



Air Power in the Face of Ethnic Cleansing: The Effectiveness of NATO's Approach to End Serbian Aggression in Kosovo

Citation

Willey, Jonathan Brent. 2021. Air Power in the Face of Ethnic Cleansing: The Effectiveness of NATO's Approach to End Serbian Aggression in Kosovo. Master's thesis, Harvard University Division of Continuing Education.

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Air Power in the Face of Ethnic Cleansing: The Effectiveness of NATO's Approach to End Serbian Aggression in Kosovo

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A Thesis in the Field of International Relations for the Degree of Master of Liberal Arts in Extension Studies

Harvard University

March 2021

Abstract

This thesis investigates the North Atlantic Treaty Organization's (NATO) decision to use air power alone in the Kosovo Conflict against Serbian aggression to restore political stability and end ethnic cleansing. Through historical analysis and evidence, this thesis illustrates that NATO's air power alone strategy in Kosovo was the most influential and effective option as opposed to other uses of military power to bring Serbian aggressors to the negotiation table. Relevant primary and secondary sources have been used to examine evidence to draw conclusions and justify NATO's decision to use air power alone in Kosovo and to expose the effectiveness of air power alone in meeting military objectives and political aims among different conflicts. I apply Process Tracing (PT) to substantiate the effectiveness of air power alone as the most influential and effective use in Kosovo while ruling out other military force alternatives. Lastly, I address the rejection by some scholars and military theorists that the use of air power alone in Kosovo was not effective enough to curb ethnic cleansing and save lives with greater expediency.

I compare Operation Allied Force (OAF) in Kosovo to other similar uses of air power alone operations: Operation Deliberate Force (ODF) and Operation Unified Protector (OUP) to expose the advantages, disadvantages, and lessons learned, while using Operation Desert Storm (ODS) as a paradigm shift in air power doctrine leading to the adoption of "Effects Based Operations." This comparison and analysis provides evidence to support the argument through PT regarding whether or not air power alone in Kosovo was effective.

To provide historical context, I address the underlying political tensions of the Balkan region through an analysis of focus areas including the support of United States allies support and the public, inherent battlefield challenges, and humanitarian concerns. Similar air power alone cases provide additional insight and details into these criteria, identifying common trends associated with the use of air power alone and highlighting the advantages, disadvantages, and lessons learned unique to each operation.

Overall, air power alone in the Kosovo Conflict was the most effective use of military force and led to the end of Serbian aggression within 78 days, a significant milestone given the challenges and limitations NATO aircrews encountered conducting air operations in the Balkans. NATO's actions during the Kosovo Conflict demonstrate the capacity for air power alone to succeed in accomplishing military objectives and political aims.

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Acronyms List

EBO Effects-Based Operations

EBOT Effects-Based Operations Theory

KLA Kosovo Liberation Army

ISR Intelligence Surveillance Reconnaissance

JSTARS Joint Surveillance Target Attack Radar System

NATO North Atlantic Treaty Organization

OAF Operation Allied Force

ODS Operation Desert Storm

ODF Operation Deliberate Force

OOD Operation Odyssey Dawn

OUP Operation Unified Protector

PfP Partnership for Peace

PGM Precision Guided Munitions

PT Process Tracing

UN United Nations

US United States

USAF United States Air Force

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Chapter I.

Introduction

Air forces can be switched from one objective to another. They are not committed to any one course of action as an army is, by its bulk, complexity, and relatively low mobility. While their action should be concentrated, it can be quickly concentrated afresh against other objectives, not only in a different place, but of a different kind. — B.H. Liddell Hart¹

Background

This section will first provide historical background and focus on the political and military conditions and tensions of the Kosovo Conflict leading to NATO's decision to conduct Operation Allied Force (OAF). It is important to understand the root cause and underlying political tensions in the Balkan region to gain a greater context and how additional criteria: public support, inherent battlefield challenges and humanitarian concerns affected NATO's air power alone decision and operations by asking relevant questions. The other air power alone cases provide additional insight, details and evidence related to political context and criteria, identifying common trends associated with the use of air power alone highlighting the advantages, disadvantages, and lessons learned unique to each operation. Second, it will examine the existing scholarly debate regarding whether or not air power alone was the most effective use of military power to curb and stop ethnic cleansing in Kosovo. Lastly, Process Tracing (PT) will be explained as the research methodology used to determine whether NATO's decision for air power alone in the Kosovo Conflict was effective.

¹ James Charlton, *The Military Quotation Book: More than 1,100 of the Best Quotations about War, Courage, Combat, Victory* (New York: St. Martin's Press, 2013), 98.

Historical Background

The Kosovo Conflict highlighted the reality that intra-state conflicts among European states are still probable in the post-Cold War era due to self-determination. These former Soviet Union satellite states that were given their new autonomy and independence quickly realized the importance of strong economic and political foundations as key ingredients to growth and stability. These newly established states under former communist rule and control, sought to unify under a common interest and identity again, resulting in the activation of pre-existing rivalries and tension previously suppressed by the Soviet Union. As a result, intra-state conflicts in Europe emerged expanding beyond the state and transcended into regional areas, which attracted significant attention to the region from international actors. Some of the outcomes of the various conflicts included refugee crises, disruptions to commerce and politics among states, security concerns, and threats to order, and stability throughout the region.

Historically, conflicts with underlying ethnic and territorial tensions that have existed for centuries will continue without any near-term resolutions, a phenomenon cleverly referred to as "Scorpions in a bottle." These intra-state conflicts posed a threat to international peace and stability triggering a response from the United Nations (UN) and NATO. As a result, intra-state conflicts evolved into more complex and costly

² Walter Mead, *Special Providence: American Foreign Policy and How It Changed the World* (New York, NY: Routledge, 2009), 36.

³ Muzaffer Yilmaz, "Intra-State Conflicts in the Post-Cold War Era," *International Journal on World Peace* 24, no. 4 (2007): 11-33, accessed September 5, 2020, https://www.jstor.org/stable/20752800?seq=1.

situations requiring the international community to devote more money and resources into long-term resolutions in an effort to sustain global economic and political stability.

The United Nations (UN) leadership failed to act swiftly to mitigate the Serbian aggression and ethnic cleansing. It overlooked opportunities to maintain peace, such as passing a binding resolution and sending armored personnel carriers and blue-helmeted peacekeepers to declare martial law; the UN's failure to act resulted in NATO's military involvement. As a result, NATO got involved and formulated a strategic plan to use air power alone to stop the genocide and restore democratic stability in Kosovo. The UN and NATO understood the importance and responsibility to stop the genocide or any human rights violations with the understanding that "citizens victimized by genocide or abandoned by the international community do not make good neighbors, as their thirst for vengeance, their irredentism, and their acceptance as a means of generating change can turn them into future threats." Therefore, the United States, UN, and NATO had a responsibility to get involved in such matters of genocide and human rights to avoid long-term consequences of in action while fulfilling their new roles and responsibilities in the post-Cold War.

Operation Allied Force (OAF) focused primarily on NATO air power flexibility, agility, and expediency through the careful delivery of Precision Guided Munitions (PGM) against Serbian military targets to achieve specific effects with minimal collateral damage. Lieutenant General David A. Deptula, a United States Air Force (USAF) principal attack planner for the Operation Desert Storm (ODS) air campaign, exercised

⁴ Samantha Power, *A Problem from Hell: America and the Age of Genocide* (New York, NY: Basic Books, 2013), 513.

the Effects Based Operations Theory (EOBT), which became the foundation and doctrine for the coalition air campaign. EBOT utilized technological advancement capabilities and specific strategic targeting to achieve specific effects instead of concentrating on the number of destruction outcomes. Hence, air power alone effectiveness and success was not measured by destruction, but rather by the specific effects, resulting in a breakdown in leadership, organization, and will of the adversary to fight, combined with minimal collateral damage leading the adversary to the negotiation table. Parallel warfare became the mechanism in which EOBT could achieve a shock effect by hitting strategic targets in parallel.⁵

ODS highlighted the first use of PGMs and implementation of EOBT in air combat illustrating the surgical accuracy of these weapons. The accuracy of the PGMs were displayed on all major news outlets creating a shock factor effect increasing fear and deterrence two-fold. Ironically, in ODS, Lambert notes, "only 10 percent of the participating U.S. strike aircraft were precision guided munitions capable. That number rose to 69 percent in Operation Deliberate Force and shot up to 90 percent in Allied Force." However, through the implementation and execution of EBOT in ODS, United States and allied aircraft were able to gain control of the skies over IRAQ and Kuwait within three days.

⁵ David Deptula, "Effects-Based Operations: Change in the Nature of Warfare," *Air Force Association* (2001): 1-40, accessed September 15, 2020, https://secure.afa.org/Mitchell/reports/0901ebo.pdf.

⁶ Benjamin Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA: Rand Corporation, 2001), 87.

Decision for Air Power Alone

The North Atlantic Treaty Organization's (NATO) decision to use air power alone against Serbian aggression was the most effective use of military force in Kosovo. However, numerous military theorists, and scholars debate whether air power alone in OAF from March 5, 1998 through June 11, 1999, was the most effective use of military force in Kosovo. Some propose the deployment of NATO ground forces or combination with air power would have been more effective than air power alone leading to more Albanian lives saved. Political Scientist Anthony Cordesman rejects the notion that air power alone was effective enough. He states, "not only was air power not decisive in Kosovo, tradeoffs that weaken land and sea power put a steadily heavier burden on air and missile power, and create added pressures to use it in missions where air and missile power alone may not be able to do the job." As a result, a debate has emerged whether NATO's air power alone strategy in Kosovo was the most influential and effective use of military power to defeat the Serbian military under the command of Serbian Leader Slobodan Milosevic in Kosovo.

The Kosovo Conflict proved to be the first true test of NATO in the European theater to conduct successful joint air operations among all the political and military tensions along with the importance of maintaining cohesion among NATO members.

OAF had three objectives to restore order and stability in Kosovo. President Bill Clinton

⁷ Anthony Cordesman, Lessons and Non-Lessons of the Air & Missile Campaign in Kosovo (Greenwich, CT: Praeger, 2001), 82.

⁸ Daniel Byman and Matthew Waxman, "Kosovo and the Great Air Power Debate," *International Security* 24, no. 4 (2000): 5-38, accessed September 18, 2020, https://www.belfercenter.org/publication/kosovo-and-great-air-power-debate.

summarized these objectives when he stated, "to demonstrate the seriousness of NATO opposition to aggression, to deter Milosevic from continuing and escalating his attacks on helpless civilians, and, if need be to damage Serbia's capacity to wage war against Kosovo by seriously diminishing its military capabilities."

Javier Solano, former Secretary-General of NATO, remarked on Kosovo only five months after the end of conflict as being the "first time, a defensive alliance launched a military campaign to avoid a humanitarian tragedy outside its own boarders. For the first time, an alliance of sovereign nations fought not to conquer or preserve territory but to protect the values on which the alliance was founded." His words only five months after the end of conflict highlighted the perceived success NATO achieved in Kosovo with the use of air power alone to stop the genocide and restore stability within 78 days.

Question

Through historical analysis and an investigation of the Kosovo Conflict, this thesis will answer the following question: was NATO's decision to use air power alone effective to defeat the Serbian aggression. To answer this question, I will address three critical criteria areas affecting air power alone effectiveness: 1) operational effectiveness, 2) humanitarian concerns, and 3) public support. This criterion highlights the scope and complexity of the NATO decision to use air power alone in the Kosovo Conflict. Many scholars and military theorists only have focused on specific criteria and neglected to

⁹ Lambeth, *NATO's Air War for Kosovo*, 19.

¹⁰ Javier Solana, "NATO's Success in Kosovo," *Foreign Affairs* 78, no. 6 (1999): 114, accessed September 18, 2020, https://www.jstor.org/stable/20049537?seq=1.

collectively analyze all when formulating their critiques opposing NATO's air power alone decision and effectiveness to meet military and political aims.

I hypothesize that NATO's decision to use air power alone was most influential and effective option to restore peace and stability in Kosovo based on consideration of the three critical criteria as it relates to air power effectiveness. To explore these criteria in support of air power effectiveness, I will ask and answer the following questions:

- 1.) How did geographical and physical terrain and climate characteristics of Kosovo affect military operations? Particularly, logistics, mobility, and sustainment to establish an enduring military operational readiness?
- 2.) How did concerns about public support for a ground invasion verses use of air power affect NATO leaders' decision? How did NATO as an organization maintain cohesion among partners and agree on a plan/strategy? Did this present limitations or affect overall air power effectiveness?

Operational Effectiveness

Lastly, effectiveness indirectly encompasses the other three criteria due to its association with the use of force through which coercion was the primary motive to get to the negotiation table given the political, diplomatic and military challenges and tensions in Kosovo. Air power effectiveness relied heavily on NATO air power capabilities and technologies (stealth and PGMs) to achieve political and military goals while mitigating the risks and consequences of the other criteria. In addition, NATO had conducted a preliminary case study of the estimated number of ground troops it would take to secure Kosovo during the use of force discussions and determined it would need approximately

200,000 ground troops.¹¹ As a result, NATO and the United States ruled out the ground force option as not viable. One senior administration official stated, "the number came in too high." He added, "If the United States had pursued a ground strategy, Clinton aides say, the administration would have been defying public opinion both here and in other NATO countries." Therefore, public opinion and cohesion weighted greatly on the NATO decision-making process to reach an agreed upon use of force to address humanitarian concerns, ethnic cleansing in Kosovo. NATO cohesion coupled with public opinion was paramount to the alliance and took precedence over immediate operational effectiveness.

Secretary of State Madeleine Albright gave a speech at the Institute for Peace in Washington, D.C on February 4, 1999, highlighting the threat Milosevic posed to Europe. She stated, "There is no natural boundary to violence in Southern Europe," reinforcing the need for NATO to engage in Kosovo to restore order and protect "our NATO allies, Greece and Turkey." Therefore, air power effectiveness became an extension of diplomacy along with exhibiting NATO's political and military strength with the aims to coerce Milosevic into negotiations. Byman and Waxman raised a question surrounding coercion and effectiveness worthy of investigating further and stated, "Instead of asking

¹¹ John Harris, "Clinton Saw No Alternative to Airstrikes," *Washington Post*, A1, 1999, https://www.washingtonpost.com/wp-srv/inatl/daily/april99/clinton040199.htm.

¹² Harris, "Clinton Saw No Alternative to Airstrikes," A1.

Madeleine Albright, "Changing Situation in Kosovo," U.S. Institute for Peace,
 (1999): 1, accessed September 21, 2020,
 https://1997-2001.state.gov/statements/1999/990204.html.

if air power alone can coerce, the important questions are: how can it contribute to successful coercion, and under what circumstances are its contributions most effective"?¹⁴

Humanitarian Concerns

Humanitarian concerns of the ethnic cleansing was one of the underlining reasons NATO sought to use air power alone to stop the Albanian genocide in Kosovo. NATO understood the risks and consequences of their use of military force decision directly or indirectly affecting the displacement of people and potentially leading them to joining the authoritarian regime ranks as a matter of survival and thereby, creating a power vacuum further complicating the conflict and leading to a refugee crisis. In response, "NATO built refugee camps, a refugee reception centre, and an emergency feeding station, as well as moving many hundreds of tons of humanitarian aid to those in need."¹⁵

Air power alone was an attractive option for NATO given the PGM capabilities and minimal collateral damage, decreasing the likelihood of contributing more to the dire humanitarian conditions on the ground. Therefore, the humanitarian concerns that brought NATO into the Kosovo Conflict served as a constant reminder to treat air attacks with careful review and analysis to minimize collateral damage and civilian deaths. Later in OAF, "some European allies resisted escalated air attacks that would endanger civilians, and NATO officials also scrutinized the target list to comply with international

¹⁴ Byman and Waxman, "Kosovo and the Great Air Power Debate," 6.

