

**Beyond Conflict and Kinetics:
Airpower Strategy for Human Security Operations**

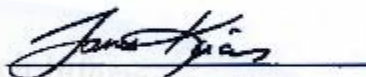
by

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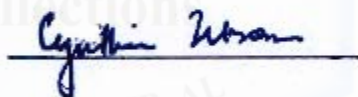
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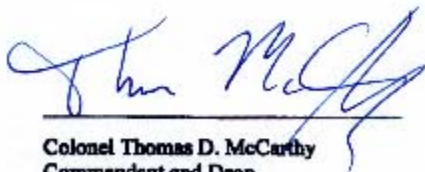
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Abstract

Since 1903, airpower has provided a virtually impenetrable three-dimensional wall on the battlefield. As a result of this longstanding success, a significant amount of research, analysis, and scholarly endeavor has been devoted to understanding the strategy and missions accomplished during major combat operations. However, the success of airpower is not as impressive when viewed across the spectrum of military operations. In action described variously as “military operations other than war,” “irregular warfare,” and “small wars,” airpower’s record is at best mixed. The political objectives of many of these operations tend to focus less on conflict against another military and more on the protection of a referent population. These types of political objectives closely identify with the concept of human security espoused by the United Nations, European Union and several states.

Airpowers mixed record in these operations raises several questions. First, why is airpower so effective in traditional warfare but much less successful in operations other than traditional war? Second, historical airpower theory is based largely on major combat operations, but what are the constituent elements of an airpower theory for human security operations? Third, due to the interconnected nature of national security and military operations, if policymakers commit military resources for a human security objective how is the airpower strategy developed and executed?

To answer these questions, this study is guided by an overarching research question: *How effective is airpower at achieving human security political objectives?* This study will address the research question by defining human security in terms of the protected population and the type of security threat. The definition is used to analyze twenty-eight operations (three case studies and twenty-five plausibility probes) in which airpower supported a human security objective. The analysis tests a hypothesis that airpower strategy to achieve human security consists of three elements. First, airpower provides security assurances to a referent population. Second, airpower deters a threat from conducting actions that induce insecurity to the referent population. Lastly, airpower must gain and maintain air superiority. The outcomes of the study will be used to inform development of future airpower strategy and provide a comprehensive baseline for doctrinal revision. Additionally, this study serves as a reference point for additional research into areas such as logistical support for human security and integration with host-nation airpower capabilities.

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List of Acronyms

AAA: Anti-aircraft Artillery
AFB: Air Force Base
AFHSO: Air Force Historical Studies Office
AIM: Air Intercept Missile
AU: Air University
AWACS: Airborne Warning and Control System
CA: Civil Affairs
CAOC: Combined Air Operations Center
CMOC: Civil-Military Operations Center
DoD: Department of Defense
EA: Electronic Attack
GEN: General
HDR: Human Development Report
JTF-SH: Joint Task Force Shining Hope
KEZ: Kosovo Engagement Zone
LTG: Lieutenant General
MANPAD: Man-Portable Air Defense System
MiG: Mikoyan-Gurevyich
NATO: North Atlantic Treaty Organization
OCA: Offensive Counter Air
RAMCC: Regional Air Movement Coordination Center
SAM: Surface-to-Air Missile
U.N.: United Nations
UNDP: United Nations Development Program
UNHCR: United Nations High Commissioner for Refugees

Chapter One

Introduction

The political objective—the original motive for war—will thus determine both the military objective to be reached and the amount of effort it requires.

Carl Von Clausewitz
On War

Airpower has been described as “America’s asymmetric advantage” during times of conflict. Since 1903, airpower has provided a virtually impenetrable three-dimensional wall on the battlefield for those who have wrested control of it.¹ The last time American ground forces operated without air superiority was 1943 in North Africa during World War II. The last American ground forces casualty to enemy airpower occurred more than a half-century ago during the Korean conflict. With that record of success in mind, Air Force Chief of Staff General John Jumper stated at the conclusion of Operation ALLIED FORCE in 1999 “we set the bar fairly high when we fly more than 30,000 combat sorties, and we don’t lose one pilot.”² However, the success of airpower is not quite as impressive when viewed across the spectrum of military operations. In action described variously as “military operations other than war,” “irregular warfare,” or “small wars,” airpower’s record is unclear at best. This record has been attributed to factors such as technological mismatch, organizational imperatives to maintain unique mission sets, and institutional inability to articulate lessons and concepts based on previous experiences.³ Another factor has been the apparent shift in airpower doctrine since the end of the Cold War away from a direct

¹ Major General Charles J. Dunlap, “America’s Asymmetric Advantage,” *Armed Forces Journal*, September 2006. <http://www.armedforcesjournal.com/americas-asymmetric-advantage/> (accessed 19 October 2013).

² As quoted in James Kitfield, “Another Look at the Air War That Was,” *Air Force Magazine*, October 1999, 40.

³ There is a fairly large literature base on airpower effectiveness in counterinsurgency, but the referent for airpower actions is typically focused on a terrorist or insurgent group. Representative studies include: James Corum and Wray Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University of Kansas Press, 2003) and Derek Read, “Airpower in COIN: Can Airpower Make a Significant Contribution to COIN?,” *Defence Studies* 10, no. 01-02 (2010), 126-151.

linkage to strategic political objectives to a focus on specific operational missions such as strategic attack, counter-air, and counterland targeting.⁴

The end of the Cold War also served as a catalyst for the increased prominence of human security into the field of security studies. Human security scholars in the early 1990s utilized an expansive definition of threats to security to include security for individuals, societies, and national populaces. Human security was initially well received by middle-power states such as Canada and Japan but less so by major powers and states traditionally labeled as “the Third World.” Adherents to a Realist viewpoint of international relations tend to criticize the lack of definitional clarity and analytical rigor associated with human security while Liberalist adherents tended to view human security with skepticism. Several scholars, however, have attempted to provide rigor for subsequent study and analysis. The detailed development and often contentious debates of the scholars is discussed in Chapter Two. This study will fully analyze and define human security as a baseline for definition of political objectives. As the Clausewitz quote in the epigraph illustrates, the political objective is the primary factor for development of military strategy.

The roots of this study lie in a desire to research several interrelated questions. First, why is airpower so effective in traditional warfare but less effective when utilized for operations other than traditional war? Second, airpower doctrine seemed closely wedded to strategic accomplishment of political objectives prior to 1991 but has the post-Cold War security environment led to doctrine, and by extension strategy, that is mission as opposed to policy-based? Third, due to the interconnected nature of

⁴ This study will use the terms “policy” and “political objectives” interchangeably. This is in keeping with the school of thought that the German term “politik” contained in Clausewitz’s *Vom Kriege* can be translated as either policy or political objective. See Jan Willem Honig, “Clausewitz’s On War: Problems of Text and Translation,” in Hew Strachan and Andreas Herberg-Rothe, eds, *Clausewitz in the Twenty-First Century* (Oxford: Oxford University Press, 2007), 57-73. In cases where disambiguation is required for clarity or quotes, the specific meaning will be fully developed.

national security and military operations, if policymakers commit military resources for a human security objective, what variables influence airpower strategy development and execution? Finally, Clausewitz was very clear on how political objectives constrain and guide the conduct of war. He wrote:

A military objective that matches the political object in scale will, if the latter is reduced, be reduced in proportion; this will be all the more so as the political objective increases in predominance. Thus it follows without any inconsistency wars can have all degrees of importance and intensity, ranging from a war of extermination down to simple armed observation.⁵

Many airpower theorists prior to World War II tended to view war in absolute terms which in turn drove their theoretical writings. What explanatory power do previous airpower theories possess for operations in which political objectives are defined in human security terms?

Research Question and Hypothesis

This study is guided by the research question: *How effective is airpower at achieving human security political objectives?* This study narrowly defines human security in terms of the protected population and the type of security threat. The definition of human security helps provide a framework for analysis of twenty-eight cases in which airpower supported a human security policy objective. Previous airpower studies tended to analyze operations by mission type, such as counterinsurgency, air policing, mobility, or defensive counterair or by the type of war such as traditional, small wars, nuclear, etc. The methodology of this dissertation treats the political objective as the independent variable, airpower strategy as the dependent variable, and mission type as a causal phenomenon. The case studies test a hypothesis that there are three necessary conditions for an airpower strategy to

⁵ Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 81.

effectively achieve human security objectives. First, airpower must gain and maintain air superiority. Second, airpower must provide security assurances to a referent population. Third, airpower must deter a threat from conducting actions that induce insecurity to the referent population.

In cases where any of these three conditions are not met, the airpower strategy will not be successful. It is important to stress that these conditions are necessary but not sufficient to achieve the policy objective. Additionally, the unique aspect of this hypothesis is analysis of airpower's effects on different referent populations. Previous airpower theories focused on a single referent, the enemy. This study analyzes deterrence or coercion of an enemy and the concurrent security assurances provided to a referent population. The outcomes of the study provide a framework for defining political objectives useful for development of future airpower strategy. Additionally, this study can serve as a baseline for additional research into areas such as logistical support for human security and integration with host-nation military forces.

This study fulfills a threefold purpose. First, it fills a gap in airpower literature by analyzing airpower operations within the context of a human security political objective. Harkening back to the Air Corps Tactical School prior to World War II and strategic defense strategies during the Cold War, this study traces processes directly from policy to airpower strategy. Second, the mixed-method research methodology counters a consistent scholarly critique that airpower theories and corresponding claims are generally lacking in methodology.⁶ Last, and perhaps most important, this

⁶ Referencing an inability of Barry Watts and John Warden to offer quantifiable data to support strategic bombing claims Robert Pape states "social science may not be easy, but overcoming articles of faith and changing institutional traditions can be harder still" in Robert Pape, "The Air Force Strike Back: A Reply to Barry Watts and John Warden," *Security Studies* 7, no. 2 (1997), 191-214. Tami Davis Biddle focused on early airpower theorists in the United States and Great Britain noting, for example, "Trenchard's rhetoric nonetheless remained vague and

study proposes a framework that can be used by future airpower strategists to develop campaign plans for operations considered under the human security paradigm.

Are Human Security and State Security Part of a Dialectic?

The concept of security is a central tenet in United States' relations with other states. Security is defined in the most general sense as "freedom from danger."⁷ American security concerns from other states has been comparatively minor for the majority of its history due to two oceanic borders, relatively benign neighbors, and a tradition of eschewing entanglements in global politics. The events that began with U.S. involvement in World War I and culminated with victory in World War II would catapult America to a leadership role of the international community while dramatically altering its security environment. After World War II, American security was based on containing the ideology and expansionism of the Soviet Union, with security defined in terms of nuclear weapons, ally assurance, and global power projection.⁸

In a speech to a joint session of Congress on 12 March 1947, President Harry S. Truman defined American security objectives in what became known subsequently as the Truman Doctrine—the foundation of American Cold War foreign policy:

One of the primary objectives of the foreign policy of the United States is the creation of conditions in which we and other nations will be able to work out a way of life free from coercion...this is no more than a frank recognition that totalitarian regimes imposed on free peoples, by direct or indirect aggression, undermine the foundations of international peace

underspecified—an Edwardian artifact in a world that had moved on.” Tami Davis Biddle, *Rhetoric and Reality in Air Warfare* (Princeton, NJ: Princeton University Press, 2002), 290. See also Carl Builder, *The Icarus Syndrome: The Role of Airpower Theory in the Evolution and Fate of the U.S. Air Force* (Santa Monica, CA: RAND Corporation, 1994).

⁷ Merriam-Webster Online Dictionary s.v. “security”, <http://www.merriam-webster.com/dictionary/security> (accessed 19 June 2013).

⁸ On American perceptions of post-World War II Soviet ideology, see X (George Kennan), “The Sources of Soviet Conduct,” *Foreign Affairs* 25, no. 4 (July 1947), 566-582. On post-war nuclear weapon strategy, see Frederick Dunn, Bernard Brodie, Arnold Wolfers, Percy Corbett, and William T.R. Rex, *The Absolute Weapon: Atomic Power and World Order* ed. Bernard Brodie (New York, NY: Harcourt, Brace, and Company, 1946), especially 70-110.

and hence the security of the United States. If we falter in our leadership, we may endanger the peace of the world.⁹

Truman intended to leverage the political and economic components of national power to deter Communist expansionism. If deterrence failed, Truman envisioned an arsenal of sea, air, and ground-based nuclear weapons to repel a Soviet-led ground invasion of Western Europe. This approach to security, through the policy of “containment,” would remain constant through eight presidents and nearly forty-five years.

The security framework in place for 50 years based on a bi-polar world order evaporated with the Soviet Union. With only one remaining superpower, theorists began to speculate what international relations *would* or *should* look like.¹⁰ The post-Cold War international system was variously described as a “new world order” and security has become a concept scholars and policymakers modify to explain international relations. Energy security, economic security, and regional security concepts (among others) attempt with limited success to explain interstate actions, the increasing prevalence of intrastate warfare, or the role of military forces in maintaining security. Human security has emerged as one model that provides explanatory power to rival the traditional state security approach to international relations. Developing an understanding of the relationship between human security and state security allows military commanders to fully appreciate the effect both concepts may have on military strategy.

⁹ Harry S. Truman, "Address of the President to Congress Recommending Assistance to Greece and Turkey," http://www.trumanlibrary.org/whistlestop/study_collections/doctrine/large/index.php. (accessed 14 Jul 2013).

¹⁰ One of the most contentious arguments about a new paradigm is Samuel Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York, NY: Touchstone, 1996) and the resultant critiques. “Clashes of civilizations are the greatest threat to world peace, and an international order based on civilizations is the surest safeguard against war.” (Huntington, *The Clash of Civilizations*, 321). For the compilation of Huntington’s original articles in *Foreign Affairs*, critiques, and responses see *The Clash of Civilizations?: The Debate* ed. Samuel Huntington (New York, NY: Foreign Affairs Press, 1996). For the relationship between globalization and economics see Benjamin R. Barber, *Jihad vs. McWorld* (New York, NY: Random House, 1995). For a discussion about the post-Cold War rise of liberal democracy see Francis Fukuyama, *The End of History and the Last Man* (New York, NY: Free Press, 1996).

