* 82, no. 9 (September 1999): 43.

⁶²Madeleine Albright, "Transcript of Jim Lehrer News Hour," *PBS News Hour*, 24 March 1999, http://www.pbs.org/newshour/bb/europe/jan-june99/albright_3-24.html (accessed 23 December 2013).

⁶³Frederick Kagan, *Finding the Target: The Transformation of American Military Policy* (New York, Encounter, 2006), 191.

⁶⁴Shelton, *Without Hesitation*, 370.

⁶⁵Charles Krulak, "How it was Fought: Transcript of Interview," *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/krulak.html> (accessed 16 April 2014).

⁶⁶Javier Solana, “Transcript of Press Conference by Secretary General, Dr. Javier Solana and SACEUR, Gen. Wesley Clark,” NATO HQ, 25 March 1999, <http://www.nato.int/kosovo/press/p990325a.htm> (accessed 16 April 2014).

⁶⁷Christiane Amanpour, “NATO: Yugo ground troops may be targeted,” *CNN*, 26 March 1999, <http://www.cnn.com/WORLD/europe/9903/26/clark.01/#1> (accessed 23 December 2014).

⁶⁸Clark, *Waging Modern War*, 221.

⁶⁹Central Intelligence Agency, “Statement of the Director of Central Intelligence George J. Tenet Before the Senate Armed Services Committee Hearing on Current and Projected National Security Threats (as prepared for delivery),” Speeches and Testimony Archive, 2 February 1999, <https://www.cia.gov/news-information/speeches-testimony/1999/ps020299.html> (accessed 14 November 2013); Also see: Lambeth, *NATO's Air War for Kosovo*, 24.

⁷⁰*Ibid.*

⁷¹Gray and Worrall, 1.

⁷²*Ibid.*

⁷³Daalder and O’Hanlon, 110.

⁷⁴Human Rights Watch, *Kosovo: Rape as a Weapon of Ethnic Cleansing*, 1 March 2000, D1203, <http://www.refworld.org/docid/3ae6a87a0.html> (accessed 14 January 2014).

⁷⁵*Ibid.*

⁷⁶R. Jeffrey Smith and William Drozdiak, “The Anatomy of a Purge: Milosevic’s Intimate Understanding of His Enemies Facilitates His Campaign of Terror Against the Kosovars,” *Washington Post Foreign Service*, 11 April 1999, A1.

⁷⁷Daalder and O’Hanlon, 114.

⁷⁸Lambeth, 24.

⁷⁹Amanpour, “NATO: Yugo ground troops may be targeted.”

⁸⁰Jamie Shea, “NATO Press Conference” 27 March 1999, <http://www.nato.int/kosovo/press/p990327a.htm> (accessed 23 December 2013).

⁸¹Clark, *Waging Modern War*, 208.

⁸²Dana Priest, "United NATO Front Was Divided Within," *The Washington Post*, 21 September 1999, A1.

⁸³Ibid.

⁸⁴Ibid.

⁸⁵Tirpak, "Short's View of the Air Campaign," 43.

⁸⁶Ibid.

⁸⁷Daalder and O'Hanlon, 114.

⁸⁸Tirpak, 44.

⁸⁹Ibid. The final bombing tally indicated that strikes increased on tanks and artillery as well as targets in Serbia proper towards the end of the campaign, however. See: Daalder and O'Hanlon, 120.

⁹⁰Frances X. Clines, "NATO Opens Broad Barrage Against Serbs as Clinton Denounces Yugoslav President," *The New York Times*, 25 March 1999, <http://www.nytimes.com/1999/03/25/world/conflict-balkans-overview-nato-opens-broad-barrage-against-serbs-clinton.html?pagewanted=all&src=pm> (accessed 29 December 2013).

⁹¹Ibid.

⁹²Ibid.

⁹³Ibid.

⁹⁴William Cohen, "Transcript of Interview with Secretary of Defense William Cohen," *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/cohen.html> (accessed 28 December 2013).

⁹⁵Jamie Shea, "NATO Press Conference," NATO HQ, 28 March 1999, <http://www.nato.int/kosovo/press/p990328a.htm> (accessed 30 December 2013).

⁹⁶Lambeth, 25.

⁹⁷Clark, *Waging Modern War*, 216.

⁹⁸Thomas W. Lippman and John F. Harris, "U.S. Rescues Pilot of Downed Jet," *The Washington Post*, 28 March 1999, A1.

⁹⁹Gregory Ball, "Operation Allied Force," 23 August 2012, <http://www.afhso.af.mil/topics/factsheets/factsheet.asp?id=18652> (accessed 31 December 2013).

¹⁰⁰Norman Friedman, *The Naval Institute Guide to World Naval Weapon Systems* (Annapolis: Naval Institute Press, 2006), 407.

¹⁰¹Craig R. Whitney, "On 7th Day, Serb Resilience Gives NATO Leaders Pause," *New York Times*, 31 May 1999, <http://partners.nytimes.com/library/world/europe/033199kosovo-solana.html> (accessed 30 December 2013).

¹⁰²Shea, "NATO Press Conference" 28 March 1999,

¹⁰³Kenneth H. Bacon, "Transcript of DoD News Briefing," 1 April 1999, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=564> (accessed 30 December 2013).

¹⁰⁴Guy De Launey, "Foe now friends: US stealth pilot and the Serb who shot him down." *BBC News*, 5 November 2012, <http://www.bbc.co.uk/news/world-europe-20209770> (accessed 30 December 2013); Zoltan Dani now runs a bakery in Belgrade, and is friends with former pilot Dale Zelko.

¹⁰⁵Dale Zelko, *The Second Meeting*, DVD, Directed by Zeljko Mitrovic (Serbia: Optimistic Film, 2013).

¹⁰⁶Lippman and Harris, "U.S. Rescues Pilot of Downed Jet," A1.

¹⁰⁷C. Douglas Sterner, "Awards for the Silver Star for Conspicuous Gallantry in Action During Operation Allied Force in Kosovo," Home of Heroes Enhanced Research Library, 1999, http://www.homeofheroes.com/members/04_SS/6_PostRVN/12_kosovo.html (accessed 1 January 2014).

¹⁰⁸*Ibid.*

¹⁰⁹Sterner, 3; Overhead, A-10 Warthogs, led by Air Force Captain John A. Cherrey protected the search-and-rescue task force from ground threats.

¹¹⁰Eric Schmitt, "Shrewd Serb Tactics Downed Stealth Jet, U.S. Inquiry Shows," *The New York Times*, 11 April 1999, http://www.nytimes.com/1999/04/11/world/crisis-balkans-lost-warplane-shrewd-serb-tactics-downed-stealth-jet-us-inquiry.html?page_wanted=all&src=pm (accessed 1 January 2014).

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¹¹²Ellis Neel, "Serb discusses 1999 downing of stealth," *USA Today*, 26 October 2005, http://usatoday30.usatoday.com/news/world/2005-10-26-serb-stealth_x.htm (accessed 1 January 2014).

¹¹³Zoltan, *The Second Meeting*.

¹¹⁴Lambeth, 111.

¹¹⁵Larkins Dsouza, "How was F-117 shot down?" *Defence Aviation*, 8 February 2007, <http://www.defenceaviation.com/2007/02/how-was-f-117-shot-down-part-1.html> (accessed 1 January 2014).

¹¹⁶John Andreas Olsen, *A History of Air Warfare* (Herndon, VA: Potomac Books, 2010), 234.

¹¹⁷*Ibid.*

¹¹⁸Neel, 1.

¹¹⁹*Ibid.*

¹²⁰John Tirpak, "Electronic Warfare, Economy of Style," *Air Force Magazine*, 78, no. 11 (November 1995), <http://www.airforcemag.com/MagazineArchive/Pages/1995/November%201995/1195ew.aspx> (accessed 2 January 2014).

¹²¹*Ibid.*

¹²²Cohen and Shelton, 66.

¹²³Burt Gustafson, "F-105-G Wild Weasel," <http://www.aircraftresourcecenter.com/Gal11/10001-10100/gal10007-F-105-Gustafson/00.shtm> (accessed 18 April 2014).

¹²⁴Lambeth, 103.

¹²⁵Zelko, *The Second Meeting*.

¹²⁶Clark, *Waging Modern War*, 217-8.

¹²⁷Zelko, *The Second Meeting*.

¹²⁸*Ibid.*

¹²⁹*Ibid.*

¹³⁰Shea, "NATO Press Conference," 28 March 1999.

¹³¹*Ibid.*

¹³²Smith, A1.

¹³³*Ibid.*

¹³⁴*Ibid.*, A2.

¹³⁵Daalder and O’Hanlon, 114. Also see *PBS Frontline* interview of Commander Nebojsa Pavkovic, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/pavkovic.html>.

¹³⁶Shelton, *Without Hesitation*, 375.

¹³⁷Daniel Williams, “We’re Trapped . . . We Can’t Get Out,” *Washington Post Foreign Service*, 2 April 1999, <http://www.washingtonpost.com/wp-srv/inatl/daily/april99/soldiers040299.htm> (accessed 29 December 2014).

¹³⁸Brent Sadler et al., “Three U.S. soldiers captured by Yugoslav army: Serb TV shows servicemen bruised and bleeding,” *CNN*, 1 April 1999, <http://www.cnn.com/WORLD/europe/9904/01/nato.attack.02/> (accessed 30 December 2013).

¹³⁹Gerry J. Gilmore, “U.S. Soldiers Ambushed in Macedonia, Beaten by Serb Captors,” *American Forces Press Service*, 11 May 1999, <http://www.defense.gov/News/NewsArticle.aspx?ID=42986> (accessed 30 December 2013).

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¹⁴¹*Ibid.*

¹⁴²Alice Ackermann, *Making Peace Prevail: Preventing Violent Conflict in Macedonia* (New York, Syracuse University Press, 2000), 118.

¹⁴³Bacon, “Transcript of DoD News Briefing,” 1 April 1999.

¹⁴⁴Clark, *Waging Modern War*, 286.

¹⁴⁵*Ibid.*

¹⁴⁶Shelton, *Without Hesitation*, 374.

¹⁴⁷*Ibid.*

¹⁴⁸Hugh Shelton, “Press Briefing by Secretary of Defense William Cohen and General Hugh Shelton,” Norfolk, VA: Norfolk Naval Station, 1 April 1999, <http://www.presidency.ucsb.edu/ws/?pid=47857> (accessed 30 December 2013).

¹⁴⁹Shelton, *Without Hesitation*, 374. Of course, he actually meant the Clausewitzian notion of friction.

¹⁵⁰BBC News, “Jesse Jackson arrives in Belgrade,” 29 April 1999, <http://news.bbc.co.uk/2/hi/europe/331137.stm> (accessed 30 December 2013).

¹⁵¹*Ibid.*

¹⁵²Gilmore, 1.

¹⁵³Candice Hughes, "U.S. turns 2 Serb POWs over to Yugoslavs; NATO missiles cut highway; jets hit military airport," *The Deseret News*, 18 May 1999, <http://www.deseretnews.com/article/697636/US-turns-2-Serb-POWs-over-to-Yugoslavs.html?pg=all> (accessed 1 January 2013).

¹⁵⁴Bill Glauber, "Jesse Jackson arrives in Belgrade to seek release of American POWs," *The Baltimore Sun*, 30 April 1999, http://articles.baltimoresun.com/1999-04-30/news/9904300135_1_jesse-jackson-yugoslavia-belgrade (accessed 30 December 2013).

¹⁵⁵Shelton, *Without Hesitation*, 370-388.

¹⁵⁶*Ibid.*, 376.

¹⁵⁷Clark, *Waging Modern War*, 286.

¹⁵⁸William Drozdiak, "NATO Leaders Struggle to Find a Winning Strategy," *The Washington Post*, 1 April 1999, A22.

¹⁵⁹*Ibid.*

¹⁶⁰Lambeth, 25-26.

¹⁶¹Urban, "NATO's inner Kosovo conflict."

¹⁶²Clark, *Waging Modern War*, 236-7.

¹⁶³Drozdiak, A22.

¹⁶⁴To mitigate alliance member concerns, NATO did not officially refer to operations after 1 April 1999 as part of "phase three." Yet in reality, NATO commenced phase three of air operations on 1 April. In a press conference on 24 April, spokesman Jamie Shea carefully said, "We may not necessarily see a Phase 3. All I want to say is at the moment that SACEUR has, as you can see, the proof of the pudding is in the eating, from the operations that have been going on that he has all of the flexibility that he needs."

¹⁶⁵William Drozdiak and Thomas W. Lippman, "NATO Summit Ends with Restoration Vow," *The Washington Post*, 26 April 1999, A1.

¹⁶⁶*Ibid.*; Twenty-three other world leaders also attended.

¹⁶⁷NATO, "The Situation in and Around Kosovo," 12 April 1999

¹⁶⁸United Nations, "Interim Agreement for Peace and Self-Government in Kosovo" (Rambouillet, France, 23 February 1999), Article IV: VJ Forces and Article V:

Other Forces, <http://peacemaker.un.org/kosovo-rambouilletagreement99> (accessed 16 April 2014).

¹⁶⁹Dana Priest, “Kosovo Land Threat May Have Won the War,” *Washington Post* (19 September 1999), A1.

¹⁷⁰Drozdiak and Lippman, A1.

¹⁷¹*Ibid.*

¹⁷²See complication of polling data in table 5 of this work.

¹⁷³Ball, “Operation Allied Force,” 1.

¹⁷⁴Daniel J. Murphy Jr., “Statement of Vice Admiral Daniel J. Murphy, Jr., U.S. Navy, Commander, U.S. Sixth Fleet, and Striking and Support Forces, Southern Europe,” *Kosovo: U.S. Naval Lessons Learned During Operation Allied Force, March-June 1999* (Washington, DC: Naval Historical Center, 26 October 1999), 16.

¹⁷⁵Cohen and Shelton, 32.

¹⁷⁶Keegan, “Please, Mr. Blair, Never Take such a Risk Again.”

¹⁷⁷Cohen and Shelton, 68.

¹⁷⁸Ball, 1.

¹⁷⁹*Ibid.*

¹⁸⁰Ball, 1. The low rate of target destruction was due in part to efforts to minimize collateral damage.

¹⁸¹Daalder and O’Hanlon, 121.

¹⁸²Conrad C. Lautenbacher, “Statement of Vice Admiral Conrad C. Lautenbacher, Jr., Deputy Chief of Naval Operations For Resources, Warfare Requirements, and Assessments Kosovo Lessons Learned,” <http://www.fas.org/man/congress/1999/99-10-19lautenbacher.htm> (accessed 2 January 2014); Also see statement of Brigadier General Robert M. Flanagan, U.S. Marine Corps, <http://www.fas.org/man/congress/1999/99-10-26flanagan.htm> (accessed 2 January 2014).

¹⁸³J. D. R. Dixon, “UAV Employment in Kosovo: Lessons for the Operational Commander” (Paper submitted for Department of Joint Military Operations, Naval War College, Newport, RI, 8 February 2000), 8.

¹⁸⁴Brian Palmer, “Is It Hard to Kill a Drone?” *Slate Magazine*, (6 June 2012, http://www.slate.com/articles/news_and_politics/explainer/2012/06/cia_drone_program_i

s_it_hard_to_shoot_one_down_.html (accessed 3 January 2014); Door gunners on Serb helicopters shot down some of the drones while SAM operators took out others. The Serb War Museum in Belgrade displays some of these UAVs, including a Predator shot down in 1995 and the wreckage of the F-117. Russia has some pieces of the F-117 wreckage as well, using these in their own stealth program.

¹⁸⁵Wesley K. Clark, "Press Conference by Jamie Shea and General Wesley Clark," 27 April 1999, <http://www.nato.int/kosovo/press/p990427a.htm> (accessed 1 January 2014).

¹⁸⁶Shelton, *Without Hesitation*, 384-385.

¹⁸⁷Ball, 1; Also see: Wesley K. Clark, "The United States and NATO: The Way Ahead," *Parameters*, 29 (Winter 1999-2000): 10.

¹⁸⁸Fort Hood Public Affairs Office, "504th Battlefield Surveillance Brigade to Deploy to Kosovo," Fort Hood Press Center, 10 December 2013, <http://www.forthoodpresscenter.com/go/doc/3439/1998906/> (accessed 2 January 2014).

¹⁸⁹Brad K. Blitz, "Balkan Returns: An Overview of Refugee Returns and Minority Repatriation," United States Institute for Peace, 30 December 1999, <http://www.usip.org/publications/balkan-returns-overview-refugee-returns-and-minority-repatriation> (accessed 2 January 2014).

¹⁹⁰Earl H. Tilford, Jr., "Operation Allied Force and the Role of Airpower," *Parameters* (Winter 1999-2000): 24-38. Those lauding the technological aspects of the triumph included, John A. Tirpak (senior editor of *Air Force Magazine*), Major General Charles Lind (retired), and Air Force Chief of Staff General Michael Ryan.

¹⁹¹Clark, *Waging Modern War*, 273.

¹⁹²Sergei Balmasov and Vadim Trukhachev, "Russia's efforts to save Yugoslavia from NATO could have led to nuclear war," *Pravda*, 24 March 2009, <http://english.pravda.ru/world/europe/24-03-2009/107289-yugoslavia-0/> (accessed 2 January 2014).

¹⁹³Guy Dinmore, "NATO Destroys Major Bridge," *Washington Post*, 4 April 1999, A14.

¹⁹⁴Steven Erlanger, "Belgrade's People Still Defiant, but Deeply Weary," *The New York Times*, 24 May 1999, 1.

¹⁹⁵Sciolino and Bronner.

¹⁹⁶Kim, *Kosovo and the 106th Congress*, 14.

¹⁹⁷U.S. Congress, Senate, “Authorizing the President of the United States to conduct military air operations and missile strikes against the Federal Republic of Yugoslavia,” 1.

¹⁹⁸Kim, *Kosovo and the 106th Congress*, 14.

¹⁹⁹Helen Dewar and Juliet Eilperin. “GOP Leaders Take Cautious Course on Kosovo.” *The Washington Post*, 28 April 1999, A20.

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²⁰³Ibid.

²⁰⁴U.S. Congress, Senate, “S. Con. Res. 21–106th Congress: Kosovo resolution.” <http://www.govtrack.us/congress/bills/106/sconres21> (accessed 24 November 2013).

²⁰⁵Kim, *Kosovo and the 106th Congress*, 2.

²⁰⁶Mike Williams, “No let-up in Kosovo Bombing,” *BBC News*, 7 May 1999, <http://news.bbc.co.uk/2/hi/europe/337582.stm> (accessed 2 January 2014).

²⁰⁷Thomas W. Lippman, “Russian Leader Cancels Trip in Protest,” *Washington Post*, 24 March 1999, A22.

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²⁰⁹Jim Mokhiber, “Why did Milosevic Give Up?” *PBS Frontline*, 22 February 2000, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/fighting/giveup.html> (accessed 2 January 2014).

²¹⁰Michael Ignatieff, *Virtual War: Kosovo and Beyond* (New York: Metropolitan Books, 2000), 109.

²¹¹Hosmer, *The Conflict Over Kosovo*, 33. Also see: Celestine Bohlen, “Don’t Push Us, Yeltsin Warns West On Balkans,” *The New York Times*, 10 April 1999.

²¹²William J. Clinton, “Message to President Boris Yeltsin,” April 1999, Declassified 22 June 2010, The Clinton Presidential Library, [http://www.clintonlibrary.gov/declassified.html#Declassified Records](http://www.clintonlibrary.gov/declassified.html#Declassified%20Records) (accessed 2 January 2014).

- ²¹³Ibid.
- ²¹⁴Clinton, *My Life*, 852.
- ²¹⁵Mokhiber, 1.
- ²¹⁶Colin McMahon, "Yeltsin Survives Impeachment Votes in Duma," *Chicago Tribune*, 16 May 1999.
- ²¹⁷Clinton, *My Life*, 852-859.
- ²¹⁸Dinmore, A14.
- ²¹⁹Ibid; Also, in an act of solidarity with their leader, Serbian demonstrators gathered on bridges across the Danube wearing T-shirts emblazoned with a target. For additional examples, see: Adam LeBor, *Milosevic: A Biography* (New Haven: Yale University Press, 2004), 298.
- ²²⁰Unnamed journalist in Belgrade, "Harsh Reality Under the Bombs," *Institute of War and Peace Reporting*, 3 June 1999, <http://www.ddh.nl/fy/kosova/news/1999/reality0306.html> (accessed 2 January 2014).
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- ²²²James McKillop, "Warplanes set their sights on Milosevic, Villa is destroyed but leader was not at home," *The Herald*, 23 April 1999, <http://www.heraldscotland.com/sport/spl/aberdeen/warplanes-set-their-sights-on-milosevic-villa-is-destroyed-but-leader-was-not-at-home-1.295271> (accessed 2 January 2014).
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- ²²⁴McKillop, 1.
- ²²⁵Ivan Dinev Ivanov, *Transforming NATO: New Allies, Missions, and Capabilities* (Plymouth, United Kingdom: Lexington Books, 2011), 93
- ²²⁶Carnes Lord, *Proconsuls: Delegated Political-Military Leadership from Rome to American Today* (New York: Cambridge University Press, 2012), 181.
- ²²⁷Michael T. Manning, "Draft MemCon: POTUS-Dutch Prime Minister Kok, 20 April 1999," Email, Sent 20 April 1999 at 1753 (EST), FOIA Request Collection 2006-0217-F, Box 7, National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.

²²⁸Clark, “Press Conference by Jamie Shea and General Wesley Clark,” 27 April 1999

²²⁹Ibid.

²³⁰Erlanger, “Belgrade’s People Still Defiant, but Deeply Weary,” 1.

²³¹Steve Erlanger, “NATO Attack Darkens City and Areas of Serbia,” *The New York Times*, 3 May 1999, <http://www.nytimes.com/1999/05/03/world/crisis-in-the-balkans-belgrade-nato-attack-darkens-city-and-areas-of-serbia.html> (accessed 2 January 2014).

²³²Erlanger, 1.

²³³Daniel Williams, “Serbs Unsettled by NATO Strikes on Power Plants,” *The Washington Post*, 4 May 1999, A1.

²³⁴Ibid.

²³⁵Ibid.

²³⁶Williams, A1.

²³⁷Erlanger, “NATO Attack Darkens City and Areas of Serbia,” 1.

²³⁸Phillip Bennett and Steve Coll, “NATO Warplanes Jolt Yugoslav Power Grid,” *Washington Post*, 25 May 1999, A1.

²³⁹Ibid.

²⁴⁰“The Mixed Feelings of Europeans,” *The Economist*, 351, no. 8115 (17 April 1999): 54.

²⁴¹Shelton, *Without Hesitation*, 385.

²⁴²Erlanger, “Belgrade’s People Still Defiant, but Deeply Weary,” 1.

²⁴³Ibid.

²⁴⁴Shelton, *Without Hesitation*, 381.

²⁴⁵Clark, *Waging Modern War*, 249.

²⁴⁶Ibid.

²⁴⁷David Wilby, “Press Conference of NATO Spokesman Jamie Shea, Air Commodore David Wilby, and Commander Fabrizio Maltini, SHAPE,” 8 April 1999, <http://www.nato.int/kosovo/press/p990408a.htm>. (accessed 1 January 2014).

²⁴⁸Ibid.

²⁴⁹Ibid.

²⁵⁰Jamie Shea, “Press Conference of NATO Spokesman Jamie Shea, Air Commodore David Wilby, and Commander Fabrizio Maltini, SHAPE,” 8 April 1999, <http://www.nato.int/kosovo/press/p990408a.htm> (accessed 1 January 2014).

²⁵¹Clark, *Waging Modern War*, 250.

²⁵²Wesley Clark, “Press Conference by Jamie Shea and General Wesley Clark,” 13 April 1999, <http://www.nato.int/kosovo/press/p990413a.htm> (accessed 3 January 2014).

²⁵³Ibid.

²⁵⁴Ibid.

²⁵⁵NATO, “Cockpit Video of Railway Bridge II Played at Press Conference,” 14 April 1999, <http://www.nato.int/kosovo/video.htm> (accessed 3 January 2014).

²⁵⁶David Martin, “Did NATO Alter Bombing Tape,” *CBS News*, 6 January 2000, <http://www.cbsnews.com/news/did-nato-alter-bombing-tape/> (accessed 3 January 2014).

²⁵⁷Martin, 1.