¹⁵ NATO, "NATO's Role in Relation to the Conflict in Kosovo," (2020), 3, accessed May 2, 2020,

legal proscriptions". ¹⁶ Therefore, like the other factors, humanitarian concerns proved to be an important criterion for NATO decision-making.

Public Support

Lastly, public support was paramount to the NATO decision makers as it related to political, economic, and military support in determining which use of military force to implement and execute. Douglas Barrie, a Senior Fellow for Military Aerospace at IISS, states, "the use of air power must be, and must be seen to be, judicious to ensure broad public support, particularly in campaigns justified on humanitarian grounds." Barrie points out the relationship between collateral damage and public support illustrating how public support can be used as a political weapon or extension of diplomacy. Serbia's willingness to use collateral damage as a political weapon exemplified its desperation to gain political, economic and military support at any cost. Cordesman explains the magnitude in which the Serbs utilized the media as propaganda to garner public support and motivate its military. He highlights how they manipulated television coverage of real collateral damage sites to give the perception of attacks on civilians and mask ethnic cleansing activities. Cordesman explains:

It removed military vehicles and casualties from the scene of attacks to give the impression that they were strikes only against civilians, arranged corpses for dramatic effect, and altered the amount of civilian debris in the scene of such

¹⁶ Byman and Waxman, "Kosovo and the Great Air Power Debate," 33.

¹⁷ Douglas Barrie, "Libya's Lessons: The Air Campaign," *Survival* 54, no. 6 (2012): 64, accessed September 19, 2020, https://www.tandfonline.com/doi/abs/10.1080/00396338.2012.749629.

damage to improve the media effect-possibly trucking in debris from the scene of Serbian ethnic cleansing.¹⁸

Cordesman's assessment of collateral damage highlights the need to broaden the analysis of why NATO leaders elected to use air power alone.

Literature Review: Debate on the Use of Air Power Alone
It is important to pose and answer the following question: "Can air power alone
achieve strategic goals"? This question is critical to the analysis and evaluation of air
power alone effectiveness in Kosovo given the military and political constraints and
pressures. The following literature review provides background into and scholarly
debates on the Kosovo Conflict and introduces competing viewpoints on the subject.
While there are scholars who highlight the perceived shortcomings of air power alone
and propose that other uses of military force alternatives are superior, their arguments fall
short in key areas; these include challenges associated with collateral damage, inherent
battlefield challenges and obstacles, and collective concerns regarding the political
implications involved with ground forces. Lastly, the alternatives neglect to acknowledge
that each conflict is different and thus, there is no common recipe or strategy.

The decision-making criteria established a baseline for testing the hypothesis to determine if air power alone was the most effective option. Lambeth, who authored *NATO's Air War for Kosovo: a Strategic and Operational Assessment*, provides a sound overview of the operational capabilities of air power bombing encompassing command

¹⁸ Cordesman, Lessons & Non-Lessons of the Air & Missile Campaign in Kosovo, 94-95.

and control, targeting response, and reconnaissance. Specifically, he offers some insight into the political and military influence the United States had on the NATO decision to pursue air power alone collectively as well as highlighting the challenges of implementing ground forces:

NATO expressly ruled out any backstopping by ground forces for two avowed reasons. The first had to do with identified logistic difficulties, the anticipated challenge of the terrain, and poor access and basing opportunities. The second, and far more pivotal, reason entailed the Clinton administration's concern over lack of congressional support for such an option and the presumed unwillingness on the part of the American people and the NATO allies to accept combat casualties, reinforced by a near-certainty that the allies would not buy into a ground option. All planning, moreover, took for granted that NATO's most vulnerable area (or "center of gravity") was its continued cohesion as an alliance.¹⁹

Interestingly, he avoids investigating in more detail the challenges and shifting requirements of logistics and air mobility capabilities needed for operational readiness and sustainment with the implementation of ground forces given the political, diplomatic, and military context in Kosovo. He neglects to provide analysis and details pertaining to the air power alone decision-making process or criteria for effectiveness and does not propose a strategy or plan of how NATO ground forces would have been deployed from a mobilization, staging, execution, and sustainment perspective in conjunction with air power operations. However, he discredits air power alone as being the most effective option in Kosovo and points to joint NATO ground and air operations as a more effective approach. He states that air power alone was not able to perform to its "fullest potential without the presence of a credible ground component in the campaign strategy" and that a

¹⁹ Lambeth, NATO's Air War for Kosovo, 12.

"modern and well-equipped NATO ground forces arguably possessed enough combat power to make mincemeat of the Yugoslav army."²⁰

Similar to Lambeth, Anthony Cordesman, who wrote *Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo*, highlights the lessons learned from OAF and rejects the notion that air power alone was the most effective option and promotes a joint NATO ground and air force. Cordesman (2001) like Lambeth highlights some of the challenges with the deployment of ground forces and states:

Had ground forces been deployed into Kosovo, the requirements for engineering support would have been substantial. Engineers would have had to make necessary improvements to airfields, seaports, and the road and rail network so that the transportation network could adequately support the movement of refugees as well as the ground-combat forces involved in offensive operations. These demands may have exceeded the capability of in-theater engineering assets. ²¹

However, Cordesman magnifies the Kosovo Liberation Army's (KLA) contributions in conjunction with NATO air campaign as a contributing factor to bringing Milosevic to the negotiation table. Further, he explains that the Serbian army never came close to destroying the KLA. He stated, "on June 30th that the KLA forces in Kosovo had built up to roughly 20,000, plus another 4,000 men in holding positions in Albania." These KLA forces assumed battlefield roles "equivalent of forward air controllers, greatly aiding in

²⁰ Lambeth, NATO's Air War for Kosovo, 244-245.

²¹ Cordesman, Lessons & Non-Lessons of the Air & Missile Campaign in Kosovo, 277.

 $^{^{22}}$ Cordesman, Lessons & Non-Lessons of the Air & Missile Campaign in Kosovo, 235.

supplementing the targeting data provided by UAVs and the JSTARS."²³ This evidence supports that joint operations did exist between the KLA on the ground and NATO aircrews, substantiating that NATO ground forces may have made a difference and added additional value to operations.

Unlike Cordesman and Lambeth, USAF Colonel Robert Owen is a strong advocate for air power alone utilizing PGMs and executing the EBOT in the Balkan region. He offers insight into how instrumental an effective air campaign is to getting the adversary to the negotiation table based on his ODF case study. He stresses the importance of PGM technology and adoption of EBOT to achieve minimal collateral damage objectives among political and military constraints. He states, "had NATO chosen to conduct a joint air and ground offensive against the Serbs or to rely on non-precision aerial weapons in the bombing campaign, Deliberate Force certainly would have involved greater casualties on both sides."²⁴ Therefore, air power alone and the delivery of PGMs was pivotal to minimizing collateral damage and reducing the number of casualties while recognizing the need to adjust EBOT and the parallel warfare approach to meet unique political and military aims of ODF.

One of the biggest challenges in this debate is the fact that no constant metric or tool exists to evaluate air power alone effectiveness due to the number of variables inherent within warfare at any given second, minute or hour. Therefore, a question arises of how success and failure are defined and what metric is used to evaluate air power

²³ Cordesman, Lessons & Non-Lessons of the Air & Missile Campaign in Kosovo, 235.

²⁴ Robert Owen, *Deliberate Force: A Case Study in Effective Air Campaigning* (Maxwell Air Force Base, AL: Air University Press, 2000), 507.

effectiveness in order to draw conclusions in support of air power alone effectiveness or failure in Kosovo. Gian Gentile, a retired United States Army Officer and author of *How Effective is Strategic Bombing? Lessons Learned from World War II to Kosovo*, avoids claiming air power alone was solely responsible for the success in Kosovo, arguing that due to no common metric and survey, the debate is inconclusive and proposes a list of questions in an attempt to draw conclusions and add more analysis and evidence.

Interestingly, Gentile offers questions similar to the decision-making criteria in this proposal. They are:

Was it the impact of air power on Serbian infrastructure that caused Milosevic to withdrawal his forces from Kosovo? Or did the bombing of targets in Serbian cities like Belgrade create hardships and terror among the civilian population that in turn somehow influenced Milosevic's actions? Did the threat of a ground invasion by NATO armies ultimately persuade the Serbian leader that he had to accept NATO and U.N. demands? Finally, what effect did Russia's removal of support for Serbia have on Milosevic decision?²⁵

Gentile raises some additional questions related to what other factors may have coerced Milosevic to the negotiation table expanding beyond air power alone effectiveness.

Other military theorists and scholars point out that air power alone comparison are problematic because each conflict is unique, and there is no common effectiveness metric. Karl Mueller, a political scientist specializing in military strategy, states the following regarding a report he wrote for Rand Corporation for OUP. He states the importance of evaluating air power from its contribution to the overall operation and advises that ground forces no matter the size played a role in the outcome. Therefore, air power could have acted more jointly or independently dependent upon the air campaign

²⁵ Gian Gentile, *How Effective is Strategic Bombing?: Lessons Learned From World War II to Kosovo* (New York, NY: New York University Press, 2001), 193.

operation. In addition, he advises that each conflict and air campaign operation differ, resulting in different decision-making criteria and outcomes. According to Mueller:

Each bears certain similarities to the Libyan air campaign, but also differs from it in important ways. Before enumerating those differences, however, it is important to be clear about the idea of relatively independent air campaigns, lest this suggest that air power acted alone in determining the outcome of any of these wars. In fact, ground forces figured significantly in all of them, although differently in each. What they have in common, however, is that for some or all of the operations, air power was operating more or less on its own. ²⁶

Mueller's analysis of the Libyan air campaign reinforces the argument that each conflict is different and therefore, decision-making criteria related to effectiveness changes, leading decision makers to exploit different uses of force to accomplish specific aims or objectives. He highlights that air power in most conflicts operate independently, but he goes further to state that ground forces in some capacity contributed to air power similar to Cordesman's view on KLA contributions.

Cordesman's study also includes evidence contradicting his overall critique of the air power alone decision in terms of the political, diplomatic, and military impacts.

Indirectly, he supports the EBOT as it relates to his discussions of collateral damage in his explanation of how NATO carefully planned air strikes to reap the strategic effects with the minimal collateral damage to bring Milosevic to the negotiation table. He devotes an entire section, entitled "The Problem of Collateral Damage," to examine the political, diplomatic, and military challenges and consequences of collateral damage as well as its relevance and importance to the criteria. Cordesman points out the rigor of NATO target identification, review and approval process and states the following:

²⁶ Karl Mueller, *Precision and Purpose: Air power in the Libyan Civil War* (Santa Monica, CA: Rand Corporation, 2015), 5.

NATO made a detailed effort to review the range of possible collateral damage for each target, and to plan its strikes so that the weapon used, the angle of approach, and the aim point would minimize collateral damage. This process was so exhaustive that NATO often had more strike aircraft available than cleared targets, and many important targets were avoided or sent back for review again and again.²⁷

Overall, collateral damage became politically sensitive as OAF progressed for both NATO and Milosevic, similar to many of the conflicts after ODS, media outlets images captured by the international media provided another layer of complexity and challenge directly impacting public opinion and perception of warfare progress and outcomes. Therefore, collateral damage influenced the decision-making and air power effectiveness criteria as it related to inherent battlefield challenges, public opinion, and humanitarian concerns leading NATO to decide that air power alone was the most effective option.

Research Methodology

This thesis relies on primary and secondary sources for evidence to examine the "diagnostic pieces of evidence within a case that contribute to supporting or overturning alternative explanatory hypotheses by investigating observable implications of given theories and scrutinizing them under a lower level of analysis." ²⁸ Therefore, PT is the

²⁷ Cordesman, Lessons & Non-Lessons of the Air & Missile Campaign in Kosovo, 94.

²⁸ Andrew Bennett, "Process Tracing and Causal Inference," in *Rethinking Social Inquiry*, ed. Henry Brady and David Collier (Lanham, MD: Rowman & Littlefield Publishers, 2010), 208.

most fitting research method for providing evidence to support the hypothesis and evaluate the strength of alternative explanations.

Historical background: The historical background will serve as the foundation for the body of knowledge required to complete the appropriate level of analyze to address competing arguments.

Examine the hypothesis: Primary and secondary resource evidence will test the hypothesis. Therefore, the air power alone effectiveness criteria along with its questions will be answered along with the case study evidence to support the hypothesis to draw conclusions. Primary resources will provide evidence to test the hypothesis using the PT research method. Since there is a fair amount written about the Kosovo Conflict, the outstanding questions regarding effectiveness criteria as they relate to NATO's air power alone decision remains relatively untapped. Through a better understanding of the historical context surrounding the Kosovo Conflict, we can gain more insight into why air power alone was chosen for military operations over other alternatives.

PT uses four primary approaches to evaluate the validity of the hypothesis (refer to Figure 1). Evidence passing the Smoking Gun test is a decisive way to prove the hypothesis because it allows clear, undeniable evidence to confirm an idea while allowing less-convincing evidence to be considered without ruling out an idea. Bennett's example of the Smoking Gun test explains, "a smoking gun in the suspect's hands right after a murder strongly implicates the suspect, but the absence of such a gun does not exonerate a suspect." The PT causation table below illustrates the different methods used to evaluate ideas within PT. Therefore, the test focuses on the relationship between

²⁹ Bennett, "Process Tracing and Causal Inference," 211.

the evidence and the hypothesis rather than the overall quantity of evidence. Bennett's PT causation table below highlights the four PT tests.³⁰

	Sufficient To Establish Causation (b)		
	No	Yes	
Necessary to			
Establish	Straw in the Wind	Smoking Gun	
Causation	Passing affirms relevance of	Passing confirms hypothesis.	
No	hypothesis but does not confirm it. <i>Failing</i> suggests	Failing does not eliminate it.	
	hypothesis may not be relevant,		
	but does not eliminate it.	,	
Yes	Ноор	Doubly Decisive	
	Passing affirms relevance of	Passing confirms hypothesis	
and			
	hypothesis but does not	eliminates others.	
	confirm it. <i>Failing</i> eliminates it.	Failing eliminates it	

Figure 1. Causation Table.³¹

Source: Process Tracing and Causal Inference.

However, the hypothesis is rejected if there is not adequate evidence to support the air power alone decision as the most effective. As far as the other tests, the Doubly Decisive test simultaneously proves the hypothesis and disproves the alternative hypotheses, similar to catching a speeder on camera while he or she is driving past a speed camera, thereby, eliminating other cars. Therefore, due to the need to validate information, Bennett explains, "such tests are rare in the social sciences, yet a hoop test and a smoking gun test together accomplish the same analytic goal".³² A hoop test eliminates alternative hypotheses but does not provide enough evidence for a hypothesis in question to be ruled out. Bennett highlights hypothesis "must jump through hoops just

³⁰ Bennett, "Process Tracing and Causal Inference," 210.

³¹ Bennett, "Process Tracing and Causal Inference," 210.