Human Security

Although not directly labeled human security, Thomas Friedman observed that a “principled security policy can soon appear problematic. If pushed too far, it can be seen as imprudent and undermining of hard interest: if not pushed far enough, then the charge is likely to be one of hypocrisy and double standards.”¹¹ Writing in 1998, Friedman was commenting on the trend of states increasingly shifting to principled instead of interest-based security policies. These views emerged for two primary reasons. The first reason was due to a perceived decreased need for state security in the wake of the collapse of the Soviet Union. The second reason resulted from the emphasis by the presidential administration of William Clinton on the “engagement and enlargement” doctrine, codified in the 1995 National Security Strategy. This doctrine was subsequently adopted by the European Union, and, to a lesser extent, several middle power states such as Canada, Japan, and Australia. As a result, a principle-based security approach appeared to be gaining momentum relative to the state-centric, interest-driven policies of the past.

The concept of human security can be traced to the writings contained in various religious texts such as the Bible and Qur’ān and the teachings of religious leaders such as Buddha and Confucius. Ironically, the overwhelming influence and intolerant attitude of Church of England leaders in the 17th century would prompt John Locke to look towards natural law for his 1690 *The Two Treatises on Government*. Locke’s work would serve as a theoretical foundation for human security three centuries later.¹² Locke agreed with a number of foundational propositions of

¹¹ Lawrence Friedman, “International Security: Changing Targets,” *Foreign Policy* 110, (Spring 1998), 52.

¹² John Locke was raised as a Calvinist and was a practicing Christian; however, he believed that Christianity, in its original form, had become confused and dogmatic. He advocated intelligent and reasonable theological study. See John Locke, *Reasonableness of Christianity* and Richard Aaron, *John Locke* (Oxford, UK: Clarendon Press, 1971), 296. For the relationship between Enlightenment thought and current human security concepts see P.H. Liotta and

what later became known as the “realist” school of international relations, for example that the international system is anarchic and akin to a state of nature. Unlike Thomas Hobbes, however, who viewed anarchy as leading to competing sovereign security issues, Locke believed “the state of nature has a law of nature to govern it, which obliges everyone; and reason, which is that law, teaches all mankind...being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions.”¹³

Locke’s writing was partially responsible for two of the most significant human security developments of the eighteenth century. The first was the American Revolution, at the beginning of which Thomas Jefferson utilized Lockean ideals to pen the Declaration of Independence, notably that “all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty, and the pursuit of happiness.”¹⁴ The second event was the 1789 French Revolution, which successfully achieved the revolutionary goal of *égalité, fraternité, liberté*. At the heart of both revolutions was a social contract in which individuals surrender certain freedoms to the state and the state does not abridge their remaining freedoms. Jacques Rousseau described the social contract between individuals and a state as:

the social contract, any real renunciation on the part of the individuals, that the position in which they find themselves as a result of the contract is really preferable to that in which they were before. Instead of a renunciation, they have made an advantageous exchange: *instead of an uncertain and precarious way of living they have got one that is better and more secure*; instead of natural independence they have got liberty, instead of the power to harm others security for themselves, and instead

Taylor Owen, "Why Human Security?," *Whitehead Journal of Diplomacy and International Relations* 7, no. 1 (2006), 37-54.

¹³ John Locke, *Two Treatises on Government*, 123 (Treatise II, Chapter II, §6)

¹⁴ United States Declaration of Independence, preamble. http://www.archives.gov/national-archives-experience/charters/declaration_transcript.html. (accessed 12 May 2013).

of their strength, which others might overcome, a right which social union makes invincible. *Their very life, which they have devoted to the State, is by it constantly protected* [italics added].¹⁵

In the period after the French and American Revolutions, the social contract between individuals and states would remain relatively constrained to North America and Western Europe. The 150 years defined by the Napoleonic era, the wars of German unification, and World War I only expanded the social contract to Eastern and Southern Europe. The global character of World War II and resultant desire for an international order headed by a supra-national organization promoting peace served as the catalyst to expand the social contract both globally in practice and theoretically in research.

Current ideas of human security build upon the foundation laid by the United Nations (U.N.) Charter and the 1948 U.N. Universal Declaration of Human Rights (UDHR). The UDHR echoes many principles from Locke and Rousseau, stating “Recognition of the inherent dignity and of the equal and unalienable rights of all members of the human family is the foundation of freedom, justice, and peace in the world.”¹⁶ The UDHR contains 30 articles that codify a wide range of freedoms ranging from outlawing discrimination to marriage rights. Article 3 echoes Locke and provides the fundamental guidance for modern conceptions of human security, stating “everyone has the right to life, liberty, and security of person.”¹⁷ Forty-five years later, the U.N. Development Programs’ (UNDP) Human Development Report refined the definition of human security further by expanding its basis to seven variables:

¹⁵ Jean Jacques Rousseau, *The Social Contract and Discourses by Jean-Jacques Rousseau*, trans. by G.D.H. Cole, (London, UK: J.M. Dent and Sons, 1923).

¹⁶ United Nations, *Universal Declaration of Human Rights*, <http://www.un.org/Overview/rights.html>. (accessed 12 May 2013).

¹⁷ Ibid.

economic, food, health, environmental, personal, community and political security.¹⁸ Many scholars argue that this definition tends to be too expansive for either policy development or academic study and does not delineate human security from concepts such as human rights and human development.

Two publications from 1993-94 spelled out in more specific terms the concept of human security. The first was an article in *Foreign Affairs* by then-U.N. Secretary General Boutros Boutros-Ghali. Boutros-Ghali echoed both Locke and Rousseau by stating the post-Cold War era heralded bottom-up intrastate opportunities to strengthen developing states through focused human security programs. Writing “it is undeniable that the centuries-old doctrine of absolute and exclusive sovereignty no longer stands,” Boutros-Ghali recommends a paradigm shift from state sovereignty to “a dimension of universal sovereignty that resides in all humanity and provides all people with legitimate involvement in issues affecting the world as a whole.”¹⁹ While Boutros-Ghali’s vision of universal sovereignty is a difficult goal to achieve, his writing highlights the interrelationship between individuals and states championed by Rousseau two hundred years earlier. The 1994 U.N. Human Development Report (UNHDP) was the second publication contributing to current understandings of human security. The authors of the report state “the concept of security has for too long been interpreted narrowly: as security of territory from external aggression... Forgotten were the legitimate concerns of ordinary people... Human security can be said to have two main aspects. It means safety from such chronic threats as hunger,

¹⁸ United Nations, *Human Development Report 1993*, (New York, NY: United Nations, 1993). See especially pp. 18-20 outlining a human development agenda and pp. 65-83 regarding the relationship between people and governance.

¹⁹ Boutros Boutros-Ghali, “Empowering the United Nations,” *Foreign Affairs* 71, no. 5 (Winter 1992/1993), 99.

disease, and repression. And second, it means safety from sudden and hurtful disruptions in the patterns of daily life.”²⁰

Boutros-Ghali’s publication and the UNHDR report reinforced the social contract between individuals and states while simultaneously laying the foundation for the modern conception of human security. The social contract as articulated in these two publications advocated the need for states to provide security not only from external aggression but also internal repression. Articulating internal repression as a form of security served as a watershed for understanding the importance of human security to state security and also provides a narrow conception of human security.

Contemporary ideas of human security have been further refined by various states, notably Japan in 2001. The Government of Japan initiated a Commission for Human Security (CHS) that built upon the ideas presented by the U.N. Secretary General and the UNHDR. The CHS was established by the U.N. with Japanese leadership and three stated goals:

- 1) to promote public understanding, engagement and support of human security and its underlying imperatives;
- 2) to develop the concept of human security as an operational tool for policy formulation and implementation; and
- 3) to propose a concrete program of action to address critical and pervasive threats to human security.²¹

The CHS identified human insecurity arising from either the inability of a state to provide security to citizens (weak or failing states) or because the state is the source of insecurity (Stalinist Soviet Union or Taliban Afghanistan). When states are unable to fulfill their security obligations, the CHS advocates a paradigm shift to a mutually dependent relationship between international society and sovereign states to protect

²⁰ United Nations, *Human Development Report 1994*, (New York, NY: United Nations, 1994), 22.

²¹ United Nations, *Plan for Establishment of the Commission on Human Security*, press release, 2001. <http://www.unocha.org/humansecurity/chs/about/pressrelease.html>. (accessed 8 Jun 13).

human freedom and provide security. The CHS also attempted to define human security in two ways: 1) as a complement to, instead of superseding, state security and 2) resulting from systemic issues that negatively impact human rights and human development.

In the decade between the end of the Cold War to the findings of the Commission on Human Security, the concept of human security increased in prominence both theoretically and practically. Centered on the individual and the wide range of threats that could threaten the individual's security, human security was a significant departure from the concept that has dominated international relations for several centuries—state security. However, the concept is amorphous due to inconsistent definitions and diverse opinions on what constitutes a threat to human security. Chapter Two reviews the literature and identifies the various definitions and opinions about human security. Chapter Three presents a narrow definition of human security based upon a military threat from a state against a referent indigenous population. While narrower in scope than other definitions, this characterization comports with the findings of the Commission on Human Security and remains faithful to the lineage of thought from Locke to Boutros-Ghali.

State Security

According to Thucydides, the Greek city-state Sparta laid siege to Athens for a second consecutive year in 430 B.C.E causing widespread pestilence and plague. When Athenian attempts to end the siege and achieve peace with Sparta failed, the Athenian general Pericles implored his fellow citizens to continue resistance because “a man may be personally ever so well off, and yet if his country be ruined he must be

ruined with it.”²² Pericles’ statement, in the context of the disaster and havoc of the Peloponnesian War, is one of the first accounts of the primacy of state security in international relations. Thucydides identified fear, honor, and interests as three motives for conflict.²³ Although empires, monarchies, and feudal lords continually waged war for similar reasons in the centuries after the Peloponnesian War, it would be nearly two millennia before the modern state arose from the Peace of Westphalia concluding the Thirty Years’ War in 1648. Besides ending one of the longest and bloodiest wars in European history, the Peace of Westphalia also established an international system based on the concept of state sovereignty.

During the same period, the English Civil War strongly influenced the publication of Thomas Hobbes’ *Leviathan* or *The Matter, Forme, and Power of a Commonwealth, Ecclesiastical and Civil* in 1651.²⁴ Hobbes was one of the first scholars to employ scientific rigor from which he derived three central propositions to international relations thought. He illustrated the rational nature of state security policy, the anarchic nature of the international system, and how rational states acting in an anarchic system can lead to military conflict. All three propositions are fundamental to international relations study and are now treated as standard assumptions by a majority of scholars since Hobbes. Reflecting the influence of Thucydides, Hobbes also provides three reasons for using military force: competition among states, fear of domination, and glory of conquest.²⁵

²² Thucydides, “The Peloponnesian War, in *The Landmark Thucydides*, ed. and trans. Robert Strassler (New York, NY: Touchstone, 1996), 124.

²³ Ibid., 43. “And the nature of the case first compelled us to advance our (Athenian) empire to its present height; fear being our principal motive, though honor and interest afterwards came in.”

²⁴ Thomas Hobbes, *Leviathan*, ed. Michael Oakeshott (Oxford: Basil Blackwell, 1946). All page citations are from this edition unless otherwise noted.

²⁵ In 1629, Hobbes was arguably one of the first to translate Thucydides’ *History of the Peloponnesian War* from the original Greek into English. See *The English Works of Thomas Hobbes of Malmesbury* ed. Sir William Molesworth (London, UK: Bohn, 1839-1845) especially volumes 8 and 9 (Thucydides’ Peloponnesian War Part 1 and 2).

One hundred and thirty years after Hobbes, the 1789 French Revolution further strengthened the state system by creating a republican, nationalistic state and establishing the concept of mass-mobilization resulting in a national army. The dual concepts of national identity and mass state armies reinforced and strengthened the linkage between political objectives and military force. Although the political nature of war existed at least as far back as the Greco-Persian Wars of antiquity, Middle Age feudalism and the rise of limited war fought for modest political gains tended to define warfare as an instrument of the ruling class fought by mercenaries.²⁶ The French Revolution was instrumental in changing this view and providing the foundation for the modern interaction between national politics, massed military force with political objectives firmly wedded to state sovereignty. Indeed, Napoleonic France would have a profound impact on Carl von Clausewitz and his theory of the relationship between political ends and military means.

State security concepts dominate modern theories of international relations for two main reasons. First, state security is the established and foundational paradigm. The basic relationship between states described in Thucydides' *History of the Peloponnesian War* and Hobbes' *Leviathan* underpin most state-centric security models, especially in the 20th and 21st century. The most influential state-centric proponent in the early 20th century was Edward Hallet Carr, who favored of state sovereignty over prevailing opinions of world order based upon Wilsonian

²⁶ On the Greco-Persian Wars see Herodotus, *The Landmark Herodotus: The Histories* ed. by Robert Strassler and Rosalind Thomas, trans. by Andrea Rivers (New York, NY: Pantheon, 2007). On the Middle Ages see William McNeill, *The Pursuit of Power: Technology, Armed Conflict, and Society Since A.D. 1000* (Chicago, IL: University of Chicago Press, 1982), especially pp. 63-143. On the rise of limited wars fought by mercenaries on behalf of modest political gain, see Azar Gat, *War in Human Civilization*, (Oxford, UK: Oxford University Press, 2006), especially pp. 231-322. Beatrice Heuser notes, "The culture of early modern European elites, like that of our medieval predecessors, saw warfare primarily as an opportunity to win glory and renown...the entire political system of early modern Europe consisted of volatile alliances between thoroughly selfish dynasties, who by marriage, inheritance or war sought to amass for themselves as much territory, wealth and subjects as possible." Heuser, *The Evolution of Strategy: Thinking War from Antiquity to the Present*, (Cambridge, UK: Cambridge University Press, 2010), 54 and pp. 82-112.

supranational organizations, Marxist class equality, or individual utopia.²⁷ Carr states that war and security were not due to “inequality between individuals, nor inequality between classes, but inequality between nations.”²⁸ Writing just as Germany invaded Poland in 1939, Carr was not influenced by World War II but subsequent scholars would echo his thoughts even as supranational organizations and warfare based on class equality dominated the post-War security environment.