²⁵⁸NATO, “Rollup of All Videos Used During NATO Press Conferences,” 26 March to 16 September 1999, <http://www.nato.int/kosovo/video.htm> (accessed 3 January 2014).

²⁵⁹Clark, “Press Conference by Jamie Shea and General Wesley Clark,” 27 April 1999.

²⁶⁰Shelton, *Without Hesitation*, 383. In describing this exchange, GEN Shelton said, “I give Secretary Cohen a lot of credit for crafting a succinct instruction without a whole lot of ambiguity.” Shelton added, “for a smart guy, he [Clark] said some pretty dumb things.” To be fair, however, the Serbian army did increase its presence in Kosovo throughout the air campaign, as Clark accurately revealed in the press conference, despite the strategic ramifications of such a revelation.

²⁶¹Wesley Clark, “Press Conference of Javier Solana, NATO Secretary General and General Wesley Clark, SACEUR,” Aviano Air Base, Italy, 29 May 1999, <http://www.nato.int/kosovo/press/p990529a.htm> (accessed 1 January 2014).

²⁶²Ibid.

²⁶³Ibid.

²⁶⁴Clark, “Press Conference of Javier Solana, NATO Secretary General and General Wesley Clark, SACEUR,” 29 May 1999.

²⁶⁵Javier Solana, “Press Conference of Javier Solana, NATO Secretary General and General Wesley Clark, SACEUR,” Aviano Air Base, Italy, 29 May 1999, [://www.nato.int/kosovo/press/p990529a.htm](http://www.nato.int/kosovo/press/p990529a.htm) (accessed 1 January 2014).

²⁶⁶Wesley Clark (SACEUR) and John Corley (Chief, Kosovo Mission Effectiveness Assessment Team), “Press Conference on the Kosovo Strike Assessment” NATO Headquarters, Brussels, 16 September 1999, <http://www.nato.int/kosovo/all-free.htm> (accessed 3 January 2014).

²⁶⁷Priest, “United NATO Front Was Divided Within,” A1.

²⁶⁸Ibid.

²⁶⁹Tirpak, “Short’s View of the Air Campaign,” 45.

²⁷⁰Priest, A1.

²⁷¹Lambeth, 145.

²⁷²Steven Lee Myers, “Chinese Embassy Bombing: A Wide Net of Blame,” *New York Times*, 17 April 2000.

²⁷³Ball, 1.

²⁷⁴Lambeth, 145.

²⁷⁵Ibid.

²⁷⁶Alva McNicol, “NATO Hits Chinese Embassy,” *BBC News*, 8 May 1999.

²⁷⁷Javier Solana, “Press Conference Given by NATO Secretary General Javier Solana, NATO Spokesman Jamie Shea, and SHAPE Spokesman Major General Walter Jertz,” 8 May 1999, <http://www.nato.int/kosovo/press/p990508b.htm> (accessed 16 January 2014).

²⁷⁸Brent Sadler, John Raedler, and Carl Rochelle, “Outdated Intelligence May be to Blame for ‘Very Bad Mistake,’” *CNN*, 8 May 1999, <http://www.cnn.com/WORLD/europe/9905/08/kosovo.03/> (accessed 3 January 2014).

²⁷⁹Steven Lee Myers, “Chinese Embassy Bombing: A Wide Net of Blame,” *New York Times*, 17 April 2000.

²⁸⁰Thomas Pickering, "State Department Report on Accidental Bombing of Chinese Embassy," Oral Presentation to Chinese Government, 17 June 1999, <http://beijing.usembassy-china.org.cn/070699.html> (accessed 16 April 2014).

²⁸¹Pickering, 2.

²⁸²John Sweeney, Jens Holsoe, and Ed Bulliamy, "NATO Bombed Chinese Embassy Deliberately," *The Guardian*, 16 October 1999.

²⁸³Ibid.

²⁸⁴Daalder and O'Hanlon, 147.

²⁸⁵Richard Lister, "US sends envoy to pacify China," *BBC News*, 14 June 1999, <http://news.bbc.co.uk/2/hi/americas/368290.stm> (accessed 14 January 2014).

²⁸⁶Clinton, *My Life*, 854.

²⁸⁷Pickering, 2-3.

²⁸⁸Lambeth, 146.

²⁸⁹Pickering, 5.

²⁹⁰Lambeth, 144.

²⁹¹Walter Jertz, "Press Conference Given by NATO Secretary General Javier Solana, NATO Spokesman Jamie Shea, and SHAPE Spokesman Major General Walter Jertz," 8 May 1999, <http://www.nato.int/kosovo/press/p990508b.htm> (accessed 16 April 2014).

²⁹²Paul Richter and Doyle McManus, "Pentagon to Tighten Targeting Procedures," *Los Angeles Times*, 11 May 1999, <http://articles.latimes.com/1999/may/11/news/mn-36073> (accessed 3 January 2014).

²⁹³Walter Jertz, "Press Conference Given by NATO Spokesman Jamie Shea and Shape Spokesman Major General Walter Jertz," 21 May 1999, <http://www.nato.int/kosovo/press/p990521a.htm> (accessed 3 January 2014).

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²⁹⁵Carlotta Gall, "Embassy Attack Followed by Defiance Toward NATO," *New York Times*, 10 May 1999, <http://www.nytimes.com/1999/05/10/world/crisis-in-the-balkans-belgrade-embassy-attack-followed-by-defiance-toward-nato.html> (accessed 4 January 2014).

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²⁹⁷Ibid.

²⁹⁸Walter Jertz, "Press Conference Given by NATO Secretary General Javier Solana, NATO Spokesman Jamie Shea, and SHAPE Spokesman Major General Walter Jertz," 8 May 1999, <http://www.nato.int/kosovo/press/p990508b.htm> (accessed 16 April 2014).

²⁹⁹Andrew Koch, "Yugoslavia's Nuclear Legacy: Should We Worry?" *The Nonproliferation Review* (Spring-Summer 1997): 123.

³⁰⁰Ibid., 126.

³⁰¹Milos Antic, "Gen. Pavkovic Interviewed; Sees Army Return," *Nedeljni Telegraph*, 26 August 1999, translated by FBIS, <http://www.ex-yupress.com/telegraf/telegraf5.html> (accessed 4 January 2014).

³⁰²Hosmer, *The Conflict Over Kosovo*, 96.

³⁰³Clark, *Waging Modern War*, 230.

³⁰⁴Ibid.

³⁰⁵Ibid.

³⁰⁶Ibid.

³⁰⁷Ibid., 231.

³⁰⁸Dana Priest, "Army's Apache Helicopter Rendered Impotent in Kosovo," *Washington Post*, 29 December 1999, A1.

³⁰⁹Ibid.

³¹⁰R. Cody Phillips, *Operation Joint Guardian: The U.S. Army in Kosovo* (Washington, DC: Government Printing Office, 2007), 15.

³¹¹Mark M. Hennes and Cory J. Delger, "FA Battalion C2 in Albania and Kosovo," *Field Artillery* (January-February 2000): 20.

³¹²Phillips, 15.

³¹³Kenneth H. Bacon, "U.S. Attack Helicopters and Multiple Launch Rocket Systems to Deploy in Support Operation Allied Force," *DOD News Briefing*, Press Release No. 145-99, 4 April 1999.

³¹⁴Priest, A1.

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- ³¹⁶Tim Youngs, Mark Oakes, Paul Bowers, and Mick Hillyard, “Kosovo: Operation Allied Force,” Compiled for Members of Parliament (London, UK: House of Commons Library, 29 April 1999), 20.
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- ³²²Andreas Parch, “Lockheed Martin (LTV) MGM-140 ATACMS,” Directory of U.S. Military Rockets and Missiles, <http://www.designation-systems.net/dusrm/m-140.html> (accessed 4 January 2014).
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- ³²⁴Dana Priest, “Army’s Apache Helicopter Rendered Impotent in Kosovo,” *Washington Post*, (29 December 1999), A1.
- ³²⁵Ibid.
- ³²⁶Department of Defense, Joint Publication 3-0, *Joint Operations* (Washington, DC, Government Printing Office, 1 February 1995), II-14.
- ³²⁷Benjamin Lambeth, “Task Force Hawk,” *Air Force Magazine* (February 2002): 81.
- ³²⁸Lambeth, *NATO’s Air War for Kosovo*, 154.
- ³²⁹Clark, *Waging Modern War*, 320.
- ³³⁰Lambeth, *NATO’s Air War for Kosovo*, 157.
- ³³¹John Corley, “Press Conference on the Kosovo Strike Assessment,” 16 September 1999, <http://www.nato.int/kosovo/press/p990916a.htm> (accessed 4 January 2014).
- ³³²Richard Norton-Taylor, “How the Serb Army Escaped NATO,” *The Guardian*, 8 March 2000, <http://www.theguardian.com/world/2000/mar/09/balkans1> (accessed 4

January 2014); Also, based on comments from John T. Kuehn (24 January 2014) another factor is that navy regulations do not permit certain munitions from being recovered onboard a carrier by an arrested landing, based on previous experiences such as the USS *Forrestal* fire on 29 July 1967 that killed 134 sailors. For example, U.S. Navy aircraft do not recover with napalm or Gator (an air-delivered mine munition similar to FASCAM). These sorts of weapons are termed “unrecoverable munitions.” The Navy guidelines covering which munitions fall in this category are in NATOPS manuals for the various types of aircraft and the LSO handbook.

³³³Wesley Clark, “Press Conference on the Kosovo Strike Assessment,” 16 September 1999, <http://www.nato.int/kosovo/press/p990916a.htm> (accessed 16 April 2014).

³³⁴Robert S. Brigford and Luke G. Grossman, “BCD Targeting for Operation Allied Force,” *Field Artillery* (January-February 2000): 11.

³³⁵Lambeth, *NATO’s Air War for Kosovo*, 157.

³³⁶Brandon Pollachek, “Guardrail turns 40, modernization keeps it going,” Official Homepage of the U.S. Army, News Archives, 7 July 2011, http://www.army.mil/article/61251/Guardrail_turns_40__modernization_keeps_it_going/ (accessed 16 April 2014).

³³⁷Dixon, “UAV Employment in Kosovo,” 5.

³³⁸Brigford and Grossman, 17.

³³⁹*Ibid.*

³⁴⁰*Ibid.*, 18.

³⁴¹“Automated Deep Operations Coordination System–ADOCS, General Dynamics C4,” no 3. Defense Update, 31 August 2006, <http://defense-update.com/products/a/adocs.htm> (accessed 14 April 2014).

³⁴²Priest, “Kosovo Land Threat May Have Won War,” A1.

³⁴³*Ibid.*

³⁴⁴Brigford, 19.

³⁴⁵*Ibid.*

³⁴⁶Priest, A1. According to the *Washington Post*, upon learning of the struggle at Mount Pstrik, Clark told his subordinates over the VTC, “That mountain is not going to get lost. I’m not going to have Serbs on that mountain.” Then later adding, “We’ll pay for that hill with American blood if we don’t help [the KLA] hold it.”

³⁴⁷Javier Solana, “NATO Press Conference Transcript,” NATO HQ, 10 June 1999, <http://www.nato.int/kosovo/press/p990610b.htm> (accessed 4 January 2014).

³⁴⁸Steven Lee Myers, “Last Serbian Troops Pull Out of Kosovo,” *New York Times*, 21 June 1999, <http://www.nytimes.com/1999/06/21/world/crisis-in-the-balkans-withdrawal-last-serbian-troops-pull-out-of-kosovo.html> (accessed 4 January 2014).

³⁴⁹Steven Lee Myers, “Yugoslav Army Not Hobbled as Believed / Serbs hid tanks, used decoys to limit damage,” *New York Times*, 28 June 1999.

³⁵⁰Myers, 1.

³⁵¹Carlos Pascual (notetaker), “Meeting with President Yeltsin of Russia,” Memorandum of Conversation, 20 June 1999, 1300 -1400 hours, Participants: President Clinton, Secretary Albright, Samuel Berger, Deputy Secretary Talbott, President Yeltsin Minister Ivanov, Minister Shapovalyants, Foreign Policy Advisor Prikhodko, Deputy Minister Mamedov, Russian interpreter, US interpreter Peter Afanasenko. Renaissance Hotel, Cologne, Germany, Declassified 23 October 2010, William Jefferson Clinton Library, http://www.clintonlibrary.gov/assets/storage /Research%20-%20Digital%20Library/Declassified/LP-WJC_NSS-4.pdf (accessed 16 April 2014); Earlier, during a 12 June phone conversation, President Yeltsin told President Clinton that, “our friendship had reached its limits,” but on 20 June, Yeltsin stated, “I agree with this formulation of the issues.”

³⁵²William J. Clinton, “Telecon with Kosovar Leader Hashim Thaci,” Hyatt Hotel, Cologne, Germany, 20 June 1999, Declassified 15 May 2012, The Clinton Presidential Library, <http://www.clintonlibrary.gov/declassified.html> (accessed 4 April 2014).

³⁵³Lambeth, 157.

³⁵⁴See Appendix C of this work for a detailed account of the diplomatic endgame that took place between the time period after Task Force Hawk’s radars were operational and the capitulation of Milosevic and subsequent arrival of peacekeepers.

³⁵⁵Albright, “Transcript of Interview with Jim Lehrer of Madeleine Albright,” 10 June 1999.

³⁵⁶*Ibid.*

³⁵⁷Keegan, “Please, Mr. Blair, Never Take such a Risk Again.”

CHAPTER 4

AFTER THE BOMBING

After the war, different manners of assessing the effectiveness of the bombing emerged. At the operational level, NATO headquarters and the U.S. military services attempted to grasp the significance of Operation Allied Force in terms of whether air power had more of an effect by targeting infrastructure or mobile Serb ground forces. Insights from the campaign shaped subsequent military modernization programs, particularly in the U.S. Army, which reacted as if the recent operation threatened its continued maintenance of large armored formations organized around a division-centric structure. At the strategic level, President Clinton and key members of his national security team solidified their belief that bombing was a better option than using ground forces to achieve limited war aims such as that of protecting innocents from the onslaught of ground forces. After the bombing, military and civilian leaders, as well as the general public, gained an overly optimistic outlook on the effectiveness of *solely* employing air power for limited military interventions. This legacy persists today, adding to the United States' propensity to bomb other countries with the faith that such an action will shape the strategic landscape in a favorable manner. In the aftermath of Operation Allied Force, American audiences expect to see precise results and a rapid turn of events when the bombs fall—even without the addition of ground forces.

Operational Assessments of Bombing Effectiveness

On 10 June 1999, Secretary of Defense William Cohen and Chairman of the Joint Chiefs of Staff General Hugh Shelton declared in a joint press conference that NATO, “severely crippled the [Serb] military forces in Kosovo by destroying more than 50 percent of the artillery and one third of the armored vehicles.”¹ Interestingly, the slide used in Cohen and Shelton’s brief (figure 4) indicated that NATO destroyed over 300 Serb artillery pieces in the last ten days of the operation. This time frame coincided with the use of counter-battery radar acquisitions from Task Force Hawk. The briefing, however, did not mention the role of Task Force Hawk’s sensors in the final stages of the campaign. Instead, Secretary Cohen pointed out how precision air power, delivered from long ranges by aircraft such as the B-2, “demonstrated some important lessons.”² He went on to say:

So we have made tremendous strides in our technological advances even since the Gulf War. We have far more precision munitions that are produced at much lower cost. So as we undergo this revolution in military affairs, we will reshape the Army, we will reshape the Air Force in terms of its components, what is going to be required by the Air Force, the Marines, and the Navy.³

In line with Cohen’s statement, the military services commenced an era of military transformation. This transformation accelerated with the election of George W. Bush, who preached the phrase “military transformation” during campaign rhetoric and appointed Donald Rumsfeld as Secretary of Defense to carry out the effort upon winning the 2000 presidential election.⁴

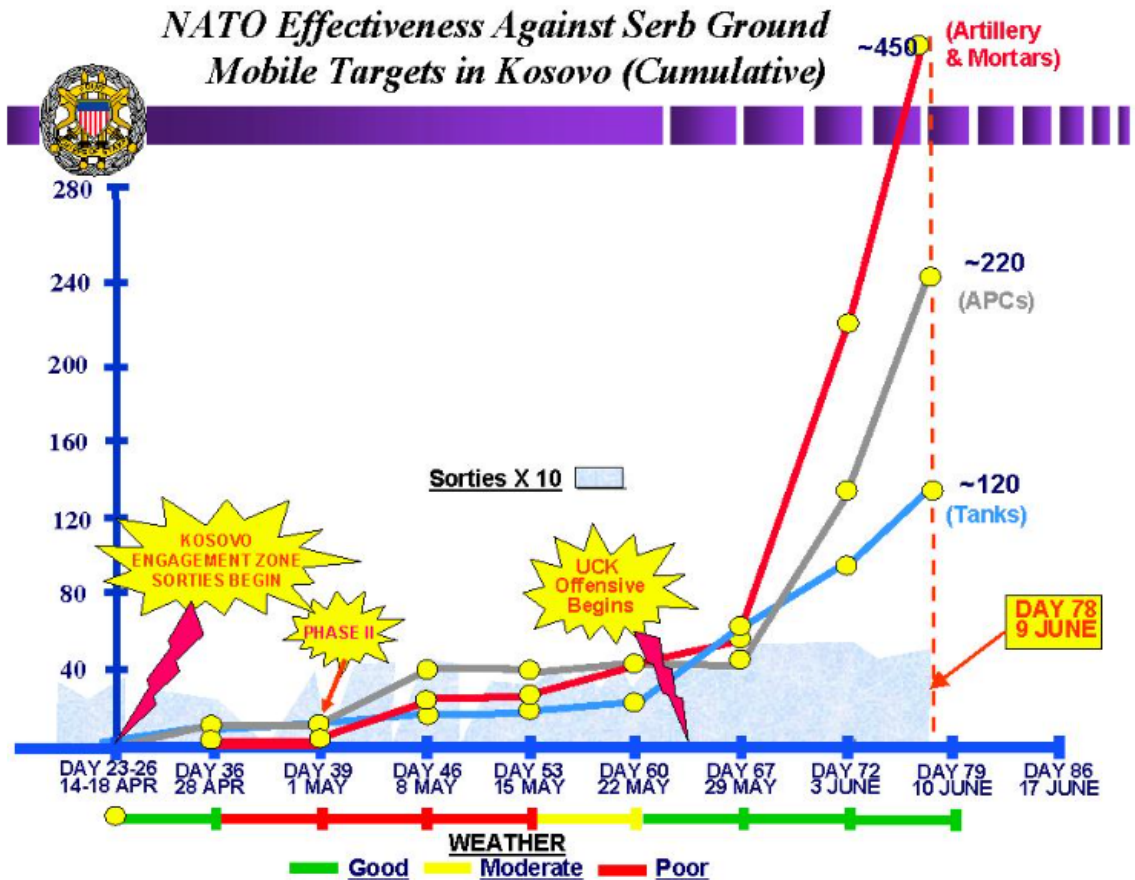


Figure 4. 10 June 1999 Press Briefing Slide, Ground Mobile Targets (Cumulative)

Source: Secretary William Cohen, General Hugh Shelton, and Major General Chuck Wald (J-5), “DoD News Briefing” (Washington, DC: The Pentagon, 10 June 1999)

Shortly after Cohen’s press conference, several newspapers, including *The New York Times*, challenged Cohen and Shelton’s 10 June damage assessment.⁵ In a 28 June article, “Damage to Serb Military Less Than Expected,” journalist Steven Lee Myers said, “In war, initial assessments of damage are often overblown; the oratory almost always is.”⁶ Serbian military leaders added to doubts on whether the bombs actually destroyed the heavy weaponry that NATO claimed.

Serbian air defense posed unresolved challenges for NATO. By not turning on their radars full-time, the Serbian air defense system largely survived NATO's initial SEAD efforts and continued to threaten allied aircraft throughout the campaign. Combined with planning considerations for weather (cloud ceilings) and terrain, the resilient Serbian air defenses kept NATO aircraft flying at over 15,000 feet for most the campaign. This inhibited the ability to effectively target the Serbian army. In particular, mobile ground forces were hard to target even with advanced sensor capability and precision munitions.

Destruction of Serb Mobile Ground Forces

In a June 1999 postwar interview, Lieutenant General Nebojsa Pavkovic, commander of the Yugoslav 3rd Army and overall responsible for Serbian forces in Kosovo, suggested that the ability to damage his army from the air proved inconsequential. He claimed that Serb forces lost only thirteen tanks, six armored personnel carriers, and twenty-seven artillery pieces.⁷ Three months after the campaign, at a NATO press conference in September 1999, General Wesley Clark unveiled an operational assessment backing Cohen and Shelton's earlier claims. Eight months later, in May 2000, a *Newsweek* article challenged GEN Clark's assessment by highlighting significant problems in the methodology used to back claims on Serbian Army battle damage.⁸ Table 6 indicates how the various postwar damage claims aligned with each other.

Table 6. Comparison of Post-Strike Damage Assessments

Comparison of Post-Strike Damage Assessments				
	Tanks / Self-Propelled Guns	Armored Personnel Carriers	Artillery and Mortars	Military Vehicles
Cohen and Shelton (June 1999)	120	220	450	N/A
Serb Military Claims (June 1999)	13	6	27	N/A
Clark and NATO (September 1999)	93	153	389	339
<i>Newsweek</i> (May 2000)	14	18	20	N/A

Source: Rebecca Grant, “True Blue: Behind the Kosovo Numbers Game,” *Air Force Magazine*, 83, no. 8. (August 2000): 75; John Barry and Evan Thomas, “The Kosovo Cover-Up,” *Newsweek*, 135, no 20, (15 May 2000): 22; Wesley Clark (SACEUR) and Corley, John (Chief, Kosovo Mission Effectiveness Assessment Team), “Press Conference on the Kosovo Strike Assessment” NATO Headquarters, 16 September 1999, <http://www.nato.int/kosovo/slides/m990916a.htm> (accessed 4 January 2014).

On 16 September 1999 General Clark presented findings on the results of the air campaign in a press conference at NATO headquarters in Brussels. Along with him at this press conference was Brigadier General John Corley, Chief of the Kosovo Mission Effectiveness Assessment Team (MEAT). Some of the officers on this team would later refer to themselves as “dead meat” due to the high-stakes impact the study results had on their careers and performance reviews.⁹ In the three months after the conclusion of Operation Allied Force, BG Corley’s thirty-person team conducted battle damage assessments by correlating information from aircrew mission reports, on-site findings, forward air controller interviews, cockpit video, pre-strike and post-strike imagery, and witnesses. His team included Colonel Ed Boyle, who did planning and coordination in

the Combined Air Operations Center in Vicenza, Italy during the campaign, as well as Colonel Brian McDonald, who led the ground assessment team in Kosovo. BG Corley, COL Boyle, and COL McDonald were all at the press conference with General Clark. To varying degrees, all of these officers had an interest in proving the effectiveness of the bombing, lest they reveal their potential incompetence during the planning stages of the campaign.¹⁰

Prior to the press conference, upon hearing that the ground team was surveying the ground from helicopters and only seeing numerous destroyed cars and buses but very few tanks, General Clark said, “Goddammit, drive to each one of those places. Walk the terrain.”¹¹ During the press conference, when asked by Craig Whitney, from the *Washington Post*, how the figures of destroyed APCs, tanks, and military vehicles, artillery, and mortars compared with assessments at the immediate end of the conflict, Clark stated that, “They’re actually pretty close to the figures we had at the end of the conflict. We were saying 110 tanks, 210 armored fighting vehicles or APCs, and about 449 artillery and mortars.”¹² Clark used the slide (depicted in figure 5) during the press conference.