³² Bennett, "Process Tracing and Causal Inference," 211.

to remain under consideration, but passing the test does not strongly affirm a hypothesis."³³ Lastly, straw in the wind tests are indecisive and "provide neither a necessary nor a sufficient criterion for establishing a hypothesis or, correspondingly, for rejecting it."³⁴

In addition, I will analyze opposing arguments regarding whether air power alone in Kosovo was the most effective use of military power to defeat the Serbian authoritative regime whiling exposing any gaps that may exist. This thesis will analyze the political and military tensions and challenges that drove NATO to carefully evaluate the air power alone effectiveness criteria to formulate their air power alone decision. The literature will serve as the primary source of gathering evidence to provide the details and support surrounding this heavily debated subject.

Research Limitations

My research will focus upon the effectiveness air power alone criteria that helped influence NATO's decision to use air power alone in the Kosovo Conflict while ruling out alternatives as not viable nor effective options. Thus, the evidence will focus upon the evaluation of NATO's air power alone decision as it relates to the political and military context and the effectiveness criteria. I will not provide in depth research on ground force technology during the period of OAF. The air power alone case studies will provide a comparison of evidence to illustrate air power alone was effective and the best use of

³³ Bennett, "Process Tracing and Causal Inference," 210.

³⁴ Bennett, "Process Tracing and Causal Inference," 211.

military force in Kosovo while uncovering some of the unique complexities and challenges of each air campaign.

Overall, PT has limitations and like many other research methods is not perfect; however, it is the most suitable. Moreover, the PT causation process aids in the organization of thinking as it relates to the evidence in order to prove or disprove the hypothesis. Andrew Bennett, one of the authors of PT stated, "not all information is of equal probative value in discriminating between alternative explanations, and a researcher does not need to examine every line of evidence in equal detail". He further explains, "It is possible for one piece of evidence to strongly affirm one explanation and/or disconfirm others, among explanations at all. What matters is not the amount of evidence, but its contribution to adjudicating among alternative hypothesis." Bennett stresses the importance of relevant and strong evidence to support the hypothesis and disprove the alternatives and confirms that relevant and strong evidence carries more weight than the quantity of evidence.

³⁵ Bennett, "Process Tracing and Causal Inference," 209.

³⁶ Bennett, "Process Tracing and Causal Inference," 209.

Chapter II.

Background of NATO Air Power

At the very heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. Doctrine is of the mind, a network of faith and knowledge reinforced by experience which lays the pattern for the utilization of men, equipment, and tactics. It is the building material for strategy. It is fundamental to sound judgment. — General Curtis E. LeMay³⁷

The North Atlantic Treaty Organization (NATO) created on April 1949, formed an alliance among European nations, the United States, and Canada to counter Soviet Union political and military expansionism and aggression following World War II. In response, the Soviet Union created the Warsaw Treaty Organization, commonly referred to as the Warsaw Pact in May 1955 comprising of socialist republics in Central and Eastern Europe, Albania, Bulgaria, Hungry, Poland, Romania, East Germany, and Czechoslovakia to promote collective cooperation and security to counter NATO.³⁸ As a result, a Cold War ensued between the United States and Soviet Union leading to a nuclear arms race that endured for 36 years. Both NATO and the Warsaw Pact played critical roles in maintaining a balance of power in Europe during this period of high tension and threats of nuclear weapons. The Cold War ended peacefully in 1991,³⁹

³⁷ United States Department of the Air Force. *Air Force Basic Doctrine, Organization, and Command.* Maxwell Air Force Base, Ala, LeMay Center for Doctrine Development, 2011. Accessed September 5, 2020. https://www.doctrine.af.mil/Portals/61/documents/Volume_1/V1-D01-Introduction.pdf.

³⁸ United States Central Intelligence Agency, Historical Collections Division, *Warsaw Pact: Wartime Statutes, Instruments of Soviet Control* (Washington, D.C.: Central Intelligence Agency, Historical Collections Division, 2011), 1.

³⁹ Joseph S. Nye, "Gorbachev and the End of the Cold War," *New Straits Times*, April 5, 2006, accessed September 19, 2020, https://www.belfercenter.org/publication/gorbachev-and-end-cold-war.

dissolving the Soviet Union and Warsaw Pact, setting its satellite states free and independent from socialism and communist rule.⁴⁰ As a result, the bi-polarity spheres of influence between the two superpowers, the Soviet Union and United States ended shifting all the Soviet Union power and influence to the United States transforming the world into a unipolar world order overnight.

During 1999, NATO comprised of the following nations: Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, United Kingdom, and United States. Interestingly, on March 1999, the 50th anniversary of NATO, the Czech Republic, Hungary and Poland joined alliance from the former Warsaw Pact. The acquisition of these newly established democratic countries in close proximity to the Soviet Union was a strategic advantage for NATO politically and militarily. NATO membership safeguarded their democratic development, growth and pursuits through the principles of the United Nations Charter leading to more stable political, economic and social foundations. ⁴¹ NATO membership expanded beyond the confines of European boarders in which the United States and Canada had a political and economic interest and stake in European allies' security through their military contributions and political support.

⁴⁰ Bogdan Denitch, *The End of the Cold War: European Unity, Socialism, and the Shift in Global Power* (Minneapolis: University of Minnesota Press, 1990), 58.

⁴¹ NATO, *NATO Handbook* (Brussels, Belgium: NATO Office of Information and Press, 1999), 3.

Post-Cold War

In response to the collapse of the Soviet Union and end of the Cold War, NATO recognized the need to change their policies and strategy to keep pace with the emerging free and independent former satellite states of the Soviet Union. The European order and power shift changes presented NATO with new security risks and concerns. As a result, NATO's scope of security shifted from one predictable and centralized country, the former Soviet Union, to a newly structured Eastern Europe comprising of many new states seeking independence. In addition, some of those security risks and concerns stemmed from previous economic, political, and social rivalries specific to each region and or state as well as other inherent factors and challenges associated with garnering consensus and developing new political, economic, and social foundations. Therefore, NATO was entering into a new era of unpredictability keeping a watchful eye on the political, economic, and social transformation of these new states in Eastern Europe from a security and stability lens.

Strategic Concept

The NATO Summit Meeting in Rome on November 7-8, 1991, was the first step toward a new collective alliance strategy referred to as the "Strategic Concept" to address security concerns in Europe, following the Cold War, especially Eastern Europe while seeking concurrence on a revised security policy and approach. The NATO Heads of State and Government devised a "Strategic Concept" encompassing a broad set of key security policy objectives: dialogue, cooperation, and maintaining an individual and collective defense readiness posture to defend against one or more threats simultaneously.

In addition, NATO signed a "declaration on peace and cooperation" named the "Rome Declaration" as a new approach to become more mobile, flexible, and streamlined to account for the level of uncertainty and unpredictability in Eastern Europe leading to more peacekeeping and crisis management roles increases the overall complexity of the former security policy and approach.⁴²

The dialogue objective encouraged NATO to expand upon its general diplomatic liaison duties and footprint in Eastern Europe including "an intensified exchange of views and information on security policy issues" to resolve conflicts diplomatically and peacefully. 43 More importantly, cooperation was a key ingredient to NATO member cohesion and allowed members to bridge divisions and rivalries. Cooperation was "built upon a common recognition among Alliance members that the persistence of new political, economic or social divisions across the continent could lead to future instability and such divisions must thus be diminished" leading to greater stability for all. 44 Lastly, NATO's collective defensive posture is even more important due to the uncertainty and unpredictable in Eastern Europe. In response, NATO maintained military operational readiness and sought technology advancement in military capabilities to gain an advantage and counter any potential adversaries. As a result, NATO's defensive posture coupled with its "political solidarity, is required in order to prevent any attempt at

⁴² NATO, NATO Handbook, 27.

⁴³ NATO, NATO Handbook, 28.

⁴⁴ NATO, NATO Handbook, 29.

coercion or intimidation, and to guarantee that military aggression directed against the Alliance can never be perceived as an option with any prospect of success."⁴⁵

NATO's "Strategic Concept" reinforced its new roles and responsibilities in the post –Cold War adjusting its posture to defend against a multitude of unpredictable new states with varying military capabilities in Central and Eastern Europe. However, even though the Cold War ended, the former Soviet Union nuclear weapon arsenal remained intact posing a threat and concern. In response, NATO continued to remain vigilance and counter balanced the former Soviet Union nuclear weapons as an act of deterrence while also striving to reduce the overall nuclear weapon quantities and capabilities set forth by the United States and the Soviet Union during the Cold War.

The "Strategic Concept" and "Rome Declaration" set in motion the new strategy and security policy objectives for NATO to address the unpredictable and volatile post-Cold War era. NATO understood the need to proceed cautiously to garner information on political, economic, and social landscape of these new states in order to gain better insight into their culture, characteristics, and behaviors leading to greater predictability overtime. In addition, NATO recognized that the "Strategic Concept" would change and adapt as more of these former Soviet states became more predictable, thus directly impacting their new roles as peacekeepers and crisis management leaders.

However, following the NATO summit in Rome, a multitude of other NATO meetings and summits arose to enhance the "Strategic Concept" and "Rome Declaration" with additional processes and details stimulating greater communication and cooperation among NATO members and former Soviet states within Eastern Europe. Therefore,

⁴⁵ NATO, *NATO Handbook*, 30.

NATO was in a constant state of change and modification as it navigated the new political landscape of Eastern Europe following the collapse of the Soviet Union. In particular, there is one summit in January 1994 in Brussels, Belgium that introduced the Partnership for Peace (PfP) initiative.⁴⁶

Partnership for Peace

The PfP expanded upon the dialogue and cooperation objectives affording NATO the opportunity to interact more frequently and directly with the former Soviet states to gain greater insight into their political, social, economic and defense infrastructure and foundations while building new relationships. The PfP framework shadowed many of the core criteria of NATO membership, focusing primarily on security. The framework highlighted specific objectives each state had to fulfill in order to join the partnership with NATO. These objectives encompassed the following: "facilitate transparency in national defence planning and budgeting, ensure democratic control of defence forces, maintain the capability and readiness with NATO, and develop cooperative military relations with NATO, for the purposes of joint planning, training and exercises" to conduct "peacekeeping, search and rescue, and humanitarian missions." 47

The sheer presence and support of NATO to these former Soviet states undermined any attempts by the Russian regime to apply political and military pressure to disrupt their democratic aims. PfP membership had its security benefits translating into economic and political opportunities and advantages. Overall, the PfP acted as a gateway

⁴⁶ NATO, NATO Handbook, 86.

⁴⁷ NATO, NATO Handbook, 88.

to NATO membership and became a true test of partners' commitment and loyalty to NATO. Fourteen former Soviet Union states that joined the PfP later became NATO members included: Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungry, Latvia, Lithuania, Montenegro, North Macedonia, Poland, Romania, Slovakia, and Slovenia.⁴⁸

From a military and security standpoint, the PfP benefited both the former Soviet states and NATO. PfP gave the former Soviet states with security to allow them to prosper politically and economically and in return, NATO received additional military advantage through their new memberships bringing NATO closer to the Russian boarder. NATO's ability to operate and use partners' resources in close proximity to Russia was a game changer allowing for greater efficiency, range and deployment/sustainment of NATO military forces increasing operational capabilities and readiness leading to better deterrence, stability and security in Central and Eastern Europe.

NATO Air Defense

NATO's defense during the Cold War focused on one predictable threat the Soviet Union. NATO utilized conventional and nuclear weapon production and deployment throughout Western Europe along with the United States inter-continental nuclear missile capability as their strategy to deter and maintain a peace in Europe.

NATO's military strategy proved to be successful leading to Soviet Union's economic collapse and inability to keep pace with NATO and the United States nuclear weapon production. As a result, NATO entered into a new era of unpredictability and uncertainty

⁴⁸ United States General Accounting Office, *NATO, U.S. Assistance to the Partnership for Peace: Report to Congressional Committees* (Washington, DC: Office, 2001), 5.

in Europe requiring a revised defense approach to address new and emerging threats while maintaining cohesion among members. Lastly, "effective air defence is fundamental to Alliance security."

NATO's air defense became more dynamic and complex due to the asymmetrical threat environment in which there was an increased risk of conflicts and crises erupting in former Soviet states due to the infancy of their political, social and economic foundations. NATO recognized the constraints and limitations of providing adequate resources to conduct security, peacekeeping, and crisis management roles across Europe. Therefore, NATO sought air power flexibility, agility, and expediency to remedy resource shortfalls. "Since air power will be the quick sword of these new kinds of military operations, special urgency will exist to organize air forces ahead of the events of an uncertain future." Therefore, NATO's air power reaction time and the ability to mobilize and remain flexible was paramount to mitigate uncertainty and be able to meet stability and security aims across Europe. However, "NATO continues to consider ways to deploy its forces, to make its military instrument mobile and "will have to implement its new strategy with considerably fewer forces than it had facing the Warsaw Pact during the Cold War."

⁴⁹ NATO, NATO Handbook, 184.

⁵⁰ Willard Naslund, *NATO Air Power: Organizing for Uncertainty* (Santa Monica, CA: Rand Corporation, 1993), 1-2.

⁵¹ Naslund, NATO Air Power: Organizing for Uncertainty, 2.

New Strategic Concept

The Washington Summit in April 1999 highlighted NATO's 50th Anniversary releasing a New Strategic Concept reaffirming NATO's commitment to security and stability through cooperation and dialogue among members and partners allowing for freedom, peace, and prosperity throughout Europe. Since the first Strategic Concept, NATO has further refined its strategy accounting for greater insight and knowledge gained from the maturity of the former Soviet states in Central and Eastern Europe. NATO's support has afforded many former Soviet states, the opportunity to develop their own democratic political, economic, social and military foundations leading to greater growth and stability. Therefore, NATO's air defense and overall security strategy has evolved, allowing for more insight into Central and Eastern Europe slowly exposing the uncertainty, thus allowing NATO to exercise its new roles and responsibilities more efficiently and effectively due to gaining more certainty and predictability.

The New Strategic Concept expanded upon the first Strategic Concept by focusing primarily upon a new security agenda. The security agenda expands beyond security and dives deeper into the political and economic development as a means to promote growth, stability while indirectly promoting security. Therefore, the new security agenda accounts for NATO's new roles and responsibilities stressing the importance of security to ensure political and economic aims are achievable, resulting in a more stable Europe. NATO Secretary General, Dr. Javier Solano, during a speech at the Royal United Research Institute on March 9, 1999, summarized the new security agenda and hit upon three main transformation points and stated the following: "1) the transformation of Europe, the transformation of Russia, and the transformation of the

transatlantic link. If these processes move in the right direction, they will give us the political, economic and military tools to deal with any conceivable challenge, from regional conflicts to proliferation."⁵²

Dr. Solano's main points identified the paradigm shift for NATO from a nuclear weapon posture with heavy reliance on the United States, to greater involvement, reliance, and leadership dependence upon European members and partners to implement a more conventional weapon posture given the new unipolar world order. Therefore, cooperation and dialogue among NATO members and partners from the PfP was a key success to executing the new Strategic Concept. In addition, Solano re-affirmed, "NATO's role is not only to help manage these transitions individually - it is also bringing them together in a coherent way."53 Furthermore, Solano reinforced the uniqueness of NATO as an organization and more importantly, the role it plays in the security and stability of Europe. Solano stated, the NATO "alliance offers a unique combination no other institution can match: trustful political consultation, undisputed military competence, and a strong transatlantic dimension. This unique combination makes NATO a major player in re-shaping security. NATO is helping Europe grow together."⁵⁴ Solano's speech set the agenda and tone for the Washington Summit in which the conflict and unrest in Kosovo would be the first test of the new Strategic Concept.