With the emergence of a bipolar international system after World War II and the possibility of U.S.-Soviet conflict, state security was dominant in both theory and practice. Hans Morgenthau’s *Politics Among Nations*, published in 1949, was one of the first attempts to explain the post-World War II international system. Writing at a time when discussion of the role of the United Nations, global governance, and international control of atomic energy dominated international politics, Morgenthau refutes a global society paradigm by reinforcing the primacy of states. Morgenthau acknowledges that “states are the supreme authority within their territories.”²⁹ Because international law and treaties can create state inequality, states compete in a quest for absolute power, which Morgenthau defined as “control over the minds and actions of other men.”³⁰ The power of a state, according to Morgenthau, deters conflict and provides security to both the state and individuals within the state.

Although not explicitly labeled state security, Morgenthau believes that military strength is the most important factor of power and is necessary to deter attack from other nations.³¹ Writing thirty years later, Kenneth Waltz echoes and updates many of

²⁷ Edward Hallett Carr, *The Twenty Years Crisis, 1919-1939* (New York, NY: Harper Collins, 2001) Writing in 1939, Carr critiques the ability of the League of Nations to achieve international security and discounts the class theories of Karl Marx. His most scathing critique is toward utopians that “imagine a world to suit their policy,” 11.

²⁸ Ibid., 227.

²⁹ Hans Morgenthau, *Politics Among Nations* (New York, NY: Alfred A. Knopf, 1949), 246.

³⁰ Ibid., 13.

³¹ Ibid., 14.

Morgenthau's ideas in the landmark *Theory of International Politics*, considered by many scholars as the foundational expression of the state-centric school of thought in international relations. Waltz recognizes the international impact of non-state actors and transnational organizations, but argues that "so long as major states are the major actors [in the international arena], the structure of international politics is defined by them."³² He further writes that state security is a "prerequisite to survival and the achievement of any goals that states may have."³³

The second reason state security concepts dominate modern theories of international relations is because of the model's parsimony. In Thucydides' time, a bipolar balance of power construct between the Delian League, dominated by Athens, and the Peloponnesian League, dominated by Sparta, governed relations among states. Barring occasional incursions from Persia, the relative power of Athens and Sparta dictated the international environment for Greek city-states. Twenty-five hundred years later, Kenneth Waltz and Henry Kissinger would echo the explanatory power of a state-oriented balance of power model even while reaching different conclusions about its most stable form.³⁴ The introduction of nuclear weapons did not significantly affect the straightforward explanatory power of state security. Writing during the Cold War,

³² Waltz is commonly considered the founder of the neo-realist school of international relations. Whereas traditional realism tended to focus on security created by the military component of national power, Waltz discusses national power in terms of economic and military capabilities. Additionally, Waltz notes "The most destructive wars of the hundred years following the defeat of Napoleon took place not among states but *within* them." (Emphasis in original), Kenneth Waltz, *Theory of International Politics*, (Boston, MA: McGraw-Hill, 1979), 103. Within neorealism, the two dominant strands of theory are defensive realism, which Waltz is a proponent of and offensive realism in which states try to maximize power relative to each other. John Mearsheimer and Stephen Walt are representative of offensive realist theoreticians. While the liberalist and constructivist theories of security are discussed below, this study acknowledges the important contributions of Marxism to international relations scholarship but the discussion of Marxism is beyond the scope of this study.

³³ Ibid., 91-92.

³⁴ Waltz, *Theory of International Politics*, pp. 79-128. Henry Kissinger, *Diplomacy*, (New York, NY: Simon and Schuster, 1994). See especially Kissinger's praise for Otto von Bismarck (pp. 103-136) and Nixon's triangle diplomacy (pp. 703-732).

Bernard Brodie developed a simple linear model equating the level of state security to the quantity of nuclear weapons held in inventory.

The preceding discussion suggests that preservation of state security requires a robust military force. During the 19th and 20th centuries, possession of large military forces was necessary to deter external threats from violating a state's security. The dissolution of the Soviet Union and the emergence of a world order centered on American hegemony seemingly allowed the international community to evolve beyond historical concepts of state security to the concept of human security. United Nations publications and Secretary General Boutros-Ghali's outspoken advocacy of human security reinforced this perception. While the concept of state security remains the predominant security paradigm, the growing desire to balance state security with human security among supranational organizations and willing nations has led to friction between the two concepts.

Human and State Security Compared

The two preceding sections suggest that human security and state security present a dialectic that differs in two important ways. The first is the referent object of security. The referents of state security involve sovereignty and vital national interests dictated by national authorities. Alternatively, for human security the referents are individual, organizational, or national and can be dictated by national authorities, supra-national organizations, or a combination of both. This referent will also influence a definition of human security that could range from individual freedoms to societal protection from state-level threats. The U.N. peace enforcement operation in the Democratic Republic of Congo is an example of a national population serving as a referent with human security defined in terms of ensuring a representative government for its constituents.

The second difference between human and state security is the purpose of military operations. For a traditional state security environ, a sovereign state is the focus of military action. Stopping the spread of Nazi/Italian fascism in Europe and Japanese expansion in Asia/Pacific during World War II resulted in political objectives demanding unconditional surrender of the Axis Powers. The military strategy employed against the states of Germany, Japan, and Italy reflected the political objectives. In a human security environ, military action may not be limited to action against a sovereign state. Military action will still achieve political objectives, but the purpose may not be traditional force-on-force conflict and the focus of effort may range from individuals to non-state actors to transnational groups. Interpreting World War II through a human security lens changes the focus of analysis to protection of a Jewish referent from German persecution, assisting southeastern Europe groups against Nazi/Fascist domination, and developing military means to protect Chinese citizens from Japanese atrocities.³⁵ Table 1 summarizes the major differences between human and state security.

	Security Referent	Security Objective	Security Provider	Threat to Security
Human Security	Individual or Sub-State Community	Security as defined by provider for individual or sub-state community	Generally external organization	Generally endogenous to state
State Security	State	Maintenance of Sovereignty and Vital Interests	State	Generally exogenous to state

Table 1-1: Human and state security compared.

Source: Developed by author

³⁵ This interpretation also identifies a fundamental difference when using a human security or state security paradigm to analyze a military operation. Human security paradigms are based on an individual or sub-state level of analysis. State security generally focuses on a state or inter-state level of analysis. Chapter Three more fully develops this concept.

Layout of Dissertation

Chapter Two presents a literature review of the two relevant fields of this study: human security and airpower theory. This chapter also identifies the void in these fields filled by this study while setting the academic foundation for subsequent chapters. Chapter Three presents a mixed-methods research methodology and the definitions of the key human security and airpower terms utilized for this study. This chapter provides a structured bridge between the literature review and the airpower theory presented in Chapter Four. Chapter Four builds on the previous chapters to present an airpower theory for human security operations. The chapter provides seven propositions to guide analysis of the three subsequent case studies and twenty-five plausibility probes. Chapters Five through Seven are each devoted to a case study analyzing airpower strategy to achieve a human security objective. These chapters also contain an evaluation of the validity of the airpower theory proposed in Chapter Four. The study concludes with a summary of findings and recommendations for further study in Chapter Eight.

Chapter Two

Literature Review

The literature review is broken into two components, or realms, of literature. The primary component of this review is based on the human security independent variable. The realm of this literature is vast with the majority produced in the last twenty-five years. A commonly used framework for human security literature reviews is a focus on either broad versus narrow definitions or the source of insecurity.¹ This literature review takes breaks new ground by discussing human security in terms of geopolitics and military operations in support of human security. The review will only touch briefly on the broad versus narrow definition debate. Based on the definition of human security briefly discussed in the preceding chapter, emphasis on geopolitical viewpoints and military operations provides a stronger foundation for understanding airpower strategy for human security political objectives.²

The second realm of literature is based on the dependent variable of airpower theory. This realm possesses greater historical depth than human security but is less rich in scholarly discourse because of a smaller academic base and augmentation by official government doctrine. Whereas each case study will trace the development of doctrinal guidance relevant to the specific case, this chapter focuses only on the public literature related to the development of airpower theory. By focusing on airpower theory, the literature review provides a conceptual foundation for the strengths and

¹ See for example Edward Newman, "Human Security and Constructivism," *International Studies Perspectives* 2, no. 3 (2001), 239-251; Sabina Alkire, "A Vital Core That Must Be Treated with the Same Gravitas as Traditional Security Threats," *Security Dialogue* 35, no. 3 (2004), 359-360; Francois Fouinat, "A Comprehensive Framework for Human Security," *Conflict, Security and Development* 4, no. 3 (2004), 289-297; Edward Newman, "Critical Human Security Studies," *Review of International Studies* 36 (2010), 77-94.

² For two excellent overviews of the broad versus narrow literature see Sakiko Fukuda-Parr and Carol Messineo, "Human Security: A Critical Review of the Literature," (Leuven, Belgium: Centre for Research on Peace and Development, 2012) and Newman, "Critical Human Security Studies."

limitations of various airpower theories when applied to human security political objectives.

Literature Review I- Human Security

As noted in Chapter One, the literature on human security could extend as far back as the seventeenth century with the writings of John Locke and the social contract espoused by Jean-Jacques Rousseau. Their writings heavily influenced discourse during the French and American Revolutions of the eighteenth century and framed the principles of the League of Nations and United Nations Charters. However, at the heart of the human security discourse is the perception that the concept retains an amorphous nature ill-suited for research and policy recommendations. The lack of definitional consistency tends to dilute the explanatory power of human security theories and scholarship. Taylor Owen notes, “the closer the concept gets to its original conceptualization, the more difficult both human security policy and theory become.”³ As Roland Paris noted in 2001, is human security a “paradigm shift” or simply “hot air” and a repackaging of human rights and human development?⁴

Definitional clarity: An elusive goal

The 1994 United Nations Human Development Report is widely considered by human security scholars as the foundational document for modern definitions of human security. The Report defined human security as freedom in seven broad categories: economic, food, health, environmental, personal, community, and political security. At the same time it stopped short of providing a finite definition, instead stating “precise quantification is impossible,” “integrative,” and “interdependent” with

³ P.H. Liotta and Taylor Owen, "Why Human Security?," *Whitehead Journal of Diplomacy and International Relations* 7, no. 1 (2006), 51.

⁴ Roland Paris, "Human Security: Paradigm Shift or Hot Air?," *International Security* 26, no. 2 (2001), 87-102. See Paris' follow-up article in which he further discusses a lack of rigor in human security studies: Roland Paris, "Still an Inscrutable Concept," *Security Dialogue* 35, no. 3 (2004), 370-372.

other security concepts.⁵ The Report is representative of a broad human security definition comprising virtually any threat to a person. The broad definitions of human security are generally understood to contain the complimentary goals of “freedom from fear” and “freedom from want” while attempting to address a wide variety of threats.⁶ Narrow definitions of human security, in contrast, typically deal with only one or two categories of threat.⁷ Definitional ambiguity and lack of a specific security referent in these definitions lead to common critiques of human security.

One common critique of human security is the various definitions provide little analytic clarity for focused policy recommendations. Barry Buzan’s article titled “A Reductionist, Idealistic Notion that Adds Little Analytic Value” bluntly summarizes this strand of literature.⁸ Buzan highlights the main concern that a security referent could range from a single individual to collective society. Anders Jagerskog, as a member of the Swedish Ministry of Foreign Affairs, noted “a problematic aspect of the concept is that it is all inclusive. What is excluded from the concept?”⁹ One byproduct of a lack of definitional clarity, as noted by Yuen Foong Khong, is an inability to prioritize security threats. Khong notes “in making all individuals a priority, none

⁵ United Nations, *Human Development Report 1994*, (New York, NY: United Nations, 1994), 22-35.

⁶ The 1994 UNHDR states “The battle of peace has to be fought on two fronts. The first is the security front where victory spells freedom from fear. The second is the economic and social front where victory means freedom from want,” 24; Another broad definition example is “Human security means the security of people – their physical safety, their economic and social well-being, respect for their dignity and worth as human beings, and the protection of their human rights and fundamental freedoms,” in International Commission on Intervention and State Sovereignty, *Responsibility to Protect*, (Ottawa, Canada: International Development Research Centre, 2002).

⁷ The Commission on Human Security definition is a narrow definition example, “to protect the vital core of all human lives in ways that enhance human freedoms...” in Commission on Human Security, *Human Security Now*, (New York, NY: Commission on Human Security, 2003); Canada also defines human security narrowly as “freedom from pervasive threats to people’s rights, safety, and lives.” in *Freedom from Fear: Canada's Foreign Policy for Human Security*, ed. Canadian Department of Foreign Affairs and International Trade (Ottawa, Canada: Canadian Department of Foreign Affairs and International Trade, 2000).

⁸ Barry Buzan, "A Reductionist, Idealistic Notion That Adds Little Analytical Value," *Security Dialogue* 35, no. 3 (2004), 369-370.

⁹ Anders Jagerskog, "Applying the Human Security Concept," *Conflict, Security and Development* 4, no. 3 (2004), 310.

actually benefits.”¹⁰ In a somewhat counter-intuitive methodology, David Roberts recommends first defining the constituent elements of human *in*security in order to better define human security.¹¹ The lack of definitional clarity has also tended to hamper human security in practice. The chairman of the U.N. Panel on Peacekeeping, Lakhdar Brahimi, once stated, “I don’t use the term human security because I don’t know exactly what I mean.”¹² In practice, definitional ambiguity may be preferable to policymakers desiring latitude for developing objectives.

Definitional ambiguity: A prerequisite for policy?

As Huliaras and Tzifakis state, a well-defined human security program, much less long-term policy agenda, is difficult to achieve based on government priorities, national interests, and domestic political constraints.¹³ In essence, defining human security is based upon the context of the security environment, prevailing international norms, state values, and the state’s current policy towards using military means to achieve human security.¹⁴ This results in a shifting normative standard that conforms to a social constructivist view of human security outlined by several scholars. Newman states that “different, and sometimes competing, conceptions of human security that may reflect different sociological/cultural and geostrategic orientations” give rise to shifting partnerships willing to address a wide range of

¹⁰ Yuen Foong Khong, "Human Security: A Shotgun Approach to Alleviating Human Misery?," *Global Governance* 7, no. 3 (2001). 233.

¹¹ Roberts focuses primarily on preventing women and children mortality. See David Roberts, *Human Insecurity*, (London, United Kingdom: Zed Books, 2008).