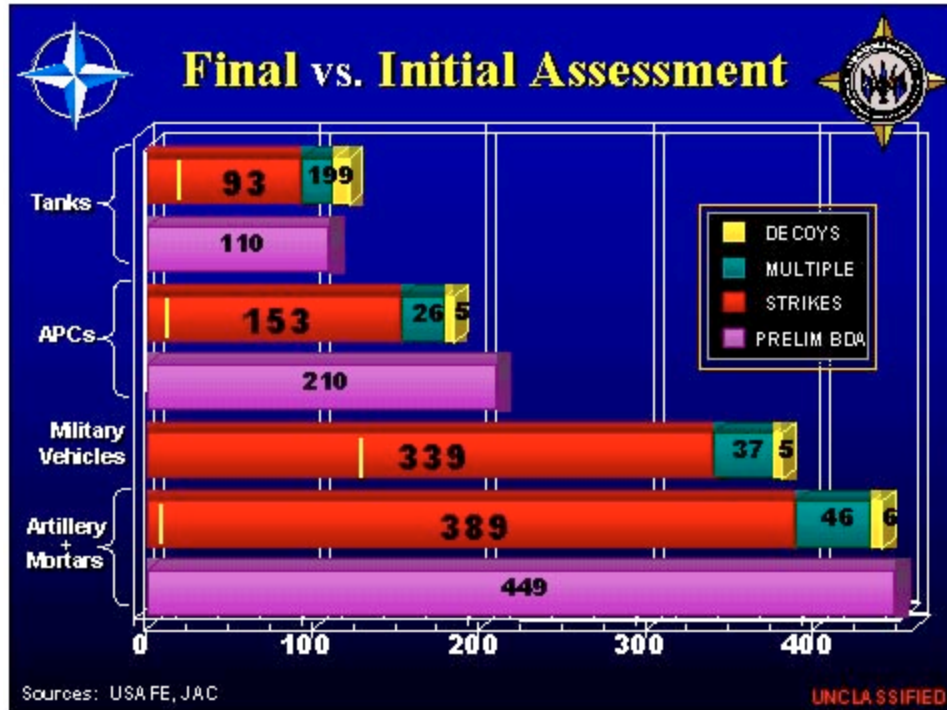


Figure 5. Allied Force NATO Press Conference Slide

Source: Clark, *Final vs. Initial Assessment* (Brussels: NATO, 16 September 1999).

This chart indicated (in purple) NATO’s initial battle damage assessment at the end of the campaign as compared to the “final assessment” of BG Corley’s team. The red, green, and yellow colors on each row correspondingly indicate the successful strikes (red), multiple successful strikes (green), or strikes made on decoys (yellow) as concluded by BG Corley’s team. The impact of bombing Serbian infrastructure was a secondary effort during the study. By focusing mostly on the damage to Serbian military equipment, the assessment may have presupposed that damaging the Serbian army led to Milosevic’s capitulation. On 31 January 2000, Secretary Cohen and General Shelton subsequently presented Congress with an after-action report (AAR) on Operation Allied

Force that included Clark's revised figures from the 16 September 1999 press conference. Soon thereafter, the postwar damage claims became the subject of more controversy.

The May 2000 issue of *Newsweek* featured an article refuting the claims made by General Clark and his staff. In this magazine, journalists John Barry and Evan Thomas said they obtained a "suppressed Air Force report" with lower damage estimates, and referred to an unnamed senior NATO staff officer who said BG Corley's report was all "smoke and mirrors."¹³ Barry and Thomas claimed that Corley's team recorded strikes as "successful," in some cases, based merely on a correlation between cockpit video and a flash from a reconnaissance satellite. As indicated on Table 6, the *Newsweek* claims aligned closely with those of Serbian General Pavkovic. Three months after the *Newsweek* article, *Air Force Magazine* contributing editor Rebecca Grant, a former analyst for the Office of the Secretary of the Air Force, argued that the "suppressed" report was simply an incomplete "working draft" of the assessment NATO produced in September 1999.¹⁴ In her article, "True Blue: Behind the Kosovo Numbers Game," she claimed that the methodology used by General Clark's team "turned out to be the most complete and careful review of strike data in the history of air warfare."¹⁵ The enthusiastic portrayal of the NATO report's accuracy by an air power advocate was undoubtedly a self-interested move—standing behind the credibility of an Army general to advance the motive of further investment in Air Force capabilities.

Milosevic's "Deep Battle"

In the latter days of the air campaign, the Serbian army suffered considerable damage, yet it continued to put up air defenses while using camouflage and decoys to mitigate the impact of air power. Moreover, after the bombing started, the Serbian army

commenced a campaign of ethnic cleansing that accelerated despite NATO’s efforts, generating a significant exodus of refugees to neighboring countries in the region.¹⁶

Assuming the refined NATO assessment on 16 September 1999 was correct, the damage to the Serbian army, in proportion to both its total forces and solely those committed in Kosovo, as depicted in table 7, was significant.

Table 7. Damage to Serbian Ground Forces

	Total Serb Army Strength	Serbian Forces Deployed In Kosovo	NATO's Revised Tally of Destruction	Assets Removed From Kosovo After the Bombing	Destruction as a Percentage of Deployed Forces	Destruction as a Percentage of Total Serb Army Forces
Tanks	1270	350	93	220	26.6%	7.3%
APCs	825	450	153	300	34.0%	18.5%
Artillery	1400	750	389	308	51.9%	27.8%

Source: Created by author from multiple sources. Wesley Clark (SACEUR) and Corley, John (Chief, Kosovo Mission Effectiveness Assessment Team), “Press Conference on the Kosovo Strike Assessment,” NATO Headquarters, 16 September 1999); Anthony H. Cordesman, “The Effectiveness of the NATO Tactical Air and Missile Campaign Against Serbian Air and Ground Forces in Kosovo,” Working Paper (Washington, DC: Center for Strategic and International Studies, August 2000).

The difference between NATO’s initial estimate of the Serb forces committed in Kosovo versus the estimate of what departed after the bombing, minus the damage claims, reveals a margin of error of thirty-seven tanks, three APCs, and fifty-three artillery pieces.¹⁷ This indicates that either NATO’s estimates of Serb forces in Kosovo were inflated or the bombing damage estimates were too high. In any case, the figures vary by far less than the supposed underestimates on the order of several hundred that the

Gulf War Air Power Survey revealed in the aftermath of Desert Storm. In relative terms, NATO's Kosovo estimates were in line with those of the Gulf War Air Power Survey, deviating by less than ten percent in terms of tanks and artillery destroyed from the air.¹⁸ The 1991 bombing of Iraq, however, was shorter than the Kosovo campaign. In any case, both campaigns similarly had the limited objective of dislodging an enemy army from a piece of real estate with pre-defined borders. One difference, however, was Milosevic's use of refugees as strategic ploy.

By the end of Operation Allied Force, the Serbs had displaced nearly one million ethnic Albanians.¹⁹ GEN Clark referred to the highly orchestrated expulsion of refugees as Milosevic's "deep battle," saying:

Now he was using refugees to destabilize the country. What all the pressure from Serbia hadn't been able to do, tens of thousands of Albanian refugees could: they could split the government apart, and the country with it. Macedonia was Yugoslavia's deep battle. If Milosevic could knock it out of the war, NATO would be driven away from his southern border, lose its base areas, and forfeit any realistic ground option.²⁰

Indeed, the president of Macedonia, Kiro Gligorov, asked GEN Clark to evacuate Camp Able Sentry so the Macedonian government could use this location to accommodate the growing influx of refugees.²¹ The large flow of refugees overwhelmed the government of Macedonia and spurred a public health crisis.²² Within the camps, the population swelled even further as pregnant refugees gave birth to an average of two babies per day.²³ The strain caused by refugees contributed to Gligorov's refusal to allow NATO to base Task Force Hawk and its Apache contingent inside Macedonia. For a weekly breakdown of refugee flows from 23 March to 8 June 1999, see Appendix B of this work.

U.S. Marines, Task Force Hawk, and “Deep-Strikes”

The U.S. Marines proved the most aggressive in bombing targets acquired with counter-battery radar, though it was still challenging to identify camouflaged targets from high altitude despite knowing where to look. After the war, Lieutenant Colonel Philip C. Tissue, a Marine pilot, described the typical process, in the closing weeks of the campaign, whereby F/A-18s struck Serb artillery spotted by counter-battery radars:

Shortly after we arrived on station, the airborne battlefield command-and-control center (ABCCC) passed us grid coordinates of a Serbian artillery site that was reported to be firing on U.S. troops. Grid coordinates were passed using Have Quick (a frequency-agile net); they had probably been forwarded from U.S. counter-battery radars attached to Task Force Hawk located in Albania. Obviously, we wanted to destroy this target quickly, but we were frustrated. Minimum altitude restrictions, as well as NVG and F/A18D forward-looking infrared radar (FLIR) limitations, made detection of a camouflaged enemy at night difficult at best. We could see with the naked eye the intermittent muzzle flashes of artillery firing from Kosovo into Albania, but the targets could not be pinpointed with enough accuracy to ensure that we did not mistakenly bomb civilians or even U.S. troops. Ultimately, an Air Force FAC(A) in an A-10 illuminated the area with multiple infrared (IR) flares, detected an artillery site, and ran a section of Marine Hornets on it. The FAC(A) appeared to be conducting reconnaissance by fire, and then figuring that if he received anti-aircraft artillery (AAA) in return, the shooters must be bad guys. Two F/A-18Ds dropped two 500-pound bombs, and the Serbs were done firing for the night. The target may or may not have been hit or destroyed, but apparently just the knowledge that air was poised to strike shut down every Serb artillery position along the border with Albania.²⁴

F/A-18Ds from LTC Tissue’s Marine All-Weather Fighter Attack Squadron 533 flew their first missions in Kosovo on 28 May 1999, near the end of the campaign. LTC Tissue noted that typical training exercises at Twenty-Nine Palms’ bombing ranges incorporated targets in the open that aircrews could easily identify rather than camouflaged vehicles placed in tree lines that might allow pilots to get a better sense of how these appeared on their forward-looking infrared radar while flying at high altitudes.²⁵ Although Marine aviation normally focused on providing air support for ground forces, they ended up

needing support from the ground forces to find targets in Kosovo. U.S. Air Force commanders also acknowledged their dependence on U.S. Army sensors.

Lieutenant Colonel Chris “Kimos” Haave, the commander of the 81st Fighter Squadron during the conflict, applauded Task Force Hawk in his book, *A-10s Over Kosovo*. LTC Haave wrote, “when a Serb artillery unit fired on a Kosovar village, the U.S. Army’s counterbattery radar could plot the Serb’s position.”²⁶ He went on to acknowledge that the U.S. Army’s electronic warfare assets determined the location of enemy command posts.²⁷ Compared with other sources of information fused by the CAOC’s force-level execution (FLEX) targeting cell, the U.S. Army’s information was “usually quite accurate,” according to Haave.²⁸ Fortunately, Task Force Hawk, though not employed in a deep-strike role, provided this critical targeting information.

In 2002, the U.S. Army commissioned a study by the RAND Corporation’s Arroyo Center to determine why Task Force Hawk’s assets were not fully integrated into the Kosovo campaign. The result, *Disjointed War*, determined that Task Force Hawk added a significant capability, in terms of its sensors, despite not employing the Apaches; however, the failure to designate a land component commander, even in an air-only campaign, hindered coordination.²⁹ In addition, the study mentioned that had COL Odierno been in charge of Task Force Hawk he would not have had as good a working relationship with LTG Short as LTG Hendrix did, due to the difference in rank.³⁰ *Disjointed War* did not dispute the validity of the employment concept for the Apache deep strike mission in Kosovo, however. Based on their research, the authors of the report pieced together how Task Force Hawk intended to employ the Apaches, as depicted in figure 6:

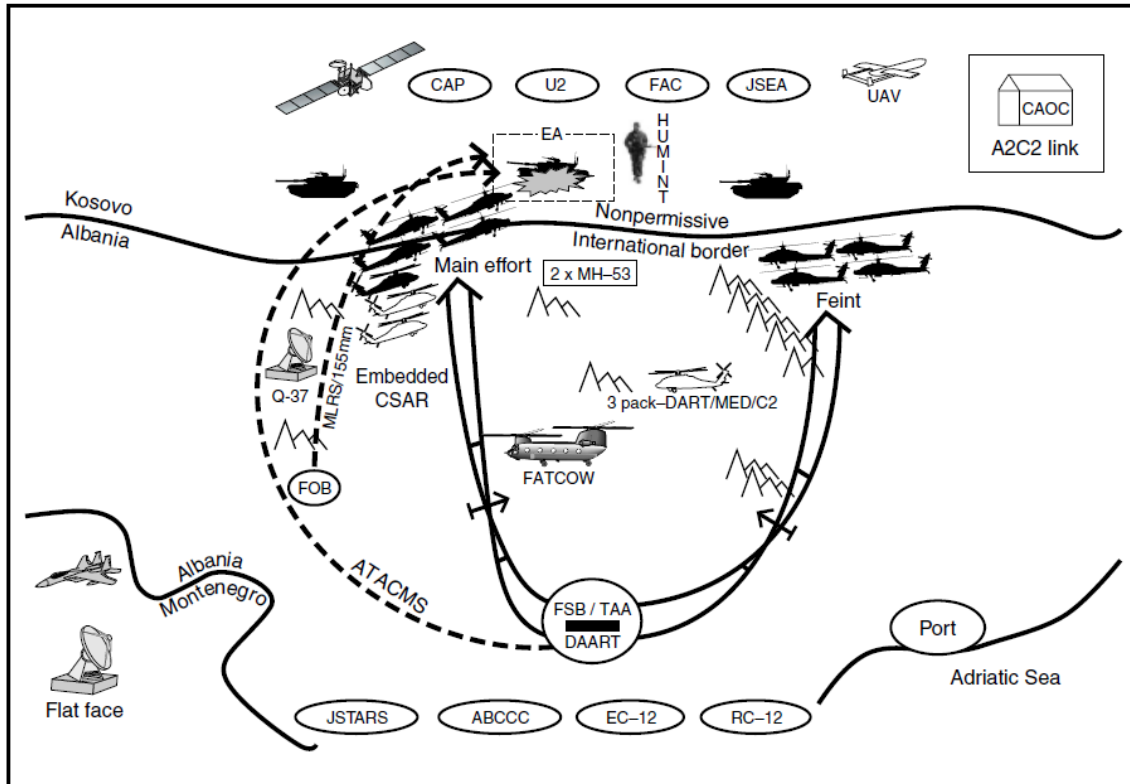


Figure 6. Apache “Deep Strike” Concept for Kosovo

Source: Bruce R. Nardulli, Walter L. Perry, Bruce Pirnie, John Gordon IV, and John G. McGinn, *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica: RAND, 2002), 84.

The 11th Aviation Regiment configured their Apaches with an extended range fuel system consisting of one to four 230 gallon external fuel tanks in order to reach their targets. The Apache, which normally carries up to sixteen hellfire missiles, could only carry as few as one to four hellfire missiles, 440 rounds of 30mm ammunition, and seventy-six 2.75 inch rockets with the extra fuel tanks.³¹ Task Force Hawk had an inventory of around 800 hellfire missiles in Albania.³² Despite all of this available firepower, a March 2001 General Accounting Office (GAO) report on Army lessons from the conflict revealed that Task Force Hawk did not have any maps of the Albania or

Kosovo at the outset of the operation and had to transfer intelligence data manually with higher headquarters due to incompatible systems.³³ Based on these challenges, the GAO report concluded that the Army should “digitize” at a faster pace.³⁴ In contrast, the authors of the 2002 RAND report concluded that joint forces could still successfully employ Apaches and rocket artillery in a deep-strike mission during “the initial phase of a future campaign,” as long as there were no “political constraints.”³⁵

One year later, during the invasion of Iraq in March 2003, the vulnerability of the Apache became evident when the 11th Aviation Regiment’s thirty-two aircraft retreated from their attempted “deep strike” against the Medina Division of the Republican Guard after defenders struck thirty-one of the aircraft with rifle fire.³⁶ The Iraqi Army downed one Apache and paraded the captured crew, Chief Warrant Officers David Williams and Ronald Young, on television.³⁷ This embarrassment spurred the Army’s Training and Doctrine Command (TRADOC) to rethink its doctrinal constructs for deep Apache strikes.³⁸ In the late 1990s, however, attack helicopter doctrine clearly stated that such operations were “high-risk.”³⁹ Thus, after a situation without political constraints proved that the original doctrine was correct in stating that such operations were “high-risk,” TRADOC cautiously decided to change the doctrine because they deemed it too risky to employ Apaches far ahead of friendly lines when the other side shoots back.

Destruction of Infrastructure Targets

Targeting infrastructure was one of the most divisive issues among NATO members during in the air campaign. Overall, only 30 percent of NATO’s strike sorties focused on Serb ground forces. The daily air tasking order (ATO) directed the remainder of efforts against air defenses and infrastructure targets, though the daily breakdown of

this ratio indicated a higher proportion of missions against ground forces near the end of the campaign.⁴⁰ This was because, near the end of the operation, hardly any infrastructure remained in Serbia that could be claimed of military value and that had not already been hit after taking into consideration collateral damage restrictions. In fact, GEN Clark expressed that NATO might run out of targets in Serbia when GEN Shelton called on 3 June and said, “Just keep bombing. Forget about the targets in Kosovo and go after targets in northern Serbia.”⁴¹ At this point, political leaders in the United States believed that the continued targeting of Serb ground forces might compromise Milosevic’s recent decision to meet with negotiators and discuss a settlement. In contrast, Europeans (and Clark) wanted to keep the pressure on ground forces.⁴²

Throughout the campaign, members of the NATO alliance unanimously agreed on targeting the Serb army’s heavy weapon systems, but had significant disagreement on whether it was appropriate to target factories, power plants, oil refineries, television stations, barracks, airfields, and bridges. At the conclusion of the bombing, French President Jacques Chirac bragged that his personal involvement and objections in NATO target selection matters ensured that there were still bridges intact across the Danube River at the end of the campaign.⁴³

On 5 May 1999, shortly after Secretary Cohen prohibited GEN Clark from speaking to the media, when answering the standard daily question from Craig Whitney of how many tanks were struck, NATO representative Major General Walter Jertz noted:

When I was talking about the 20 percent [of tanks destroyed so far] keep in mind that I always quote SACEUR—a tank is not a tank is not a tank—a tank, even if it is not destroyed, if it is hiding somewhere and it doesn’t have any fuel and it doesn’t have any ammunition, it just does not have any combat effectiveness so even though you were asking for numbers of the last few days, numbers always

have to be related to the kind of operations we are in so if a tank cannot move there is no difference if it is destroyed or if it is out of order or if it has no ammunition, the effectiveness is exactly the same.⁴⁴

MG Jertz's reasoning behind targeting oil refineries, petroleum storage, tank factories, and ammunition storage depots connected the targeting of infrastructure back to reporters' continual focus on how many tanks NATO destroyed on a particular day. Throughout the campaign, NATO spokespersons had a difficult time convincing journalists the reasoning behind targeting infrastructure, since the media's focus remained on tank plinking.

In the final tally of infrastructure damage, NATO assessed that it destroyed eleven railroad bridges, thirty-four highway bridges, 29 percent of all Serb ammo stockpiles, 57 percent of petroleum reserves, all oil refineries, and ten airfields.⁴⁵ In addition to artillery decoys, however, the Serbs also developed fake bridges that NATO repeatedly bombed. In one case, aircraft struck a phony bridge near Djakovica several times, with one munition punching a hole precisely through the center before splashing in the water.⁴⁶ The Serbs constructed this bridge with logs and a black tarp.⁴⁷ In another case, ground forces protected a real bridge by constructing a fake bridge made of polyethylene laid across a river six hundred feet upstream from the actual crossing.⁴⁸ NATO "destroyed" this bridge several times.⁴⁹ Often, these infrastructure decoys, though probably comical from up close, fooled reconnaissance satellites, intelligence analysts, military planners, and NATO aircraft. Nevertheless, the pressure exerted on Milosevic from taking out 100 percent of Serbia's refinery capacity and shutting down the power in Belgrade was real and likely caused widespread discontent from the local population. It is difficult to determine, however, whether bombing infrastructure spurred anger towards Milosevic or

NATO. This type of resentment can go either way in a conflict, potentially backfiring on those that feed the flames. After all, Sun Tzu urged caution when making war with fire.⁵⁰ Though he was literally talking about setting things on fire in ancient times, the logic still applies to modern times in new ways.

Postwar U.S. Army Modernization Efforts

On 22 June 1999, in an interview with *The Washington Post*, retired Air Force Major General Charles Link said, “As a result of Kosovo, I’d expect there’d be more careful scrutiny of some heavy systems that hardly ever seem to be taken to war these days, and hopefully a little more respect and appreciation for those Air Force capabilities that get there quickly, are easily integrated in coalition operations and provide only fleeting or invisible targets for enemy guns.”⁵¹ MG Link’s statement highlighted the catalyst for various military modernization programs in the aftermath of the Kosovo intervention. For the U.S. Air Force, operations in Kosovo seemingly validated their “Halt-Phase” concept, which entailed cutting the size of the U.S. Army in order to increase investment in air force capability.⁵² Naturally, the “Halt-Phase” concept, much like the 2010 “Air-Sea Battle” concept, sparked a great deal of concern, whether founded or not, within the U.S. Army in the aftermath of Kosovo.⁵³

The perceived success of air power during Operation Allied Force threatened the relevancy of the U.S. Army as configured in 1999. The rapid deployment of a brigade-sized unit via cargo aircraft became a significant part of the Army’s focus in terms of modernization. This was due in part to the slow deployment of Task Force Hawk, which was brigade-sized. At the annual Association of the United States Army (AUSA) conference on 12 October 1999, General Eric K. Shinseki, the Army Chief of Staff,

introduced a major plan to reorganize the entire army around modular brigades equipped with the Future Combat System (FCS), a suite of equipment deployable anywhere in the world by C-130 aircraft to dirt landing strips within 96 hours from notification.⁵⁴ Combined with the efforts of Boeing and Science Applications International Corporation (SAIC), the U.S. Army's FCS program picked up enough momentum to last through the wars in Iraq and Afghanistan, to a decade later, in 2009, when the full-scale program ended. By this time, the widespread use of improvised explosive devices challenged the FCS program's original design parameters, which depended on increased situational awareness from a network of sensors as a substitute for the cumbersome protection of thick, heavy steel. In the decade after Kosovo, however, the U.S. Army attempted to build an agile force that relied on information superiority to maneuver out of contact with the enemy while simultaneously delivering long-range precision fires. Conceptually, this transformation endeavor distanced the Army from land power's traditional role of closing with the enemy by embracing a ground version of what air power already offered.

The impetus for the Army's postwar modernization program came during the middle of the Kosovo campaign, as air power seemed unable to turn the tide. On 16 April 1999, journalist Thomas Ricks wrote an article in *The Wall Street Journal* entitled, "Gung-Ho but Slow: Why the U.S. Army Is Ill-Equipped to Move Into Kosovo Quickly." Ricks argued that the Army, if called upon to do so, was not capable of rapidly moving an armored force into Kosovo to expel the Serbian army from its onslaught against the ethnic Albanians.⁵⁵ Recognizing this problem, Senator McCain, who favored using a ground force, said, "There has got to be a fundamental restructuring of the Army."⁵⁶ Army leaders, spurred by these calls for reform, took notice of Colonel Douglas

Macgregor's book, *Breaking the Phalanx: A New Design for Landpower in the 21st Century*, which called for a significant reorganization of the Army by flattening expansive headquarters elements to create streamlined combined arms "combat groups" incorporated into standing joint headquarters.⁵⁷

Although the U.S. Army rejected COL Macgregor's ideas, instead adopting a modular brigade structure in line with the Future Combat Systems program, *Breaking the Phalanx* spurred significant debate within the defense establishment on how to restructure and modernize the Army. After Macgregor's retirement, Secretary of Defense Donald Rumsfeld took notice of his ideas, believing that General Shinseki's estimates and military planners' requests for forces (RFF) were too large in the 2002-3 buildup to the Iraq invasion.⁵⁸ Earlier, in December 2000, Secretary Rumsfeld read *Breaking the Phalanx* and was particularly fascinated with Chapter 5, "Fighting with the Information Age Army in the Year 2003."⁵⁹ This chapter described a fictional scenario whereby the United States invaded Iraq, toppled Saddam's regime, and installed a friendly government—all in two weeks' time.⁶⁰ One week after the invasion of Iraq, on 26 March 2003, Rumsfeld optimistically stated:

There is no comparison. The weapons that are being used today have a degree of precision that no one ever dreamt of in a prior conflict—they didn't exist. And it's not a handful of weapons; it's the overwhelming majority of weapons that have that precision. The targeting capabilities and the care that goes into targeting to see that the precise targets are struck and that other targets are not struck is as impressive as anything anyone could see.⁶¹

There were problems, however, with Rumsfeld's fascination with "information age" technology and precision munitions. Success in land warfare was not just a matter of accurately striking targets while avoiding retaliation. Despite this, starting in 1999, the

U.S. Army attempted to build a lightweight force that fought with precision munitions from standoff ranges.