⁵² Javier Solana, "NATO 50th Anniversary." Speech, the Royal United Services Institute, London, England, 9 March 1999, accessed October 10, 2020, https://www.nato.int/docu/speech/1999/s990309a.htm.

⁵³ Solano, "NATO 50th Anniversary."

⁵⁴ Solano, "NATO 50th Anniversary."

Kosovo Conflict Background

The conflict and unrest in Kosovo was pre-dispositioned from Serbian and Albanian rivalries and tensions that existed in the Balkan region before the Cold War. Serbian President Slobodan Milosevic, a socialist, sought to absorb Kosovo and promote a Serbian dominated communist rule and exterminating Albanians in the former Yugoslavia. Once elected into office following the death of Marshal Josip Broz Tito, an independent communist ruler known for his ability to render peace and coexistence of the Serbians and Albanians in Kosovo for over 40 years, President Milosevic was determined to impose Serbian rule and exterminate the ethnic Albanians in Kosovo. ⁵⁵ Serbian violence and aggression erupted targeting Albanians with no mercy or consideration for women or children violating humanitarian rights.

In response, the United Nations (UN) passed the UN Security Council Resolution 1999 in an attempt to stop the violence and terror. This resolution was ignored, negotiations failed, and the Serbian violence and terror ensued drawing more attention to NATO and in particular the United States for these human rights violations. Many unarmed international monitors from the Organization for Security and Cooperation in Europe (OSCE) in Kosovo verified Serbian indifference toward the UN Resolution observing frequent acts of violence, aggression, and killings of innocent Albanians. ⁵⁶ However, the Racak massacre was a turning point for NATO, resulting in the deaths of

⁵⁵ Lambeth, NATO's Air War for Kosovo, 6.

 $^{^{56}}$ Lambeth, NATO's Air War for Kosovo, 7.

45 innocent Albanians igniting NATO's need to take military action.⁵⁷ The NATO had witnessed enough human rights violations and exhausted all diplomatic paths leaving them no other alternatives but to use military force to restore peace and stability and putting an end to the genocide in Kosovo. A rumored Serbian forces' motto was "a massacre a day helps keep NATO away."⁵⁸ Secretary of State Madeleine Albright reinforced NATO's commitment to security and crisis management and stated, "we are not going to stand by and watch the Serbian authorities do in Kosovo what they can no longer get away with in Bosnia."⁵⁹ Lastly, President Clinton reiterated Albright's point by saying, "we do not want the Balkans to have more pictures like we've seen in the last few days so reminiscent of what Bosnia endured."⁶⁰

Air Power Alone: Effectiveness and Public/Allies Support

In response to the Racak carnage, NATO quickly investigated military action plan options to stop Serbian aggression and violence towards the Albanians in Kosovo. NATO substantiated its use of military power based on the Serbian humanitarian rights violations and inability to broker peace after failed diplomatic attempts. NATO and its members analyzed military courses of actions keeping operational effectiveness, humanitarian concerns, and public opinion and support at the forefront of decision-

⁵⁷ Lambeth, NATO's Air War for Kosovo, 8.

⁵⁸ Power, A Problem from Hell, 44.

⁵⁹ Dag Henriksen, *NATO's Gamble* (Annapolis, MD: Naval Institute Press, 2013), 127.

⁶⁰ Henriksen, NATO's Gamble, 127.

making process in reaching military, political, diplomatic aims. Therefore, operational effectiveness coupled with public opinion and support concerns became the most important decision-making criteria for NATO.

NATO and the United States leadership sought to implement the use in military force that would exhibited the greatest operational effectiveness encompassing speed and efficiency to bring Milosevic to the negotiation table while garnering public opinion and support. In addition, NATO needed to maintain cohesion among all members while trying to avoid a lengthy conflict and minimizing combat casualties. As a result, United States like many other NATO members ruled out a ground forces for two reasons, thus advocating for a bombing campaign.

The first had to do with the identified logistic difficulties, the anticipated challenge of the terrain, and poor access, and base opportunities. The second and far more pivotal, reason entailed the Clinton Administration's concern over lack of congressional support for such an option and the presumed unwillingness on the part of the American people and the NATO allies to accept combat casualties, reinforced by a near-certainty that the allies would not buy into a ground option. All planning, moreover, took for granted that NATO's most vulnerable area (or center of gravity) was its continued cohesion as an alliance. In light of that, any target or attack tactic deemed even remotely likely to undermine that cohesion, such as the loss of friendly aircrews, excessive noncombat casualties, excessive collateral damage to civilian structures, or anything else that might undermine domestic political support or cause a withdrawal of public backing for the bombing effort, was to be most carefully considered.⁶¹

In the end, NATO's air power alone decision prevailed as the most effective use of military force.

 $^{^{61}}$ Lambeth, NATO's Air War for Kosovo, 12.

Chapter III.

Air Campaign Case Studies

It is the politics of the moment that will dictate what we can do...If the limits of that consensus mean gradualism, then we're going to have to find a way to deal with a phased air campaign. Efficiency may be second. – Gen John P. Jumper, USAF⁶²

Next, this thesis will investigate Operation Desert Storm (ODS), the first implementation of EBOT and the parallel warfare approach, Operation Deliberate Force (ODF) in Bosnia, Operation Allied Force (OAF) in Kosovo, and Operation Unified Protector (OUF) in Libya to provide additional evidence and perspectives to the air power alone debate. These air campaign operations are different and exude different challenges and tensions from a political and military context driving EBOT and the parallel warfare approach to adapt and adjust while still exercising air power unique characteristics: flexibility, agility, expediency and global reach. However, since there is no common recipe of strategic plan for EBOT, its utilization of air power resources, technologies, and inherent characteristics make it a very attractive military force option and an effective means to counter asymmetrical threats. United States Army Major General Frank M. Andrews in 1938, reinforced the flexibility of air power and stated, "the airplane is the only weapon which can engage with equal facility, land, sea, and other forces."63 As a result, NATO and coalition partners adopted EBOT and the parallel warfare approach due to its effectiveness and success to bring an aggressor or adversary

⁶² Lambeth, NATO's Air War for Kosovo, 237.

⁶³ United States Air Force, *Air Force Doctrine Document 1* (1997): 11, accessed October 12, 2020, https://apps.dtic.mil/dtic/tr/fulltext/u2/a341711.pdf.

to the negotiation table, thus providing supporting evidence to the air power alone debate in Kosovo while revealing the similarities and differences among each operation.

Effects Based Operations Theory

ODS was the first employment of EBOT and the parallel warfare approach to gain air superiority along with dismantling the ability of the Iraqi military to organize and communicate effectively with force. EBOT incorporated a new approach and strategy to the execute air power capabilities highlighting a paradigm shift in air power doctrine from previous air campaigns. This new approach, "parallel warfare," primary objective is to conduct air attacks on a selected array of critical adversary strategic targets in parallel to paralyze the control of forces such as targeting its industrial base, transportation infrastructure, and communication centers rather than seeking complete destruction of a target list sequentially to achieve specific effects. Therefore, EBOT in combination with parallel warfare approach targets the ability of the adversary to remain organized and effective, thus differing greatly from the previous air doctrine that focuses upon sequential air power force to "roll back" the enemy before targeting high value strategic targets for shock effect.⁶⁴

Parallel Warfare

The paradigm shift in air power doctrine has a striking analogy to electrical circuits in which you can compare a series circuit to a parallel circuit as it relates to Christmas lights. In a series circuit, the electricity flows sequentially from one bulb to the

⁶⁴ Deptula, "Effects-Based Operations: Change in the Nature of Warfare," 3.

next, thereby, each bulb must be lit before moving onto the next bulb for the complete strain to light up. However, with a parallel circuit, the electricity flows simultaneous allowing the electricity to reach all the bulbs at the same time, resulting in uninterrupted lighting of bulbs on the strain. The Parallel Warfare figure below illustrates the old air power doctrine in the sequential flow as depicted in the series circuit and the simultaneous flow in the parallel circuit portrays parallel warfare in support of the EBOT for effect.⁶⁵

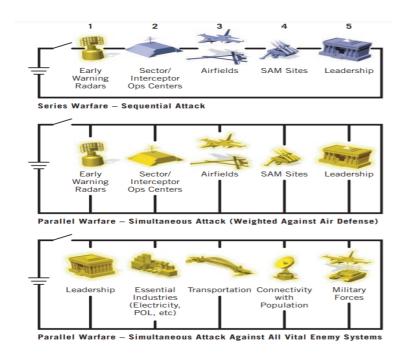


Figure 2. Parallel Warfare.⁶⁶

Source: Effects-Based Operations: Change in the Nature of Warfare.

Parallel warfare expands beyond simultaneous air attacks but requires careful review of three criteria in order to successful execute parallel warfare and achieve EBOT objectives to paralyze the adversary forcing them to re-evaluate their political and

⁶⁵ Deptula, "Effects-Based Operations," 3.

⁶⁶ Deptula, "Effects-Based Operations," 4.

military aims and seek diplomatic paths. The three criteria encompass the following, time, space, and level.

These three criteria were executed through air power and the parallel warfare approach to render the maximum effect to bring Iraqi leader Saddam Hussein to the negotiation table during ODS. Lt. General Deptula summarizes these criteria stating, "Simultaneous application of force (time) across each level of war uninhibited by geography (space) describes the conduct of parallel warfare. However, the crucial principles defining parallel warfare are how time and space are exploited in terms of what effects are desired, and for what purpose, at each level of war—the essence of effects-based operations." Therefore, time pertains to number of targets identified over a period, space encompasses the geographic area subject to attack, and level of war involves the scope of targets (leadership facilities, transportation centers, air assets and air defense, and army concentrations etc.). 68

Operation Desert Storm

Coalition air power garnered full control of Iraqi airspace within three days through the implementation and execution of the EBOT and the parallel warfare approach. EBOT and the parallel warfare approach allowed ground forces thirty-nine days after the first sortie was flown to liberate Kuwait within 100 hours with minimal ground force casualties.⁶⁹ The image below is from Lt Col Deptula, a key strategic

⁶⁷ Deptula, "Effects-Based Operations," 5.

⁶⁸ Deptula, "Effects-Based Operations," 5.

⁶⁹ Shannon Collins, "Desert Storm: A Look Back," *United States Department of Defense*, accessed January 11, 2019,

planner for the ODS air campaign and author of EBOT, wrote this message "this campaign began by Air power was prosecuted by Air power and has succeeded because of Air power!!"⁷⁰ in the Coalition Air Operations Center at the end of ODS giving air power effectiveness credit for the liberation of Kuwait.

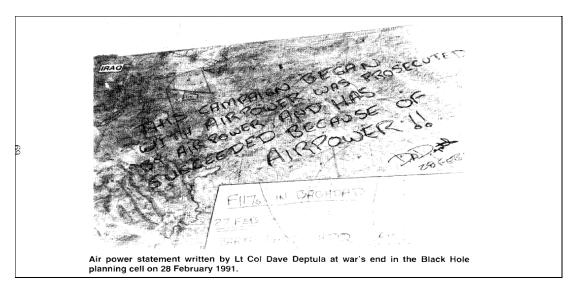


Figure 3. Air Power Statement.⁷¹

Source: Heart of the Storm: The Genesis of the Air Campaign against Iraq

The EBOT and the parallel warfare approach proved successful in ODS along with the contributions of stealth technology and PGMs setting the foundations for ODF, OAF and OUP air campaigns.

https://www.defense.gov/Explore/Features/story/Article/1728715/desert-storm-a-look-back/.

⁷⁰ Richard Reynolds, *Heart of the Storm: The Genesis of the Air Campaign against Iraq* (Maxwell AFB, AL: Air University Press, 1995), 69.

⁷¹ Reynolds, *Heart of the Storm*, 69.

Operation Deliberate Force

ODF emerged from failed diplomatic attempts by the UN and repeated Bosnian Serbian aggression and human right violations. The event that sparked ODF was the second Markale Massacre that occurred August 28, 1995 in Sarajevo, killing 38 innocent civilians and wounding 90 others.⁷² This was the second major massacre targeting innocent civilians. ODF was not "intended to defeat the Bosnian Serb Army (BSA) but convince the BSA to stop attacking Sarajevo-to take away military capability, not lives."⁷³ NATO commanders "called for the Bosnian Serbs sue for cessation of military operations, comply with UN mandates, and negotiate". 74 Furthermore, Assistant Secretary of State, Richard Holbrooke stated, "bombing was not planned as a part of the negotiation track....It was a result of the Bosnian Serbs' decision to mortar the marketplace."⁷⁵ As a result, NATO adopted the EBOT and parallel warfare approach for its air campaign similar, but different from ODS in which within two and a half weeks from late August to September 1995, Bosnian Serbian communications and infrastructure were devastated beyond repair leading to despair and a lack of will to fight by the Bosnian Serbs. ODF prevailed and was effective in bringing the Bosnian Serbs to the

⁷² Yossef Bodansky, "Markale in Damascus? Islamists Used 'Self-Bombing' to Incite US Strikes," *Defense & Foreign Affairs* 41, no. 8 (2013): 3.

⁷³ Owen, *Deliberate Force*, 190.

⁷⁴ Owen, *Deliberate Force*, 190.

⁷⁵ Owen, *Deliberate Force*, 190.

negotiation table, leading to signing of peace in December 1995,⁷⁶ concluding the threeyear conflict.⁷⁷

USAF Colonel Robert Owen's case study of ODF examines air power effectiveness through the implementation of EBOT and the parallel warfare approach utilizing mostly PGMs to deliver the minimal amount of collateral damage to achieve political and military aims involving the following NATO air forces, United States, Great Britain, France, Spain, Netherlands, Norway, Belgium, Canada, Italy, Turkey, and Germany. He examines the diplomatic and political tension and challenges of ODF along with the humanitarian constraints that shaped air power operations and effectiveness differentiating it from ODS. In particular, he pointed out that if major civilian casualties occurred during ODF bombings; it could potentially disrupt the cohesion within the NATO and lead to a decline in public support affecting operations and overall air power effectiveness. In addition, USAF General Michael Ryan, director of NATO air operations in ODF, states the following related to the importance of NATO cohesion, "Every bomb is a political bomb." He is reinforcing the reality that "a

⁷⁶ Paul C. Szasz, "Bosnia and Herzegovina-Croatia-Yugoslavia: General Framework Agreement for Peace in Bosnia and Herzegovina with Annexes," *International Legal Materials* 35, no. 1 (1996): 75.

⁷⁷ Piers Robinson, "Misperception in Foreign Policy Making: Operation'deliberate Force' and the Ending of War in Bosnia," *Civil Wars* 4, no. 4 (2001): 115.

⁷⁸ Lambeth, *NATO's Air War for Kosovo*, 20.

⁷⁹ Owen, *Deliberate Force*, 159.