¹² Lakhdar Brahimi quoted in Mary Martin and Taylor Owen, "The Second Generation of Human Security: Lessons from the UN and EU Experiences," *International Affairs* 86, no. 1 (2010), 215. See also Yukiko Nishikawa, "Human Security in Southeast Asia: Viable Solution or Empty Slogan?," *Security Dialogue* 40, no. 2 (2009), 213-236 and his reference to the ‘ASEAN Way.’ See also Amitav Acharya, "Human Security: East Versus West," *International Journal* 56, no. 3 (2001), 442-460 for discussion on Asian government responses to Canadian and Japanese conceptions of human security.

¹³ Asteris Huliaras and Nikolas Tzifakis, "Contextual Approaches to Human Security," *International Journal*, 62, no. 3, (2007), 557-575.

¹⁴ Fen Hampson, for example, states that human security is contextually and structurally dependent. Fen Hampson, "A Concept in Need of a Global Policy Response," *Security Dialogue* 35, no. 3 (2004), 350.

factors affecting human security.¹⁵ An ambiguous definition also provides states the ability to form ad hoc coalitions based on mutual human security ideals. Scholars who subscribe to a constructivist view of international relations also argue that a definition of human security based on situational norms allows greater opportunity for states to take action.¹⁶ Interpreted broadly, states deciding to conduct human security operations can do so as a pretext for intervention.

Human security can be viewed as a means for a more powerful state to intervene in the affairs of a weaker state to further the stronger state's interests.¹⁷ The post-World War II Marshall Plan and reconstruction of Europe would be cast not only in terms of rebuilding war-torn societies but also extending U.S. influence to counter the rise of socialism.¹⁸ Nishikawa and Acharya note that it is not a lack of the developed world willing to intervene. The developing world, as evidenced by the Association of Southeast Asian Nations, tends to shy away from human security because of "Western universalist connotations" and the specter of uninvited intervention as a form of neo-colonialism.¹⁹ This theme is echoed by Janne Haaland Matlary, a former Norwegian deputy foreign minister, who noted "each time I mentioned the concept of human security to non-Western states, the reaction was

¹⁵ Newman, "Human Security and Constructivism," 239.

¹⁶ Martha Finnemore, "Constructing Norms of Humanitarian Intervention," in *The Culture of National Security: Norms and Identity in World Politics*, ed. Peter J. Katzenstein (New York, NY: Columbia University Press, 1996). See also Alexander Wendt, "The State as Person in International Theory," *Review of International Studies* 30 (2004), 289-316.

¹⁷ This line of reasoning aligns with a realist theory of international relations. While not explicitly discussing human security, John Mearsheimer, "The False Promise of International Institutions," *International Security* 19, no. 3 (1995), 5-49 contains a relevant discussion of realist motivations to intervene in the internal affairs of another state.

¹⁸ For the discussion of the Marshall Plan in terms of countering socialist movements in France and the United Kingdom see John Gimbel, *The Origins of the Marshall Plan* (Stanford, CA: Stanford Press) 1976 and Michael J Hogan, *The Marshall Plan* (Cambridge, UK: Cambridge Press) 1987.

¹⁹ Tara McCormack, "Human Security and the Separation of Security and Development," *Conflict, Security and Development* 11, no. 2 (2011), 235-260; Nishikawa, "Human Security in Southeast Asia: Viable Solution or Empty Slogan?"; Acharya, "Human Security: East Versus West." See also: William Tow, "Alternative Security Models: Implications for the Association of Southeast Asian Nations," in *Broadening Asia's Security Discourse and Agenda*, ed. Ramesh Thakur and Edward Newman (Tokyo, Japan: United Nations University, 2004) and Priyankar Upadhyaya, "Human Security, Humanitarian Intervention, and Third World Concerns," *Denver Journal of International Law and Policy* 33, no. 1 (2004), 71-75.

wary. Was this a new way for the West to secure a right of intervention under the pretext of human rights?"²⁰ The perception of Asian scholars and policymakers of human security as a venue for great-power intervention is due, in part, to the U.S., French, and Soviet involvement in the internal affairs of Vietnam, Cambodia, Laos, the Philippines, and Indonesia during the Cold War.²¹

Weaker states may also feel threatened by strong state interventions in the name of human security due to a possibility of disrupting favorable internal power relationships. M.C. Abad argues that human security "becomes objectionable when it threatens power structures that entrench the dominance of a few" in favor of the human rights of the many.²² Echoing the difficulty of conducting human security operations in Asia, Withaya Sucharithanarugse notes that human security issues overwhelm traditional state security capacity and require multi-national solutions. Other states, particularly in Asia, are hesitant to support for fear of being labeled interventionist, especially when a fellow state is the source of insecurity.²³ In essence, the support of intervention may erode established state sovereignty norms and increase the potential for developing states to open themselves to intervention.

Attempting to develop a framework to negate interventionist perceptions, Thomas and Tow argue human insecurity is caused by transnational threats to

²⁰ Janne Haaland Matlary, "Much Ado About Little: The European Union and Human Security," *International Affairs* 84, no. 1 (2008), 136.

²¹ Anthony Burke, "Caught between National and Human Security: Knowledge and Power in Post-Crisis Asia," *Pacifica Review* 13, no. 3 (2001), 227.

²² M.C. Abad, "The Challenge of Balancing State Security with Human Security," <http://www.asean.org/resources/item/the-challenge-of-balancing-state-security-with-human-security-by-m-c-abad-jr>. (accessed 21 July 2013).

²³ Withaya Sucharithanarugse, "The Concept of Human Security: 'Asianizing' the Paradigm," in *Asia's Emerging Regional Order: Reconciling Traditional and Human Security*, ed. Ramesh Thakur William T. Tow, In-Taek Hyun (Tokyo, Japan: The United Nations University, 2000), 55-58. Sucharithanarugse uses the example of the government of Thailand proposing a change in policy towards Myanmar from "constructive engagement" to "flexible intervention" in 1998. Both Indonesia and Malaysia accused Thailand of interventionism. In the same edited volume see also Hyun-Seok Yu, "Asian values and human security cooperation in Asia," 99-108; Chandran Jeshurun, "Human security and the ASEAN Regional Forum: Time for a rethink about regionalism?" 256-266; and Sung-Han Kim, "Human security and regional cooperation: Preparing for the twenty-first century," 289-302.

sovereign states. They present a state-centric approach that minimizes intervention in the belief strong national states are the key to human security.²⁴ By assuming the referent state is not the source of the human security threat, their framework considerably narrows the value of their recommendations and tends to lose explanatory power based on the historical record.²⁵ As of 2011, civil wars and intrastate conflict accounted for over 95 percent of all current conflicts.²⁶ Emma Rothschild also takes a state-centric approach by noting “the rediscovery of the state is at the heart of the politics of individual security. But the state to be rediscovered is a very different sort of state—more human and more complicit.”²⁷

Rothschild utilizes a constructivist argument of international norms molding domestic actions of a state. While some states are militarily and economically strong (such as the U.S. and China) others are militarily and/or economically weak. These weak states can be considered “failing” (such as Rwanda in the 1990s and Yemen in the 2000s) and unable to match stronger states in international clout. Realism accounts for interaction among great power states but precious little else. The rise of liberalist and constructivist critiques is a response to the limited explanatory power of realism.

Contrary to the constructivist approach presented by Rothschild and Thomas and Tow, Tara McCormack presents a realist approach for strong state intervention.

²⁴ Mahmud Hasan, Muhammad Mahbub Quaisar, Abdus Sabur, Sharmin Tamanna, "Human Security or National Security: The Problems and Prospects of the Norm of Human Security," *Journal of Politics and Law* 1, no. 4 (2008), 67-72 also focuses on a state-centric approach however do not explicitly mention how security is to be provided. Their implied solution is for major powers to provide security to insecure states in a manner that closely approximates colonization.

²⁵ Nicholas Thomas and William Tow, "The Utility of Human Security: Sovereignty and Humanitarian Intervention," *Security Dialogue* 33, no. 2 (2002), 177-192. For a counterpoint to Thomas and Tow, see Alex Bellamy and Matt McDonald, "The Utility of Human Security: Which Humans? What Security? A Reply to Thomas and Tow," *Security Dialogue* 33, no. 3, (2002), 373-377.

²⁶ "Human Security Report 2009/2010: The Causes of Peace and the Shrinking Costs of War," in *Human Security Report Project* (Oxford, United Kingdom: Simon Fraser University, 2011).

²⁷ Emma Rothschild, "What Is Security," *Daedalus* 124, no. 3 (1995), 89. The central contention is the unequal status of states in the international system.

She argues the developed world has no need to conduct human security operations in developing countries due to the lack of political gain these operations offer.²⁸ Viewing the perception of human security being used for political purposes, Nikolaos Tzifakis substantively agrees with McCormack's realist view but takes a slightly more cynical stance that weaker nations should not worry about the motives of stronger states because "human security's extensive normative content and its evolution into a successful security discourse have not been matched by the emergence either of a coherent security practice, or of a comprehensive strategy."²⁹

Despite the criticisms, several governments and the European Union have integrated human security principles into an effective foreign policy agenda. The Government of Canada defined human security as "freedom from pervasive threats to people's rights, safety, and lives."³⁰ This approach explicitly identified the use of military forces to provide security against the threat posed by armed military, militia, or non-governmental paramilitary forces. Importantly, Canada did not view the unilateral use of force as appropriate, instead relying on the coordination of policy with coalitions composed of like-minded states and non-governmental organizations. As noted by David Bosold, Canada's traditional role in United Nations Chapter Six peacekeeping operations during the Cold War served as a foundation for human security operations.³¹ For a country that prides itself on developing the concept of peacekeeping, human security provided a new methodology closely aligned to historical policy.

²⁸ McCormack, "Human Security and the Separation of Security and Development."

²⁹ Nikolaos Tzifakis, "Problematising Human Security: A General/Contextual Conceptual Approach," *Southeast European and Black Seas Studies* 11, no. 4 (2011), 354.

³⁰ "Freedom from Fear: Canada's Foreign Policy for Human Security."

³¹ David Bosold, "The Politics of Self-Righteousness: Canada's Foreign Policy and the Human Security Agenda," in *15th European Seminar for Graduate Students in Canadian Studies* (Graz, Austria: University of Graz, 2006). 6. Conversely, middle power states, such as Canada and Japan, can potentially utilize human security approach to foreign policy as a way to increase their importance and standing among states when operating in the international arena.

In contrast, the Government of Japan defined human security broadly as the preservation and protection of the life and dignity of individual human beings. Japan “holds the view that human security can be ensured only when the individual is confident of a life free of fear and free of want.”³² The broad definition is better geared towards Japan’s post-World War II approach to foreign policy emphasizing international coordination via international coalitions and economic assistance instead of the use of military forces.³³

Despite the Canadian and Japanese efforts, Huliaras and Tzifakis argue that “with the exception of Canada’s participation in the bombing of Serbia in 1999-the two countries’ regional policies [in the Balkans] have not been very much influenced by human security priorities.”³⁴ Lam Peng Er argues that Japan has successfully conducted human security in Southeast Asia based on peacemaking efforts in Indonesia, the Philippines, and Malaysia and through financial and medical assistance in states hardest hit by natural disasters and health epidemics.³⁵ Greg Donaghy presents empirical evidence that reinforces Canada’s ability to successfully conduct human security as evidenced by negotiation of the Ottawa Treaty (banning land mines), creation of the International Criminal Court, and Canada’s role on the United

³² Yukio Takasu. “Toward Effective Cross-Sectorial Partnership to Ensure Human Security in a Globalized World.” Statement by the Director-General of Multilateral Cooperation Department, at the Third Intellectual Dialogue on Building Asia’s Tomorrow. Conference in Bangkok, Thailand, June 19, 2000. www.mofa.go.jp/policy/human_secu/speech0006.html (accessed 13 Jul 2013).

³³ From a realist perspective, the government of Japan’s emphasis on human security provides an opportunity to gently and deliberately increase its standing among regional states despite the long-standing animosity created by World War II against regional states. For a regional perspective of Japan’s motives, see Zhao Yanrong, “Japan’s ‘Checkbook Diplomacy’ Could Bounce,” *China Daily*, 16 December 2013. http://usa.chinadaily.com.cn/world/2013-12/16/content_17175803.htm (accessed 17 October 2013).

³⁴ Tzifakis, “Contextual Approaches to Human Security,” 561. See also Wayne Nelles, “Canada’s Human Security Agenda in Kosovo and Beyond: Military Intervention versus Conflict Prevention,” *International Journal* 57, no. 3 (2002), 459-477.

³⁵ Lam Peng Er, “Japan’s Human Security Role in Southeast Asia,” *Contemporary Southeast Asia* 28, no. 1 (2006), 141-159. Er views the Japanese focus on human security from a realist perspective. At the time of the article, Japan possessed the second largest Gross Domestic Product in the world but limited political power among states based on historical regional antipathy towards Japanese aggression and the post-World War II constitutional limit on military forces. Human security allowed Japan to increase political standing among states without utilizing a strong military.

Nations Security Council.³⁶ While Canada and Japan have been at the forefront of implementing human security-based foreign policies, their experiences are only a small part of the debate about integrating human security into state foreign policy.

Human Security as Foreign Policy

Since the publication of the 1994 United Nations Human Development Report, a significant literature base is focused on how to translate human security to a political objective that may require the military instrument of power. Human security critics tend to highlight the inclusiveness of potentially unrelated issues and an inability to prioritize threats. As noted by S. Neil McFarlane, the all-encompassing nature of human security “makes the establishment of priorities ...difficult. Diluting the concept diminishes its political salience [and] the less likely are the objectives of its proponents to be achieved.”³⁷ In addition, Yuen Foong Khong also identifies a pitfall of broadly defining human security as “not the wisest way to go, lest it gives citizens false hopes premised on false priorities and causal assumptions.”³⁸ Marlies Glasius believes states have not been successful in developing human security based foreign policy and advocates integration of human security into policy by two separate paths. The first is increased discourse about human security operations to strengthen normative procedures and the second is by training of personnel to become at one time be a “soldier, policeman, a relief worker, and a bureaucrat.”³⁹

Another possible key to translating human security into action is by changing the focus of operations. Anthony Burke states a need to overcome a focus on the elites in

³⁶ Greg Donaghy, "All God's Children: Lloyd Axworthy, Human Security and Canadian Foreign Policy, 1996-2000," *Journal of Canadian Foreign Policy* 10, no. 2 (2003), 39-58. See also Steve Lee, "The Axworthy Years: Humanist Activism and Public Diplomacy," *Journal of Canadian Foreign Policy* 8, no. 1 (2000), 1-10.