In 2002, RAND conducted a simulation where the U.S. Army fought the Kosovo scenario with a Brigade Combat Team (BCT) equipped with the Future Combat System in the year 2020.⁶² In this scenario, given the circular error probable (CEP) of various theoretical munitions (such as GPS-guided 155mm Excalibur artillery rounds and new MLRS rockets) then under development, the U.S. Army could not minimize collateral damage to the levels that the 1999 air campaign in Kosovo achieved. As a point of reference, the 1991 Gulf War killed 50,000 civilians with collateral damage from bombs, by conservative estimates, as compared to the less than 1,000 civilians inadvertently killed in the 1999 Kosovo operation.⁶³ Privately, President Clinton took pride in the fact that he killed 49,000 less civilians with air power than President George H.W. Bush did during Operation Desert Storm.⁶⁴ Contrary to the U.S. Army's clean vision for future land warfare, during the 2002 RAND simulation, munitions from the Future Combat System unexpectedly killed 14,327 civilians by shooting "precision" artillery and rockets at the same targets destroyed by allied air forces in the Kosovo campaign.⁶⁵

In April 2009, Secretary of Defense Robert M. Gates cancelled the Army's \$200 billion Future Combat Systems program.⁶⁶ When referring to the program in his memoirs, Secretary Gates said, "The program, like so many in Defense, was designed for a clash of conventional armies."⁶⁷ Gates believed that the use of remote sensors and networked communications to compensate for heavy armor did not take account of "the lessons of counterinsurgency and close-quarters combat in Iraq and Afghanistan."⁶⁸ Although the development of precision indirect fires, as envisioned by the U.S. Army's

Future Combat System, ended, the idea persisted in an altered form. Instead, in the aftermath of Operation Allied Force, many political leaders believed that air power could deliver such effects from afar, precluding the risk of exposing ground forces to hostile action.

Strategic Level Perceptions on Air Power after the Campaign

Prior to Operation Allied Force, Secretary of State Madeleine Albright, in referring to General Colin Powell's 1993 protest against air strikes in Bosnia, stated, "It wasn't easy being a civilian woman having a disagreement with the hero of the Western world. But maybe he'd want to rewrite that page now."⁶⁹ The page Albright spoke of was in Powell's autobiography, *My American Journey*, where he described his disagreement with Albright's 1995 plea for airstrikes in Bosnia. Albright said she "felt some vindication" in the fact that the airstrikes in Bosnia commenced on the same day that Powell's book went on sale.⁷⁰ Yet this same sense of vindication did not come as easily in 1999. Because the Kosovo air campaign lasted nearly four times longer than the Bosnia air campaign, by the end of the bombing in Kosovo, Americans perceived they were in a perpetual state of war—several years before the era of weekly drone strikes—yet they did not seem concerned. The lack of friendly casualties nourished this sense of comfort with aerial warfare. It was business as usual.

Three weeks after the conclusion of Operation Allied Force, in a private meeting, President Clinton sarcastically stated that "nearly 80 percent of Americans" thought that the bombing campaign was still going on.⁷¹ In line with Clinton's assessment of public awareness of events, Gallup polls revealed that over half of Americans did not know the location of Kosovo at the onset of the war, with 34 percent of those polled saying they

thought Kosovo was either in Africa, Southeast Asia near Cambodia, or somewhere in Central Asia.⁷² Initially, on 25 March 1999, only 40 percent of Americans knew which side (Serb or Kosovar) the United States bombed.⁷³ Two weeks into the campaign, however, 69 percent of those polled correctly identified Serbian forces as the adversary.⁷⁴ This suggests that Americans are visual learners, quickly absorbing the names of places and people after they see aircraft dropping bombs at them on television.

Clinton attributed the lack of public knowledge that the air campaign ended to the fact that Milosevic was still in power in the immediate aftermath.⁷⁵ Americans preferred to see the figurehead enemy leader either killed, executed, or on trial at the end of a campaign to get a sense of finality with military operations.⁷⁶ Nevertheless, Operation Allied Force proved a “win” in public perceptions, though one must consider the marginal level of awareness that Americans displayed with keeping track of current events and world geography.

Before the bombing, only 46 percent of Americans supported military intervention in Kosovo.⁷⁷ In contrast, after the bombing, public approval of Clinton’s decision to intervene with force was at an overwhelming majority of 68 percent.⁷⁸ This illustrated that Clinton purposefully used air power to intervene with limited initial public support, assuming that success through air power would garner increasing public support over time. Perhaps Clinton thought that it would be easy to stir the passions of the ill-informed masses in his favor if the bombing proved successful. In the end, Operation Allied Force was a risky gamble that ultimately paid dividends—of the kind that continue to tempt American leaders towards military intervention with air power.

National Security Advisor Sandy Berger added the sentence, “I do not intend to put our troops in Kosovo to fight a war,” to President Clinton’s speech on the eve the Kosovo campaign.⁷⁹ His reasoning behind adding the sentence was to garner support from an uncertain public and Congress by limiting the scope of the intervention up front. In previous conflicts, American presidents struggled to gain congressional support for their military endeavors. Ironically, during the Kosovo intervention, by ruling out the use of ground forces from the onset, Congress instead pressured the president to escalate the campaign.⁸⁰ The Clinton administration spent more time trying to prevent both Congress and Britain’s Tony Blair from expanding the conflict than it did in attempting to garner wartime support.⁸¹ Nevertheless, after the bombing, in referring to Clinton’s speech on 24 March 1999, Berger claimed, “We would not have won the war without this sentence,” believing that ruling out ground forces held together the fragile NATO alliance.⁸² That said, the implied promise not to use ground forces undoubtedly encouraged Serbia to defy the NATO effort.

After the bombing, Clinton defended his decision not to employ ground forces at the onset of the intervention, stating:

Some people have argued that our position would have been more defensible if we had sent in ground troops. There were two problems with that argument. First, by the time the soldiers were in position, in adequate numbers and with proper support, the Serbs would have done an enormous amount of damage. Second, the civilian casualties of a ground campaign would probably have been greater than the toll from errant bombs.⁸³

Like Albright, Clinton cited the newspaper article written by John Keegan as evidence of “a new chapter in military history.”⁸⁴ Clinton wrote, “He [Keegan] said the reason such campaigns had failed in the past is that most bombs had missed their targets. The weaponry used in Kosovo was more precise than that used in the first Gulf War.”⁸⁵ The

day after the air campaign ended, on 11 June 1999, Clinton, along with a Congressional delegation, visited Whiteman Air Force Base in Missouri in order to praise the efforts of the B-2 crews, stating, “with remarkable precision, our forces pounded every element of Mr. Milosevic's military machine—from tanks to fuel supply, to anti-aircraft weapons, to the military and political support.”⁸⁶ Clinton also lauded the accomplishments of the other services, saying, “I know the Air Force is grateful for the radar jamming provided by Navy and Marine aircraft,” and lastly, he thanked the U.S. Army for “taking care of the refugees.”⁸⁷ Thus, President Clinton viewed air forces as the decisive component of the campaign, based upon advances in precision weaponry, while thinking that ground forces were too blunt of an instrument to be decisive and better suited for stability operations.

The United States' participation in Balkan peacekeeping became a recurring issue during the 2000 presidential campaigns of Republican candidate George W. Bush and Democratic candidate Al Gore. In a debate moderated by Jim Lehrer on 12 October 2000, Governor Bush said, “I think it's a triumph. I thought the President [Clinton] made the right decision in joining NATO in bombing Serbia.”⁸⁸ Later in the debate, however, Bush cautioned, “we can't be all things to all people in the world,” attempting to distinguish himself as less interventionist-minded than Al Gore.⁸⁹

Eleven months after that debate, in the aftermath of terrorist attacks against the World Trade Center in 2001, President George W. Bush reportedly told four Virginia senators, “When I take action, I'm not going to fire a \$2 million missile at a \$10 empty tent and hit a camel in the butt. It's going to be decisive.”⁹⁰ Bush was referring to Clinton's 1998 launch of cruise missiles against suspected Al Qaeda sites in Afghanistan.

After rapidly toppling the Taliban regime in Afghanistan, by 2003, President Bush shifted the nation's focus towards Saddam Hussein's regime in Iraq.

On 5 February 2003, Secretary of State Colin L. Powell addressed the UN Security Council in New York City, calling for "regime change" in Iraq. That same month, Ballantine Books published an updated version of *My American Journey* that included an addendum with Powell's UN speech in an effort to promote American enthusiasm and legitimacy for the pending invasion.⁹¹ On 3 February 2003, in preparation for Secretary Powell's speech at the UN headquarters, officials draped a blue curtain over a reproduction of Picasso's *Guernica*, which was located at the entrance to the building where key diplomats typically make press statements.⁹² Using abstract figures, Picasso's painting depicted the aerial bombardment of Guernica, Spain, by Italian and German warplanes on 26 April 1937. Although the attack was actually aimed at a military unit moving across a bridge, the inadvertent civilian casualties from the bombing generated popular resentment for the notion of aerial warfare directed against civilians.⁹³ With *Guernica*, Picasso symbolized the horror of bombing of civilian population centers along the lines of air power theorist Giulio Douhet's thinking. In the painting, according to art critic David Cohen, "the chopped-up, fragmentary treatment of form makes the image more startling and conveys violence."⁹⁴ Based on this assessment, the painting was likely not a good backdrop for Powell's call for military action in Iraq. Ironically, in a 1956 interview, Picasso said that the painting "will do the most good in America."⁹⁵ In 1967, however, pro-war artists signed a petition urging Picasso to have the painting removed from the United States for the duration of the Vietnam War.⁹⁶ Yet the painting remained, serving as a reminder of the unintended consequences of aerial warfare during

the Spanish Civil War. But perhaps, in the minds of those who decided to cover the replication tapestry of *Guernica* at the UN building, the wars of the future would be clean and precise, with aerial forces as the decisive arm. The use of air power in accordance with Giulio Douhet's ideas was a thing of the past. John Warden and "shock and awe" were the future.⁹⁷

¹John Barry and Evan Thomas, "The Kosovo Cover-Up," *Newsweek*, 135, no. 20 (15 May 2000): 22.

²William S. Cohen, "DoD News Briefing Transcript," *DoD Press Operations* (Washington, DC: The Pentagon, 10 June 1999, 1605 hours eastern daylight time), <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=487> (accessed 16 April 2014).

³*Ibid.*

⁴Thomas L. McNaugher, "The Real Meaning of Military Transformation: Rethinking the Revolution," *Foreign Affairs*, 86, no. 1 (January-February 2000): 14.

⁵Steven Lee Myers, "Damage to Serb Military Less Than Expected," *New York Times*, 28 June 1999, <http://www.nytimes.com/1999/06/28/world/crisis-in-the-balkans-the-toll-damage-to-serb-military-less-than-expected.html?pagewanted=all&src=pm> (accessed 4 January 2014).

⁶Myers, A1.

⁷Rebecca Grant, "True Blue: Behind the Kosovo Numbers Game," *Air Force Magazine*, 83, no. 8 (August 2000): 75.

⁸*Ibid.*

⁹Barry and Thomas, 23.

¹⁰Douglas MacGregor, email message to author, 4 February 2014. COL MacGregor (retired) served as the Director of Joint Operations at Supreme Headquarters Allied Powers Europe (SHAPE) during Operation Allied Force. In an email discussing the challenges of targeting mobile ground forces, he stated, "I assume you know we never degraded the Serb air defenses below 83 percent. AF Leadership warned Clark in Nov 1998 that if we did not hit Serb forces in the motor pool we probably wouldn't hit anything in Kosovo. They were right. Twelve tanks, thirteen SP Guns and ninety assorted trucks and countless decoys are all we hit. I personally discussed this on the ground in

Kosovo in June 1999 with USAF Colonel MacDonald who led the BDA assessment team. He was later forced to lie under threat of losing his future employment. Clark and Jumper knew the truth and decided to lie. The British generals including Rupert Smith were disgusted but were ordered by UK MOD to back up whatever Clark said.”

¹¹Barry and Thomas, 23.

¹²Wesley Clark (SACEUR) and John Corley (Chief, Kosovo Mission Effectiveness Assessment Team), “Press Conference on the Kosovo Strike Assessment” NATO Headquarters, Brussels, 16 September 1999, <http://www.nato.int/kosovo/slides/m990916a.htm> (accessed 16 April 2014).

¹³Ibid.

¹⁴Grant, 74.

¹⁵Ibid., 76.

¹⁶Jamie Shea, “Press Conference of NATO Spokesman, Jamie Shea and Air Commodore, David Wilby, SHAPE,” 28 March 1999, <http://www.nato.int/kosovo/all-frce.htm> (accessed 16 April 2014).

¹⁷These numbers are based upon comparing the data in table 7.

¹⁸Hallion, *Storm Over Iraq: Air Power and the Gulf War*, 205.

¹⁹Steve Erlanger, “Milosevic Yields on NATO’s Key Terms: 50,000 Allied Troops to Police Kosovo,” *New York Times*, 4 June 1999, <http://www.nytimes.com/1999/06/04/world/crisis-balkans-overview-milosevic-yields-nato-s-key-terms-50000-allied-troops.html?pagewanted=all&src=pm> (accessed 22 January 2014).

²⁰Clark, *Waging Modern War*, 235.

²¹Ibid.

²²Bill Hemmer, “New Surge of Kosovo Refugees Threatens to Overwhelm Camps,” *CNN*, 27 April 1999, <http://www.cnn.com/WORLD/europe/9904/27/kosovo.refugees.02/> (accessed 22 January 2014).

²³Ibid.

²⁴Phillip C. Tissue, “21 Minutes to Belgrade,” *Proceedings* 125, no. 9 (September 1999): 40.

²⁵Ibid.

²⁶Christopher E. Haave and Phil M. Haun, *A-10s Over Kosovo: The Victory of Airpower Over a Fielded Army as Told by the Airmen Who Fought in Operation Allied Force* (Maxwell, AL: Air University Press, 2003), 141.

²⁷*Ibid.*

²⁸Haave, 141.

²⁹Nardulli et al., *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica: RAND, 2002), 114.

³⁰*Ibid.*, 77.

³¹Hal Klopper, "U.S. Army Evaluated New Fuel Tank for AH-64D Apache Longbows," Boeing, 2 February 1997, <http://boeing.mediaroom.com/1997-10-13-U.S.-Army-Evaluates-New-Fuel-Tank-For-AH-64D-Apache-Longbows-Internal-Unit-Offers-Greater-Range-Increased-Safety-in-Combat> (accessed 22 January 2014).

³²Nardulli et al., 83.

³³Neal P. Curtin, *Kosovo Air Operations: Army Revolving Lessons Learned Regarding the Apache Helicopter* (Washington, DC: Government Accounting Office, March 2001), 19.

³⁴*Ibid.*, 15.

³⁵Nardulli et al., 140.

³⁶Thomas E. Ricks, *Fiasco* (New York: Penguin Press, 2006), 119.

³⁷BBC, "Iraq shows off Apache crew," 25 March 2003, http://news.bbc.co.uk/2/hi/middle_east/2883043.stm (accessed 22 January 2014).

³⁸Michael Puttre, "Rethinking Combat-Helicopter Doctrine," *Journal of Electronic Defense*, 26, no. 12. (December 2003): 28.

³⁹Department of the Army, FM 1-112, *Attack Helicopter Operations* (Washington, DC: Government Printing Office, 2 April 1997), 1-7; Also see Chapter 3: Employment.

⁴⁰Anthony H. Cordesman, "The Effectiveness of the NATO Tactical Air and Missile Campaign Against Serbian Air and Ground Forces in Kosovo," Working Paper (Washington, D.C: Center for Strategic and International Studies, August 2000), 18-19.

⁴¹Clark, 352.

⁴²*Ibid.*

⁴³Urban, “NATO’s Inner Kosovo Conflict.”

⁴⁴Walter Jertz, “Press Conference Given by Mr. Jamie Shea and Major General Walter Jertz,” 6 May 1999, <http://www.nato.int/kosovo/all-frce.htm> (accessed 16 April 2014).

⁴⁵Cohen and Shelton, 82.

⁴⁶Steven Lee Myers, “Damage to Serb Military Less Than Expected,” *New York Times*, 28 June 1999, <http://www.nytimes.com/1999/06/28/world/crisis-in-the-balkans-the-toll-damage-to-serb-military-less-than-expected.html?pagewanted=all&src=pm> (accessed 20 January 2014).

⁴⁷*Ibid.*

⁴⁸Cordesman, 24.

⁴⁹*Ibid.*

⁵⁰Sun Tzu, *Sun Tzu on the Art of War*, Translated by Lionel Gates (London, Luzac and Company, 1910), chapter XII. The Attack By Fire.

⁵¹Bradley Graham, “Air Force, Army Battle for Lead in Future Wars,” *Washington Post*, 22 June 1999, A1.

⁵²Earl H. Tilford, “Halt Phase Strategy: New Wine in Old Skins. . .With Powerpoint” (Monograph, Strategic Studies Institute, Carlisle, PA, 23 July 1998), 3.

⁵³For a discussion on the Army’s reaction to Air Sea Battle see: John T. Kuehn, “Air-Sea Battle and its Discontents,” *Proceedings* 139, no. 10/1,328 (October 2013): 43-47.

⁵⁴Robert H. Gregory, “Army Transformation and the Future Combat System” (Master’s Thesis, Naval Postgraduate School, (Monterey, CA, 2008), 1.

⁵⁵Thomas Ricks, “Gung-Ho But Slow: Why the U.S. Army Is Ill-Equipped to Move Into Kosovo Quickly,” *The Wall Street Journal*, 16 April 1999, A1.

⁵⁶*Ibid.*

⁵⁷Douglas Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport: Praeger, 1997), 73-89.

⁵⁸Douglas Macgregor, “Rumsfeld’s War,” Transcript of Interview with Douglas Macgregor, *PBS Frontline*, 26 October 2004, <http://www.pbs.org/wgbh/pages/frontline/shows/pentagon/interviews/macgregor.html> (accessed 22 January 2014).

⁵⁹Ibid.

⁶⁰Macgregor, *Breaking the Phalanx*, 95-131.

⁶¹Derrick Z. Jackson, "Beware Military Hype on Technology," *The Boston Globe*, 26 March 2003, A15.

⁶²John Matsumura et al., *Exploring Advanced Technologies for the Future Combat Systems Program* (Santa Monica, CA: RAND, 2002), 4.

⁶³Branch, *The Clinton Tapes*, 552.

⁶⁴Ibid.

⁶⁵Matsumura et al., 74.

⁶⁶Noah Schachtman, "Pentagon Chief Rips Heart Out of Army's 'Future,'" *Wired*, 6 April 2009, <http://www.wired.com/dangerroom/2009/04/gates-rips-heart/> (accessed 19 January 2014).

⁶⁷Robert M. Gates, *Memoirs of A Secretary at War* (New York: Alfred A. Knopf, 2014), 320.

⁶⁸Schachtman, 1.

⁶⁹Sciolino, "Madeleine Albright's Audition."

⁷⁰Ibid.

⁷¹Branch, *The Clinton Tapes*, 555.

⁷²"Location of Kosovo?" *Gallup*, 19 February 1999, <http://media.leidenuniv.nl/legacy/Poll%20Data%20Kosovo.pdf> (accessed 16 April 2014); Pollsters asked respondents the following question, "Just from what you might know, which of the following would you say best describes Kosovo?" a) Is in the Balkans region of Central Europe, north of Greece; b) It is located in Central Asia, and was part of the Soviet Union before it broke up; c) Is in Central African and was a former possession; c) Is in Southeast Asia, near Burma and Cambodia; or e) Don't know. Based on these questions (from a sample size [N] of 1,000) 42 percent selected a; 26 percent selected b; 8 percent selected c or d; 24 percent selected e.

⁷³"Which side is the US supporting and opposing in Kosovo," *Los Angeles Times*, Polling Data, 25 March 1999, <http://media.leidenuniv.nl/legacy/Poll%20Data%20Kosovo.pdf> (accessed 16 April 2014); Respondents were asked, "Do you know which side the United States is supporting (in Kosovo) or haven't you heard enough about it yet to say? (If yes, ask) Which group is the US opposing?" Only 37 percent of respondents said that the US supported the Albanian Kosovars, given four possible choices. N = 544.

⁷⁴“Which side will the US be bombing?” *Fox News*, Polling Data, 7-8 April 1999, <http://media.leidenuniv.nl/legacy/Poll%20Data%20Kosovo.pdf> (accessed 16 April 2014); The question was, “From what you know about the conflict in Kosovo, which side with the United States be bombing: the Serbs, or the Albanians?”

⁷⁵Branch, *The Clinton Tapes*, 555.

⁷⁶Barbara F. Walter, “Why Does the US Suddenly Prefer Its Enemies Dead,” 21 September 2012, <http://politicalviolenceataglance.org/2012/09/21/why-does-the-us-suddenly-prefers-its-enemies-dead/> (accessed 25 February 2014); Also see: “Most in U.S. Favor Death if Saddam is Convicted,” *Associated Press*, 8 March 2006.

⁷⁷Thomas Knecht, *Paying Attention to Foreign Affairs: How Public Opinion Affects Presidential Decision Making* (University Park, PA: Penn State Press, 2010), 1.

⁷⁸*Ibid.*, 1.

⁷⁹*Ibid.*

⁸⁰Kim, *Kosovo and the 106th Congress*, 14.

⁸¹Clinton, *My Life*, 851; Clinton mentioned both Congress and Britain’s efforts to expand the campaign, writing, “opposition to our policy was coming from both directions.”

⁸²Daalder and O’Hanlon, 97.

⁸³Clinton, *My Life*, 851.

⁸⁴*Ibid.*, 859.

⁸⁵*Ibid.*

⁸⁶Office of the Press Secretary, “Remarks by the President to Whiteman Air Force Base Personnel,” 11 June 1999, <http://clinton6.nara.gov/1999/06/1999-06-11-remarks-by-the-president-at-whiteman-afb.html> (accessed 12 April 2014).

⁸⁷*Ibid.*

⁸⁸George W. Bush, “Presidential Debate Excerpts: Gov. George W. Bush vs. Vice President Al Gore,” *PBS News Hour*, Transcript, 12 October 2000, http://www.pbs.org/newshour/bb/politics/july-dec00/for-policy_10-12.html (accessed 22 January 2014).

⁸⁹*Ibid.*

⁹⁰Howard Fineman, “A President Finds His True Voice,” *Newsweek*, 24 September 2001, 50.

⁹¹Colin Powel, *My American Journey* (New York, Ballantine Books Revised Edition, February 2003), addendum, 608-642.

⁹²David Cohen, "Hidden Treasures: What's so controversial about Picasso's Guernica?" *Slate Magazine*, 6 February 2003, http://www.slate.com/articles/news_and_politics/the_gist/2003/02/hidden_treasures.html (24 January 2014).

⁹³John Corum, "The Persistent Myths of Guernica," *Military History Quarterly* 22, no. 4 (Summer 2010): 16.

⁹⁴*Ibid.*

⁹⁵*Ibid.*

⁹⁶Matthew Israel, *Kill for Peace: American Artists Against The Vietnam War* (Austin, TX: University of Texas Press, 2013): 22.

⁹⁷Margaret Warner and John Warden, "Shock and Awe Strategy on Day 3 of the Iraq War," *PBS News Hour*, 21 March 2003, http://www.pbs.org/newshour/bb/military/jan-june03/military_03-21.html (accessed 22 January 2014). In the opening question of Warner's interview with Warden, she asked, "Col. Warden, are we finally seeing the shock and awe campaign that we were expecting?" To which Warden replied, "Margaret, I think we're seeing a pretty good chunk of it and certainly we are seeing an awfully impressive display of our ability to bring very large numbers of important strategic targets under attack at the same time. I would find it very difficult to conceive of how those utterly critical internal security organizations, the things on which Saddam Hussein depends, I find it very difficult to think that they could really be functioning and could maintain the degree of repression that they need to if even the guy is still alive." Warner: Very carefully selected targets. Warden: Very carefully selected.

CHAPTER 5

BOMBING LIBYA

Operation Allied Force inspired NATO's 2011 intervention in Libya. Several key members of President Barack Obama's national security team had significant experiences related to the 1999 air campaign in Kosovo—Hillary Clinton as First Lady, Susan Rice as an Assistant Secretary of State, and Samantha Power as a journalist. These three individuals weighed heavily on Obama's decision to intervene in Libya.