⁸⁰ Robert Owen, "Operation Deliberate Force: A Case Study on Humanitarian Constraints in Aerospace Warfare," in *Air Power in UN Operations*, ed. A. Walter Dorn (New York: Routledge, 2015), 67.

collapse in domestic support in any NATO member state could have brought the air campaign to an abrupt halt."81

However, Owen highlighted NATO's confidence in the PGM capabilities and stated, "NATO diplomats also recognized the importance and value of the bombing campaign. Their collective decision to authorize air operations in the first place was clear evidence of their expectation that the potential benefits outweighed the risks". ⁸² The implementation of EBOT and the parallel warfare approach with the use of PGMs was a key ingredient to the ODF execution plan along with the importance of minimizing collateral damage and humanitarian concerns at large, while executing air power to achieve the desired effects to bring Bosnian Serbs to the negotiation table.

As a result, a balance emerged between air power capabilities, technology execution, and political and humanitarian constraints in ODF, thus modifying EBOT and the parallel warfare approach to garner an acceptable balance among NATO members to maintain cohesion. Owen reinforces the importance of this balance and stated, "halfhearted, overly restrained, or incomplete air campaign likely would have been disastrous to NATO and UN credibility – and it would have prolonged the war."⁸³ Interestingly, this balance will become a common theme and challenge for the many air campaign to follow including OAF and OUF.

Owen argues that Serbian President Milosevic's decision to come to the negotiation table was a direct result of the EBOT and planning air strikes within the

⁸¹ Owen, "Operation Deliberate Force," 67.

⁸² Owen, Deliberate Force, 499.

⁸³ Owen, Deliberate Force, 506.

parallel warfare construct to achieve desired effects. According to Owen, "Prior to the bombing, Ambassador Christopher Hill observed that President Milosevic always had a rather cocky view of the negotiations, sort of like he was doing us a favor, but after the bombing began, we found him totally engaged." His analysis of ODF illustrated how closely related the political and military risk and consequences were to political decisions eventually leading to the negotiation table. Given the political, diplomatic, and military context and circumstances, Owen states the following:

No military operation ever takes place in isolation; consequently, any study of whether and how Deliberate Force achieved its goals must take into account not only the air strikes themselves but also the other dynamic forces that have influenced the Bosnian Serbs' eventual decision to meet NATO's demands. In addition, one must judge the operation's effectiveness from the perspective of the intended target-the Bosnian Serb political and military leadership.⁸⁵

He highlights the dependency between the military and political leadership, one cannot act without the other. Therefore, military and political leadership must identify clear objectives and aims through careful analysis of the most effective use of military power from an operational lens while minimizing collateral risk and consequences in order to maintain an achievable and acceptable balance among NATO members with the overarching objective to bring President Milosevic to the negotiation table.

ODF was the first real use of PGMs coupled with EBOT and the parallel warfare approach in Europe exemplifying NATO air power capabilities and effectiveness. The use of PGMs reinforced its value and importance to the balance between effective air power operations and collateral damage as it related to humanitarian concerns and

⁸⁴ Owen, Deliberate Force, 498.

⁸⁵ Owen, Deliberate Force, 189.

constraints. Therefore, PGMs were instrumental in the implementation and execution of EBOT and the parallel warfare approach maintaining a healthy balance of air power effectiveness with careful consideration of collateral damage and avoidance of catastrophic civilian causalities, thus strengthen NATO cohesion and public support.

Operation Allied Force

OAF is a great study of air power as it relates to effectiveness, humanitarian concerns, and public opinion within the political and military dynamics of Kosovo. All three of these critical criteria areas played an important role in the implementation and execution of EBOT and the parallel warfare approach of air power alone in Kosovo. NATO's decision to use air power alone evaluated all of these critical criteria closely in the decision-making process strengthening NATO's strategy for Eastern Europe. On 30 January 1999, via a press release NATO outlined its strategy in Kosovo and stated, "the United States and NATO allies had three primary interests from the onset of the operation: ensuring stability of Eastern Europe; thwarting ethnic cleansing; and ensuring NATO's credibility."86 Furthermore, NATO justified its strategy and stated, "the crisis in Kosovo remains a threat to peace and security in the region. NATO's strategy is to halt the violence and support the completion of negotiations on an interim political settlement for Kosovo, thus averting a humanitarian catastrophe."87 NATO determined air power alone was the best use of military force to achieve its strategic objectives in Kosovo. President Clinton following the first air attacks reinforced NATO strategic objectives by

⁸⁶ Henriksen, *NATO's Gamble*, 7.

⁸⁷ Henriksen, NATO's Gamble, 7.

intertwining public opinion and support as it related to humanitarian concerns to the world by stating:

We act to protect thousands of innocent people in Kosovo from mounting military offense. We act to prevent a wider war, to defuse a powder keg at the heart of Europe that has exploded twice before in this century with catastrophic results. We act to stand united with our allies for peace....Our mission is clear; to demonstrate the seriousness of NATO's purpose so that the Serbian leaders understand the imperative of reversing course, to deter an even bloodier offensive against innocent civilians in Kosovo and, if necessary, to seriously damage the Serbian military's capacity to harm the people of Kosovo.⁸⁸

Lastly, NATO did not foresee OAF to be a prolonged air campaign but predicted a quick operation similar to ODF. Secretary of State for Great Britain, Madeleine Albright, on the evening the air strikes began, stating: "I don't see this as a long-term operation." ⁸⁹

Historically, NATO used ODS and more recently to ODF as evidence that air power effectiveness would be successful, weaken President Milosevic drawing him to the negotiation table. However, NATO's operational planning and coordination was limited due to the urgency to curb and stop and ethnic cleansing of Albanians. NATO lacked additional time to plan and get concurrence on strategic plan encompassing EBOT and the parallel warfare approach similar to ODF from the majority of NATO members. The Supreme Allied Commander in Europe, United States Army General Wesley Clark identified this reality and stated, "the Desert Storm team had been assembled and was scrambling on the offensive plan and techniques for months before it attacked Iraq in

⁸⁸ Henriksen, NATO's Gamble, 7.

⁸⁹ Lambeth, NATO's Air War for Kosovo, 20.

1991. We hadn't had that luxury. Our force came together last minute...We were fighting, planning, and adapting simultaneously."90

OAF utilized PGMs and stealth technology similar to ODF to degrade the Serbian air defense allowing for high value and strategic targets deep inside Kosovo to be bombed for shock effect in accordance with EBOT and the parallel warfare approach. Stealth technology along with technological advancements in weaponry enhanced NATO air power capabilities leading to greater effectiveness while minimizing collateral damage and risk of losing aircrews, both important to NATO cohesion, humanitarian concerns, and public support. However, surprisingly unguided bombs comprised of approximately "two-thirds of the munitions dropped in the campaign, precision weapons represented 70 percent of all confirmed hits." The lack of PGMs expended was due to the lack of NATO aircraft configured to carry PGMs, the United States, United Kingdom, and France were the only ones with the PGM carrying capability. 92

As a result, NATO air power rules of engagement were limited in terms of the target selection and approval process due to NATO collateral damage concerns as well as public opinion, thus affecting NATO air power effectiveness in support of EBOT and the execution of parallel warfare. NATO's cohesion in combination with public opinion overruled air power effectiveness highlighted early in the pre-planning for Phase I target selection and approval process. The cohesion challenges and dynamics illuminated as

⁹⁰ Henriksen, NATO's Gamble, 6.

⁹¹ Anthony Schinella, *Bombs Without Boots: The Limits of Air Power* (Washington, DC: Brookings Institution Press, 2019), 57.

⁹² Schinella, Bombs Without Boots, 58.

"some proposed targets were removed from the list by dissenting NATO out of concern for collateral damage" and recommendations for reducing PGM sizes, especially for the USAF F-117 stealth fighter to minimize risk of inadvertent collateral damage but increasing the probability of failing to destroy targets contributing to inefficiencies and marginal results.

OAF relied heavily upon stealth capabilities and PGMs reinforcing a swift air campaign to subdue Serbian resistance bringing peace and stability. General Wesley Clark warned, "if required, we will strike in a swift and severe fashion and General Klaus Naumann, the chairman of NATO's Military Committee, added that Milosevic was severely mistaken if he believed that NATO would engage merely in pinprick attacks and then await his response." However, President Milosevic was driven to test NATO cohesion, capabilities, and resolve while prolonging the conflict with the optimism Russia would eventually support Serbia. 95 General Wesley Clark had warned of this potential strategy by President Milosevic following the first day of phase I in terms of the air effort would be "just as long and difficult as President Milosevic requires it to be."96

The OAF operation plan consisted of three phases aligning with EBOT and the parallel warfare approach. The first phase encompassed the first three days targeting Serbian air defenses and command and control capabilities, followed by phase two focusing on Serbian military targets inside Kosovo as well as below the 44th parallel, and

⁹³ Lambeth, NATO's Air War for Kosovo, 22.

⁹⁴ Lambeth, NATO's Air War for Kosovo, 10.

⁹⁵ Lambeth, NATO's Air War for Kosovo, 26.

⁹⁶ Lambeth, NATO's Air War for Kosovo, 23.

the third phase expanded military targets on the ninth day concentrating on striking Belgrade and civilian infrastructure as well as military targets throughout Kosovo.⁹⁷ Figure 4, Map of the Kosovo Region depicts the 44th parallel line highlighted with a dashed line within grayed out Serbia referenced below.⁹⁸



Figure 4. Map of the Kosovo Region.⁹⁹

Source: Operation Allied Force: Lessons for the Future.

General Westley Clark advised that the bombardment would "systematically and progressively attack, disrupt, degrade, devastate, and ultimately destroy" ¹⁰⁰ Serbian

⁹⁷ Robert Gregory, *Clean Bombs and Dirty Wars* (Lincoln, Nebraska: Potomac Books, 2015), 55.

⁹⁸ Benjamin Lambeth, "Operation Allied Force: Lessons for the Future," *RAND Research Brief: Operation Allied Force. Lessons for the Future,* (2001): 1, accessed October 15, 2020, https://www.rand.org/pubs/research_briefs/RB75.html.

⁹⁹ Lambeth, "Operation Allied Force: Lessons for the Future," 1.

¹⁰⁰ Lambeth, *NATO's Air War for Kosovo*, 23.

forces. However, the air campaign plan did not go as smoothly as anticipated as NATO aircrews encountered more challenges and obstacles than anticipated resulting in operational limitations hindering full deployment of EBOT and the parallel warfare approach. Some of the challenges and obstacles revolved around the targeting selection process, weather, air defense, and resourcefulness and elusiveness of Serbian ground forces. These challenges and obstacles added more complexity to operations and prolonged the air campaign dedicating more air assets overtime to apply pressure to Serbian forces.

Phase I

Phase I spanned from 24 March through 26 March 1999, including approximately two hundred and fifty United States and thirteen other NATO member aircraft. These aircraft encompassed air attack, high altitude bombers, reconnaissance, and command and control assets along with roughly fifty cruise missiles targeting commercial and military airfields, electrical power grids in Pristina, and against air defense sites along with military communication sites. ¹⁰¹ The primary objective was to disable and cripple the Serbian air defenses and command and control capabilities to allow NATO aircraft to operate freely without threat in the Balkan airspace allowing for bombing of high value and strategic targets. General Wesley Clark in a press conference following phase I explained, "attacking Serbian defenses was a preparatory step taken to protect NATO

 $^{^{101}}$ Lambeth, $\it NATO's$ $\it Air~War~for~Kosovo,$ 21.

aircraft before targeting ground forces...however, Clark admitted that NATO was unable to destroy the Serbian air defense system."¹⁰²

In response, the Serbian air defenses launched surface to air missiles and launched a limited number of Serbian MIG-29 fighter aircraft to challenge NATO aircraft. The Serbian air defense included twenty vintage SA-2 and SA-3 SAM batteries along with approximately twenty-four elusive SA-6 mobile batteries. Serbian air defense operators "adapted their tactics to balance lethality with survivability" of their 1960 technology to elude NATO air power from locating them by turning off their radars and switching from radar tracking to passive optical tracking similar to ODF. In addition, SA-6 mobile batteries would reposition themselves to avoid detection in which Serbian Colonel Zoltan Dani's batteries traveled "over 100,000 kilometers throughout the conflict. As a result, NATO could not locate and "eradicate the SAM threat-many if not most of the SAM systems remained operational throughout the conflict." Serbian air defense tactics put NATO at a severe disadvantage, forcing NATO to put restrictions of rules of engagement, limiting aircraft "to fly above 15,000 feet throughout the war, except for "lower passes for visual confirmation of a target before dropping ordnance." 108

¹⁰² Gregory, Clean Bombs and Dirty Wars, 61-62.

¹⁰³ Schinella, *Bombs Without Boots*, 53.

¹⁰⁴ Lambeth, NATO's Air War for Kosovo, 22.

¹⁰⁵ Gregory, Clean Bombs and Dirty Wars, 58.

¹⁰⁶ Gregory, Clean Bombs and Dirty Wars, 66.

¹⁰⁷ Schinella, *Bombs Without Boots*, 54.

¹⁰⁸ Schinella, *Bombs Without Boots*, 54.

NATO decided aircrew safety and wellbeing outweighed the risks of being shot down, thus affecting air power effectiveness. A NATO officer reacts to the rules of engagement and states, "we may be faced with the dilemma of taking much greater risks or accepting a much slower pace in the air campaign."¹⁰⁹

Therefore, Serbian air defenders' passive approach toward downing NATO aircraft and preserving their presence and capability directly affected NATO rules of engagement, thus achieving other indirect aims to degrade NATO air power effectiveness. Those indirect aims included the inability of NATO to deliver bombs on target through cloud cover while increasing the inaccuracy at higher altitudes. It is interestingly, "more than one-third of NATO's air sorties were dedicated to air defense suppression ... they also represented thousands of sorties that did not contribute to the reduction of Serb combat power." In the end, Serbian air defenses did remain operational with the downing two NATO aircraft in which one was the USAF F-117 stealth fighter shot down on the first day of phase II.

All six Serbian MIG-29s were shot down with ease, no match for the NATO pilots. 112 As a result, the Serbian Air Force MIGs ceased to contest NATO. USAF General Michael Short, director of NATO air operations for OAF stated, "Serbian pilots lost any semblance of air situational awareness and, as a result, set themselves up for easy

¹⁰⁹ Schinella, *Bombs Without Boots*, 71.

¹¹⁰ Schinella, *Bombs Without Boots*, 54.

¹¹¹ Schinella, Bombs Without Boots, 54.

¹¹² Schinella, Bombs Without Boots, 72.

prey for the F-15."¹¹³ Overall, NATO had underestimated the Serbian military and political commitment and resolve to fight and carry out the genocide on the Albanians in Kosovo.

NATO executed phase I as planned, however, President Milosevic did not respond to the air power threat as anticipated but accelerated ethnic cleansing of Albanians. NATO received reports of increased "killing, looting, harassing, and intimidation of ethnic Albanians in Kosovo." Serbian forces were improvising and using all means necessary to keep the war effort going. Chinese Marxist theorist, Mao Zedong stated, "the people are like water and the army is like a fish," this quote supports the dependency of the Serbian Army on the population in Kosovo to sustain their operations. In addition, Serbian Deputy Prime Minister Vuk Draskovic advised, "all Serbs around the world are from now in a state of war with our enemies ... we are not ready to make any difference between the bombs of Adolf Hitler from 1941 and the bombs of NATO." Serbia was devoting all of its military resources into Kosovo with no intention of seeking diplomacy but unleashing total war in Kosovo. Therefore, NATO's decision to initiate phase II was inevitable.