³⁷ S. Neil McFarlane, "A Useful Concept That Risks Losing Its Political Salience," *Security Dialogue* 35, no. 3 (2004), 368-369.

³⁸ Khong, "Human Security: A Shotgun Approach to Alleviating Human Misery?," 236.

³⁹ Marlies Glasius, "Human Security from Paradigm Shift to Operationalization: Job Description for a Human Security Worker," *Security Dialogue* 39, no. 1 (2008), 31-54.

a national society and ensure the population suffering from insecurity is the referent of action. He identifies four focus areas requiring priority during human security operations:

- 1) intrastate and ethnic conflict;
- 2) economic instability, development, and inequality;
- 3) domestic transformations in democracy, governance, and human rights; and
- 4) environmental problems and sustainable development.⁴⁰

Several scholars point to the publication of *A Human Security Doctrine for Europe* (hereafter referred to as the Barcelona Report) in 2004 as the most direct recommendation to date for human security-focused foreign policy.⁴¹ Serving as a call-to-arms to conduct human security operations against “basic insecurities caused by gross human rights violations,” the Barcelona Report advocates development of a Human Security Response Force composed of fifteen thousand personnel tasked with both constabulary and military duties.⁴² In addition, the Report recommends a revised legal framework to allow for military intervention and operations under a human security mandate. The Human Security Response Force’s mandate would enforce the rule of law to achieve human security objectives. The Barcelona Report identified internal military conflict as the single greatest threat to human security, intentionally narrowing the definition, providing a way to relate human security to foreign policy. This methodology is widely regarded as ushering in human security’s ‘second generation.’

⁴⁰ Burke, "Caught between National and Human Security: Knowledge and Power in Post-Crisis Asia," 231.

⁴¹ See for example, Mary Martin and Taylor Owen, "The Second Generation of Human Security: Lessons from the United Nations and European Union Experience," *International Affairs* 86, no. 1 (2010), 211-224 and Mary Kaldor, "Introduction," in *The European Union and Human Security External Interventions and Missions*, ed. Mary Martin and Mary Kaldor (Abingdon, United Kingdom: Routledge, 2010).

⁴² Study Group on Europe's Security Capabilities, "A Human Security Doctrine for Europe," (Barcelona, Spain: European Union, 2004). Hereafter referred to as the Barcelona Report. The study group was convened by the European Union High Representative for Common Foreign and Security Policy to determine options for developing the 2003 European Union Security Strategy with a human security basis.

The second generation of human security differs from the first generation in two aspects. First, the European Union, not the United Nations, is increasingly driving the international discourse on human security.⁴³ Secondly, the definition of human security is evolving from the U.N.'s broad mandate to a narrow definition that varies based on severity, immediacy, and scope of the security threat.⁴⁴ This variance has given rise to multiple attempts at a definition based either on a minimum achievable threshold of security for the referent or the capabilities a security provider can devote to protection.

Gareth Evans and Mohamed Sahnoun proposed the first widely acknowledged threshold definition for human security military intervention. Their "Just Cause Threshold" stated "there must be serious and irreparable harm occurring to human beings, or imminently likely to occur, of the following kind:

- Large scale loss of life...which is the product either of deliberate state action, or state neglect or inability to act, or a failed state situation; or
- Large scale ethnic cleansing, actual or apprehended, whether carried out by killing, forced expulsion, acts of terror or rape."⁴⁵

In addition, Evans and Shanoun view the threshold for military operations as being significantly higher than other instruments of national power that could be brought to bear. Put simply, they conclude military forces should only be used as a last resort to achieve human security.

⁴³ The increasing human security role of the European Union could be explained by several reasons. First, the United Nations Security Council appears increasingly unable to approve resolutions for human security operations. Gridlock in the Security Council is evidenced by the lack of United Nations-sanctioned collective security action in Syria, Ukraine, or Iraq as of 2014. Another reason could be the domestic popularity of human security operations in European countries as opposed to countries of other regions in the world. A third reason could be the re-definition of European military forces away from large scale conventional warfare to operations variously described as human security, counterinsurgency, and low-intensity conflict. The government of France's involvement in human security in Africa in 2013 serves as an example of how each of the aforementioned reasons can contribute to a human security operation.

⁴⁴ See Alkire, "A Vital Core That Must Be Treated with the Same Gravitas as Traditional Security Threats." and Taylor Owen, "Human Security – Conflict, Critique and Consensus: Colloquium Remarks and a Proposal for a Threshold," *Security Dialogue*, 35, no. 3, (September 2004), 373-387.

⁴⁵ Report of the International Commission on Intervention and State Sovereignty, *The Responsibility to Protect*, ed. Gareth Evans and Mohamed Sahnoun, (Ottawa, Canada: ICISS, 2001), 12.

Taylor Owen states that a threshold-based definition is ideal to provide structure to human security studies, relevance to policy recommendations, and priority to operations. A threshold-based concept will “limit the threats by their severity rather than their cause, allow all possible harms to be considered, but selectively limit those that at any time are prioritized with the security label.”⁴⁶ In effect, Owen attempts to reconcile current human security debates with the original intent of the 1994 U.N. Development Program for an open-ended definition allowing a contextual approach to human security. States, according to Owen, have the right to prioritize the seven categories of security threats listed by the Development Program based on the political objectives in a given situation.

Similar to a threshold-based definition, Sascha Werthers and David Bosold propose viewing human security as a “political leitmotif” to provide a malleable vision based on the security situation within a states and the means available for protection of the referent population. Werthers and Bosold define a leitmotif as “a conceptual theme, to a certain degree clearly defined so as to retain its core identity if modified on subsequent appearances.”⁴⁷ The leitmotif methodology encourages national leadership of states to subscribe to a human security policy agenda as resources and political will allow.

Not all scholars view the Barcelona Report as a watershed publication. Janne Haaland Matlary criticizes the recommendations as “quite unrealistic” and “if human security means all good things, not much political, legal and military

⁴⁶ Owen, "Human Security – Conflict, Critique and Consensus: Colloquium Remarks and a Proposal for a Threshold," 381.

⁴⁷ Sascha Werthers and David Bosold, "Caught between Pretension and Substantiveness- Ambiguities of Human Security as Political Leitmotif," in *Human Security on Foreign Policy Agendas: Changes, Concepts, and Cases INEF Report 2006*, ed. Tobias Debiel and Sascha Werthers (Duisburg, Germany: Institute for Development and Peace, 2006), 17.

operationalization [sic] is possible. The concept remains notoriously vague.”⁴⁸ Additionally, Matlary notes the European Union, as well as the United Nations, has the advantage of being able to adopt human security as its “only security paradigm” due to a lack of sovereign borders and voting constituency that must be protected from exogenous threats.⁴⁹ François Fouinat’s critique provides a framework for developing human security policy objectives based on concepts of protection and empowerment. Fouinat places the individual as the security referent and assumes the state is not the source of insecurity. Because “human security strengthens nationbuilding by emphasizing the community of interests between the state and the people” the focus of national leadership, according to Fouinat, should be on providing institutions to promote economic growth and adequate social services for all citizens.⁵⁰

Human Security and Military Operations

Since the publication of the 1994 United Nations Human Development Report, the phrase “human security” has become commonplace in security studies but is an underdeveloped concept in military literature. This could be due to several variables. Possibly, there is wide-spread ambivalence because the concept originated in the United Nations which does not possess indigenous armed forces. Instead, military forces are cobbled together by willing member states that may not possess the same political objectives or military capabilities required for human security. Another theory is the preoccupation with counterinsurgency operations in Iraq and Afghanistan has focused the defense establishment of the numerous states, the U.S. and coalition partners in particular, on a single mission. Still another theory is a reticence by U.S. leadership to become engaged in foreign entanglements that do not

⁴⁸ Matlary, “Much Ado About Little: The European Union and Human Security,” 135.

⁴⁹ Ibid., 141.

⁵⁰ Fouinat, “A Comprehensive Framework for Human Security,” 294.

threaten vital national interests.⁵¹ The disastrous involvement of U.S. forces in Lebanon in 1982 and Somalia in 1993 (and possibly the unfolding strategic situation in Iraq and Afghanistan as of 2013) provide historical examples of the dire outcomes of a human security operation.⁵²

A more compelling theory to explain why human security is underdeveloped in military literature is the U.S. military's lingering adherence to aspects of the 1980's era Weinberger Doctrine and as a result of the U.S. experience in Vietnam. Then-Secretary of Defense Casper Weinberger presented six tests, in the form of questioned, to be answered prior to the commitment of military forces. Among these tests, forces should be used for vital national interests with clearly defined military and political objectives but only as a last resort.⁵³ Then-Chairman of the Joint Chiefs of Staff General Colin Powell would present the "Powell Corollary" in the aftermath of the 1991 Gulf War: "When the political objective is important, clearly defined and understood, when the risks are acceptable, and when the use of force can be effectively combined with diplomatic and economic policies, then clear and unambiguous objectives must be given to the armed forces. These objectives must be firmly linked with the political objectives."⁵⁴ The likelihood of a broad human security political objective not clearly linked to a vital national interest may cause friction with adherents to the Weinberger

⁵¹ The underlying tension between the U.N and U.S. regarding multi-national military operations for human security is a common lament of U.N. leadership. Boutros Boutros Ghali, for example, emphasizes the lack of U.S. support for U.N. operations during his tenure as Secretary-General. In point of fact, Boutros Ghali is the only U.N. Secretary General to not serve a second term, primarily as a result of U.S. vetoing of his nomination. See Boutros Boutros Ghali, *Unvanquished: A U.S. - U.N. Saga*, (New York, NY: Random House, 1999) especially pp. 3-29.

⁵² For a historical analysis of the political consequences of U.S. military operations, see Kenneth Hagan and Ian Bickerton, *Unintended Consequences: The United States at War*, (London, UK: Reaktion, 2007), especially pp. 149-187.

⁵³ Casper Weinberger, "The Uses of Military Power" (Remarks delivered by Casper Weinberger to the National Press Club, 28 November 1984). <http://www.pbs.org/wgbh/pages/frontline/shows/military/force/weinberger.html> (accessed 15 July 2013). The other three tests are: 1) the support of the American people; 2) continual reassessment of force size and dispositions; and 3) with the clear intention of winning.

⁵⁴ Colin Powell, "United States Forces: Challenges Ahead," *Foreign Affairs* 71, no. 5 (1992), 38.

Doctrine and Powell Corollary. This friction could lead to a belief that a human security objective is not within the military's purview.

The views of Weinberger and Powell notwithstanding, several military officers view the traditional conception of warfare fading into the past to be replaced with what has been variously called "new wars," "fourth generation warfare," and various other monikers. In *The Utility of Force* General Sir Rupert Smith believes "the extant theories of military organization and application and the unfolding realities [of the operational environment] were wide apart."⁵⁵ For Smith, "war no longer exists" because "the old paradigm was that of interstate industrial war. The new one is the paradigm of war amongst the people."⁵⁶ This new paradigm means "the emphasis has shifted from organizing our forces to defend our territory to using them to secure our people and our way of life, and conducting these operations at a distance from our borders."⁵⁷ Retired German General Klaus Reinhardt, a co-author of the Barcelona Report, is a staunch proponent of the Human Security Response Force but notes "the best the military can do is to provide internal and external security as a precondition to reestablish law and order."⁵⁸

The 1996 publication of the South African *White Paper on Defence* was one of the first articulations of how military forces could be utilized for human security operations. The report stated:

In the new South Africa national security is no longer viewed as a predominantly military and police problem...At the heart of this new approach is a paramount concern with the security of people.

Security is an all-encompassing condition in which individual citizens live in freedom, peace and safety; participate fully in the process of

⁵⁵ Rupert Smith, *The Utility of Force* (New York, NY: Alfred Knopf Publishing, 2007), xiii.

⁵⁶ Ibid., 5.

⁵⁷ Ibid., 410.

⁵⁸ Klaus Reinhardt, "The Human Security Response Force: A Different Way of Peacekeeping," in *NATO's Nations and Partners for Peace IV* (Mons, Belgium: North Atlantic Treaty Organization, 2005), 138.

governance; enjoy the protection of fundamental rights; have access to resources and the basic necessities of life; and inhabit an environment which is not detrimental to their health and well-being.

The new approach to security does not imply an expanded role for the armed forces. The SANDF [South Africa National Defense Forces] may be employed in a range of secondary roles as prescribed by law, but its primary and essential function is service in defence of South Africa, for the protection of its sovereignty and territorial integrity.⁵⁹

The 2004 Barcelona Report discussed in the previous section was a significant addition to the military operations for human security discourse due to its specific recommendation of a standing force of fifteen thousand personnel for human security operations. This force would contain both civilian and military forces. The role of military forces, according to Kaldor, Martin, and Selchow, “is neither war-fighting nor peacekeeping but rather supporting the establishment of the rule of law” primarily through the “establishment of safe havens, humanitarian corridors or no-fly zones.”⁶⁰ Changing the verbiage of Clausewitz, but not his overarching theme, Mary Kaldor defines war as “an act of violence involving at least two organized groups framed in political terms” in order to disambiguate the purpose of the military from seeking a decisive battle to achieving a political objective. Framed in this manner, Kaldor envisions the military “trained and equipped in quite different ways to undertake law enforcement rather than war-fighting and to protect people rather than to defeat enemies.”⁶¹ In *New and Old Wars* Kaldor states new wars are fought by belligerents that share a common identity at the sub-state level in order to restore legitimate

⁵⁹ South Africa Ministry of Defence, *White Paper on National Defence for the Republic of South Africa*, <http://www.info.gov.za/whitepapers/1996/defencwp.htm>. (accessed 16 July 2013).

⁶⁰ Mary Martin, Mary Kaldor, and Sabine Sechow, "Human Security: A New Strategic Narrative for Europe," *International Affairs* 83, no. 2 (2007), 273-288. Kaldor views old wars generally as wars of conquest or annexation.