Just as during Operation Allied Force, the air campaign in Libya exposed significant challenges in the ability to find and target mobile ground forces from the air without having NATO troops on the ground to spot targets. Ultimately, NATO solved this problem in Libya by coordinating directly with rebel fighters via the internet. In each campaign, NATO aircraft destroyed similar quantities of the heavy weaponry (tanks, artillery, and armored personnel carriers) employed by ground forces. Yet in the Libyan campaign, fewer allied aircraft participated, and the bombing lasted nearly three times as long as the seventy-eight day campaign in Kosovo. Nevertheless, the two campaigns had similar dynamics that are evident in the political motive for intervention and the operational employment of air power.

The Decision to Intervene

In the lead up to American intervention in Libya, Vice President Joseph R. "Joe" Biden, Secretary of Defense Robert M. Gates, Chairman of the Joint Chiefs of Staff Admiral Michael Glen "Mike" Mullen, National Security Advisor Thomas E. "Tom" Donilon, White House Chief of Staff William Michael "Bill" Daley, Homeland Security

Advisor John Owen Brennan, and Deputy National Security Advisor Dennis Richard McDonough opposed involvement. In contrast, Secretary of State Hillary R. Clinton, United Nations (UN) Ambassador Susan E. Rice, Samantha Power (Special Assistant to President Obama and Senior Director for Multilateral Affairs and Human Rights on the National Security Council), and Benjamin J. “Ben” Rhodes (Assistant to the President and Deputy National Security Advisor for Strategic Communications and Speechwriting) favored an air campaign against Muammar Gaddafi. The aforementioned principal figures on Obama’s national security team debated their positions during an hour and a half meeting with the President on 17 March 2011.¹ According to Gallup public opinion polls in March 2011, fewer than half of Americans supported military action in Libya.² Despite this confluence of opinions, President Obama decided to intervene, privately revealing that it was a “51-49 call” based on his assessment of the situation.³

At the diplomatic level, the main difference between the Kosovo and Libya intervention was that UN Resolution 1973 authorized NATO to establish a no-fly zone and “use all necessary measures to protect civilians from attacks by forces led by Muammar Gaddafi.”⁴ This resolution added international legitimacy to the Libyan intervention. In Kosovo, however, the United States did not press for a UN resolution because Richard Holbrook and Strobe Talbot confirmed through diplomatic back channels that Russia would veto any attempt to authorize force against Serbia. Contrasting this, prior to the Libya intervention, Ambassador Rice successfully managed to get China and Russia to abstain from voting on the resolution.⁵ The 2005 UN initiative regarding the “responsibility to protect,” commonly known as R2P, established a new international norm that diminished the idea of state sovereignty during instances where

governments facilitated or allowed “mass atrocity crimes” within their borders.⁶ This idea contributed largely to the UN authorization for intervention in Libya.⁷

Secretary Gates revealed his frustration during the Obama administration’s deliberation to intervene in Libya, saying “I had four months left to serve, and I was running out of patience on multiple fronts, but most of all with people blithely talking about the use of military force as though it were some kind of video game.”⁸ According to Gates, the White House and national security staff did not fully understand military options, and supposed “experts” like Samantha Power would hold the most weight with Obama in deciding whether to intervene militarily.⁹

Samantha Power gained a reputation for expertise on military matters as a journalist reporting on intervention in the Balkans during Clinton’s presidency. In 2002, she won a Pulitzer Prize for her work *A Problem from Hell: America and the Age of Genocide*.¹⁰ In 2013, when announcing her selection to replace Susan Rice as UN ambassador, President Obama said, “She showed us that the international community has a moral responsibility and a profound interest in resolving conflicts and defending human dignity.”¹¹ Senator John McCain, who consistently promoted widening U.S. military involvement in just about every global crisis since the mid-1980s, embraced Power, saying that she was “well-qualified” for her new position.¹² With the *exclusive* use of air power, military intervention found bi-partisan support, though for different reasons. In 2011, when asked by members of Congress whether the Libyan intervention would include ground forces, Secretary Gates impetuously answered, “Not as long as I’m in this job.”¹³ Subsequently, in March 2011, the United States commenced an air campaign in Libya that ruled out the use of ground forces (except to rescue downed pilots).

In a speech on 18 March 2011, the day after deliberations by the NSC, President Obama announced that the United States and its allies would intervene in Libya with military force, stating that the U.S. would “provide the unique capabilities that we can bring to bear to stop the violence against civilians,” yet cautiously added, “the United States is not going to deploy ground troops into Libya.”¹⁴ The “unique capabilities” referred to by the President included the ability to destroy Libyan air defenses, aerial refueling, unmanned aircraft, and precision munitions. In contrast with the Kosovo intervention, the political objective in Libya went further than merely expelling ground forces from a piece of terrain—Gaddafi had to be removed from power. In seeking this objective, the United States, Britain, and France committed the most resources. U.S. President Barack Obama, British Prime Minister David Cameron, and French President Nicolas Sarkozy presented a united front, jointly signing a letter that stated, “it is impossible to imagine a future for Libya with Gaddafi in power.”¹⁵

Operation Unified Protector Begins

Operation Unified Protector, which took place from 31 March to 31 October 2011, was NATO’s air campaign against the Libyan armed forces of Muammar Gaddafi. Prior to transitioning to a NATO-led operation, from 19-31 March, the air campaign initially started as Operation Odyssey Dawn, led by the United States’ Africa Command. President Barack Obama and his advisors intended for the initial air strikes to destroy Libyan air defenses, after which NATO would take the lead. By 24 March, during the transition between Operations Odyssey Dawn and Unified Protector, air strikes had neutralized the air defenses of pro-Gaddafi forces in Libya, as indicated by Vice Admiral Bill Gortney during a press briefing where he used on the slide depicted in figure 7:



Last 12 Hours

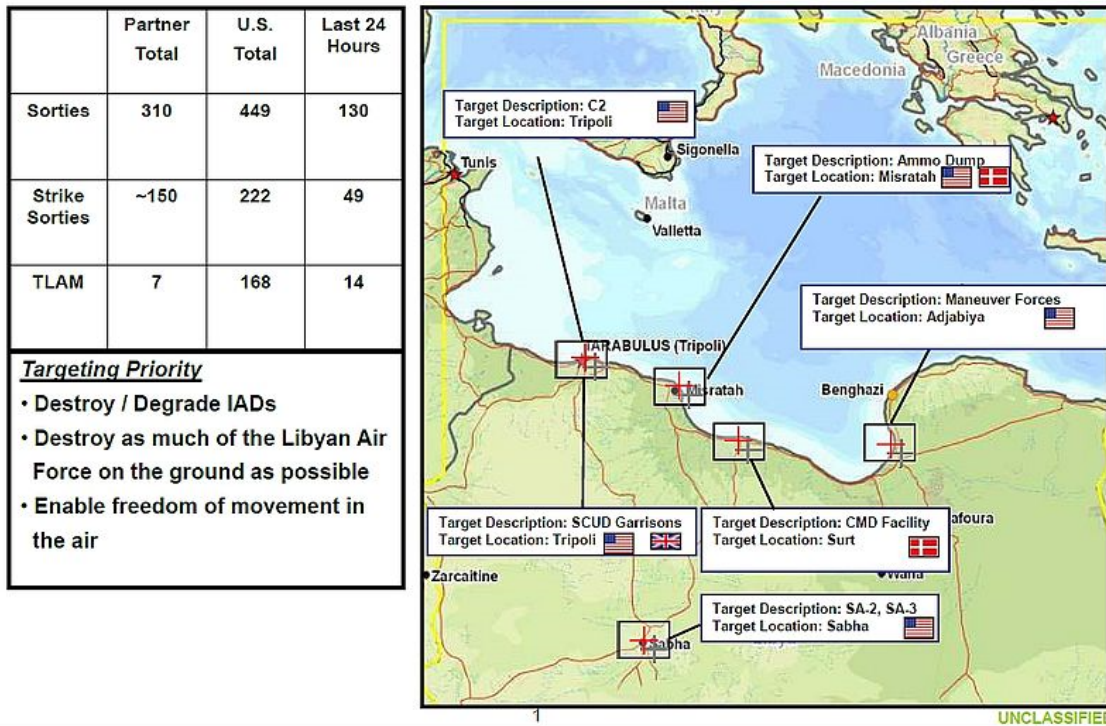


Figure 7. Operation Odyssey Dawn, 24 March 2011 Briefing Slide

Source: Vice Admiral Bill Gortney, Director of the Joint Staff, “DOD News Briefing with Vice Adm. Gortney from the Pentagon on Operation Odyssey Dawn,” Department of Defense Press Operations (Washington, DC: The Pentagon, 24 March 2011).

After 24 March, the focus shifted to interdiction of ground maneuver forces, with the first targets in Adjabiya, south of Benghazi, as depicted in figure 7.¹⁶ Once again, as with Operation Allied Force, the NATO alliance exclusively used air power, this time to subdue ground forces in Libya. Compared to Kosovo, however, the terrain in Libya was open desert, the weather was more favorable, and the adversary put up less sophisticated air defenses. Despite these advantages, NATO initially had a hard time distinguishing

between the rebels and pro-Gaddafi forces. This was due to not having anyone on the ground to provide accurate information on enemy and friendly dispositions.

In one instance, on 8 April 2011, in open desert terrain, NATO mistakenly bombed a rebel column of around twenty captured T-55 and T-72 tanks.¹⁷ In frustration, rebel military leader General Abdul Fatah Younis, who defected to the rebels on 22 February 2011 (and was formerly the number two person in Gaddafi's regime), stated:

We informed them [NATO] at the time the tanks were leaving Benghazi, and when they arrived at Ajdabiya. We informed them that in the early morning they would be advancing on Brega. We gave them [NATO] all the information concerning their number, and that they would be carried on tank transports, and their direction.¹⁸

During an 8 April NATO press briefing, Rear Admiral Russell Harding, the British deputy commander of the air campaign stated, "I'm not aware what General Younis has said today or yesterday, but I'm not apologizing. The situation on the ground, as I said, was extremely fluid and remains extremely fluid and up until yesterday we had no information that the TNC [Transitional National Council] or the opposition forces were using tanks."¹⁹ Consequently, new methods of coordination emerged.

Initially, NATO dropped leaflets informing Libyans of a telephone hotline for passing information.²⁰ But the rebels did not use the hotline. Instead, after the tank incident, rebel fighters painted the tops of their vehicles pink and passed information to NATO with Twitter in order to prevent further "friendly fire" episodes.²¹ In yet another precautionary measure, starting on 26 April, French aircraft began dropping inert 660-pound precision-guided bombs filled with concrete to "literally crush" enemy tanks while avoiding collateral damage from explosions.²² Halfway through the campaign, using Twitter as an impromptu method of coordination, NATO commenced air strikes against

targets spotted by Libyan rebel ground forces. This indicated a greater level of NATO integration with rebel forces as compared to the alliance's belated coordination with the KLA in 1999. Regardless, in both campaigns, extensive cooperation with ground forces was necessary to prevent collateral damage, particularly when armored forces interspersed with innocent civilians in urban terrain. As operations continued, on 22 June, among Americans who originally advocated the intervention, 85 percent favored continuing the bombing until rebel forces removed Gaddafi from power.²³ The lack of NATO casualties and perception of low collateral damage nurtured the appeal of air power. The success of air power, however, still depended on a ground component.

Air-Ground Integration with Twitter

In 2011, Google Earth and Twitter, which were not available during Operation Allied Force, enhanced NATO's synchronization with Libyan rebel forces. During an interview with CNN's Anthony Bourdain on the show *Parts Unknown*, Libyan rebel fighter Akram Al-Gdery described the methods used to pass on targets from rebel ground forces to NATO air forces. When asked to explain how NATO aircraft were able to strike tanks, artillery, and other vehicles with success, he stated:

How did it happen? Easy—Twitter. We sent so much information to NATO via Twitter. I get a phone call from [rebel ground forces in] Tripoli or Benghazi or whatever. We get the coordinates [of the target] via Google Earth. We verify that that is the location there that needs to be hit, send it to NATO—then it is gone.²⁴

The unique aspect of Twitter, as compared to other social media, is that information can be sent from mobile phones without a data plan or more sophisticated 3G or 4G cellular networks. The 140-character limit on messages (tweets) facilitated the use of “Twitter shortcode” even in remote areas with a nascent cell phone infrastructure.²⁵ Rebel forces

only needed a mobile phone connection to make posts to Twitter (referred to as “tweets”) using text messaging with basic Short Message Service (SMS) protocols.

Just as in Operation Allied Force, effective targeting during Operation Unified Protector required accurate target location data passed from ground forces. The use of Twitter and Google Earth, in the hands of tech-savvy rebels who spotted targets, provided NATO the sort of data that Task Force Hawk’s sensors added during strike operations in Kosovo. As a point for comparison, near the end of the Kosovo air campaign, on 6 June 1999, counter-battery radars from Task Force Hawk passed more than fifty artillery radar acquisitions to air forces.²⁶ In contrast, with Twitter, rebel ground forces passed a far greater volume of “tweets” containing targeting information in a shorter time period. For example, the message stream for the general topic of “Libya” on 18 January 2014 contained an average of sixty-two tweets per hour.²⁷ Applying this data rate to more specific information reveals that Libyan rebel headquarters likely received an overwhelming volume of targeting information from numerous dispersed rebel fighters.

To filter this information, operational-level headquarters such as that of rebel fighter Al-Gdery sifted through reports from frontline forces and verified locations with imaging software such as Google Earth prior to tweeting them to NATO headquarters. Additionally, the use of hashtags allowed operations cells to further filter targeting data into various categories, with subsequent messages appearing on pre-defined message threads. To incorporate hashtags, a Twitter user simply puts a pound sign (#) in front of whatever keyword they want to become a category, spelling things out without spaces (for example, #Libyastrike). By doing this, Twitter users tailor the flow of information to suit their specific needs.

Initially, requests for airstrikes via Twitter from ground forces did not include accurate targeting data (although a timestamp and the location of those sending the tweets was available if the Twitter user chose to embed their phone's location data with messages). For example, the following tweet, typical of messages sent early in the campaign, does not contain useful targeting information: "HEY @NATO I SEE TANKS, COME BLOW 'EM UP 4 ME PLZ TY #needbackup #war #gaddafisux #bieberfever."²⁸ Other tweets referred to a town or some other geographical landmark followed by a distance and direction from that point to the enemy's location.²⁹ Although slightly more useful than the first example, this was also not accurate enough to aid in targeting. Furthermore, much of the data sent by rebel fighters did not contain hashtags or the addition of "@NATO" (NATO headquarters official Twitter account) to help in filtering the information to NATO headquarters.³⁰

In a bizarre turn of events, three amateur intelligence analysts helped process data gleaned from Twitter and Google Earth by retransmitting the information (known as "retweeting") in a manner that made it easier for NATO intelligence analysts to access. The first, Janice Clinch, a fifty-nine year old grandmother, worked from her home in Seeley's Bay, Canada, as a site administrator for the Facebook page: "Libyan Youth Movement."³¹ Working in conjunction with Omar Amer, an expatriate Libyan living in Manchester, England, the two individuals, living in separate time zones, kept watch around the clock, monitoring the Twitter feeds of Libyan youth that were members of the Facebook page they administered.³² In one case, Clinch saw that a member of the "Libyan Youth Movement" Facebook site mentioned that Gaddafi forces set up a temporary headquarters near a gas station. Clinch tweeted the coordinates, asking NATO

to “clean up” pro-Gaddafi troops at the location.³³ In an interview with a Canadian newspaper, Clinch revealed that although she had never visited the Arab world or even met anyone from Libya, her motivation was simple—“I don’t believe in dictatorships,” she said.³⁴ A third individual, Robert Rowley, a forty-eight year old Dairy Queen manager in Tucson, Arizona, combed through imagery on Google Earth and monitored the Twitter feeds of naval enthusiasts to catch the movement of Libyan ships violating the naval embargo.³⁵ Rowley’s efforts led to NATO naval interdictions at sea as well as airstrikes on arms warehouses in Libyan shipping yards.³⁶

In a NATO press conference on 10 June 2011, Mike Bracken, the spokesperson for Operation Unified Protector, publicly acknowledged that NATO used information from Twitter to aid in the targeting process, saying:

We’ll get information from open source on the internet, we’ll get Twitter, you name any source of media and our fusion centre will deliver all of that into useable intelligence. The Commander will assess what he can use, what he can trust, and the experience of the operators, the intelligence officers, and the trained military personnel and civilian support staff will give him those options. And he will decide ‘that’s good information, I’m going to act on it.’ So where it comes from, again, it’s not relevant to the commander.³⁷

The next day, on 11 June, the Twitter feed of @HMS_Nosuch, abandoning all pretense of its association with NATO intelligence collection efforts, bluntly stated, “If tweeting the location of pro-G [Gaddafi] forces, state exact latitude & longitude. Don’t assume transliterated Arabic place names are sufficient [to coordinate airstrikes].”³⁸ According to *The Washington Post* and several other news agencies, NATO intelligence analysts managed the Twitter feed of @HMS_Nosuch.³⁹ The profile of this Twitter user, however, described the feed as meant for “updates about Libya from a UK military perspective,” adding that the account was, “unofficial, not run by the Royal Navy nor NATO.”⁴⁰

Nevertheless, this Twitter handle “retweeted” operational updates from NATO’s daily press briefings, highlighting the number and location of airstrikes along with the tally of military hardware destroyed each day in the air campaign thereafter.⁴¹ Alongside this information, perhaps to give encouragement to rebel forces, @HMS_Nosuch “retweeted” messages that contained latitude and longitude of targets sent from rebel fighters associated with the “Libyan Youth Movement” Facebook site.⁴² These tweets often corresponded with several of the targets struck by NATO and briefed in the daily press conference rollup. Even prior to NATO’s admission of using tweets for targeting, Libyan General Abdul Fatah Younis revealed via Twitter on 16 April 2011 that the rebels frequently gave coordinates to NATO via “tweets.”⁴³

After NATO publicly acknowledged that its intelligence fusion cell monitored “tweets” to develop targets for aircraft, the volume and accuracy of tweeted targeting information from rebels increased. The same day that @HMS_Nosuch asked for the exact latitude and longitude of “pro-G forces,” a Twitter user named Suhaib (بهيص) tweeted: “@Nato PLZ Recon Zawiya, Libya Coordinates 32.7429141 N 12.8018618 E for current active #Gadaffi [sic] tanks.”⁴⁴ Earlier, after sending a series of locations to NATO, another user tweeted, “CONFIRMED: Coordinates for positions of more Gaddafi forces near Misurata: 32125190N, 15050767E - HIT THESE TOO! #Libya.”⁴⁵ Conversation threads on Twitter among rebel fighters discussed which smartphone GPS applications worked best for getting coordinates while on the move.⁴⁶ Other users, operating from stationary positions, began taking screenshots of Google Earth position data from their computers, posting the images to Twitter in the form of a “twitpic” (Twitter Picture), as evident in the example depicted in figure 8:



Figure 8. Screenshot of Google Earth Information Sent by Rebel Fighters

Source: Twitpic, Image Tweeted at 1215 Zulu time, 25 July 2011, and associated with the following message: “#Tripoli More Geographic Coordinates of Gaddafi Forces Targets for @NATO . . .#Libya,” Photo available at: <http://twitpic.com/5vmi96/full>. Tweet, <https://twitter.com/FromJoanne> (accessed 16 April 2014).

The user “Joanne ⵓ Leo,” who lived in Tripoli, tweeted the image in figure 8, along with four others, on 25 July 2011.⁴⁷ Interestingly, “HMS_Nosuch” and the “LibyanYouthMovement” followed Joanne on Twitter.⁴⁸ “Following” another Twitter member puts all tweets of the followed person on the news feed of the individual doing the following, thus filtering user content streams. Of the five “twitpics” sent by Joanne on 25 July with the locations of pro-Gaddafi forces, one proposed target was apparently near a site on NATO’s “no-strike list,” as indicated by comments on the picture from another user which stated that loyalist forces hiding near the Tripoli Municipal Sewage Treatment Facility could not be targeted.⁴⁹

During operations in Libya, air-ground integration with the incorporation of Twitter arguably evolved to the point where the method was on par with that of Joint Terminal Attack Controllers (JTACs), the air force personnel who normally work in conjunction with ground forces in order to coordinate airstrikes via radio. As a result of using tweets for targeting, Twitter's website stored a large cache of time stamped historical data during the Libyan campaign that researchers can use for further analysis. In addition to this record, hobbyists listened in on radio broadcasts from NATO's psychological operations, preserving these messages on internet blogs.

NATO conducted psychological operations in Libya using its EC-130J "Commando Solo" aircraft. This aircraft broadcasted radio messages from NATO to Gaddafi, encouraging him to peacefully step down from power.⁵⁰ Amateur radio enthusiasts picked up these transmissions, recorded them, and posted them to internet forums.⁵¹ One such message, transmitted to Gaddafi on 6 June 2011, stated:

NATO has been watching you closely. NATO knows where you are and will continue to watch you. NATO will not tolerate hostile acts or your intent to commit hostile acts against the civilian population. NATO will target and strike military equipment which threatens civilians. As you know, we can strike at any time and place of our choosing if you continue to endanger your people. Prove that you want to safeguard your people by moving away from any land, sea, and air military equipment that threatens the Libyan population. If you are operating military equipment including tanks, armored vehicles, artillery, rocket launchers, ships and aircraft that threatens civilians, you will be targeted by NATO. Move away from all this equipment now to demonstrate that you mean no harm to your people. NATO does not want to kill you. But if you continue to operate, move, maintain, or remain with military equipment of any sort you will be targeted for destruction.⁵²

This message indicated NATO's optimism regarding air power's capacity to strike mobile targets while also forcing Gaddafi to choose between hiding amidst loyal military forces or exposing himself to an increasingly hostile population. Given this dilemma,

Gaddafi chose to hold out until the end, attempting to rally loyalist remnants, maneuvering between his last hideouts with the protection of tanks and armored vehicles.

Operation Unified Protector Ends

After 223 days of bombing, Muammar Gaddafi's regime fell. On 20 October 2011, manned (British and French) and unmanned (American) aircraft of NATO struck eleven armored platforms in a seventy-five vehicle convoy near Sirte, Libya.⁵³ This was the last vestige of the Libyan dictator's regime. Gaddafi was in the convoy. Shortly after the airstrike, rebel fighters converged on fleeing occupants from the disrupted procession, killing Gaddafi. The rebels quickly uploaded numerous videos of Gaddafi's slain body onto YouTube and accordingly started a Wikipedia entry on his death, indicating on Google Earth that the event took place at 31°11'44"N, 16°31'17"E, or with the military grid reference system (MGRS), 33R 44952 52272.⁵⁴ Twitter feeds with the hashtag "Gaddafi" erupted with word that rebels killed the Libyan dictator.⁵⁵ Giving the first official indication that Operation Unified Protector would soon end, on 21 October, SACUER Admiral James Stavridis posted on both Facebook and Twitter: "An extraordinary 24 hours in Libya. As SACEUR, I will be recommending conclusion of this mission to the North Atlantic Council of NATO in a few hours."⁵⁶ Ten days later, on 31 October, NATO air operations ceased.⁵⁷

In the final tally, by its own account, NATO destroyed over 400 artillery pieces and 600 tanks and armored personnel carriers during 223 days of strike operations in Libya.⁵⁸ Throughout Operation Unified Protector, allied aircraft flew 9,700 strike sorties, as compared to the 10,484 strike sorties flown during Operation Allied Force. The 2011 campaign in Libya lasted nearly three times longer than the 1999 Kosovo campaign yet

had only one quarter the number of aircraft participating. Despite these differences, in relative terms, NATO targeted mobile ground forces in Libya with a greater success rate than in Kosovo. By NATO's estimates, in Libya, with 9,700 strike sorties, aircraft destroyed 1,000 mobile heavy weapon systems for a success rate of 9.7 sorties per successful kill (9,700 divided by 1,000) during a 223 day period. In contrast, during operations in Kosovo, with 10,484 strike sorties, NATO destroyed only 635 heavy weapons—a rate of 16.5 sorties per kill (10,484 divided by 635) in a shorter 78 day period. NATO's well-rounded figures in the Libyan campaign indicate a lesser-detailed analysis as compared to that done on the Kosovo campaign by BG Corley's team in 1999. Nevertheless, more accurate targeting data, combined with better terrain and weather for allied air forces, led to greater success in Libya at the tactical level.