¹¹³ Gregory, Clean Bombs and Dirty Wars, 60.

¹¹⁴ Gregory, Clean Bombs and Dirty Wars, 60.

¹¹⁵ Schinella, Bombs Without Boots, 63.

¹¹⁶ Gregory, Clean Bombs and Dirty Wars, 62.

Phase II

Phase II encompassed 27 March through 31 March 1999, targeting a mix of Serbian military targets concentrated in southern Kosovo below the 44th parallel to force President Milosevic to reconsider his plight and viability to continue to challenge NATO. NATO expanded its air power projection across Kosovo to counter the escalation of ethnic cleansing while continuing to apply pressure to Serbian military forces on the ground. NATO increased its air power bombing capability by providing an additional five USAF B-1 bombers to already the deployed B-52 and B-2 bombers. 117 These bombers were able to fill in the gaps of available fighter-bombers as "Joint Direct Attack Munition (JDAM) carriers, they were able to deliver large numbers of precision weapons and loiter over the battlefield if needed" except for the B-2 bomber increasing sortie efficiency and shock effect. The B-1 bombers primary targets were military concentration targets areas such as barracks. 119 General Klaus Naumann, Chairman of NATO's military committee, asserted at a NATO pre-planning meeting for phase II, it was time to start "attacking both ends of the snake by hitting the head and cutting off the tail" exerting NATO's air power capabilities and shock effect to the Serbian forces by expanding its target list and scope. NATO did expand its targets to include "bridges, storage facilities, assembly areas, and a small number of Serb heavy weapons spotted from the air."121

¹¹⁷ Gregory, Clean Bombs and Dirty Wars, 65.

¹¹⁸ Schinella, *Bombs Without Boots*, 58.

¹¹⁹ Lambeth, NATO's Air War for Kosovo, 27.

¹²⁰ Lambeth, NATO's Air War for Kosovo, 25.

¹²¹ Gregory, Clean Bombs and Dirty Wars, 64.

However, some NATO leadership criticized NATO's expansion and scope of target list and voiced their collateral damage fears. Admiral James O. Ellis, commander of Allied Forces I Southern Europe, highlighted 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 I or entailed too much risk of collateral damage." 122

USAF General Short provided an assessment of the targeting process requiring "19 approvals of target nominations was counterproductive." He explained, "before you could drop the first bomb or fire the first shot, we need to lock the political leaders up in a room and have them decide what the rules of engagement will be so they can provide the military with the proper guidance and latitude needed to prosecute the war." The targeting process proved inefficient contributing to the limitations placed on NATO air power capabilities and effectiveness in OAF. A United States combat aircrew pilot criticized the targeting process, stating "it is the not the USAF fault that the air campaign is not going as well as Desert Storm. Hitting 5-8 targets a night, with sequential [as opposed to] parallel operations, is not the way to prosecute a campaign." This pilot shared his frustrations with the targeting process directly affecting the operational tempos leading to gradualism, resulting in three phases of air operations.

In addition, the Serbian air defenses targeted in phase I were not defeated, resulting in permanent and mobile Serbian SAM batteries remaining in operation posing

¹²² Gregory, Clean Bombs and Dirty Wars, 64-65.

¹²³ Lambeth, NATO's Air War for Kosovo, 241.

¹²⁴ Lambeth, NATO's Air War for Kosovo, 241.

¹²⁵ Lambeth, NATO's Air War for Kosovo, 235.

a serious threat to NATO aircraft weakening their ability to deliver munitions with the greatest accuracy and frequency. In response, NATO modified its rules of engagement for aircraft to fly above 15,000 feet as previously discussed to account for the Serbian SAM threats, restricting NATO air power affecting operational effectiveness.

Furthermore, poor weather and a robust targeting approval process added more challenges to executing EBOT and the parallel warfare approach, resulting in more rules of engagement restrictions and limitations.

Phase II exposed the reality of the weather patterns in the Balkan region, forcing NATO to adapt air operations in Kosovo while seeking alternative tactics to overcome NATO's limited number of all-weather combat aircraft. Interestingly, "among the NATO air forces only the United States had the capability to deliver precision munitions day or night and in all weather conditions, an essential capability in an environment where there was 100% cloud cover 72 % of the time, and only 21 of the 78 days had overall good weather." In response, NATO relied on Unmanned Aerial Vehicles (UAV) to remedy some of these operational voids, weather and adhering to strict rules of engagement altitudes. United States, France, and Germany UAVs provided "intelligence, surveillance, reconnaissance (ISR) platforms, target spotters, and bomb damage assessors" allowing them to fly below 15,000 feet and under the clouds exhibiting their flexibility. UAV flexibility and use of PGMs was instrumental in combating the elusive and mobile

¹²⁶ Schinella, Bombs Without Boots, 58.

¹²⁷ Schinella, Bombs Without Boots, 58-59.

Serbian forces on the ground. Lastly, NATO flew 496 UAV missions and Serbian forces shot down only 15 of them during the conflict.¹²⁸

NATO's targeting during phase II expanded and increased its target lists from fifty targets in phase I to "scores of targets" in phase II. However, the targeting approval process presented its own set of challenges for air power effectiveness reinforcing the importance of NATO cohesion over air power effectiveness among its members, highlighted in phase II.

NATO had a particularly unwieldly mechanism for reviewing and approving air strikes, requiring consensus from all nineteen member nations for every proposed target. The Netherlands, for instance, consistently vetoed any proposal to strike the Yugoslavian presidential palace, because a Rembrandt painting was known to be hanging in the building's first floor.(To this...NATO General Klaus Naumann reportedly quipped, "It isn't a good Rembrandt.") Aim points, collateral damage, and civilian casualty estimates were exhaustively calculated for every proposed target and debated among all member nations." 130

General Wesley Clark advised, "no single target or set of targets was more important than NATO cohesion." ¹³¹

As a result, air power effectiveness became constrained by the target process coupled with slow approval directly affecting air power capabilities and shock effect, thus inefficiencies emerged prolonging the conflict keeping President Milosevic in power to continue to conduct ethnic cleansing of Albanians on the ground. US senator John McCain noted, "running a list of targets through 19 countries cannot be effective way of

¹²⁸ Gregory, Clean Bombs and Dirty Wars, 74.

¹²⁹ Schinella, *Bombs Without Boots*, 65.

¹³⁰ Schinella, Bombs Without Boots, 66.

¹³¹ Schinella, *Bombs Without Boots*, 68.

waging war."¹³² Furthermore, in phase II air operations, "as many as 80 percent of the strikes conducted had been revisits to fixed targets that had been attacked at least once previously. This was due in part to rapid enemy regeneration and reconstitution efforts, but mainly due to the limited number of targets that had been approved by NATO civilian leaders, the often maddeningly slow target generation and approval process."¹³³ Lastly, "NATO's ambassadors would not even approve strikes against occupied VJ barracks out of expressed concern over causing too many casualties among helpless enemy conscripts"¹³⁴ highlighting the sharp contrast between NATO members in regards to targets and overall air power effectiveness expectations.

Phase II air operations presented some military and political challenges and obstacles that NATO encountered highlighting some lessons learned and illustrating the dynamics of cohesion among diverse NATO members in Kosovo. Overarching, risk became the focal point for NATO following the end of phase II in which some NATO members needed to abandon some of their individual preferences and opinions moving toward a more collective strategic and tactical thinking in order to exploit air power capability and advantage to meet military and political aims. NATO recognized the need to expand the target list and increase sorties to deliver more shock effect while also providing an element of psychological fear, thus phase III fused all of these together.

¹³² Schinella, *Bombs Without Boots*, 68.

¹³³ Lambeth, NATO's Air War for Kosovo, 36.

¹³⁴ Lambeth, NATO's Air War for Kosovo, 36.

Phase III

Phase III spanned from 1 April 1999 to 10 June 1999, embarking upon a more robust bombing campaign concentrating on an expanded target list including "hundreds and hundreds" of new military and civilian infrastructure targets, resulting in more aircraft devoted to the operation offering more flexibility leading to more parallel sorties flown against permanent and mobile Serbian military targets. NATO's parallel warfare approach focused on two targeting objectives, "(1) the continued bombing of fixed strategic targets throughout Serbia to apply political pressure and (2) the destruction of mobile military targets in the field to diminish Serbian combat capabilities." Therefore, NATO's target list grew from only 169 on the eve of the air effort to more than 976 by its end in early June." NATO understood the need to execute EBOT and the parallel warfare approach while broadening its scope and targeting list across Kosovo to achieve the shock effect bringing President Milosevic to the negotiation table. Lastly, NATO could ill afford to repeat phase I and II outcomes.

In terms of the aircraft, General Wesley Clark requested an additional 300 aircraft to support the increased scope of targets and sorties needed to support phase III objectives. The additional increase in aircraft brought the "total number of committed U.S. and allied aircraft to nearly 1,000, entailed more than twice the number of allied aircraft (430) on hand when the operation began March 24-and almost half of what allied

¹³⁵ Schinella, Bombs Without Boots, 65.

¹³⁶ Schinella, Bombs Without Boots, 65.

¹³⁷ Lambeth, NATO's Air War for Kosovo, 38.

coalition had available for Desert Storm."¹³⁸ Even with these increases, NATO limitations, weather and rules of engagement, remained unchanged.

At this phase in the air campaign, NATO understood the four power pillars of President Milosevic and sought to target these pillars with persistent force, accuracy, and relentless pressure. The four pillars included, "the political machine, the media, security forces, and economic system" in which NATO approved the following new targets, "national oil refinery, petroleum depots, road and rail bridges over Danube, railway lines, military communication sites, factories capable of producing weapons and spare parts...first attacks against radio and television stations in Belgrade took place on April 21." NATO was determined to disrupt and eliminate Milosevic pillars noted by NATO aircraft munitions with "a picture of Milosevic and the words, No gasoline, no electricity, no trade, no freedom, no future," reinforcing the NATO commitment and determination to force negotiations.

However, NATO still struggled with maintaining cohesion among members even deep into the air campaign never fully escaping this concern and priority. France remained hesitant and uncomfortable with some of the phase III surge. In particular, "President Jacques Chirac opposed any attacks against Belgrade's electrical grid with high-explosive bombs that would physically render it inoperative for any length of time." As a result, NATO had to adjust their tactics in order to reach a compromise

¹³⁸ Lambeth, NATO's Air War for Kosovo, 33.

¹³⁹ Lambeth, NATO's Air War for Kosovo, 39.

¹⁴⁰ Gregory, Clean Bombs and Dirty Wars, 79.

¹⁴¹ Lambeth, NATO's Air War for Kosovo, 40.

with Chirac, resulting in using a munition that would only put electrical grid inoperative only for a few hours. 142 Lastly, General Short reinforced the importance of EBOT as it related to targeting Belgrade's electrical grid, stating, "Effects-based is when you take down the electrical grid and to do that a sophisticated target analysis tells us to get the desired effects measured in days, hours, weeks or months, we have to hit these critical nodes in his network. You go after that effect." 143

From a political and public opinion viewpoint, NATO felt the pressure of the failed previous phase attempts through public concern regarding the on-going conflict and duration. NATO leadership exuded great confidence that air power alone in Kosovo would be similar to ODS and ODF in terms of the shock effect needed to stop Milosevic's aggression, gaining public opinion and support with ease. However, NATO underestimated President Milosevic's vigilance and determination and did not anticipate all the operational limitations affecting air power effectiveness leading to phase III. Phase III offered some lessons learned from previous phases prompting NATO members to adjust and get more aggressive. Broadening the target list and exercising EBOT through the implementation of the parallel warfare approach while applying pressure through more sorties flown against military and civilian infrastructure lead to greater air power effectiveness, contributing to negotiations.

As NATO air attacks ensued in Belgrade over Easter weekend, Serbian television compared the bombings to that of "the Luftwaffe in April 1941, which had killed sixteen

¹⁴² Lambeth, NATO's Air War for Kosovo, 40.

¹⁴³ David E. Johnson, Learning Large Lessons: The Evolving Roles of Ground Power and Air Power in the Post-Cold War Era: Executive Summary (Santa Monica, CA: RAND, 2007), 28-29.

thousand civilians in Belgrade,"¹⁴⁴ exemplifying the increased operational tempo of NATO. Furthermore, former Russian Prime Minister, Viktor Chernomyrdin urged NATO to cease air attacks on Belgrade and seek diplomatic paths signifying a shift in the conflict exposing Russia's lack of support of the continued Serbian aggression against NATO. He noted the NATO change in tactics targeting civilian infrastructure and industry provoking him to ask the following questions indirectly revealing Russia's position, "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"?¹⁴⁵ However, interestingly near the end of the air campaign, New York Times reporter, Steven Erlanger, interviewed numerous Belgrade civilian residents and surprisingly drew upon this conclusion, "NATO missiles have largely been so precise that many Serbs no longer believe that NATO ever bombs in error."¹⁴⁶

Ironically, NATO in phase III began to entertain the ground troop option as an alternative if simultaneous targeting failed to coerce President Milosevic to the negotiation table. As a result, NATO public opinion and support for OAF within Europe and the United States began to deteriorate with each additional phase of the operation.

Therefore, NATO leaders were under pressure and entertained the deployment of NATO ground forces as a possibility if phase III did not achieve desired effects and results.

¹⁴⁴ Gregory, Clean Bombs and Dirty Wars, 78.

¹⁴⁵ Gregory, Clean Bombs and Dirty Wars, 96.

¹⁴⁶ Gregory, Clean Bombs and Dirty Wars, 79.

The United States had devoted the majority of air resources to OAF and therefore, had a big stake in the outcome and driving toward an end to the Serbian aggression and ethnic cleansing in Kosovo. Many congressional leaders challenged air power alone and sought to advocate for "all necessary force" to meet NATO objectives implying a potential for ground forces. In this heavily debated topic in Congress, Senator McCain voiced, "we are in it; now we must win it" reinforcing the political pressure emerging from the prolonged air campaign with no clear end. However, United States Secretary of Defense, William Cohen reminded the Senate Armed Forces Committee why the use of ground forces had been ruled out before the air campaign began from a political standpoint with public opinion at the forefront, he 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?¹⁴⁹

The introduction of ground forces into Kosovo presented additional challenges and risks that exceeded the use of air power alone. NATO was not in a position to dedicate ground forces or any additional resources to the operation. In addition, from a military operational perspective, the deployment of ground forces was a mobility, logistical and operational challenge to sustain ground forces due to the terrain and lack of infrastructure. Furthermore, Senate Minority Leader Tom Daschle expressed that Clinton

¹⁴⁷ Gregory, Clean Bombs and Dirty Wars, 75.

¹⁴⁸ Gregory, Clean Bombs and Dirty Wars, 75.

¹⁴⁹ Gregory, Clean Bombs and Dirty Wars, 75.

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." ¹⁵⁰ In the end, President Clinton and United States military leadership prevailed and the ground force option never materialized, thus indirectly influencing NATO given the United States air assets and capabilities.