⁶¹ Mary Kaldor, "Reconceptualising War," <http://www.opendemocracy.net/5050/mary-kaldor/reconceptualising-war>. (accessed 6 Jul 2013) and "This Week's Theme: Human Security in Practice," <http://www.opendemocracy.net/mary-kaldor/this-weeks-theme-human-security-in-practice>. (accessed 6 Jul 2013). There are limitations to military forces performing law enforcement operations. Title 10 United States Code §375 states “The Secretary of Defense shall prescribe such regulations as may be necessary to ensure that any activity under this chapter does not include or permit direct participation by a member of the Army, Navy, Air Force, or Marine Corps in a search, seizure, arrest, or other similar activity unless participation in such activity by such member is otherwise authorized by law.”

political authority. Operations in the Balkans during the 1990's are representative of a new war because military forces were "reoriented to combine military and policing tasks."⁶²

Army officer Dan Henk states the primary question military professionals should ask about human security is not "is it desirable?" but rather "is it feasible, and if so, how can it be implemented?"⁶³ To answer this question on implementation, Thomas Bauer develops a normative framework based on the German military experience in the Balkans and Afghanistan. German provincial reconstruction teams comprised of military and civilian personnel "clearly show the importance of civilian-military cooperation, not only for reasons of force protection, but also for providing a secure and stable framework for civil reconstruction efforts."⁶⁴ In a similar study, Stejskel, Balabán, and Rašek note the Czech military utilizes the Provincial Reconstruction Team construct to develop "police and civilian capabilities for post-crisis situations."⁶⁵

Victoria Holt identifies six potential protection roles the military can undertake during a human security operation:

1. Protection as an obligation within the conduct of war. In war, military forces are required to abide by the Geneva Conventions and other international laws to minimize civilian death and injury and the destruction of civilian objects, and to allow for relief provided by impartial humanitarian actors. The occupying power is responsible for the basic security and welfare of the civilian population.
2. Protection as a military mission to *prevent mass killings*. According to principles outlined by the ICISS, a protection mission is organized and

⁶² Mary Kaldor, *New and Old Wars*, (Cambridge, United Kingdom: Polity Press, 2006), 133.

⁶³ Dan Henk, "Human Security: Relevance and Implications," *Parameters* 35, no. 2 (2005), 100.

⁶⁴ Thomas Bauer, "Past Present: The Development of German Human Security Strategy," in *National, European and Human Security*, ed. Mary Martin, Mary Kaldor and Narcis Serra (Oxford, United Kingdom: Routledge, 2012), 59.

⁶⁵ Miloš Balabán, Antonín Rašek and Libor Stejskal, "The Hidden Security Dimension of the Czech Security Policy," in *National, European, and Human Security*, eds. Mary Martin, Mary Kaldor and Narcis Serra (Oxford, United Kingdom: Routledge, 2012), 137.

deployed specifically to actively prevent large-scale violence against civilians.

3. Protection as a task within UN-mandated *peace operations*. 'Civilian protection' is seen as one of many tasks for peacekeepers, but is unlikely to be the operation's central, organizing aim.

4. Protection as providing *area security for humanitarian action*. Military forces or peacekeepers establish the wider security of an area, enabling others to provide support to civilians in that area.

5. Protection through assistance/operational design. Protection is a function of the *design of relief and humanitarian programs*: refugee camps, water supplies and latrines, for example, are placed so as to minimize threats to vulnerable populations. The potential military role is to assist in reducing threats, such as offering physical presence as a deterrent.

6. Protection as the use of traditional force [*italics added*].⁶⁶

Holt's taxonomy of missions is helpful for providing an initial foundation for relating human security to military operations, but her six missions range from preventing mass killings to conducting peace operations to designing relief and humanitarian programs. In essence, Holt identifies broad purposes of military action vice identifying the unique actions military forces bring to human security operations.

The common theme in this strand of literature is ability of the military to bring significant resources and organizational leadership to an operation that may lack coherence in either the political or operational spectrum. Military leadership is particularly relevant for human security operations composed of multi-national military forces and non-governmental forces cobbled together for a commonly stated purpose. The inherent command and control capabilities of the military tend to provide needed organizational infrastructure while the manpower and operating procedures provide the personnel necessary to conduct regimented operations.

⁶⁶ Victoria Holt, "The Military and Civilian Protection: Developing Role and Capacities," in *Humanitarian Policy Group* (London, United Kingdom: Overseas Development Institute, 2006), 2.

Military organizations also possess significant logistics resources to transport aid to remote locations and well-developed intelligence gathering capabilities. While the literature on human security is rich with scholarly writing and relatively current, the second component of this chapter will present literature that is relatively devoid of significant public discourse but richer in history. The next section covers the literature of the dependent variable: airpower theory.

Literature Review II- Airpower Theory

In contrast to human security, the literature on airpower theory is richer in history but narrower in scope and discourse. The vast majority of writing is accomplished by active military officers instead of scholars.⁶⁷ Whereas literature on human security-based military operations tends to focus on values-based intervention to protect a referent population, airpower literature focuses on air superiority and either deterrence or coercion of an armed adversary. This literature review is based on the research question presented in Chapter One: *How effective is airpower at achieving human security political objectives?* From the perspective of airpower theorists, two common analytic concepts emerge: gaining air superiority against a military adversary and influencing adversary policymakers via either deterrence or coercion. A much smaller segment of the literature focuses on providing assurances to a referent population. This segment generally is a subset of a larger focus on airpower in peacekeeping and peace enforcement operations.

⁶⁷ One of the best anthologies reviewing airpower theory is Phillip S. Meilinger, *Airmen and Air Theory: A Review of the Sources* (Maxwell AFB, AL: Air University Press, 2001). *The Paths of Heaven: The Evolution of Airpower Theory* ed. Philip Meilinger, (Maxwell AFB, AL: Air University Press, 2004) contains valuable insights into airpower theory based on nationality and mission sets. The two volume compendium Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force*, 2 vols. (Maxwell AFB, AL: AU Press, 1989) traces the development of U.S. Air Force doctrine and principles.

Air Superiority

The fundamental concept of air superiority has remained relatively consistent since the earliest airpower literature. It has generally been defined as the ability to operate in airspace without opposition from an adversary. Air superiority has been discussed in terms of either general superiority over a large area for an extended period of time to local superiority over a geographically limited area for a short duration. This portion of the literature review traces the historical development of both general and local air superiority. The point of departure for virtually any analysis of airpower theory is the period immediately following World War I. There was, however, a small but important pre-World War I literature base in France and England. Clement Ader provides the first known discussion of air superiority operations that would be considered local air superiority.⁶⁸ Focusing airpower around Paris and along the border with Germany, Ader provides the foundational methods for local air superiority centered about vital centers of a state. Englishman R.P. Hearne reinforced a local air superiority construct in 1909 but, in contrast to Ader, viewed air superiority as a result of offensive air actions to destroy the enemy's air forces and airfields.⁶⁹ For Hearne, local air superiority was only a proximate objective to achieve general air superiority. The limited historical record of airpower prior to Ader and Hearne narrowed their conception of air superiority to theoretical writing and, although important, would be overshadowed by the lessons of airpower employment during World War I.

⁶⁸ Clement Ader, *L'aviation Militaire (Military Aviation)*, ed. and trans. Lee Kennett (Maxwell AFB, AL: Air University Press, 2003).

⁶⁹ R.P. Hearne, *Aerial Warfare* (London, UK: John Lane Company, 1909), 85-86. For an excellent review of pre-World War I airpower thought, see Michael Paris, *Winged Warfare: The Literature and Theory of Aerial Warfare in Britain 1859-1917* (Manchester, UK: Manchester University Press, 1992).

World War I served as a coming-out of sorts for airpower based on the scope of operations (the St Mihiel battle employed over 1,400 Allied and 500 German aircraft), bombing of the enemy's military forces and population centers, and attempts at air superiority above the trenches.⁷⁰ Giulio Douhet's *Command of the Air* reflected World War I experiences to propose a theory focused on general air superiority and strategic bombing of an enemy's population centers.⁷¹ The central premise of Douhet's theory was that command of the air was both necessary and sufficient to achieve victory in war.⁷² Douhet clearly articulates the difference between local and general air superiority and, similar to Hearne, views local superiority as only a precursor to the goal of achieving general superiority throughout an entire adversary state. Marshal of the Royal Air Force Hugh Trenchard was the dominant airpower theorist in the United Kingdom during this time and his views of air superiority were closely related to Douhet.⁷³ Trenchard's ideas advocated achieving general air superiority by seeking out and attacking an enemy's air superiority aircraft.⁷⁴ Brigadier General William Mitchell was the leading U.S. airpower theorist prior to World War II. Like Trenchard and Douhet, he relied on World War I experiences and his senior position to influence the development of theory.

⁷⁰ For a detailed study of Army Air Corps doctrine during this period, reference USAF Historical Division, *The Development of Air Doctrine in the Army Air Arm, 1917-1941*, ed. Thomas H. Green (Maxwell AFB, AL: AU Press, 1985).

⁷¹ Although Douhet repeatedly references "the Great War" in *Command of the Air*, the basis for much of his writing is the military conflicts between Italy and Austro-Hungary from 1915-1918 and, to a much lesser extent, the conflict between Italy and the Ottoman Empire in Libya in 1911.

⁷² Douhet defined command of the air as "to be in a position to prevent the enemy from flying while retaining the ability to fly oneself." Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (Washington DC: Air Force History and Museums Program, 1998), 24.

⁷³ Hugh Trenchard, *Air Power: Three Papers* (London, United Kingdom: Directorate of Staff Studies, Air Ministry, 1946). For an excellent discussion on Trenchard's life and the influences on his thinking see: Andrew Boyle, *Trenchard Man of Vision*, (London, United Kingdom: Collins., 1962) and Malcolm Smith, *British Air Strategy Between the Wars*, (London, United Kingdom: Oxford University Press, 1984)

⁷⁴ Trenchard wrote "in the air even more than on the ground, the true defence lies in attack." United Kingdom General Staff, "Offence Versus Defence in the Air," ed. Home and Territories Department (France: United Kingdom War Department, 1917). retrieved from http://www.army.gov.au/Our-history/Primary-Materials/World-War-One-1914-to-1918/~media/Files/Our%20history/AAHU/Primary%20Materials/World%20War%20One%201914-1918/Training%20Materials/Offense_versus_Defence_in_the_Air_1917.pdf (accessed 14 January 2014).

Mitchell's writings on air superiority can be placed into two categories based on the intended audience. The majority of his writings were geared towards the general public in his quest for an independent air force although they do provide relevant context for his theory of airpower. *Our Air Force, the Keystone of National Defense* (1921), *Winged Defense: The Development and Possibilities of Modern Airpower* (1925) and *Skyways: A Book on Modern Aeronautics* (1931) fit this category. The second category are earlier writings that are generally divorced from his advocacy of independent air power, the most thorough of which are *Tactical Application of Military Aeronautics* (1919) and *Notes on the Multi-Motored Bombardment Group* (1922).⁷⁵ In these manuscripts, Mitchell states the primary mission of airpower is "to destroy the aeronautical force of the enemy, and, after this, to attack his formations, both tactical and strategical [sic], on the ground or on the water."⁷⁶ By destroying the aeronautical force of the enemy, Mitchell advocates general air superiority similar to Douhet and Trenchard.

Trenchard and Mitchell's advocacy of general air superiority was driven largely by their desire for institutional autonomy. The experiences of British air policing during the 1920s and U.S. training operations were largely neglected. For Trenchard, air policing was a mission requiring integration with ground forces and, consequently, did not provide a reason for continued funding of a separate Royal Air Force.⁷⁷ For

⁷⁵ "Notes" was published after Mitchell returned from a tour of European countries where he met, among others, Giulio Douhet and Hugh Trenchard. Mitchell obtained a copy of Douhet's recently published book *Command in the Air* while on this trip. See Mark Clodfelter, "Molding Airpower Convictions: Development and Legacy of William Mitchell's Strategic Thought," in *The Paths of Heaven*, ed. Phillip Meilinger (Maxwell Air Force Base, AL: Air University Press, 1997).

⁷⁶ William Mitchell, "Tactical Application of Military Aeronautics," 5 Jan 1919, U.S. Air Force Historical Studies Office, Joint Base Anacostia-Bolling, DC, file 167.4-1. As a result of these mission sets, Mitchell advocated a force structure comprised of sixty percent Pursuit aviation (air superiority), twenty percent Bombardment (against enemy infrastructure), and twenty percent Attack (against ground and maritime targets).

⁷⁷ For a good discussion on Trenchard's views of Royal Air Force independence see John Sweetman, "Crucial Months for Survival: The Royal Air Force, 1918-19," *Journal of Contemporary History* 19, no.3 (July 1984), 529-

Mitchell, general air superiority was a deductive leap of faith from his St. Mihiel experience. Mitchell believed “it is upon a favorable air decision that the whole fate of a war may depend.” As a result, it is incumbent to have general air superiority because “the only defense against an air force is another air force.”⁷⁸ Despite the rank and position of the general air superiority proponents, several airmen would utilize inductive analysis of World War I and post-war airpower operations to develop a theory based on local air superiority.

Douhet’s contemporary, Italian General Amedeo Mecuzzi, provided the Italian Air Force with an alternate theory of air superiority constrained by economic factors. Mecuzzi argued that Douhet’s vision of multiple air armadas was beyond the economic capacity of Italy and it was impractical for Italy to field the massive aircraft fleets required for general air superiority. Mecuzzi fully recognized the importance of air superiority but, unlike Douhet, he viewed local air superiority only for the duration required to meet mission objectives. This view is based on the two assumptions that Italy could not produce enough aircraft and local air superiority was required only to allow ground and naval forces freedom of maneuver.⁷⁹

As the title implies, Trenchard’s countryman, John Slessor in *Air Power and Armies* (1936) focused on employment of airpower against a fielded enemy army.⁸⁰ Slessor was a staunch advocate of air superiority, which he defined as the ability to

547. An excellent account of how continued independence affected the development of British air strategy during this time see Malcolm Smith, *British Air Strategy between the Wars* (Oxford, UK: Clarendon Press, 1984).

⁷⁸ William Mitchell, *Our Air Force: The Keystone of National Defense* (New York, NY: E.P. Dutton and Company, 1921), 14-15.