Further analysis, including a daily breakdown of the Libya bombing, is necessary to determine whether the use of cell phones and Twitter provided better targeting information than the 5,310 person contingent of Task Force Hawk in Kosovo. Preliminary data, however, indicates that a networked system of sensors (people on the ground) employed by amateur ground forces, albeit one using mobile phones, Twitter, and Google Earth, provided better targeting data than the network of sensors envisioned by the \$200 billion Future Combat Systems program that Secretary Gates cancelled in 2009. Nevertheless, these methods only work in situations where there is both a capacity and willingness to tweet target locations. In Libya, text messages, pictures, videos, and cell phone calls from observers on the ground worked better than counter-battery radars and more expensive sensors such as JSTARS in identifying a wide-range of dispersed mobile targets for NATO headquarters.

From March to July 2012, RAND analyst Frederic Wehrey (a U.S. Air Force reserve officer fluent in Arabic) traveled throughout Libya and interviewed over twenty Libyan rebel commanders.⁵⁹ Wehrey discovered that defectors from the Libyan air force (which the rebel leadership consisted of in disproportionately high numbers) imparted operational-level coherence to the opposition movement, informing amateur front-line fighters about the capabilities and limitations of NATO aircraft.⁶⁰ Accordingly, these former air force officers used their expertise to “shape the application of airpower” by establishing operations centers that interfaced with NATO and plotted friendly and enemy positions using Google Earth.⁶¹ According to Wehrey:

Opposition forces and their sympathizers across the country formed a complex network of spotters, informants, forward observers, and battle damage assessors. Anyone with a cell phone, Google Earth, Skype, Twitter, or email was in a position to report by passing coordinates, pictures, and other data. The problem that NATO faced, therefore, was not a shortage of targeting information, but a flood of it.⁶²

Initially, military commanders within NATO viewed this sort of information with suspicion. According to a French naval officer, “they [NATO headquarters] were very afraid in the beginning because they had no control.”⁶³ From the Libyan perspective, a rebel fighter in Misurata noted, “They [three covert French advisors] were always double-checking our data against their maps.”⁶⁴ Yet from afar, using social media, French intelligence analysts on board a ship in the Mediterranean established a network of 250 contacts in Libya that accurately reported friendly and enemy ground force locations.⁶⁵ By the end of the conflict, NATO’s French contingent gathered 80 percent of its targeting intelligence from social media contacts located on the ground in Libya.⁶⁶ Moreover, in the final three months of the campaign, NATO cut the average response

time from hours to “minutes” for airstrikes based upon ground observation of a target by rebels.⁶⁷

Facebook largely facilitated the instigation of the Libyan rebel movement while Twitter and Google Earth helped with the orchestration of NATO’s bombing; YouTube and Wikipedia captured the history of events. Admiral James Stavridis purposely announced via social media of his forthcoming recommendation to the North Atlantic Council to end air operations over Libya. He found the right moment to end the campaign through the same medium that galvanized its beginnings. Spencer Ackerman of *Wired* described Stavridis’ announcement as “a first in the annals of social media.”⁶⁸ Ackerman subsequently apologized for ranking Admiral Stavridis as number one among the “lamest military Twitter feeds” in his December 2010 article, “The Military’s Worst Tweeters.”⁶⁹ Despite all of the newfound interest in social media for military communications, the factors impacting “information age warfare” were hardly different from those relevant during World War I. Defeat of an opposing army still required friendly ground forces to direct the application of firepower.

¹Gates, 518.

²Gallup, “Americans Shift to More Negative View of Libya Military Action,” 24 June 2011, <http://www.gallup.com/poll/148196/americans-shift-negative-view-libya-military-action.aspx> (accessed 16 April 2014); N=999 adults nationwide. Margin of error ± 4 . Interviews conducted as part of Gallup Daily tracking.

³Gates, 519.

⁴“UN Vote Approves Libya No-Fly Zone; China, Russia Abstain,” *International Business Times*, 17 March 2011, <http://www.ibtimes.com/un-vote-approves-libya-no-fly-zone-china-russia-abstain-276107> (accessed 21 January 2014).

⁵*Ibid.*

⁶Taylor Owen and Anouk Day, “R2P: More than a slogan,” *Toronto Star*, 5 April 2011, http://www.thestar.com/opinion/editorialopinion/2011/04/05/r2p_more_than_a_slogan.html (accessed 24 January 2014).

⁷Owen and Day, 1.

⁸Gates, 512.

⁹Ibid.

¹⁰Samantha Power, *A Problem From Hell: American in the Age of Genocide* (New York: Basic Books, 2002), outside cover page.

¹¹Terry Atlas, “Power Brings Passion to Stop Genocide as Obama’s UN Pick,” *Bloomberg*, 5 June 2013, <http://www.bloomberg.com/news/2013-06-05/power-brings-passion-to-stop-genocide-as-obama-s-un-pick.html> (accessed 20 January 2014).

¹²Ibid.

¹³Gates, 521.

¹⁴Barack Obama, “Remarks by the President on the Situation in Libya,” Office of the Press Secretary, 18 March 2011, <http://www.whitehouse.gov/the-press-office/2011/03/18/remarks-president-situation-libya> (accessed 15 February 2014).

¹⁵Paul Adams, “Libya: Obama, Cameron, and Sarkozy vow Gaddafi must go,” *BBC News*, 15 April 2011, <http://www.bbc.co.uk/news/world-africa-13089758> (accessed 16 February 2014).

¹⁶Bill Gortney, Director of the Joint Staff, “DOD News Briefing with Vice Adm. Gortney from the Pentagon on Operation Odyssey Dawn,” Department of Defense, 24 March 2011, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=4798> (accessed 22 February 2014).

¹⁷C. J. Chivers and Kareem Fahim, “NATO Expresses Regret for Airstrike,” *The New York Times*, 8 April 2011, http://www.nytimes.com/2011/04/09/world/africa/09libya.html?_r=0 (accessed 20 April 2014).

¹⁸Ibid.

¹⁹Russell Harding, “Press briefing on events concerning Libya by Oana Lungescu, the NATO Spokesperson and Rear Admiral Russell Harding, Deputy Commander of the Combined Joint Task Force Operation Unified Protector,” 8 April 2011, http://www.nato.int/cps/en/natolive/opinions_72150.htm (accessed 20 April 2014).

²⁰Florence Gaub, “The North Atlantic Treaty Organization and Libya: Reviewing Operation Unified Protector” (Letort Paper, Strategic Studies Institute, U.S. Army War College Press, June 2013), 23.

²¹Chivers and Fahim, 1.

²²John Reed, “France Dropping Concrete Bombs in Libya,” *Defense Tech*, 29 April 2011, <http://defensetech.org/2011/04/29/france-using-concrete-bombs-in-libya/> (accessed 20 April 2014).

²³Gallup, “Americans Shift to More Negative View of Libya Military Action,” 1.

²⁴Akram Al-Gdery, “Anthony Bourdain Parts Unknown: Libya,” *CNN*, TV Series, Directed by Tom Vitale (Air date: 19 May 2013).

²⁵Matthew Humphries, “Twitter now limits tweets to 117 characters if you include a link,” *Geek.com*, 20 February 2013, <http://www.geek.com/news/twitter-now-limits-tweets-to-117-characters-if-you-include-a-link-1540340/> (accessed 18 February 2014). Based on global communications standards, depending on the alphabet configured on the handset, text messages can contain a maximum of 160 (7-bit), 140 (8-bit), or 70 (16-bit) characters. Also see “Twitter SMS FAQs” at <http://support.twitter.com/articles/14014-twitter-via-sms-faqs>.

²⁶Clark, *Waging Modern War*, 362.

²⁷“Results for #Libya,” *Twitter*, 19 January 2014, <https://twitter.com/search?q=%23libya&src=typd> (accessed 19 January 2014).

²⁸Sam Biddle, “Libyan Rebels Call in NATO Airstrikes via Twitter,” *Gizmodo*, 10 June 2011, <http://gizmodo.com/5810777/libyan-rebels-call-in-nato-airstrike-via-twitter> (accessed 15 February 2014).

²⁹For example, on 9 March 2011, Walid A. Shaari tweeted, “#Gaddafi in Maya 15kms away from #Zawyia,” <https://twitter.com/search?q=libya%20coordinates&src=typd> (accessed 16 April 2014).

³⁰@NATO, Twitter Account Profile Summary, <https://twitter.com/NATO> (accessed 15 February 2014).

³¹“Libyan Youth Movement,” Facebook Page, <https://www.facebook.com/LibyanYouthMovement> (accessed 15 February 2014).

³²Omar Amer, “Libyan Youth Movement Interview on ABC,” *ABC News*, 28 February 2011, <http://www.youtube.com/watch?v=UCKpiiREhyo> (accessed 15 February 2014).

³³Graeme Smith, “How social media users are helping NATO fight Gadhafi in Libya,” *The Globe and Mail*, 14 June 2011, <http://www.theglobeandmail.com/news/world/africa-mideast/how-social-media-users-are-helping-nato-fight-gadhafi-in-libya/article2060965/> (accessed 15 February 2014).

³⁴Ibid.

³⁵Smith, 1.

³⁶Mike Bracken and Oana Lungescu, “Press Briefing on Libya,” 12 July 2011, http://www.nato.int/cps/en/SID-3F433EC3-54CB7AE9/natolive/opinions_76355.htm?selectedLocale=en (accessed 15 February 2014).

³⁷Ibid.

³⁸@HMS_Nosuch, Tweet, 1207 hours Zulu time, 11 June 2011, https://twitter.com/HMS_Nonsuch/status/79444679065731072 (accessed 15 February 2014).

³⁹Tim Bradshaw and James Blitz, “NATO draws on Twitter for Libya strikes,” *The Washington Post*, 15 June 2011, http://www.washingtonpost.com/world/nato-draws-on-twitter-for-libya-strikes/2011/06/15/AGLJpTWH_story.html (accessed 16 February 2014).

⁴⁰@HMS_Nosuch, Twitter Account Profile Summary, https://twitter.com/HMS_Nonsuch (accessed 15 February 2014).

⁴¹Ibid; Scroll to the date range between March and October 2011 of HMS_Nosuch on Twitter to see multiple “retweets of NATO’s daily press update. For example, the NATO operational media on 4 September 2011 (Available: http://www.nato.int/cps/en/natolive/news_71994.htm) was retweeted by HMS_Nosuch. This update indicated the following “key hits” for the previous twenty-four hours of operations: in the vicinity of Bani Walid, one ammunition storage facility; in the vicinity of Hun, one command and control node, six armed vehicles, two military barracks, three military supply vehicles, two engineer support vehicles, one multiple rocket launcher. Most of the mobile targets, along with some of the fixed sites, correspond with location data sent by tweets from rebel fighters.

⁴²@HMS_Nosuch, website data from March to October 2011.

⁴³@LibyaInMe (يَزغ ن ب ن ي ن ح), Tweet, 16 April 2011, <https://twitter.com/LibyaInMe> (accessed 16 February 2014).

⁴⁴Suhaib @libyaunit, Tweet, 0652 hours Zulu time, 11 June 2011, <https://twitter.com/libyaunit> (accessed 16 February 2014).

⁴⁵@LibyanDictator (ءارمزل اقمطاف) Tweet, 22 March 2011, <https://twitter.com/LibyanDictator> (accessed 16 February 2014). This user is followed by the “Libyan Youth Movement” and “HMS_Nosuch.” Another tweet from @Libyanandproud indicated the fluid nature of ground maneuver, stating: “NEGATIVE NEGATIVE, Coordinates changed!! FLUID!” This particular tweet was cited in the following article: Tim Bradshaw and James Blitz, “NATO draws on Twitter for Libya strikes,” *The Washington Post*, 15 June 2011, http://www.washingtonpost.com/world/nato-draws-on-twitter-for-libya-strikes/2011/06/15/AGLJpTWH_story.html (accessed 16 February 2014).

⁴⁶@k_thos, Tweet, 19 June 2011, https://twitter.com/k_thos (accessed 16 February 2014). On 19 June 2011, @k_thos tweeted the link to his article: Kyle McInnes, “Free GPS app gives full GPS functionality for BlackBerry,” 25 May 2009, Accessed 16 February 2014, <http://www.blackberrycool.com/2009/05/25/free-gps-app-gives-full-gps-functionality-for-blackberry/>.

⁴⁷@FromJoanne, Twitter Account Profile Summary, <https://twitter.com/FromJoanne> (accessed 16 February 2014).

⁴⁸Ibid.

⁴⁹“Comments on Twitpic from ‘navyjoc1655,’” 25 July 2011, <http://twitpic.com/5vmjm9> (accessed 16 February 2014).

⁵⁰Noah Shachtman, “Listen: Secret Libya Psyop Caught by Online Sleuths,” *Wired*, 20 March 2011, <http://www.wired.com/dangerroom/2011/03/secret-libya-psyops/> (accessed 16 February 2014).

⁵¹Shachtman, 1.

⁵²“Libya: PSYOP War–NATO to Gaddafi–‘We Will Kill You,’” Radio messages transmitted by EC-130J #01-1935, Call Sign “Steel 74,” Transmitted 6 June 2011 on frequency 10404.0 kHz, <http://libyasos.blogspot.com/2011/10/nato-tape-warns-gaddafi-we-will-kill.html?m=1> (accessed 16 February 2014).

⁵³Timothy E. Book, “NATO’s Air War In Libya: A Template for Future American Operations” (Master’s thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2012): 67.

⁵⁴Google Maps, “Query of Location: 31.195556,16.521389,” <https://maps.google.com/maps?ll=31.195556,16.521389&q=loc:31.195556,16.521389&hl=en&t=m&z=18> (accessed 21 January 2014). Also see: “Death of Gaddafi,” *Wikipedia*, http://en.wikipedia.org/wiki/Death_of_Muammar_Gaddafi (accessed 21 January 2014). Using the algorithms such as the one developed at Montana State University, which is available at <http://www.rcn.montana.edu/resources/tools/coordinates.aspx>, the widely used civilian latitude / longitude location data can be converted to the Universal

Transverse Mercator (UTM) coordinate system. From there, full grid references can be converted to the truncated grid references typically used by the military by simply adding a “0” to the first digit after the three digit zone code. After this, digit 3, 4, 5, 6, and 7 for the northing and easting represent the same digits understood by NATO as part of the Military Grid Reference System (MGRS) in a ten-digit grid coordinate. In communicating with the rebel forces using lat/long coordinates, these sorts of conversions are necessary for effective targeting.

⁵⁵Craig Silverman, “The Story of the Gaddafi Story: How News of the Libyan Leader’s Demise Spread on Twitter,” *Columbia Journalism Review*, 20 October 2011, http://www.cjr.org/the_news_frontier/the_story_of_the_gaddafi_story.php (accessed 21 January 2014). Also see: “Libya: Unconfirmed News of Gaddafi’s Capture,” *Libya Uprising 2011*, 20 October 2011, <http://globalvoicesonline.org/2011/10/20/libya-unconfirmed-news-of-gaddafis-capture/> (accessed 21 January 2014).

⁵⁶James Stavridis, Facebook post, 21 October 2011, <https://www.facebook.com/james.stavridis/posts/296128250397443> (accessed 28 April 2014).

⁵⁷NATO, “We answered the call—the end of Operation Unified Protector,” 31 October 2011, http://www.nato.int/cps/en/natolive/news_80435.htm (accessed 21 January 2014).

⁵⁸NATO, “Operation Unified Protector Final Mission Stats,” 2 November 2011, http://www.nato.int/nato_static/assets/pdf/pdf_2011_11/20111108_111107-factsheet_up_factsfigures_en.pdf (accessed 16 April 2014).

⁵⁹Frederic Wehrey, “The hidden story of airpower in Libya,” *Foreign Policy*, 11 February 2013, http://mideastafrica.foreignpolicy.com/posts/2013/02/11/the_hidden_story_of_airpower_in_libya (accessed 27 April 2014).

⁶⁰Ibid.

⁶¹Ibid.

⁶²Ibid.

⁶³John Pollock, “People Power 2.0: How civilians helped win the Libyan information war,” *MIT Technology Review*, 20 April 2012, <http://www.technologyreview.com/featuredstory/427640/people-power-20/> (accessed 27 April 2014).

⁶⁴Wehrey, 1.

⁶⁵Pollack, 1.

⁶⁶Wehrey, 1.

⁶⁷Pollack, 1.

⁶⁸Spencer Ackerman, “On Facebook, NATO Chief Announces End to Libya War,” *Wired*, 21 October 2011, <http://www.wired.com/2011/10/nato-libya-war-facebook/> (accessed 28 April 2014).

⁶⁹Spencer Ackerman, “General FAIL: The Military’s Worst Tweeters,” *Wired*, 28 December 2010, <http://www.wired.com/2010/12/general-fail-the-militarys-worst-tweeters/> (accessed 28 April 2014).

CHAPTER 6

CONCLUSION: THE ALLURE OF AIR POWER

In the past twenty years, from Operation Desert Storm to Kosovo to Afghanistan to 2011 operations in Libya, the success of air power consistently depended on a ground component. The widespread perception of these recent operations, however, was that air power succeeded on its own. In Kosovo, the U.S. Army provided a ground contingent with Task Force Hawk. As the V Corps commander, LTG Hendrix became the de facto land component commander for General Clark, adding a ground force perspective to air operations.¹ The overlooked contribution of Task Force Hawk's sensors proved decisive in targeting Serbian ground forces during the last two weeks of Operation Allied Force. In Afghanistan, during initial operations in 2001, special operations forces, working in concert with Northern Alliance fighters, effectively coordinated airstrikes against Taliban forces, quickly toppling the government. In 2002, historian Stephen Biddle referred to interventions that relied on indigenous forces to exploit air power as the "Afghan Model" of warfare, but admonished advocates who argued that it "represents warfare's future and should become the new template for U.S. defense planning."² Instead, Biddle argued that the success of air power in recent operations indicated a continuity in trends extending back to World War I rather than a divergence from the past.³ He stated, "The key to success, whether in 1916 or 2002, is to team heavy, well-directed fires with skilled ground maneuver to exploit their effects and overwhelm the surviving enemy."⁴ In 2011, nearly a decade after the start of U.S. involvement in Afghanistan, NATO operations in Libya, as a result of not having any allied troops on the ground, depended heavily on Twitter messages from rebel forces who spotted targets for air strikes.

The disagreement between General Wesley Clark and Lieutenant General Michael Short during Operation Allied Force over whether the enemy “center of gravity” was the Yugoslav 3rd Army or the political leadership in Belgrade highlights the limits of such a concept. Clausewitz never intended his metaphor of a “center of gravity” as prescriptive tool for targeting efforts or resource allocation. Instead, the term is only useful as a descriptive framework. After all, Clausewitz originally used the term “center of gravity” in *On War* as an analogy, and not necessarily as a prescriptive formula upon which to base a military strategy.⁵ Yet U.S. military planners frequently rely on this concept based upon guidance from Joint Publication 5-0, *Joint Operational Planning*.⁶ In any case, there are multiple ways to compel a dictator or topple a regime, and each method will have differing levels of success in various situations.

During Operation Allied Force, NATO’s political objectives did not call for a “regime change” of the Serbian political leadership by way of bombing. Instead, the aim was to coerce Milosevic into a political settlement or degrade his army’s ability to wreak havoc among civilian populations in Kosovo. The latter objective required effective targeting of the Serbian army with air power—this was only accomplished after the incorporation of counter-battery radar acquisitions. In contrast, before the start of Operation Unified Protector, President Obama said that it was “time for Gaddafi to go,” explicitly revealing his intention for regime change.⁷ Furthermore, in policy statements prior to the air campaign, Secretary of State Hillary Clinton added: “nothing is off the table so long as the Libyan government continues to threaten and kill Libyans.”⁸ The EC-130-J messages that NATO transmitted to Gaddafi during the air campaign warned him

that he would be “targeted for destruction” if he did not peacefully step down from power.⁹

In both campaigns, the incorporation of innovative measures to increase the accuracy of airstrikes occurred inadvertently. This was due to widely-held assumptions that air power did not require a ground component. Once the assumptions regarding air power proved problematic, improvised aspects of air-ground coordination emerged. The integration of counter-battery radars in Kosovo and rebel spotters using Twitter in Libya indicated continuity in the necessity for close coordination with ground forces in order to employ air power effectively. It is no surprise that the staff of Task Force Hawk and a U.S. Army artillery officer, Colonel Odierno, saw in late May 1999 that counter-battery radars had great potential for finding Serbian artillery in Kosovo. But in the early stages of the conflict, the staff within LTG Short’s air component command focused on the capabilities of aerial sensors to spot targets.

The live feed from Predator drones, instantaneously broadcasted to General Clark’s headquarters in Mons, Belgium, and LTG Short’s combined air operations center (CAOC) in Vicenza, Italy, prompted both generals to become personally involved in “tank plinking.” On one occasion, early in the campaign, Clark and Short, from their separate locations, simultaneously monitored the “highly magnified” aerial view of a tank in Kosovo.¹⁰ Clark personally called the CAOC to inform them that he “wanted the tank killed.”¹¹ From the CAOC main floor, LTG Short had his staff call the ABCCC (airborne battlefield command and control center—an EC-130E aircraft circling overhead) to relay Clark’s intent. Next, the ABCCC called the airborne forward air controller (AFAC) on station to describe the location of the tank. At the time, Predator unmanned aircraft did

not have a method of target designation.¹² According to LTC Chris Haave, the typical CAOC transmission to the ABCCC during Operation Allied Force, particularly when described by a non-pilot viewing the Predator's feed, would be something like: "the tank is in the woods near the dirt road."¹³ Of course, flying at 20,000 feet, the AFAC saw "dozens of woods and dirt roads."¹⁴ On the occasion that Clark personally demanded someone "kill" the tank he saw on the screen at SHAPE, the flight commander and AFAC on duty over Kosovo was A-10 pilot, Captain Christopher M. "Junior" Short, son of LTG Michael Short.¹⁵ Purposely adding to Junior's stress level, the ABCCC transmitted LTG Short's call sign as a way to emphasize the origin of the directive and the fact that two generals were impatiently watching the tank via Predator feed, demanding: "find and kill that tank!"¹⁶ An exasperated CPT Short radioed back to the ABCCC—"Tell Dad I can't find the fucking tank!"¹⁷

Assuming it was not a decoy, this particular Serbian tank crew unknowingly survived the U.S. military's best attempt to kill them from afar. Meanwhile, back in Belgium and Italy, through their magnified "soda straw" view of Kosovo, Clark and Short stared in frustration at the video feed of the unscathed tank.¹⁸ Hours later, Clark would have to answer the news media's daily question, "How many tanks did you kill today?"¹⁹ From Washington, Secretary Cohen watched these press conferences closely. If Clark told the truth, Cohen might not like the answer, as it would invalidate President Clinton's assumptions on what air power might accomplish. As the campaign dragged on longer than anticipated, maintaining the façade of air power's omnipotence required Secretary Cohen to ban General Clark from speaking to the media. In the interim,

aviators like “Junior” and his peers searched desperately for enemy tanks, loyally pursuing the American people’s inflated expectations of air power.

Of the various Serbian heavy weapon systems, tanks were the best at eluding aerial firepower. In comparison, NATO struck four times more Serbian artillery pieces than tanks.²⁰ The belated incorporation of A/N TQP-37 radar acquisitions undoubtedly led to greater effectiveness in destroying artillery from the air. By giving the CAOC laptops that ran software compatible with the U.S. Army’s Advanced Field Artillery Targeting and Direction System (AFATADS), LTG Hendrix’s staff established a system where the coordinates from counter-battery radar acquisitions automatically went to the CAOC via tactical data networks.²¹

With better visibility over Libya than Kosovo, pilots spotted military ground formations with greater effectiveness. In 2011, with a laser designator added, Predator drone operators had an easier time pointing out what they saw to other aircraft.²² After a decade of experience in Afghanistan, Iraq, and other regions, these drone operators mastered the technique of designating targets to other aircraft. Instead of “talking on” other aircraft by referring to terrain features, pilots could push a button to illuminate a target with a laser beam.²³ Despite these advantages, however, pilots initially could not tell whether the armed factions they observed over Libya were rebel or pro-Gaddafi forces. Regime loyalists deceptively used civilian trucks marked in the same fashion as rebel vehicles to confuse pilots.²⁴ The fact that the rebels also had tanks, armored personnel carriers, and artillery further complicated matters. Thus, effective targeting occurred only after the rebels established a method of coordination with NATO via Twitter (with the addition of coordinates from Google Earth).