The ground force option was a non-starter from a military and political perspective during preliminary discussion and pre-planning for OAF. However, many opposing arguments in the debate support of ground forces and a joint operation even after exposing this tangible evidence. Their support for ground forces or joint air and ground force centers on effectiveness in stopping Milosevic's aggression and bringing him to the negotiation table sooner than air power alone. Their argument overlooks the obstacles and challenges of ground force operations and the associated complexities of maintaining and sustaining a ground force that is agile and flexible. Interestingly, the new United States Army chief of staff, General Eric K. Shinseki, acknowledged the need for change directly following OAF, stating, "Our heavy forces are too heavy and our light forces lack staying power. Heavy forces must be more strategically deployable and more agile with a smaller logistical footprint, and light forces must be more lethal, survivable, and tactically mobile."151 General Shinseki's assessment exposes ground force operational effectiveness shortfalls as it relates directly to the challenges, complexities, and obstacles of OAF, requesting transformation of "the Army into a force strategically

¹⁵⁰ Gregory, Clean Bombs and Dirty Wars, 76.

¹⁵¹ Johnson, Learning Large Lessons, 25.

responsive and dominant at every point on the spectrum of conflict" ¹⁵² for future conflicts.

In addition, NATO cohesion coupled with public opinion is not considered nor evaluated in the ground force and or joint operation option. An alternative plan or strategy is not proposed providing no tangible evidence how the other uses of military force would have been able to do better than 78 days with no NATO casualties.

Therefore, it is not clear how a ground force or joint air and ground operation along with an exit strategy could be compared to the air power alone decision from a military operational standpoint.

In summary, OAF was the first true test of NATO in the post-Cold War era exhibiting NATO cohesion while collectively executing air power operations to garner the effect needed to bring the Serbian aggression in Kosovo to an end within 78 days. NATO encountered air power operational limitations, weather and rules of engagement and more importantly a determined, resilient, and unwavering Serbian force requiring NATO to adapt and adjust their air campaign plan. NATO's plan hinged on cohesion as the most important followed by air power effectiveness as the baseline for all military decisions in an attempt to minimize collateral damage and operational risk, thus creating a trade-off in which air power effectiveness suffered in the first two phases of the air campaign. USAF General Joseph Ralston reinforced this air power effectiveness dilemma by adding "massive application of air power will be more effective than gradualism....when the political and tactical constraints imposed by the air use extensive

¹⁵² Johnson, *Learning Large Lessons*, 25.

and pervasive-and that trend seems more rather than less likely-then gradualism may be perceived as the only option."¹⁵³

Lastly, phase III was a turning point for OAF in which NATO assumed more risk by broadening its scope and target list to include civilian infrastructure and industry, increasing its aircraft inventory to support more sorties due to public and political pressures. NATO recognized the need to adjust and modify the EBOT and parallel warfare template to account for the operational and political limitations witnessed throughout the campaign. However, NATO decision to use air power alone triumphed and within 78 days, President Milosevic reign of terror and aggression in Kosovo ended. Stephen T. Hosmer, author of *The Conflict Over Kosovo: Why Milosevic Decided to* Settle When He Did, noted, "According to Milosevic's own testimony and the contemporary statements of senior FRY [Former Republic of Yugoslavia] officials and close Milosevic associates, the key reason Milosevic agreed to accept NATO's terms was his fear of the bombing that would follow if he refused."¹⁵⁴ Furthermore, "President Clinton and key members of his national security team solidified their belief that bombing was better option than using ground forces to achieve limited war aims such as that of protecting innocents from the onslaught of ground forces." Lastly, in a press conference 10 June 1999, Secretary of Defense William Cohen summarized OAF, "we achieved our goals with the most precise application of air power in history." ¹⁵⁶

¹⁵³ Lambeth, NATO's Air War for Kosovo, 237.

¹⁵⁴ Johnson, Learning Large Lessons, 29.

¹⁵⁵ Gregory, Clean Bombs and Dirty Wars, 102.

¹⁵⁶ Gregory, Clean Bombs and Dirty Wars, 102.

Operation Unified Protector

The civil war in Libya escalated quickly due to human rights violations in which the UN was unsuccessful in defusing the violence and terror eventually drawing NATO air power into the region. Libyan Dictator Muammar Gaddafi's appetite for political power and control of Libya encouraged him to use violence against citizens¹⁵⁷ as the mechanism to achieve his political aims. On 22 February 2011, Gaddafi in a speech that was broadcasted around the world, referred to Libyan as "greasy rats and cockroaches and vowed to hunt them down and kill them, adding we will find you in your closets." ¹⁵⁸ In response, the UN disavowed all association with him along with ambassadors from China, India, Indonesia, Poland, and Arab League. In particular, Ali al- Essawi, the Libyan ambassador to India, "publicly stated that Gaddafi's violence against civilians was a massacre and called upon the UN to enact a resolution to block Libyan airspace from Gaddafi's air force in order to protect the people." Gaddafi's air force encompassed approximately 18,000 personnel, 350-400 aircraft with limited air to ground capabilities and ability to carry PGMs, more than 50-armed helicopters, and an air defense with equipped Soviet-era SAMs. 160 However, only few dozen of the aircraft were operational, pilots lacked adequate training and air defense operator training was marginal, thus NATO had a clear advantage. 161

¹⁵⁷ Gregory, Clean Bombs and Dirty Wars, 159.

¹⁵⁸ Gregory, Clean Bombs and Dirty Wars, 158.

¹⁵⁹ Gregory, Clean Bombs and Dirty Wars, 159.

¹⁶⁰ Schinella, *Bombs Without Boots*, 243.

¹⁶¹ Schinella, Bombs Without Boots, 243-244.

As a result, United Nations Security Council Resolution (UNSCR) 1970, on February 23 was accepted denouncing Gaddafi acts of aggression and violence against civilians by freezing the financial assets of the Gaddafi family, imposing an arms embargo on Libya, and enacted a travel ban on Gaddafi and his associates. Shortly after UNSCR 1970, on March 17, 2011, UNSC 1973 was approved "authorizing NATO to establish a no-fly zone and use of all measures to protect civilians from attacks by forces led by Muammar Gaddafi" leading to a NATO air campaign called OUP.

The passing of the UNSCR 1973 was a critical milestone signifying international legitimacy gaining concurrence without a veto to take action against Gaddafi. However, public opinion and support was not as prevalent in Libya in comparison to OAF.

Interestingly, among the five permanent UN members that voted in favor of UNSCR 1973 were the United States, the United Kingdom, and France, while Russia, China, India, Brazil, and Germany abstained from voting for their own political reasons. 164

NATO sought air power alone as the most effective use of military force in Libya given the political and military context of the Libyan Civil War. NATO air power had illustrated its effectiveness in ODF, and more recently in OAF with lessons learned making it an attractive option for NATO. In particular, NATO's cohesion and operational military planning drastically improved from ODF and OAF in which operational plans were developed and agreed upon within record time.¹⁶⁵

¹⁶² Gregory, Clean Bombs and Dirty Wars, 160.

¹⁶³ Gregory, Clean Bombs and Dirty Wars, 159.

¹⁶⁴ Gregory, Clean Bombs and Dirty Wars, 160.

¹⁶⁵ Mueller, *Precision and Purpose*, 26.

United States President Obama relied heavy on his White House and national security staff to determine whether the United States would get involved in Libya while ignoring more experienced and seasoned military experts. In particular, President Obama listened closely to his White House and national security staff and in particular, Samantha Power (special assistant to President Obama and Senior Director for Multilateral Affairs and Human Rights on the National Security Council) in determining whether military intervention was a viable and effective option in Libya. 166 Secretary of Defense Robert Gates voiced his frustrations in regards to the White House and national security staff involvement in the use of military force decision without the military expertise and stated, "they do not "fully understand the military options....people blithely talking about the use of military force as though it were some kind of video game." However, Senator John McCain praised and agreed with Samantha Power and noted she was "well qualified for her new position" and further advocated for air power alone and no-fly zone. 168

As a result, Operation Odyssey Dawn (ODD) ensued in which the United States took the lead by providing the military leadership along with other NATO aircraft primarily from France and the United Kingdom with a focus on eliminating air defenses, command and control targets, and regime threats to civilians in Benghazi and Misrata while enforcing the no-fly zone. 169 Air component commander, USAF Major General

¹⁶⁶ Gregory, Clean Bombs and Dirty Wars, 161.

¹⁶⁷ Gregory, Clean Bombs and Dirty Wars, 161.

¹⁶⁸ Gregory, Clean Bombs and Dirty Wars, 162.

¹⁶⁹ Mueller, *Precision and Purpose*, 23.

Margaret Woodward and her planner, Lt. Col. Phillip Morrison, explained the priority of targeting using the analogy of peeling an onion:

The first task was to shut down Libyan air operations and air defenses. This represented the first layer of the onion that needed to be peeled back before air power could discharge the task of protecting the Libyan people. Specifically, the longer range surface-to air missiles that could threaten the Airborne Warning and Control Systems, Joint Surveillance and Target Attack Radar System, and tankers needed to be disabled immediately, followed by the rest of the Libyan integrated air defense system (IADS).¹⁷⁰

The United States sought to take the lead early in the air campaign in Libya with the expectation that NATO allies would take over the leadership role once OOD was underway, an operation that eventually became known as OUP. In the end, OOD established the operational tempo for OUP, flying a total of "1,990 sorties, including 952 strike sorties...of these, the United States had flown 1,206 sorties including 463 of the strike sorties." Major General Woodward summarized ODD and stated, "we protected thousands of Libyan civilians and significantly degraded the regimes ability to conduct attacks from the air and on the ground. We met our objectives and we continue to support NATO under Operation Unified Protector as they carry out the same mandate." 172

President Obama "had declared early on that the American role would be limited and that after initial operations of roughly a week, the United States would pull back into an overwatch role and provide only those unique assets required allowing its allies to continue the operation."¹⁷³ Retired General Wesley Clark, former NATO commander in

¹⁷⁰ Gregory, Clean Bombs and Dirty Wars, 177.

¹⁷¹ Schinella, Bombs Without Boots: The Limits of Air Power, 253.

¹⁷² Gregory, Clean Bombs and Dirty Wars, 182.

¹⁷³ Mueller, *Precision and Purpose*, 24.

OAF warned that the United States participation in OOD had a high likelihood of migrating into a more intense operation given the political and military circumstances in Libya. He wrote an article in the Washington Post advising that the United States should avoid Libya, stating, "A no-fly in Libya may seem straightforward at first, but if Gaddafi continues to advance, the time will come for airstrikes, extended bombings and ground troops- a stretch for an already overcommitted force." 174

Public opinion and support for an air campaign in Libya did not receive the same level of support as OAF due to the lack of clear objectives outlined along with no final expectations centered on political and military stability to validate NATO involvement. A distinguished foreign policy spectator wrote in the *Washington Post*, "the administration has launched the United States into a battle with no clear vision of what a successful and stable outcome looks like." Furthermore, a US Gallup public opinion poll conducted in March 2011 indicated that fewer than half of all American supported military intervention in Libya, however, President Obama followed through with the use of air power alone 176 with an overarching long-term foreign policy strategy of "leading from behind." With an overarching long-term foreign policy strategy of "leading from behind."

OUP emerged as a continuation of OOD in which France and the United
Kingdom took charge of the air campaign and the United States assumed a supporting
role in line with President Obama intent. OUP targeting approach from OOD shifted from

¹⁷⁴ Gregory, Clean Bombs and Dirty Wars, 166.

¹⁷⁵ Mueller, *Precision and Purpose*, 23.

¹⁷⁶ Gregory, Clean Bombs and Dirty Wars, 161.

¹⁷⁷ Gregory, Clean Bombs and Dirty Wars, 167.

static to dynamic targeting signifying an increase in NATO air power involvement and scope. "Most of the targets in the early days of Operation Odyssey Dawn were fixed targets such as surface-to-air missile (SAM) sites, major C2 facilities, and weapon storage bunkers. As these targets were destroyed, the focus of the air campaign increasingly came to rest on dynamic targets identified during sorties themselves." In response, United States and other NATO members staffed additional personnel to fill gaps in Coalition Air Operational Center (CAOC) to augment current resources in order to support additional offensive air operations. However, the United States had identified a weakness in NATO air power pertaining to limited ISR capability constraining air operations relying heavily on Air Tasking Orders (ATOs) generated from NATO sorties in combat. Major General Woodward reaffirmed this ISR weakness and stated, "The US Intelligence Community hadn't viewed Libya as a potential adversary "for years," she said, "making operational data and intelligence one of our earliest and most critical limiting factors." Nature of the surface of the same potential adversary are potential limiting factors." Nature of the surface of the same potential adversary of the said, "making operational data and intelligence one of our earliest and most critical limiting factors."

In addition, advanced technology and communication in the form of twitter played a pivotal role in bridging the ISR operational shortfalls. Twitter in combination with Google Earth offered greater situation awareness into activities on the ground leading to better air power effectiveness through communication with Libyan Rebels. CNN's Anthony Bourdain interviewed Akram Al-Gdery, a Libyan rebel what method

¹⁷⁸ Mueller, *Precision and Purpose*, 29.

¹⁷⁹ Mueller, *Precision and Purpose*, 29.

¹⁸⁰ John Tirpak, "Lessons from Libya," *Air Force Magazine*, 2011, https://www.airforcemag.com/article/1211libya/.

was used to pass along tanks, artillery, and other equipment targets from rebel ground forces to NATO, he explained,

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 wherever. We get the coordinates [of the target] via Google Earth. We verify that is the location there that needs to be hit, send it to NATO-then it is gone. ¹⁸¹

Twitter usage did not require data plans nor specific cellular network separating itself from other social media outlets allowing Libyan Rebels to use phone connectivity to relay and receive data via twitter enhancing range and scope of communication. The twitter capability within the ranks of Libyan rebels on the ground was a game changer in terms of providing real time threat data and damage assessments to NATO as well as a historical record with time stamps of all interactions and actions taken.

Twitter was also used a psychological weapon to coerce Gaddafi to cease and seek diplomatic means to end his reign of terror and violence. NATO used twitter to its advantage broadcasting to Gaddafi and his military leadership that twitter was being utilized to expose all his activities and military resources across Libya, requesting he stop his aggression to avoid more death and destruction. A USAF EC-130J "Commando Solo" aircraft was used to broadcast this message to Gaddafi and stated the following:

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 safe-guard 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,

¹⁸¹ Gregory, Clean Bombs and Dirty Wars, 187.

maintain, or remain with military equipment of any sort you will be targeted for destruction. 182

The targeting process exercised by NATO in OUP followed the same approval process as OAF, however, modifications were made to process to remedy the inefficiencies associated with the robust level of review some NATO members placed on the targeting list, delaying operations and thereby, affecting overall air power effectiveness. In an effort to avoid delays in target list approval, the authority was delegated down to military commands in which an internal "Striker Group" comprising of NATO's active members in OUP, the United States, France, Britain, Canada, Norway, Denmark, Belgium, and Italy called most of the shots for the targets selected while still adhering to the 28 NATO member decision. ¹⁸³ Ironically, France had been one of the more unyielding NATO members whom scrutinized the target list in OAF changed its thinking and adopted this new targeting process approach in OUP with no hesitation or criticism. ¹⁸⁴

In the end, OUP lasted for 223 days of bombing comprising of 9,700 strike sorties, destroying 1,000 mobile heavy weapon systems, and killing Gaddafi and destroying his convoy on October 20, 2011. NATO had warned Gaddafi if he did not stop his acts of aggression in previous broadcasts and chose to continue his acts of violence and terror than he would be considered a high priority target. United States

¹⁸² Gregory, Clean Bombs and Dirty Wars, 199.

¹⁸³ Mueller, *Precision and Purpose*, 28.