⁷⁹ Mecuzzi stated “In a future war, the Air Force must aim only to overcome the enemy armed forces, with its four tasks: scouting, attacking, defending, and transportation.” Amedeo Mecuzzi quoted in Rodolfo Sganga, Paulo Tripodi and Wray Johnson, “Douhet’s Antagonist: Amedeo Mecuzzi’s Alternative Vision of Air Power,” *Air Power History* 58, no. 2 (2011), 4-15.

⁸⁰ John Slessor, *Air Power and Armies* (Oxford, United Kingdom: Oxford University Press, 1936). xi. Slessor based his theory on his experiences during World War I, especially the Battle of Amiens, a tour on the staff of Trenchard, and operations in Waziristan during the 1930’s. Slessor held the rank of Wing Commander (equivalent of US Air Force Lieutenant Colonel) when he published *Air Power and Armies*.

operate freely in the air, and believed it was the first objective of any air campaign. He cautioned that once achieved, general air superiority was a prohibitive task requiring significant resources to maintain.⁸¹ Slessor also advocated a flexible and pragmatic air campaign plan concentrating maximum force against decisive objectives. As a result, Slessor argues general air superiority is an inefficient allocation of resources and local air superiority, coupled with coordinated ground force action, is the best use of airpower.

The aforementioned authors viewed air superiority as a fundamentally offensive concept in which pursuit aircraft would achieve air supremacy against other pursuit aircraft but would have limited effect on bomber aircraft.⁸² “The bomber would always get through” as predicted by British minister Stanley Baldwin in 1932.⁸³ The prevailing assumption in the U.S. Army Air Corps was technological advancement of bomber aircraft corroborated Baldwin’s assertion.⁸⁴ The most prominent air superiority voice at the Air Corps Tactical School belonged to Captain Claire Chennault. Chennault believed the bomber would not always get through and air

⁸¹ Air superiority “will have to be constantly maintained by striking direct at those objectives which are of first importance to the enemy.” Ibid., 9.

⁸² The best account of Army Air Service interwar discussions is Green, *The Development of Air Doctrine in the Army Air Arm, 1917-1941*. See also *Early Concepts of Military Aviation* ed. Maurer Maurer, 4 vols. especially vol. 2, *The United States Air Service in World War I* (Maxwell AFB, AL: The Air Force Historical Research Agency, 1978).

⁸³ “Mr Baldwin on Aerial Warfare: A Fear for the Future,” *London Times*, 11 November 1932, 7. Brigadier General Oscar Westover, Commander of General Headquarters Air Force summed up the role of pursuit aviation relative to strategic bombing after the March Field exercise as “Bombardment aviation has defensive fire power of such quantity and effectiveness as to warrant the belief that with its modern speeds it may be capable of effectively accomplishing its assigned mission without support.” Oscar Westover, Report of the Commanding General of the GHQ Air Force on the Air Corps Command and Staff Exercise of 1933, Air Force Historical Research Agency, 248.2122-3, 1933, 3-4.

⁸⁴ As noted by Robert Finney, the development of advanced high-speed and high-altitude bombers such as the B-9, B-10, and B-12 was prioritized over pursuit aviation. Robert Finney, *History of the Air Corps Tactical School, 1920-1940* (Washington DC: Air Force History and Museums Program, 1998), 75. Generals Henry Arnold and Benjamin Foulois believe strategic bombing rose to prominence over pursuit aviation based on exercises in the 1930’s at March Field, California, Pope Field, North Carolina, and Fort Knox, Kentucky. See Henry Arnold and William Laidlaw, *Global Mission*, (New York, NY: Harper and Row, 1949) and Benjamin D. Foulois, *From the Wright Brothers to the Astronauts: The Memoirs of Benjamin D. Foulois*, (New York, NY: McGraw-Hill, 1968).

superiority was a required precursor for any air campaign.⁸⁵ The sum total of Chennault's writings are three articles published in consecutive editions of *Field Coast Artillery* in 1933-34. For Chennault, air superiority was not simply a force-on-force exercise but involved four components:

1. The establishment of an efficient ground information or intelligence net;
2. The employment of pursuit;
3. The employment of antiaircraft artillery;
4. The use of searchlights for night operations.⁸⁶

Chennault's conception of air superiority drew on both Douhet's and Mecuzzi's theories but he advanced the concept of local air superiority by coupling antiaircraft artillery and an intelligence net to vector air superiority aircraft against an attacking air fleet. Chennault understood the limited aircraft available for air superiority missions and devised an effective way to mass airpower that proved correct during World War II.

As the preceding section showed, airpower theorists prior to World War II tended to conflate theories of air superiority with institutional autonomy.⁸⁷ Theorists

⁸⁵ Claire Chennault, *Way of a Fighter: The Memoirs of Claire Lee Chennault* (New York, NY: G.P. Putnam's Sons, 1949), 20.

⁸⁶ Claire Chennault, "The Role of Defensive Pursuit, Part Two," *The Coast Artillery Journal* 77, no. 1 (1934), 11. The other articles are "The Role of Defensive Pursuit," *The Coast Artillery Journal* 76, no. 6 (1933) and "The Role of Defensive Pursuit, Part Three," *The Journal of Coast Artillery* 77, no. 2 (1934).

⁸⁷ Arguably, the Soviet Union was the most air-minded nation in Europe during the inter-war years based on experiences in World War I, the Spanish Civil War, and conflicts with China and Japan, however there is no historical record of Soviet/Russian airpower support to a human security operation. This fact precludes a complete discussion of Russian airpower theory however, for a relationship between Soviet politics, operational art (theory) and airpower see the following: The best discussions of Soviet operational art are: David Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle* (Abingdon, United Kingdom: Frank Cass and Company Ltd, 1991); *The Evolution of Soviet Operational Art: The Documentary Basis*, trans. Harold Orenstein, 2 vols., (London, United Kingdom: Frank Cass and Company Ltd., 1995), especially vol. 1, 24-68. A broad overview of Deep Battle can be found in Earl Ziemke, "The Soviet Theory of Deep Operations," *Parameters* 13, no. 2 (1983). Felker notes "one cannot discuss Soviet/Russian military doctrine apart from the political structure from which it derived." Edward Felker, "Soviet Military Doctrine and Air Theory: Change Through the Light of a Storm," in *The Paths of Heaven: The Evolution of Airpower Theory*, ed. Phillip Meilinger (Maxwell Air Force Base, AL: Air University Press, 1997), 517. Von Hardesty states "The aerial achievements of Soviet pilots helped to create a myth of Soviet air power...The only justification was political: Soviet mastery of the air, a carefully orchestrated myth, helped to consolidate Stalin's power." Von Hardesty, *Red Phoenix: The Rise of Soviet Airpower, 1941-1945* (Washington DC:

such as Douhet, Trenchard, and Mitchell emphasized the need for general air superiority. All three were at the center of air force autonomy movements in their respective countries. For these theorists, general air superiority provided a requirement for a large force structure and the means to accomplish strategic bombing of an enemy's infrastructure without prohibitive losses. General air superiority theories were also based on induction. Prior to World War II, airpower cases consisted primarily of the Italian Libyan campaign, World War I, British air policing, the Spanish Civil War and Sino-Japanese conflicts. Of these conflicts, only World War I is consistently referenced by general air superiority proponents.

Local air superiority proponents did not allow a quest for institutional autonomy to color their vision. Based largely on deductive reasoning from World War I, the Spanish Civil War and British air policing, these theorists posited local air superiority as realistic based on economic capacities and battlefield requirements. Claire Chennault provided the most prescient theory for air superiority by combining airborne aircraft with an intelligence net to focus airpower at a specific location to meet invading aircraft. The advent of nuclear weapons and intercontinental ballistic missiles after World War II would largely negate the contributions of these local air superiority advocates but provide an avenue for general air superiority concepts to remain.

Retired Air Force officer John Warden is arguably the most prominent airpower theorist of the post-World War II era.⁸⁸ *The Air Campaign* served as a significant

Smithsonian Institution Press, 1991), 49. Sanu Kainikara's *Red Air: Politics in Russian Air Power* echoes these statements and also traces the linkage between Stalin's consolidation of power in the 1930's and the resulting enmeshment of military theory with Marxist ideology. Sanu Kainikara, *Red Air: Politics in Russian Air Power* (Boca Raton, FL: Universal Publishers, 2007), especially pp. 89-121 and 231-233.

⁸⁸ John Andreas Olsen credits Warden's theories as a "renaissance in airpower theory" in John Andreas Olsen, *John Warden and the Renaissance of American Airpower* (Washington, DC: Potomac Books, Inc., 2006). Olsen focuses almost exclusively on U.S. airpower theory and development, noting that Warden expanded upon strategic bombing

theoretical foundation for the air strategy during the 1991 Gulf War against Iraq. For Warden, air superiority is general in nature and provides unrestricted freedom of maneuver for air forces to conduct operations at a time and place of the commander's choosing.⁸⁹ Air superiority "means having sufficient control of the air to make air attacks on the enemy without serious opposition and, on the other hand, to be free from the danger of serious enemy air incursions."⁹⁰ Similar to arguments made by Mecuzzi and Chennault, critics of Warden tend to dismiss the need for general air superiority based on resource constraints. Indian Air Force Air Commodore Jasjit Singh echoes Chennault's conception of local air superiority centered about ground or naval forces.⁹¹ Based on analysis of the Indo-Pakistan and Arab-Israeli conflicts, Singh emphasized air superiority must take into consideration neutralization of not only aircraft but surface-to-air missile systems and targeting of enemy airfields.

Influence via compellence

As the preceding section illustrated, the theoretical underpinnings of air superiority varied widely among two camps. The airpower influence literature is equally divisive between two separate camps of thought. However, unlike air superiority, the prominent literature was not published until after World War II. There was a literature base prior to World War II, but this base was primarily oriented towards bombing state infrastructure (punishment) as opposed to targeting adversary military capability (denial). Giulio Douhet provided the intellectual foundation for punishment, stating: "In general, aerial offensives will be directed against such targets

theories developed by Mitchell and the Air Corps Tactical School by including an effects-based methodology based on precision munitions, such as laser guided and datalink weapons.

⁸⁹ John Warden, "Air Theory for the Twenty-First Century," in *21st Century Warfare Issues*, ed. Barry R. Schneider and Lawrence E. Grinter, Air War College Studies in National Security No. 3 (Maxwell AFB, AL: Air University Press, 1998), 120.

⁹⁰ John A. Warden, *The Air Campaign* (Washington DC: National Defense University Press, 1988), 13.

⁹¹ Singh emphasizes "the real impact and influence of air power comes through its closely coordinated application with land and sea power." Jasjit Singh, *Air Power in Modern Warfare* (New Delhi, India: Dhawan Printing Works (Lancer International), 1985), xviii.

as peacetime industrial and commercial establishments; important buildings, private and public; transportation arteries and centers; and certain designated areas of civilian population as well.”⁹² Billy Mitchell closely echoed Douhet’s punishment theory but, instead of targeting civilian infrastructure, he placed a priority on bombing an enemy state’s airpower industries and military infrastructure. Members of the Air Corps Tactical School would champion Mitchell’s theory and evolve his punishment strategy into an ‘industrial web’ theory advocating the targeting of critical economic nodes. Destruction of these nodes would cause economic paralysis and an inability for a national economy to continue on a wartime footing.

Douhet’s strategic bombing theme was first echoed in the United Kingdom by British Royal Air Force Brigadier General Percy Robert Clifford Groves in 1922. He states: “Clearly the nature of airpower renders it the perfect instrument for diplomatic pressure...whole fleets of aircraft will be available for offensive purposes. Each side will at once strike at the heart and nerve centers of its opponent...the great cities.”⁹³ Unfortunately, Groves, like Douhet, is guilty of conceptual overstretch.⁹⁴ During this time, the Royal Air Force was actively involved in air policing operations in Iraq and Waziristan. Groves assumed that the success of aircraft to coerce local tribes would extend to the ability to coerce large and industrialized European nations.

Marshal of the Royal Air Force Hugh Trenchard’s views were closely related to both Douhet and Mitchell.⁹⁵ As opposed to the Italian’s focus on bombing population

⁹² Giulio Douhet, *The Command of the Air* (New York: Coward-McCann, Inc., 1942), 20.

⁹³ P.R.C. Groves, "For France to Answer," *Atlantic Monthly* 129, February (1924), 145-152.

⁹⁴ The premise that early airpower theorists were guilty of conceptual overstretch is explored in greater detail in Chapter Four. Early airpower theorists largely utilized inductive, vice deductive, methods for developing airpower theory. Their writings tended to focus on what airpower could accomplish under ideal conditions instead of what airpower had accomplished or was capable of accomplishing given constraints such as technology, political objectives, and rules of war.

⁹⁵ Trenchard, *Air Power: Three Papers*. For an excellent discussion on Trenchard’s life and the influences on his thinking see: Andrew Boyle, *Trenchard Man of Vision*, (London, United Kingdom: Collins, 1962) and Malcolm Smith, *British Air Strategy Between the Wars*, (London, United Kingdom: Oxford University Press, 1984). J.M.

centers or the American's focus on bombing industrial centers to destroy production capacity, Trenchard advocated a hybrid punishment theory by bombing military industrial centers to break the morale of the workers and, in turn, the entire national population. His view can be summarized by one of his presentations to the Imperial Defence College:

Attacks will be directed against any objectives which will contribute effectively towards the destruction of the enemy's means of resistance and the lowering of his determination to fight. These objectives will be military objectives. Among these will be comprised the enemy's great centres of production to every kind of war material...⁹⁶

Despite Trenchard and Groves' punishment theories of strategic bombing serving as the dominant theory of airpower in the United Kingdom, a nascent effort was being made to codify the operational lessons of World War I and air policing into a theory of airpower.⁹⁷ This line of literature served as the foundation for denial theories of influence.