The integration of firepower with ground maneuver—an aspect of combined arms warfare that dates back to World War I—had to be rediscovered in Kosovo and Libya because political leaders assumed that air power could succeed by itself. In Libya, the method of integrating air power with ground maneuver—through social media—was a new and noteworthy development. Virtually everyone on the ground in Libya, soldier and civilian alike, had the equivalent of a handheld telegraph machine with global reach that automatically filtered the important messages. Meanwhile, the allure of air power fascinated military leaders, politicians, and the general public alike.

The same year as the Libyan conflict, renowned military historian Martin van Creveld's book, *The Age of Airpower*, opened with: "Airpower is the most glamorous offensive and defensive instrument of war in military history."²⁵ This sense of glamour precluded full understanding of the efforts that took place behind the scenes when air power failed to meet expectations in Kosovo and Libya. Radar and computer networking lack the glamour of jet aircraft, so it is natural that historians might overlook their role in Kosovo and Libya. Counter-battery radar and Twitter deserve more attention in historical interpretations of Operation Allied Force and Operation Unified Protector. That said, a secondary question still lingers over both conflicts on whether the enemy "center of gravity" was the fielded forces or the political leadership.

In a 1996 RAND study, "The Psychological Effects of U.S. Air Power in Four Wars," which covered World War II, Korea, Vietnam, and the Gulf War, Stephen T. Hosmer compared the focus on what he termed "strategic targets"— infrastructure and "targets near or within the enemy's capital city" with that of "deployed forces"— elements of mobile ground power.²⁶ Hosmer concluded that destruction of "deployed

forces” proved more critical, in psychological terms, upon an enemy leader’s thought processes, and therefore should be considered as the primary focus in an air campaign:

In every major conflict from World War II on, enemies have capitulated or acceded to peace terms demanded by the United States only after their deployed forces have suffered serious battlefield defeats. In future conflicts, enemy leaders are likely to prove equally reluctant to make concessions or terminate conflicts as long as they see a chance to prevail on the battlefield. To cause future enemy leaders to abandon the strategy of protracted warfare, the United States and its allies must be able to demonstrate that the balance of forces on the battlefield will progressively shift to the enemy’s disadvantage as long as the fighting continues.²⁷

Ironically, in *The Conflict Over Kosovo: Why Milosevic Decided to Settle When He Did*, written in 2001, Hosmer completely reversed his earlier position from 1996 and argued that targeting infrastructure in Belgrade affected Milosevic’s decision making more so than the destruction of ground forces in Kosovo.²⁸ Hosmer’s evidence led him to a conclusion in line with Warden and LTG Short’s thinking. Perhaps Hosmer lacked the evidence support his older theory, or, perhaps the appeal of air power theory had seduced him, too. In any case, Hosmer’s earlier conclusion was the correct one—attacking the fielded forces made the difference in both conflicts.

Boris Yeltsin’s diary holds the final clue on why Milosevic conceded. Yeltsin had an inner perspective on Milosevic’s thinking through debriefings from his Balkans’ envoy, Viktor Chernomyrdin. “Sometimes the conversations [between Chernomyrdin and Milosevic] would last nine hours without any break,” Yeltsin jotted in his diary.²⁹ On 22 April 1999, during Chernomyrdin’s first visit, Milosevic seemed confident in his army, stating: “Let them just try to stick their noses in here! A ground operation will definitely fail.”³⁰ In describing this exchange, Yeltsin noted:

Milosevic had his own reasons for being so sure that NATO’s ground operation would fail. He believed that the Yugoslav army was ready to fight . . . At times

Milosevic even asked Chernomyrdin to conduct the negotiations in such a way that the ground operation would start faster.³¹

After NATO starting hitting actual artillery tubes rather than decoys constructed with telephone poles—with nearly half of the artillery in Kosovo destroyed—Milosevic was no longer confident in the ability of the Serbian army to repel a NATO ground operation. In late May, according to Yeltsin, “Milosevic’s position changed. He no longer wanted an escalation of the conflict. He asked to stop the war.” Of course, it is impossible to know exactly what was going on inside Milosevic’s head, but the timing of his decision to concede, after almost half of the Yugoslav 3rd Army’s artillery tubes were out of action, shows that effectively targeting ground forces probably changed Milosevic’s calculus.

During Operation Unified Protector, two potential “centers of gravity”—the political leadership (Gaddafi) and remnant loyalist ground forces (an armored column)—merged into one entity that NATO struck with air power at the end of the campaign.³² Although NATO’s bombing in Libya ended shortly after Gaddafi’s death, this outcome does not suggest that a similar regime decapitation strike would have been useful during Operation Allied Force because the political objectives were different in each campaign. NATO assured Milosevic that he would not be personally targeted during the air campaign, although the bombing of his residence signaled that NATO had the capability to do so if its strategy evolved. The idea of a “center of gravity” in military doctrine often confuses the joint decision-making process. War is already a complex endeavor without this concept.

There are numerous ways to unbalance an adversary—some of these ways are unforeseeable. In regime toppling, the game of Jenga might offer more insight when combined with Clausewitz’s “center of gravity” analogy from physics. In Jenga, the

block structure holds on tenuously after its center of gravity appears compromised.³³ Likewise, unstable regimes often hang on precariously—even after their power structure begins to disintegrate. In both Jenga and regime toppling, the final move that collapses the structure is often unforeseen. The analogy has further use too, particularly when the Jenga blocks must be reassembled after they topple, much like nations with regimes that collapse rapidly yet take years to rebuild in stable form.

The impromptu methods of integrating counter-battery radar acquisitions in Kosovo and “tweets” with grid coordinates of pro-Gaddafi forces in Libya tipped the scales in both campaigns by simultaneously emboldening the rebels (KLA and Libyan) while striking elements of ground power that eluded observation by air power using primitive measures such as camouflage, decoys, and dispersion. But the weight that “tips the scales” is not always the heaviest of those amassed. Continued research on both campaigns can further examine the effectiveness counter-battery radar, tweets, and other concurrent measures that NATO stacked against Milosevic and Gaddafi.

Areas for Continued Research

Three areas exist for continued research on the use of air power during the Kosovo and Libya interventions. First, examination of NATO’s use of counter-battery radar from the Serbian perspective can expand on the operational bearing of this development by determining whether it influenced the adversary’s decision-making. Second, further study of NATO’s use of information operations as leverage over Milosevic might show how this measure, in conjunction with air power, had an impact on his capitulation. Third, deeper analysis on the role of social media in the formation of the Libyan rebel movement and its subsequent use for “crowdsourcing” as well as for

integrating targets spotted by rebel ground forces into NATO's air campaign allows scholars to evaluate how well this new and impromptu method of coordination compares with traditional techniques.

Counter-battery radars played a major role in effectively targeting Serbian artillery during the latter stages of the Kosovo conflict. Additional research from the Serbian military perspective can determine whether the increased destruction of artillery affected Serbian military and political decision-making. Students with language skills that support this type of research can expand the analysis in this area. In particular, foreign military students from the Balkans region or countries neighboring this area have the unique ability to garner further insight from operational matters pertaining to Serbian artillery.

Chapter 3 and 5 of this work mentioned briefly how NATO incorporated information operations against Milosevic and Gaddafi within the context of an air campaign. During Operation Allied Force, NATO disseminated leaflets in Belgrade that blamed shortages of fuel and a lack of electricity on Milosevic, though the more direct cause for these difficulties was NATO's calculated effort to bomb dual-use infrastructure. In Libya, U.S. Air Force EC-130J "Commando Solo" aircraft broadcast warnings to Gaddafi that he might be targeted with airstrikes if he continued to operate and move throughout the country using the protection of armored military ground formations. Both of these messaging efforts directly corresponded with the role of air power, however, other types of informational activities that aimed at peacefully removing Milosevic and Gaddafi from power also took place in both campaigns.

In October 2013, the William J. Clinton Presidential Library released 1,170 pages of documents pertaining to the “Ring Around Serbia,” a series of FM transmitters placed in countries bordering Serbia as part of a strategic communications plan aimed at bringing about “regime change in Serbia” in the aftermath of the air campaign.³⁴ This collection contains NSC cables, emails, and telephone records from President Clinton’s top advisors. These sources provide further insight into information operations beyond the scope of this thesis. The radio broadcasts from the FM transmitters served as an alternative source of news to the people of Serbia, who typically received their news from the state-controlled media of Milosevic. In October 2000, Milosevic lost his reelection bid, due in part to these efforts.³⁵ Similar analysis is applicable to Gaddafi’s regime and NATO’s informational-related efforts to isolate him from the international community and remove him from power.

Ignoring the role of Twitter in the Libyan campaign would be the equivalent of studying military operations during the American Civil War without considering the role of the telegraph. Social media will inevitably play a role in future military decision-making processes, and its potential use spans far beyond the realm of public affairs and media engagements. For example, while in a firefight, the Libyan rebels used Twitter to “crowdsource” technical questions pertaining to the employment of various weapon systems. Crowdsourcing with Twitter casts a global net to rapidly seek expert answers by simply tweeting a question. On one occasion, while in contact with the enemy, a rebel contingent used crowdsourcing via Twitter to determine the minimum arming distance of a BM-21 Grad 122mm multiple rocket launcher they had encountered.³⁶ The rebels quickly found two individuals that knew the answer, Nureddin Ashammakhi in Finland

and Khalid Hatashe in Britain, and conference called them via Skype to learn that Gaddafi's BM-21 Grad operators typically used an electric cable to remotely trigger the launcher.³⁷ This knowledge helped Sifaw Twawa's rebel brigade assault the pro-Gaddafi forces that barraged their hometown of Yefren with the rocket launcher.³⁸ On another occasion, 6 May 2011, the rebels learned how to diffuse mines that blocked the path to Misurata's port by tweeting a picture of a mine along with the text, "#IDthis."³⁹ Global audiences determined the type of mine (Chinese Type 84, Model A) and, more importantly, how to diffuse it—all in less than forty minutes.⁴⁰

Additional research on the Libyan rebel movement would generate a sharper overall picture of how events unfolded during the 223 days of Operation Unified Protector. Scholars can assess the degree NATO incorporated Twitter and other open source intelligence in targeting by examining bombing damage estimates throughout the campaign. Daily tallies of NATO's bombing results during the Libya campaign are available on the official NATO website. Researchers can compare the use of Twitter for targeting against time periods entailing only the aerial spotting of targets, or, simply compare the bombing tallies before and after the NATO spokesperson announced that targeting efforts included intelligence from rebel Twitter messages. This type of analysis would shed greater light on the significance of integration with the Libyan rebel fighters. Given the absence of coalition ground forces, understanding the role of rebel forces is vital to a holistic study of both air campaigns.

In all, the area of study pertaining to air power in limited military interventions is ripe with new sources for researchers. The recent declassification and release of thousands of records pertaining to the Balkan interventions at the Clinton Library offers a

large pool of primary source material. Additionally, NATO continually archives daily press releases, reports, and other material on its website. NATO headquarters at Brussels, Belgium offers additional options for examination of records in person. Finally, students can mine the vast amount of data available on social media networks such as Twitter and Facebook for clues into the thinking of Libyan rebels as well as details on how they coordinated internal military activities and external integration with NATO. The fact that much of this message traffic contains timestamps helps with chronology. These untapped sources offer future researchers the opportunity to develop new insights on air power, limited military interventions, information operations, and rebel movements.

Syria and Future Interventions

In 2013, key figures in the Obama administration considered NATO's 1999 operation in Kosovo as a "blueprint" for action in Syria. On 10 September 2013, President Obama addressed the nation from the White House, stating that a potential intervention in Syria would be shorter than the Kosovo and Libya interventions:

I will not put American boots on the ground in Syria. I will not pursue an open-ended action like Iraq or Afghanistan. I will not pursue a prolonged air campaign like Libya or Kosovo. This would be a targeted strike to achieve a clear objective: deterring the use of chemical weapons, and degrading Assad's capabilities.⁴¹

On the eve of Obama's speech, political and popular fervor for intervention in Syria against the defunct regime of Bashar al Assad reached a peak. War seemed inevitable.

Earlier, on 19 July 2013, General Martin E. Dempsey, Chairman of the Joint Chiefs of Staff, publicly revealed his assessment on the matter in a letter to Senator Carl Levin that circulated on the internet and among news agencies.⁴² Dempsey pointed out the risks and costs of "limited stand-off strikes" and a number of other options.⁴³ The

other options included providing military aid and advisors to rebel forces, establishing a no-fly zone, establishing buffer zones, or controlling chemical weapons with an assault by ground forces—in ascending order of cost and risk.⁴⁴ In contrast to Libya, however, Syria has an extremely dense air defense network, making any form of no-fly, or buffer, zone problematic without a prolonged campaign to gain air supremacy.⁴⁵ The letter served as a warning to curb the enthusiasm for action among the more hawkish members of Congress, such as Senator John McCain (R-AZ), by laying out the complexities that any intervention might entail.

Russia and China did not support the notion of intervention in Syria and threatened to veto (unlike in the case of Libya) any United Nations resolution authorizing the use of force.⁴⁶ In addition, Russia threatened to send shipments of S-300 missiles to bolster Syrian air defenses in the event of intervention by the United States or NATO.⁴⁷ As an alternative to U.S. intervention, Russia facilitated a “diplomatic solution” whereby Syrian leader Assad agreed to dismantle his chemical weapons program in exchange for assurance that the United States would not intervene militarily.⁴⁸ This solution was ironic considering the meager tonnage of weaponry that Syria possessed in comparison with the vast arsenals of United States and Russia. Additionally, both the United States and Russia failed to meet their own agreed 2012 deadline to completely abolish chemical weapons.⁴⁹

In the underlying hypocrisy of the situation, a U.S. government furlough had the secondary consequence of shutting down chemical weapons incinerators in Pueblo, Colorado, and the Bluegrass Army Depot in Kentucky around the same time the U.S. appetite for intervention in Syria reached its peak due to Assad’s use of chemical weapons.⁵⁰ Using the incineration systems at the Bluegrass and Pueblo locations, it is

more expensive for the United States to destroy chemical weapons than it was to develop and manufacture them in the first place. Current U.S. government estimates project the cost of eliminating the remaining 3,135 tons of chemical weapons in the U.S. arsenal at \$40 billion with a completion date of 2023.⁵¹ In comparison, the Syrian arsenal contains only 1,300 tons of chemical agents.⁵²

Russia's "diplomatic solution" is further complicated in the case of the Syrian stockpile because most countries were unwilling to take the Syria's chemical weapons onto their soil for the lengthy purpose of destruction. Instead, civilian specialists at Aberdeen Proving Ground developed an at-sea method of destroying the stockpiles on board a ship.⁵³ Subsequently the MV *Cape Ray* departed for its mission to neutralize the Syrian weapons on 26 January 2014.⁵⁴ The U.S. government planned for the MV *Cape Ray* to deal with 560 tons of the most dangerous chemical agents.⁵⁵ According to U.S. Navy Rear Admiral Robert Burke, this weapons-neutralization process will take only 60 days upon transfer of the chemical agents from allied ships that will receive the stockpile from Syria.⁵⁶ The projected cost of dismantling the Syrian stockpile is only \$3 billion, compared to the \$40 billion cost to destroy the U.S. arsenals at Bluegrass and Pueblo.⁵⁷ As of 10 April 2014, the Danish and Norwegian freighters *Art Futura* and *Taiko* are docked at the Syrian port of Latakia with 54 percent of the stockpile loaded.⁵⁸ Ironically, if the United States used the "at-sea" method of destroying its own chemical weapons stockpile, the process would take only 289 days instead of two decades.⁵⁹ Perhaps Syrian chemical weapons are easier to dismantle than American ones.⁶⁰

Despite President Obama's claim that an air campaign in Syria would have been different from those in Kosovo and Libya, the fact that he referenced these past

interventions on the brink of a potential air campaign alluded to the precedent set by Kosovo and Libya. Operation Allied Force and Operation Unified Protector significantly altered the perception of policy makers, military leaders, and the general public regarding the use of air power. Operation Allied Force increased popular conceptions regarding the level of “precision” that airstrikes might achieve. By the time of Operation Unified Protector, the U.S. public viewed the use of air power without ground forces with indifference. In the aftermath of these two campaigns, Americans nonchalantly assume that future bombing campaigns will bring rapid and precise results. Yet the reality is that future adversaries can easily counter the impacts of air power using decoys, camouflage, air defenses, entrenchment, and dispersion—all methods used during World War I for the same purpose. Gaining air superiority is only half the battle. Finding enemy ground formations will be equally difficult, particularly when fighting without a land contingent.

Since 1999, the manufacture of decoys evolved beyond Serb efforts to make fake artillery tubes with painted telephone poles and old truck axles. In one example of the new level of decoy sophistication, the Chinese company Uniforce Technology Limited, which is headquartered in Beijing, has a line of “high fidelity decoys” that includes tanks, artillery, armored personnel carriers, fixed wing aircraft, helicopters, and missile launchers.⁶¹ The Uniforce website advertises that each of these items fit into standard shipping containers for delivery, can be assembled in less than one hour, and are not able to “be distinguished real or false from 30m” through visual observation.⁶² Furthermore, each decoy has infrared reflective properties and heat generation capabilities designed to elude radars, military optics, and thermal imaging systems. The company promises a production rate of five sets per month deliverable via the Tianjin Xingang seaport, and

claims that it has large base of satisfied customers in Eastern Europe and the Middle East.⁶³ Figure 9 has a depiction of the company's T-72 dummy tank, as advertised:



Figure 9. T-72 Tank Decoy Sold by a Chinese Company

Source: Uniforce Technology Limited, “1:1 High Fidelity T-72 Dummy for Army Use,” Beijing, China, http://www.alibaba.com/product-detail/1-1-high-fidelity-T-72_1680131010.html (accessed 13 April 2014).

The Allure of Air Power

In recent operations, from Desert Storm to Unified Protector, the successful employment of air power depended on the incorporation of a ground element for spotting

targets. Regardless of whether this land contingent employed counter-battery radars or youths armed with cell phones posting messages to Twitter via SMS, the ability to spot targets and accurately relay their location to the appropriate operational-level military headquarters in a timely fashion remains a decisive aspect of air campaigns. The reliance on indigenous forces to locate targets has the secondary consequence of unleashing revolutionary fervor that cannot be fully controlled. Politicians and military planners must consider the methods used to locate targets in planning any future air campaign. Decisions on this aspect of targeting will prove more significant than the actual employment of air forces. It does not matter how precise JDAMS and TLAMS can strike if planners cannot find relevant targets.

During the opening stage of the U.S. intervention in Afghanistan, a Canadian commentator, Michael Ignatieff, described America's newest technique in nation building with a sarcastic tone:

. . . in Mazar-i-Sharif, second city of Afghanistan, in this warlord's compound, with a Lexus and an Audi purring in the driveway, armed mujahedeen milling by the gate and musclemen standing guard in tight black T-shirts and flak jackets and sporting the latest semiautomatic weapons, the heavyset American is the one who matters. He comes with a team that includes a forward air controller, who can call in airstrikes from the big planes doing Daytona 500 loops high in the sky. No one knows how many C.I.A. agents and Special Forces troops there are in country. The number is small—perhaps as few as 350—but with up-links to air power and precision weapons, who needs regiments of ground troops? When you ask the carpet sellers in Mazar why there has been peace in the city, they point up into the air. Only America, the carpet sellers say, puts its peacekeepers in the sky.⁶⁴

Ignatieff went on to argue that the United States actually needed a much higher number of troops on the ground—more than the 18,000 peacekeepers in Bosnia—to actually accomplish anything in Afghanistan.⁶⁵

After the marriage of air power with mobile cyber power, special operations forces, of the sort that Ignatieff described, were obsolete. By 2011, the Libyan rebels had replaced the “heavyset American” that had “up-links to air power and precision weapons” with teenagers wielding smartphones that had Twitter and Google Earth. Of course, gaining air superiority, finding the enemy’s location, and air-ground integration remained as elements of continuity in successful joint operations. Yet in Libya, dramatic technological changes in the equipment necessary to coordinate military activities over global ranges with precision position data allowed teenagers with smartphones to perform the function of coordinating airstrikes. In just one decade, sensor-to-shooter linkages had come a long way since Task Force Hawk first linked its sensors with air forces using automated data networks.

At the conclusion of Operation Allied Force, John Keegan’s preliminary assessment—the first-ever campaign “won by airpower alone”—was wrong.⁶⁶ War cannot be won with air power alone. Keegan was correct, however, in stating that advocates for bombing “will be heard with the greatest attention when future peace-making operations are discussed.”⁶⁷ In the aftermath of Operation Allied Force, the allure of air power unconsciously turned well-intentioned advocates of peacekeeping into warmongers. Those who opposed military interventions for humanitarian purposes found an uneasy solace in the notion that air power, at the very least, offered a way to diminish the inclination to put boots on the ground, while satisfying calls for action. Thus, the appeal of “limited military strikes” remains a lucrative option for policy-makers, while the risk of committing the U.S. Army calls into question the continued maintenance of its heavy armored formations. After all, when backed with air supremacy and precision

munitions, the Libyan rebels proved that tweets make tanks disappear. In describing the impact of coordinated airstrikes on armored vehicles, rebel fighter Al-Gdery said that it was just like “out of the movies”—clean, fast, precise, and satisfying—this coming from the perspective of someone who tweeted coordinates from up close to the bomb strikes.⁶⁸

After the NATO intervention in Kosovo, the promise of air power, in popular perception, shifted full-circle from the brutality of bombing civilian populations to the purity of humanitarian endeavors. What followed in Libya twelve years later echoed the shift. The next American air campaign will happen at any moment while a blithe public learns the name and location of a new place while flipping through television channels the next morning. Meanwhile, a drunken Mars will laugh with delight as a bewildered society realizes that the tides of war cannot be controlled with the illusion of precision airstrikes.

¹Wesley Clark, *Waging Modern War* (New York: Public Affairs, 2001), 334-336.

²Stephen Biddle, “Afghanistan and the Future of Warfare: Implications for Army and Defense Policy,” *International Security*, Monograph (Carlisle, PA: Strategic Studies Institute, November 2002): iv.

³*Ibid.*, 4. In addition, Secretary of Defense Donald Rumsfeld stated, “It’s hard for me to imagine another Afghanistan. If you think about that situation, it is kind of distinctive. Now it doesn’t mean that some of the things that are working there won’t work elsewhere, but the totality of it is distinctive. I don’t think we’re going to run around with a cookie mold and repeat this.”

⁴*Ibid.*, viii.

⁵John T. Kuehn, “Thoughts on Clausewitz, Strategy, and Centers of Gravity: When Jargon Meets Reductionism,” in *Addressing the Fog of the COG: Perspectives on the Center of Gravity in US Military Doctrine*, ed. Celestino Perez (Fort Leavenworth KS: Combat Studies Institute Press, 2012), 101.

⁶Chairman, Joint Chiefs of Staff, Joint Publication 5-0, *Joint Operational Planning* (Washington DC: Government Printing Office, 2011), xxi.

⁷Massimo Calabresi, “Obama Refines Talk of Libya Intervention,” *Time*, 4 March 2011.

⁸Ibid.

⁹“Libya: PSYOP War–NATO to Gaddafi–‘We Will Kill You,’” Radio messages transmitted by EC-130J #01-1935, Call Sign “Steel 74,” Transmitted 6 June 2011 on frequency 10404.0 kHz, <http://libyasos.blogspot.com/2011/10/nato-tape-warns-gaddafi-we-will-kill.html?m=1> (accessed 16 April 2014).

¹⁰Christopher E. Haave and Phil M. Haun, *A-10s Over Kosovo: The Victory of Airpower Over a Fielded Army as Told by the Airmen Who Fought in Operation Allied Force* (Maxwell, AL: Air University Press), 300.

¹¹Ibid.

¹²Walter J. Boyne, “How the Predator Grew Teeth,” *Air Force Magazine* 92, no. 7 (July 2009), <http://www.airforcemag.com/MagazineArchive/Pages/2009/July%202009/0709%20predator.aspx> (accessed 1 May 2014).

¹³Haave and Haun, 300.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Malcolm MacPherson, *Roberts Ridge* (New York, NY: Bantam Dell, 2005), 70. MacPherson describes the “soda straw” aspect of viewing the Predator’s narrow field of view in Afghanistan. The same applied over Kosovo.

¹⁹Priest, “United NATO Front Was Divided Within,” A1.