¹⁸⁴ Mueller, *Precision and Purpose*, 28.

¹⁸⁵ Gregory, Clean Bombs and Dirty Wars, 201.

Secretary of State, Hillary Clinton interviewed by *CBS News* following the end of OUP, stated, "We came, we saw, he died!" giving credit to NATO air power and cooperation from Libyan rebel support from the ground and the utilization of Twitter as contributing factors to gaining a tactical edge on Gaddafi's military forces.¹⁸⁶

Twitter was instrumental in NATO's air power success and paved the way for future conflicts. In July 2012, RAND Corporation analyst and USAF Reserve Officer, Frederic Wehrey travelled to Libya to interview over twenty Libyan rebel commanders to hear their accounts of OUP to gather more insight and details into their contributions to NATO air power success. Wehrey discovered the rebel commanders established operational centers throughout Libya that interfaced with NATO affording them the opportunity to plot friendly and hostile positions in Google Earth contributing to a better common operating picture driving better ATOs and minimizing collateral damage. He further explained,

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 e-mail 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.¹⁸⁷

Therefore, OUP illustrated NATO's maturity in terms of cohesion and air power alone execution while introducing new tactics and technologies leading to success with no NATO aircrew losses and minimal collateral damage given the number of strike sorties. In addition, the weather and many of the previous challenges and obstacles witnessed in

¹⁸⁶ Gregory, Clean Bombs and Dirty Wars, 200.

¹⁸⁷ Gregory, Clean Bombs and Dirty Wars, 202.

OAF were overcome based on lessons learned and adaptation of EBOT and parallel warfare to meet the specific requirements in Libya.

Chapter IV.

Findings and Discussion

I have a mathematical certainty that the future will confirm my assertion that aerial warfare will be the most important element in future wars, and that in consequence not only will the importance of the Independent Air Force rapidly increase, but the importance of the army and navy will decrease in proportion. – General Giulio Douhet¹⁸⁸

During the post-Cold War period, NATO's implementation and execution of air power alone matured with each air campaign, keeping pace with its new strategic concepts while modifying and adapting EBOT and parallel warfare in concert. Therefore, the political and military contexts of each specific conflict varied affecting air power planning and execution directly impacting air power alone effectiveness outcomes and adhering to public opinion and support collectively across the alliance. NATO recognized the effectiveness of air power witnessed in ODS and through the adoption of the EBOT and execution of parallel warfare as a successful model. However, NATO quickly learned that each conflict presented its own challenges and obstacles, resulting in trade-offs between public opinion and effectiveness as it related to cohesion within the alliance and cooperation to meet political and military aims. As a result, NATO overtime gained more lessons learned leading to greater operational effectiveness, thereby; leading to favorable public opinion in which air power alone was seen as more attractive, resulting in greater overall confidence supporting desirable and successful outcomes.

¹⁸⁸ Army War College, "Parameters: Journal of the US Army War College," *Parameters (Carlisle, Pa.)* 28, no. 3 (1998):126, accessed September 26, 2020, https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=1895&context=parameters.

Discussion

Therefore, the air power alone debate in OAF focuses on two main themes effectiveness and public opinion as they relate to an outcome within a specific political and military context. Many military theorists and scholars overlooked the importance of the political and military context, as influential factors in how air power alone effectiveness and public opinion are interrelated. As previously highlighted, air power alone is inherently flexible and can thus, adapt and modify to different political and military contexts of conflicts making it an advantageous option for NATO in the relatively new asymmetrical battlefield. The complexities and challenges of interweaving effectiveness and public opinion is a delicate dance in which NATO exhibited its resilience and cohesion strength throughout demanding circumstances in OAF and other referenced air campaigns. Overall, NATO cohesion and public opinion drove air power implementation and execution leading to operational effectiveness and positive results. This reinforces how they are interconnected and why the following questions were chosen to substantiate and explain the NATO air power alone decision in Kosovo:

- 1.) How did geographical and physical terrain and climate characteristics of Kosovo affect military operations? Particularly, logistics, mobility, and sustainment to establish an enduring military operational readiness?
- 2.) How did concerns about public support for a ground invasion verses use of air power affect NATO leaders' decision? How did NATO as an organization maintain cohesion among partners and agree on a plan/strategy? Did this present limitations or affect overall air power effectiveness?

In order to explore the relationship between NATO cohesion, public opinion and air power effectiveness it is paramount to understand the political and military context that brought about the specific tension and conflict leading to humanitarian concerns.

NATO's watchful eye of these contexts provides a foundation and background allowing them to assess the scope and magnitude of air power needed to meet their political and military aims. Therefore, cohesion and public opinion like the political and military context are the foundation in which NATO will implement and execute air power alone. However, air power effectiveness remained the overarching objective of the air campaign plan and strategy in OAF with limitations deriving from pre-existing NATO member norms, thereby, affecting cohesion and public opinion.

Furthermore, it is important to understand the internal complexities and challenges NATO witnessed in OAF in terms of its internal cohesion and public opinion rendering an air power alone decision. NATO's innate diversity coupled with strict respect and acknowledgement of each member presented limitations on the use of military force, thus placing limitations on EBOT and the parallel warfare approach affecting air power effectiveness. Ironically, military theorists and scholars, challenging the air power alone decision in Kosovo from an effectiveness standpoint, neglected to acknowledge the internal complexities and challenges of NATO cohesion in combination with the political and military contexts. Therefore, counter arguments of air power alone effectiveness are limited, lacking sufficient evidence to support the idea that other uses of military force would have brought President Milosevic to the negotiation table sooner.

Air power effectiveness cannot be measured or quantified by raw sorties flown or PGMs expended on a multitude of targets, but rather by the specific effects inflicted upon

a broad array of high priority and strategic targets leading the aggressor or adversary to seek diplomacy over continued violence substantiating EBOT and the parallel warfare approach. Historically, surveys have been the primary means to ascertain some measurement of air power success and as a data point to gain greater insight into air power effectiveness. However, many of these surveys have proved inconclusive due to the lack of data for various reasons to include classification, thus affecting the accuracy and reliability of the data to draw conclusions.

Therefore, the negotiation table becomes the universal constant metric of air power success or failure as it relates to EBOT and the parallel warfare approach. The negotiation table is a tangible metric and a sound indicator of air power effectiveness.

The negotiation table is measurable and is not conditional, but a concrete result of the air power effects given all the political and military factors and variables associated with air power implementation and execution.

Interestingly, the measurement of air power effectiveness is a central criticism by many military theorists and scholars in the debate whether or not air power alone in Kosovo was an effective use of military force to implement and execute. Most of the counter arguments against air power alone in Kosovo revolved around duration criteria in which it was believed that 78 days was not a long enough timeframe to curb and stop the genocide on the ground in Kosovo, neglecting to investigate all the political and military factors influencing NATO's air power alone decision.

Many counter arguments proposed suggest that the deployment and implementation of NATO ground forces in Kosovo would have garnered greater effect through air power and efficiency resulting in less Albanian deaths. USAF Air Combat

Commander, General Richard Hawley highlighted that the NATO decision to rule out ground forces weakened air power effectiveness prolonging the conflict, thus not meeting military and political objectives. He stated, "when you do not have synergy, things take longer and they're harder, and that's what you are seeing in this conflict."189 Furthermore, USAF General Short pointed out "this conflict was unlike others in that we did not have a ground element to fix the enemy, to make him predictable, and to give us information as to where the enemy might be."190 However, the KLA did play a role in targeting by providing intelligence and information to JSTARS, it is unclear how timely the information was distributed to NATO operations. According to General Short, the KLA got involved in targeting at the later part of phase III, he stated, "the Yugoslav army come out and fight and try to blunt their offensive... And once they moved, or fired their artillery, our strikers learned where they were and could go in for the kill."191 The employment of NATO ground forces would have forced Serbian Army out of the shadows exposing their position and allowing NATO air power to strike with PGMs, increasing effectiveness and effect.

Lastly, their argument lacks a solid military plan with tactics including logistics, mobility and sustainment obstacles and challenges to overcome the rough terrain and lack of infrastructure to include, roads and bridges in Kosovo. In addition, the importance of NATO cohesion and public opinion is overlooked, discrediting NATO and especially the United States ruling out the ground forces option, thus undermining NATO cohesion

¹⁸⁹ Lambeth, NATO's Air War for Kosovo, 242.

¹⁹⁰ Lambeth, NATO's Air War for Kosovo, 242.

¹⁹¹ Lambeth, NATO's Air War for Kosovo, 243.

importance. Therefore, a fundamental question arises on how a ground force and or joint air and ground option would have persuaded NATO and garnered public opinion to adopt alternative use of military force as opposed to air power alone. Unfortunately, this opposing argument against air power alone is inconclusive and lacks evidence and a sound plan to support whether or not ground forces or a joint air and land option would have been more effective in Kosovo, reaching the negotiation table in less than 78 days.

In the end, OAF achieved NATO military and political objectives exemplifying their strength and resilience in Kosovo through air power alone in an asymmetrical battlefield environment in an astounding 78 days. NATO utilized technology to its advantage in particular stealth and PGMs capabilities to enhance an already agile and flexible NATO air power capability. However, NATO air power has evolved to keep pace with the emerging asymmetrical battlefield environment and through ODF acknowledged the need to modify and adapt EBOT and the parallel warfare approach reinforcing the reality that each conflict and air campaign is different. The NATO air campaigns showcased earlier illustrate air power evolution emphasizing its flexibility, global reach and broad scope of capabilities unmatched in comparison to other uses of military power options relevant to operational effectiveness, alliance cohesion, and public opinion. Therefore, it is not a surprise that air power alone was an attractive choice for NATO in ODF, OAF, and OUP.

Findings

Given the evidence examined in support of NATO's air power alone decision, the evidence supports a positive smoking gun causation test in reference to PT (refer to

Figure 1). The evidence provides great confidence that air power alone in Kosovo was most effective option given the political and military context and circumstances accompanied by concerns about alliance cohesion and public opinion. Therefore, the hypothesis passing the test illustrates that the hypothesis is sufficient. However, even if the hypothesis were to fail, the confidence would remain relatively unchanged due to the strong evidence, thus ruling out any alternatives.

However, in terms of the alternative uses of military force in Kosovo proposed by other military theorists and scholars in this debate, the straw-in-the-wind causation test aligns best with the recommended use of ground forces for example. This test is the weakest of the other three PT causation tests due to the alternative hypothesis being neither necessary nor sufficient based on hypothetical evidence. Therefore, stronger evidence would be required to substantiate the alternative hypothesis in order to gain more confidence in the debate.

Chapter V.

Conclusion

Air power is new to all our countries. It brings advantages to some and weakens others; it calls for readjustment everywhere. – Charles Lindbergh¹⁹²

The birth and evolution of flight dramatically changed the world in terms of travel, mobility and warfare with the introduction of the aircraft. Aircraft development and supporting technologies boomed with curiosity and fascination erupting into tremendous growth in the civilian and military aircraft sectors. The many uses of aircraft proved well worth the investment and motivated the civilian and military sectors to seek new technologies to reap greater efficiencies and capabilities. In particular, the military aircraft changed warfare with its use in air combat demonstrating its flexibility and agility to accomplish a broad array of missions mimicking the capabilities of other uses of military force with greater expediency. Therefore, air power alone became a very attractive use of military force for NATO to counter an unpredictable asymmetrical battlefield environment following the Cold War.

NATO aircraft kept pace with emerging technologies in order to remain flexible, agile, and expedient in an unpredictable asymmetrical battlefield environment in Europe and abroad. NATO maintained its commitment to the new strategic concepts in the post-Cold War exhibiting air power flexibility and global reach capabilities separating air power from the other uses of military force. NATO recognized effectiveness and public opinion as key ingredients to executing its new strategic concepts through air power

¹⁹² "Aviation, Geography, and Race," *Reader's Digest*, November 1939, https://www.azquotes.com/quote/137779.

while maintaining cohesion among its members as paramount to successfully meeting its political and military aims. ODF, OAF, and OUP all exemplified NATO's cohesion and commitment to its new strategic concepts through its watchful eye of effectiveness and public opinion as strong criteria to determine the use of military force given the political and military circumstances. Interestingly, air power prevailed in these conflicts demonstrating its flexibility, agility and expediency leading to the most effective use of military force to bring an aggressor or adversary to the negotiation table with no NATO aircrew casualties.

NATO re-affirmed each conflict was unique and different from a political and military perspective with dissimilar challenges and obstacles in an unpredictable and asymmetrical battlefield. In response, NATO considered air power flexibility, agility and expediency as the most effective use of military force option to address these challenges and obstacles while remaining poised to adapt to unpredictable threats with greater expediency than other uses of military force, a ground and or joint air and land force option. NATO adopted EBOT and the parallel warfare approach as the baseline for air power operations after the display of coalition air power effectiveness in ODS. However, NATO quickly learned that the EBOT and the parallel warfare approach in ODS did not apply to each air campaign consistently, therefore, modifications and adaptions were necessary to address the variety of challenges and obstacles relevant to each conflict. As a result, EBOT and parallel warfare evolved and adapted with each conflict providing NATO with greater knowledge, predictability, and lessons learned to apply to future training and air campaigns.

One of NATO's major lessons learned in OAF was the realization that an unconscious tradeoff existed between the importance of member cohesion and air campaign operational effectiveness. NATO cohesion took precedence over air campaign operational effectiveness in which public opinion influenced air power operational decisions and behaviors affecting air power effectiveness. Therefore, air power alone operations became limited through modification and adaptions to EBOT and the parallel warfare approach, resulting in operational inefficiencies leading to decreased effectiveness and prolonged air campaigns.

The targeting process as it related to concerns over collateral damage in OAF highlighted these operational inefficiencies and limitations on EBOT and the parallel warfare approach, resulting in executing air power gradually. However, NATO in OUP understood these faults in the targeting process and improved it drastically allowing for less targeting approvals and taking more risks increasing efficiency contributing to better effect in support of EBOT and parallel warfare aims.

Many scholars and military theorists highlight air power alone inefficiencies in OAF and lack of effectiveness as a point of failure for leading Milosevic to the negotiation sooner in an attempt to curb the genocide of Albanians on the ground. They criticize the air power operations and lack of effectiveness arguing 78 days was too long, concluding that a ground force option and or a joint force (land and air components) would have had more of an effect than air power alone in Kosovo. These air power alone inefficiencies are evident and there is substantial evidence in support of their claims. However, NATO cohesion and public opinion, which are intertwined within the construct of implementing and executing EBOT and parallel warfare, are overlooked and replaced

with other uses of military force or combination as a more effective option ignoring political and military consequences.

The other uses of military force or combinations lack the means to garner public opinion and NATO support leading to a strong cohesion of members to withstand all the challenges and obstacles associated with an unpredictable asymmetrical battlefield.

Therefore, the argument against air power alone lacks adequate evidence within the PT causation model and in the debate to support other uses of military force given the political and military circumstances of the Kosovo conflict. Air power alone effectiveness evidence similar to a "smoking gun" is unmatched by any other use of military force or combination evidence. However, the debate does expose the inefficiencies of NATO air power alone operations highlighting areas of improvement coupled with gaining greater predictability and experience as an alliance. In the end, OAF proved air power alone was effective in meeting military objectives and political aims, thereby suggesting it was the best use of military force in Kosovo.

¹⁹³ Bennett, "Process Tracing and Causal Inference," 210-211.

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