²⁰See table 7.

²¹Robert S. Brigford and Luke G. Grossman, “BCD Targeting for Operation Allied Force,” *Field Artillery* (January-February 2000): 11.

²²Boyne, 43. Also, the laser designator guided hellfire missiles.

²³Ibid.

²⁴C. J. Chivers and Kareem Fahim, “NATO Expresses Regret for Airstrike,” *The New York Times*, 8 April 2011, http://www.nytimes.com/2011/04/09/world/africa/09libya.html?_r=0 (accessed 20 April 2014).

- ²⁵Creveld, *The Age of Airpower*, inside cover.
- ²⁶Stephen T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars* (Santa Monica: RAND, 1996), http://www.rand.org/pubs/monograph_reports/MR576/index2.html (accessed 19 May 2014).
- ²⁷Ibid.
- ²⁸Hosmer, *The Conflict Over Kosovo*, 104.
- ²⁹Boris Yeltsin, *Midnight Diaries* (New York: Public Affairs, 2000), 263.
- ³⁰Ibid., 263-264.
- ³¹Ibid., 264.
- ³²Farmer, “Gaddafi’s final hours.”
- ³³The game of Jenga is played with 54 wooden blocks that are stacked in a tower formation 18 stories high. After building the tower, players take turns pulling out one block at a time, attempting to cause the tower to fall at the turn of the next player.
- ³⁴“Records on ‘Ring Around Serbia,’” FOIA Request Collection 2009-0206-F, National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.
- ³⁵Lajco Klajin, *The Past in Present Times: The Yugoslav Saga* (Lanham, MD: University Press of America, 1997), 195.
- ³⁶John Pollock, “People Power 2.0: How civilians helped win the Libyan information war,” MIT Technology Review, 20 April 2012, <http://www.technologyreview.com/featuredstory/427640/people-power-20/> (accessed 27 April 2014).
- ³⁷Ibid.
- ³⁸Ibid.
- ³⁹Andy Carvin, “Munitions in Misurata: a virtual investigation by @acarvin’s Twitter followers,” *Storify*, 6 May 2011, <https://storify.com/acarvin/munitions-in-misurata> (accessed 1 May 2014).
- ⁴⁰C. J. Chivers, “Land Mines Descend on Misurata’s Port, Endangering Libyan City’s Supply Route,” *The New York Times*, 6 May 2011, http://www.nytimes.com/2011/05/07/world/africa/07libya.html?_r=0 (accessed 1 May 2014).
- ⁴¹Barack Obama, “Remarks by the President in Address to Nation on Syria,” The White House, 10 September 2013, <http://www.whitehouse.gov/photos-and-video/video/>

2013/09/10/president-obama-addresses-nation-syria#transcript (accessed 22 January 2014).

⁴²Luis Martinez, “Gen. Martin Dempsey Lays Out US Military Options For Syria,” *ABC News*, 22 July 2013, <http://abcnews.go.com/blogs/politics/2013/07/gen-martin-dempsey-lays-out-us-military-options-for-syria/> (26 January 2014).

⁴³Martin E. Dempsey, “General Dempsey Responds to Levin’s Request for Assessment of Options for Use of U.S. Military Force in Syria,” Washington, DC, 19 July 2013, <http://www.levin.senate.gov/newsroom/press/release/gen-dempsey-responds-to-levins-request-for-assessment-of-options-for-use-of-us-military-force-in-syria> (accessed 26 January 2014).

⁴⁴Dempsey, 1-3.

⁴⁵Sean O’Connor, “Strategic SAM Deployment in Syria,” Technical Report APA-TR-2010-0103, *Air Power Australia* (January 2010), <http://www.ausairpower.net/APA-Syria-SAM-Deployment.html> (accessed 16 April 2014).

⁴⁶Patrick Wintour, “China Joins Russia in Opposing Military Strikes,” *The Guardian*, 5 September 2013, <http://www.theguardian.com/world/2013/sep/05/syria-china-russia-opposing-military-strikes> (accessed 16 January 2014).

⁴⁷Thomas Grove, “Moscow threatens to speed missiles to Syria but offers to delay,” *Reuters*, 31 May 2013, <http://www.reuters.com/article/2013/05/31/us-syria-crisis-russia-missile-idUSBRE94U0BR20130531> (accessed 26 January 2014).

⁴⁸Laura Smith-Spark and Tom Cohen, “U.S., Russia agree to framework on Syria chemical weapons,” *CNN*, 15 September 2013, <http://www.cnn.com/2013/09/14/politics/us-syria/> (accessed 26 January 2014).

⁴⁹Paul Lewis, “US struggles show hazards of chemical weapons destruction,” *The Guardian*, 11 September 2013, <http://www.theguardian.com/world/2013/sep/11/us-syria-chemical-weapons-destruction> (accessed 26 January 2014).

⁵⁰Andy Barr, “Barr Supports Measure to Stop All Blue Grass Army Depot Employee Furloughs,” Website of Congressman Andy Card, 24 July 2013, <http://barr.house.gov/media-center/press-releases/barr-supports-measure-to-stop-all-bgad-employee-furloughs> (accessed 26 January 2014).

⁵¹Lewis, 1.

⁵²Matthew Hay Brown, “Aberdeen scientists to destroy Syria’s chemical weapons,” *The Baltimore Sun*, 25 January 2014, http://articles.baltimoresun.com/2014-01-25/news/bs-md-syria-chemical-weapons-20140125_1_chemical-weapons-mv-cape-ray-edgewood-chemical-biological-center (accessed 26 January 2014).

⁵³Brown, 1.

⁵⁴Ibid.

⁵⁵Julian Borger, “US ship awaits mission to neutralise Syria’s chemical weapons,” *The Guardian*, 10 April 2014.

⁵⁶Borger, 1.

⁵⁷Lewis, 1.

⁵⁸Borger, 1.

⁵⁹3,135 tons divided by 560 tons per 60-day period equals 289.38 days.

⁶⁰There are two reasons for the slow timeline in dismantling the U.S. arsenal. The first is that the Pueblo, Colorado, and Bluegrass, Kentucky, incinerator programs are considered as “jobs programs” by the Congressmen and Senators who represent the constituencies of the corresponding districts and states. Second, the United States is slow to dismantle the weapons in its arsenal because they are used as diplomatic leverage in pressing the timeline for the agreed destruction of Russian chemical weapons.

⁶¹Uniforce Technology Limited, “1:1 High Fidelity T-72 Dummy for Army Use,” Beijing, China, http://www.alibaba.com/product-detail/1-1-high-fidelity-T-72_1680131010.html (accessed 13 April 2014).

⁶²Ibid.

⁶³Ibid.

⁶⁴Michael Ignatieff, “Nation-Building Lite,” *The New York Times*, 28 July 2002, <http://www.nytimes.com/2002/07/28/magazine/28NATION.html?src=pm&pagewanted=1> (accessed 19 May 2014).

⁶⁵Ibid.

⁶⁶Keegan, “Please, Mr. Blair, Never Take such a Risk Again.”

⁶⁷Ibid., 1.

⁶⁸Akram Al-Gdery, “Anthony Bourdain Parts Unknown: Libya,” *CNN*, TV Series, Directed by Tom Vitale (Air date: 19 May 2013).

APPENDIX A

TASK FORCE HAWK ORGANIZATION CHART

Figure 10 indicates the organization of Task Force Hawk. COL Odierno had the A/N TQP-37 counter-battery radar forward-positioned about twenty kilometers from the Kosovo border. From there, it detected significant Serb indirect fires when KLA forces came in contact with artillery at Mount Pastrik. The integration of the radar inadvertently turned the tide of the war. Meanwhile, politicians and military planners debated whether to commit the Apaches.

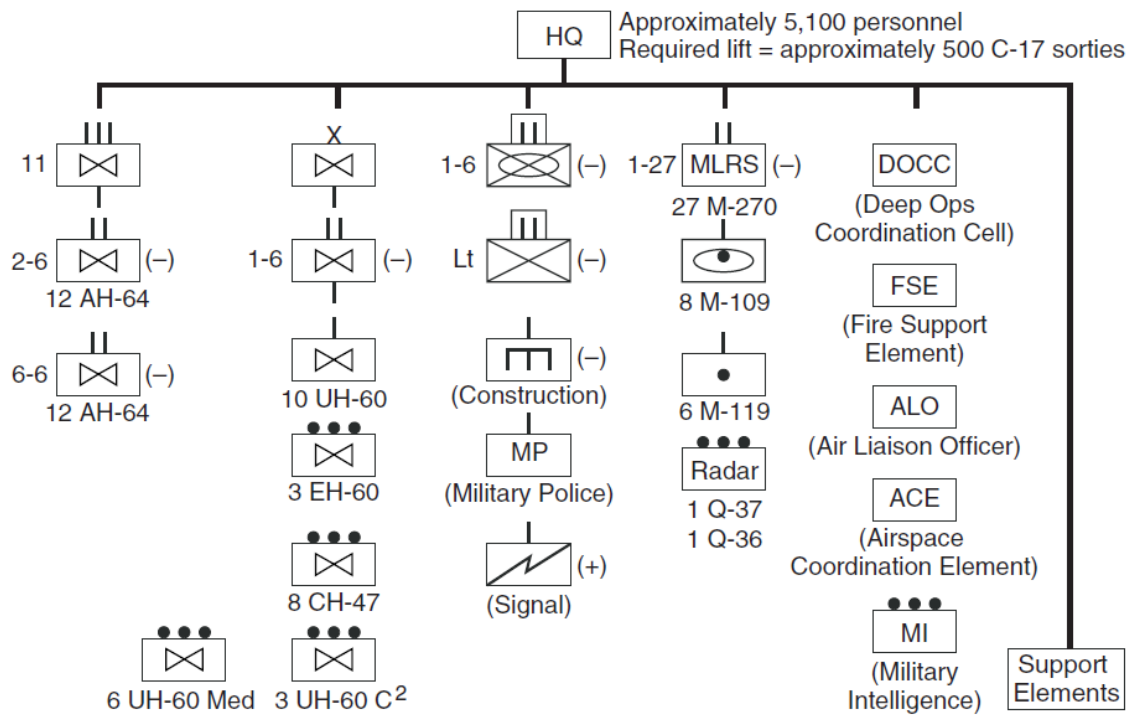


Figure 10. Task Force Hawk Organization Chart

Source: Bruce R. Nardulli, Walter L. Perry, Bruce Pirnie, John Gordon IV, and John G. McGinn, *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica: RAND, 2002), 74.

APPENDIX B

REFUGEE FLOW—23 MARCH TO 8 JUNE 1999

Nearly one million refugees fled Kosovo from 23 March 1999 to 8 June 1999. There are two possible explanations behind the sharp increase in refugee flows after the bombing started. The first is that NATO's bombing spurred the crisis. The second is that Serb forces drove out the refugees as part of previously planned operation that would have been carried out regardless of whether NATO bombed. Milosevic claimed the first explanation, while NATO argued the second.

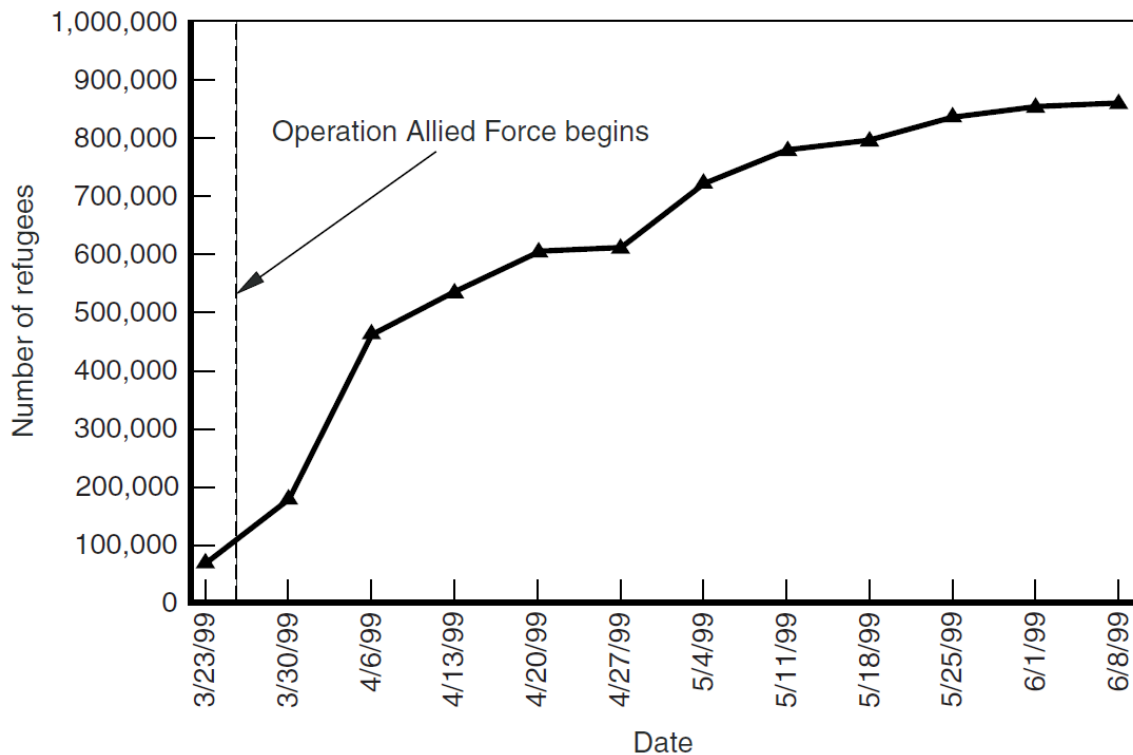


Figure 11. Refugee Flow During Operation Allied Force

Source: Bruce R. Nardulli, Walter L. Perry, Bruce Pirnie, John Gordon IV, and John G. McGinn, *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica: RAND, 2002), 50.

APPENDIX C

DIPLOMATIC ENDGAME

After Task Force Hawk's arrival and the effective use of counter-batter radar to target Serbian artillery, Milosevic faced two additional setbacks and subsequently agreed to a diplomatic solution. First, on 27 May, the day after NATO aircraft first struck an artillery tube based upon targeting data from a A/N TQP-37 radar, Judge Louise Arbor, the chief prosecutor for the International Criminal Tribunal for the Former Yugoslavia (ICTY) at The Hague, announced the indictments of Milosevic and four of his top officials—Serbian President Milan Milutinovic, deputy Yugoslav Prime Minister Nikola Sainovic, Yugoslav military Chief of Staff Dragoljub Ojdanic, and Serbian Internal Affairs Minister Vljako Stojiljkovic.¹ The ICTY indicted all five officials on 340 counts of murder and 740,000 forced deportations of Kosovar Albanians.²

Second, adding to Milosevic's conundrum on a personal level, in May 1999, the European Union (EU) precisely targeted 305 individuals within Milosevic's inner circle by issuing a ban on their travel and business dealings in Europe.³ Nations outside the EU, including the United States, followed suit. These actions froze significant financial assets of Milosevic's cronies, including family members and spouses of key individuals. In *Milosevic: A Biography*, Adam LeBor described the inner circle and family tree of Milosevic and his wife Mira and argued that the impact of the travel ban further isolated and destabilized the regime. According to LeBor, the EU's announcement of "The List" narrowed Milosevic's power base, despite public displays of solidarity among those on the list.⁴ As a result, LeBor wrote, "Once their personal assets were frozen, and there were no more weekend shopping trips to Paris, or even Budapest, many judged that

loyalty [to Milosevic] demanded too high a price.”⁵ Faced with these setbacks and increased pressure from NATO’s air campaign, on 27 May 1999, Russian envoy Viktor Chernomyrdin, operating on behalf of President Yeltsin, offered Milosevic a way out of his dilemma.⁶

On 30 August 1999, Zbigniew Brzezinski (the National Security Advisor for President Jimmy Carter) wrote, “The Failed Double-Cross,” in *The Wall Street Journal*. In this article, Brzezinski claimed that Yeltsin and Milosevic attempted to “double-cross” NATO by partitioning a separate Russian peacekeeping sector in Kosovo with a “unilateral fiat.”⁷ Brzezinski described the following sequence of events to back his claim. First, on 26 May 1999, Chernomyrdin wrote commentary in the *Washington Post*, entitled “Bombs Rule Out Talk of Peace.”⁸ Incidentally, 26 May corresponded with the commencement of the KLA’s offensive and the incorporation of TF Hawk counter-battery radars with bombing missions.⁹ In the commentary, Chernomyrdin called for NATO leaders to suspend the air campaign and pursue a diplomatic solution, stating:

Now that raids against military targets have evidently proven pointless, NATO’s armed force has moved to massive destruction of civilian infrastructure—in particular, electric transmission lines, water pipes, and factories. Are thousands of innocent people to be killed because of one man’s blunders? Is an entire country to be razed? Is one to assume that air raids can win a war?

I should like here to turn to the lessons of recent history. The U.S. Air Force and the RAF dropped several hundred thousand bombs on Berlin, yet it took a Soviet Army offensive, with its toll of several hundred thousand lives, to seize the city [during World War II]. American air raids in Vietnam proved pointless, and the Russian Army suffered setbacks in Chechnya. Serbs see NATO and the Americans as aggressors against whom they are defending their native land.¹⁰

The next day, Chernomyrdin met alone with Milosevic, commencing a series of private consultations that culminated with Russian television’s revelation, on 2 June, that

Chernomyrdin “brought not one but two different plans to Belgrade.”¹¹ Partially declassified records of correspondence between Clinton and Yeltsin in 1999 reveal that Brzezinski’s claim of a Russian “double-cross” was not entirely accurate.

Earlier, on 14 April, President Clinton called President Yeltsin to request that Russia contribute troops for peacekeeping operations in Kosovo after the air campaign.¹² The exact details of this phone conversation remain classified. Nevertheless, when referring to the 14 April 1999 phone call with Yeltsin in his 2004 autobiography, Clinton acknowledged: “I thought a Russian presence would help protect the Serb minority and might give Milosevic a face-saving way out of his opposition to foreign troops.”¹³ Yet the swiftness of the introduction of Russian peacekeepers on the day the air campaign ended surprised President Clinton and his national security team, sparking a tense phone conversation between Clinton and Yeltsin where Yeltsin admitted that he personally ordered the action.¹⁴ In describing this development, Clinton said: “Yeltsin was getting a lot of criticism at home for cooperating with us from ultra-nationalists whose sympathies lay with the Serbs. I thought he was just throwing them a temporary bone.”¹⁵

President Yeltsin, through his Balkans envoy, Viktor Chernomyrdin, offered Milosevic a way to concede to NATO’s terms with Serbia while still retaining significant Serb influence over a portion of Kosovo. According to the Kremlin’s plan, Russian troops would establish a separate peacekeeping sector administered with collaboration between leaders in Moscow and Belgrade.¹⁶ Given this alternative, on 3 June, Milosevic capitulated.¹⁷ To NATO’s surprise, when the bombing ended, on 10 June, Russia quickly moved troops from its peacekeeping sector in Bosnia to establish a foothold at the airfield

in Pristina, Kosovo.¹⁸ Under the guise of introducing a stabilization force, these Russian troops postured to receive reinforcements.¹⁹

General Clark responded on 11 June by dispatching British Lieutenant General Sir Michael Jackson, commander of NATO's Rapid Reaction Corps, to Pristina with two British companies and a French battalion on a mission to occupy the airfield and linkup with the Russian forces.²⁰ Russia's maneuver caught LTG Jackson's forces off guard, due to the celebratory climate fostered by Milosevic's capitulation. In his autobiography, Jackson described the mood at 0505 on 11 June, writing: "We were knackered. The whisky bottle was empty."²¹ At 1030, GEN Clark called LTG Jackson and gave him a warning order to move by air to Pristina.²² The movement was rapid. Later that day, by 1400, in describing his linkup with Russian forces, Jackson said:

I introduced myself to one of the Russians and asked if I could see General Viktor Zavarzin. I was ushered into the back of his command vehicle. My first impression was of a burly man who seemed somewhat nervous. I greeted him in Russian, even though I had an interpreter with me. He was a bit frosty at first, and it was pretty hard going. Then the rain must have got into the electrics because the vehicle filled with acrid black smoke. We got out and stood in the rain, which was still bucketing down. I said to Zavarzin: 'Hey, listen, I used to get wet as a company commander, but generals don't need to get wet.' We found a dry place in what remained of the wrecked airport terminal. I had a flask of whisky in my map pocket and I dug it out and offered it to Zavarzin. Relations warmed up after that.²³

Subsequently, on 12 June, the Russian military prepared to launch a rapidly-deployable contingent of 2,500 paratroopers via air transports to Pristina.²⁴ In reaction, Clark ordered Jackson to block the airfield at Pristina with helicopters.²⁵ Based on LTG Jackson's assessment of the situation at the scene, he refused to follow the order, sparking a flurry of phone calls between panicked political leaders in Washington and London who were still catching up with the breaking developments.²⁶ At the last minute,

NATO leaders convinced Hungary, Bulgaria, and Romania to deny Russia the use of their airspace, thus foiling Russian machinations.²⁷ Yeltsin did not want to risk having the transports forced down, so he ordered a halt to the plan. Finally, on 18 June, Russia agreed to have its peacekeeping troops interspersed within NATO zones.²⁸

¹Christiane Amanpour, John King, Fill Dougherty, and Walter Rodgers, “Milosevic Indictment Makes History,” *CNN*, 27 May 1999, <http://www.cnn.com/WORLD/europe/9905/27/kosovo.milosevic.04/index.html> (accessed 16 March 2014).

²*Ibid.*

³Adam LeBor, *Milosevic: A Biography* (New Haven: Yale University Press, 2004), 294.

⁴*Ibid.*

⁵*Ibid.*

⁶Lister, “Chernomyrdin threatens Russian withdrawal.”

⁷Zbigniew Brzezinski, “The Failed Double-Cross,” (originally printed in *The Wall Street Journal*, 30 August 1999), *Kosovo: Contending Voices on Balkan Interventions*, Edited by William Joseph Buckley (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2000), 328-332.

⁸Viktor Chernomyrdin, “Bombs Rule Out Talk of Peace,” *Washington Post*, 27 May 1999, A13.

⁹Chapter three of this work covers these events.

¹⁰Chernomyrdin, A13.

¹¹Brzezinski, 330.

¹²Clinton, *My Life*, 852.

¹³*Ibid.*

¹⁴Michael A. Hammer, “FW: draft guidance, re: POTUS Yeltsin call,” Email, Sent 12 June 1999 at 18:25 hours (EST), FOIA Request Collection 2006-1185-F, National Archives and Records Administration, William Jefferson Clinton Library and Museum, Little Rock, AR.

¹⁵Clinton, 859.

¹⁶Brzezinski, 331.

¹⁷NATO, "Military Technical Agreement between the International Security Force (KFOR) and the Governments of the Federal Republic of Yugoslavia and the Republic of Serbia," 9 June 1999, <http://www.nato.int/kosovo/docu/a990609a.htm> (accessed 18 March 2014).

¹⁸Clark, *Waging Modern War*, 375-403.

¹⁹*Ibid.*, 376. See this source for General Clark's interpretation of the message he receives from Brigadier General Pete Chiarelli, his executive officer, regarding the incident. Based on Chiarelli's report, Clark believed that the Russian troops were under orders "to occupy the Pristina airfield and receive reinforcements."

²⁰Clark, 378-80.

²¹Michael Jackson, "My Clash with NATO Chief," *The Telegraph*, 4 September 2007, <http://www.telegraph.co.uk/news/worldnews/1562161/Gen-Sir-Mike-Jackson-My-clash-with-Nato-chief.html> (accessed 19 March 2014).

²²Clark, 378.

²³Jackson, 1.

²⁴Brzezinski, 331.

²⁵Clark, 385.

²⁶Tom Peck, "Singer James Blunt 'prevented World War 3'—refused US order to attack Russian troops," *Belfast Telegraph*, 15 November 2010, <http://www.belfasttelegraph.co.uk/news/world-news/singer-james-blunt-prevented-world-war-3-refused-us-order-to-attack-russian-troops-28570698.html> (accessed 19 March 2014); Also see: Clark, *Waging Modern War*, 375-380.

²⁷Brzezinski, 331.

²⁸"Agreed Points on Russian Participation in KFOR," Helsinki, Finland: NATO, 18 June 1999, <http://www.nato.int/kosovo/docu/a990618a.htm> (accessed 18 March 2014).

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