Unlike the prescriptive strategic bombing theories of Douhet and Trenchard, Slessor's airpower theory was notable in viewing airpower employment as contextual in relation to battlefield conditions. The purpose of bombers was to target "vital centres" which could vary from an army's supply line to a railroad junction to an

Spaight was a civilian analyst in the Ministry of Defense that echoed many of Trenchard's writings, albeit for a civilian audience. Spaight wrote: "whether the destruction of even a large part of a great city would compel a virile nation to bow to an enemy's will is doubtful. It would be a horror unparalleled in the grim annals of war."⁹⁵ J.M. Spaight, *Air Power in the Next War*, (Geoffrey Bles, London, 1938), 125-126. "If, however, the bombardment is so directed that a nation's capacity to fight and to rearm is impaired, if its armed strength and the sources of that strength are the objectives of the enemy's attacks, if its depots, its munition factories, its war industries are destroyed or seriously damaged, then a time may come when, whatever be the spirit of the nation, it will find itself unable to continue the struggle. Air power may in-fact [sic] prove itself capable of effectively disarming even a powerful nation, but only if it sets itself to that task; which is a different task from trying to bomb civilian populations into defeatism." Ibid., 156.

⁹⁶ Trenchard quoted in Charles Webster and Noble Frankland, *The Strategic Air Offensive against Germany, 1939-1945*, 4 vols., (London, United Kingdom: Royal Stationary Office, 1961), vol. 4, 137.

⁹⁷ The concept of air policing was based on using airpower to maintain security in the Empire's colonies. One of the main policy reasons for the reliance on airpower was the relative cost. It was estimated that using air policing could reduce the colonial security budget by as much as 90%. For an overview of air policing see David Omissi, *Air Power and Colonial Control* (Manchester, United Kingdom: Manchester University Press, 1990).

armament production facility.⁹⁸ Slessor's theory of conducting parallel operations focused on both punishment and denial mark him as the first theorist to diverge from the punishment efforts of contemporary theorists. His ideas would mirror the theories emerging fifty years later. William Sherman's 1926 *Air Warfare* agrees with Slessor by placing emphasis on striking "targets well in the rear of the enemy's front line" to disrupt land warfare especially supply lines, military forts, and coastal defense.⁹⁹

Much like his disagreement with Douhet over air superiority, Amedeo Mecuzzi provided the Italian Air Force with an alternate influence theory based on joint employment with ground and naval forces but constrained by economic factors.

⁹⁸ Slessor, *Air Power and Armies*, 26. A vital centre is defined by Slessor as "the center the destruction or even interruption of which will be fatal to continued vitality." p.16.

⁹⁹ William C. Sherman, *Air Warfare* (Maxwell AFB, AL: Air University Press, 2002), 190. Sherman also states "The normal role of pursuit aviation is to assist its comrades in the other branches of aviation by gaining and maintaining control of the air for the necessary period over zones of operations." p.119. This is very similar to the definition of air superiority in use by the United States Air Force as of 2013. Sherman's concept of denial theory focusing on an adversary's military capacity is very similar to Soviet and German airpower theory of the time. Marshal of the Soviet Union Mikhail Tukhachevsky's Deep Battle served as the primary Soviet theory of operations during this time. Drawing on the experiences of World War I as well as the Russian Civil War, Tukhachevsky's writings were important to airpower because of his integration of airpower with ground force maneuver to target and destroy an adversary's military forces. Tukhachevsky was a victim of Stalin's purge of the military high command in 1937, but Brigade Commandant A.N. Lipchinsky explicitly related Tukhachevsky's writings to airpower. His 1939 publication of *Air Army* meshed Deep Battle with lessons learned during the Spanish Civil War to emphasize the role of airpower in direct battlefield support. In this role, air forces would conduct tactical reconnaissance, Close Air Support of ground forces, and battlefield mobility. For a detailed discussion of Soviet airpower theory see: Earl Ziemke, "Strategy for Class War: The Soviet Union, 1917-1941," in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox and Alvin Bernstein (Cambridge, United Kingdom: Cambridge University Press, 1994). The official title of the Soviet Army was "Рабочекрестьянская Красная армия" which is translated as "The Workers and Peasants' Red Army." Lenin and Stalin both viewed the Army as a symbol of proletariat strength and the front-line of defense against capitalist aggression. During this time, Germany was forced to operate under the Versailles Treaty restrictions but maintained a robust discussion on military theory that tended to parallel Soviet Deep Battle concepts. German airpower theories were published as internal doctrine not as commercially available publications. As a result, they are not discussed in this literature review. The primary restrictions to developing airpower theory were contained in the Treaty of Versailles. Article 171 stated "In particular they [educational institutions] will be forbidden to instruct or exercise their members or to allow them to be instructed or exercised, in the profession or use of arms." Article 191 states: "Within two months from the coming into force of the present Treaty the personnel of air forces on the rolls of the German land and sea forces shall be demobilised." "The Versailles Treaty" (28 Jun 1919), retrieved from Lillian Goldman Law Library, Yale Law School, www.avalon.law.yale.edu/subject_menus/versailles_menu.asp (accessed 13 Jul 2013). Despite the restrictions, German theory flourished. By the time Hitler renounced the Versailles Treaty in 1935, German airpower theory was heavily integrated into the *Blitzkrieg* concept of operations. The three primary airpower theorists in Germany in the inter-war era were General (Dr.) Robert Knauss, Generalleutnant Walt Wever, and Generaloberst Ernst Udet. Two excellent books discussing German airpower during this time are: Williamson Murray, *Strategy for Defeat: The Luftwaffe, 1933-1945*, (Maxwell AFB, AL: Air University Press, 1983) and James Corum, *The Luftwaffe: Creating the Operational Air War, 1918-1940*, (Lawrence, KS: University of Kansas Press, 1997).

Because the air fleet would be modest and constrained by economic factors, Mecuzzi argued airpower should operate in conjunction with ground and naval forces stating, "In a future war, the Air Force must aim only to overcome the enemy armed forces, with its four tasks: scouting, attacking, defending, and transportation."¹⁰⁰

Interestingly, Mecuzzi is perhaps one of the first theorists to advocate precision bombing against military targets. His insistence on bombing only military targets was based on two factors. First, Mecuzzi harbored a moral objection to Douhet's theory of bombing population centers, calling it "war against the unarmed." Second, he also believed Italy could not produce enough munitions for large scale bombing raids.

Punishment airpower theorists prior to World War II tended to overemphasize the capabilities of aircraft as well as the destructive effects of munitions. This is not surprising based on the largely deductive nature of Douhet, Trenchard, Groves and Mitchell. Conversely, the denial theorists were more measured in their expectations of airpower capabilities based on inductive historical analysis. With the advent of nuclear weapons and bomber aircraft capable of true global reach, the punishment theories of Douhet and Trenchard seemed particularly well-suited to match strategy with capabilities during the Cold War. Airpower could now quickly inflict greater damage to a wide variety of enemy targets.¹⁰¹ For airpower theorists, the dichotomy between punishment and denial strategies would come to a forefront with the writings of John Warden and Robert Pape.

¹⁰⁰ Amedeo Mecuzzi as quoted in Rodolfo Sganga, "Douhet's Antagonist," 12.

¹⁰¹ This is the basic foundation of deterrence theory and the concept of mutually assured destruction. A detailed discussion of these concepts is beyond the scope of this paper but the reader is encouraged to reference the following as primary sources published during the Cold War: *The Absolute Weapon: Atomic Power and World Order* ed. Bernard Brodie, (New York, NY: Harcourt, Brace, 1946); Henry Kissinger, *Nuclear Weapons and Foreign Policy* (New York, NY: Harper and Row, 1957); Thomas Schelling, *Strategy of Conflict* (New York, NY: Oxford University Press, 1960), Herman Kahn, *On Thermonuclear War*, (Princeton, NJ: Princeton University Press, 1960) and Glenn Snyder, *Deterrence and Defense* (Princeton, NJ: Princeton University Press, 1960). For an excellent retrospective of nuclear deterrence strategy see Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York, NY: Palgrave Macmillan, 2003) and Herman Kahn, *On Thermonuclear War*, (Princeton, NJ: Princeton University Press, 1960).

John Warden's theory revised and updated punishment theories based on precision weapons and fighting a war against a hierarchical regime. Warden's theory is based on viewing the enemy nation, processes, and infrastructure as a system of interrelated components. The enemy leadership is the most important component followed in order by the system essentials (energy production, food sources), infrastructure (roads, airfields and factories), civilian population and, lastly, fielded military. The goal for Warden is strategic paralysis, defined as the ability to "convince the enemy to do what we want him to do."¹⁰² Although the concept of strategic paralysis harkens back to the pre-World War II theorists such as Douhet, Trenchard, and the Air Corps Tactical School, Warden believes it is achieved by rapid and parallel attacks utilizing precision weapons on the enemy's leadership vice population or industry.¹⁰³ Critics of Warden tend to emphasize the need for a land force to forcibly evict the Iraqi Army from Kuwait as evidence that strategic paralysis was at best a destructive tool to Iraqi command and control and at worst a diversion of resources from battlefield interdiction.¹⁰⁴

Robert Pape characterized the 1991 Gulf War, and by extension Warden's theory of strategic paralysis, as a decapitation strategy in his 1996 book *Bombing to*

¹⁰² Warden, "Air Theory for the Twenty-First Century," 109. See also John Warden, "Employing Air Power in the Twenty-First Century," in *The Future of Airpower in the Aftermath of the Gulf War*, ed. Richard Schulz and Robert Pfaltzgraff (Maxwell Air Force Base, AL: Air University Press, 1992). Major Jason Barlow echoes many of Warden's core thoughts in Jason Barlow, "Strategic Paralysis: An Air Power Strategy for the Present," *Airpower Journal* 7, no. 4 (1993), <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj93/win93.htm> (accessed 1 June 2013).

¹⁰³ Warden's airpower theory is a technologically deterministic argument, which also harkens to J.F.C Fuller's *Plan 1919*. For a discussion of the relationship between Fuller, Warden and John Boyd, see James Kiras, *Special Operations and Strategy* (Abingdon, UK: Routledge, 2006), especially pp. 16-34.

¹⁰⁴ Harry Summers, Jr., champions the need for airpower to primarily conduct Close Air Support missions in Harry Summers, *On Strategy II: A Critical Analysis of the Gulf War* (New York, NY: Dell Publishing, 1992). Bernard Trainer agrees with the importance of parallel strategic and tactical bombing operations but he believes more weight of effort should be applied to tactical bombing of Iraqi ground forces. See Bernard Trainor, "Air Power in the Gulf War: Did It Really Succeed?," *Strategic Review* (Winter 1994), 66-68.

Win and offers a denial strategy counter-theory.¹⁰⁵ Unique to the majority of previous airpower theorists, Pape's conclusions are grounded in thorough historical analysis of thirty-three strategic bombing campaigns since World War I. He concludes the ability to coerce based on targeting fielded forces is more effective than targeting a civilian population based on the material effect of destruction.

The criticism of Pape's theory fall into two broad categories. The first concerns his case selection methodology and the second concerns the tendency to apply a quantitative analysis to the complex phenomena of war. Stephen Biddle notes Pape utilizes an inconsistent definition of success and his case selection methodology does "not uniquely distinguish the cases selected" while Mark Conversino notes Pape utilizes an outdated concept of strategic bombing as evidenced in definitional and case study analysis.¹⁰⁶ Barry Watts attacks the assumption that warfare is repetitive enough to develop a predictive theory. Watts subscribes to the Clausewitzian notion that chance and uncertainty make a "sharp distinction between war on paper and real war."¹⁰⁷ Pape fails to understand this distinction and, as a result, his theory misidentifies causal variables that induces significant analytical error in Pape's ability to test the denial theory. John Warden critiques the denial theory on the basis that the "purpose of war is not to defeat the enemy's armed forces...the only reasonable purpose of war ought to be to win the peace which follows."¹⁰⁸ According to Warden,

¹⁰⁵ Robert Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 39. See also Robert Pape, "The Limits of Precision Guided Airpower," *Security Studies* 7, no. 2 (1997), 93-114. For an excellent discussion of the development of Pape's theory and epistemological considerations see the unpublished School of Advanced Airpower Studies thesis Thomas Ehrhard, "Making the Connection: An Air Strategy Analysis Framework" (Air University, 1995), especially pp. 6-25.

¹⁰⁶ Biddle also identifies six cases that would qualify for analysis utilizing Pape's definition of coercive denial. See Stephen Biddle, "Why You Can't Get a Lot for a Little," *Mershon International Studies Review* 41, no. 1 (1997), 114. Mark Conversino, "The Changed Nature of Strategic Air Attack," *Parameters* Winter (1997), 29.

¹⁰⁷ Barry Watts, "Ignoring Reality: Problems of Theory and Evidence in Security Studies," *Security Studies* 7, no. 2 (1997), 121.

¹⁰⁸ John Warden, "Success in Modern War: A Response to Robert Pape's *Bombing to Win*," *Security Studies* 7, no. 2 (1997), 173. This quote reflects the influence of British theorist B.H. Liddell Hart who, like Warden, believed an

the denial theory contains significant explanatory power for air campaigns conducted in serial fashion with obsolete weapons, however precision weapons and the ability to conduct multiple coercive strategies simultaneously invalidate the theory.

A survey of airpower strategy must also include three important contributions by eminent scholars. Philip Meilinger's *10 Propositions Regarding Air Power*, published in 1995, views airpower as a fundamentally offensive weapon designed as a strategic force to produce both physical and psychological effect on an adversary.¹⁰⁹ Meilinger tends to advocate general air superiority and a parallel effort between both punishment and denial strategies. In a similar vein, Richard Hallion identifies ten attributes of airpower differing from Meilinger. Hallion identifies airpower's ability to conduct both combat and humanitarian operations but limits humanitarian operations to little more than airlift of humanitarian aid.¹¹⁰ Hallion does not specifically ascribe to a punishment or denial strategy but his emphasis on strategic targeting and references to Operation DESERT STORM strongly imply a parallel effort similar to Meilinger. The final contribution is from Colin Gray.¹¹¹ Unlike Meilinger and Hallion's Air Force roots, Gray's lack of an Air Force background moderates his approach to airpower. Gray subordinates airpower strategy to general theories of strategy and, by extension, emphasizes the success of denial strategies. Punishment strategies can be valuable, but Gray emphasizes that airpower strategy should be malleable to the political objective. Ultimately, Gray captures the fundamental dichotomy that has existed between airpower theorists since the writings of Clement

indirect approach, not direct conflict with an enemy, was the most effective and efficient military strategy. Liddell Hart stated "The object in war is a better state of peace— even if only from your point of view" in B.H. Liddell Hart, *Strategy: The Indirect Approach* (London, United Kingdom: Faber and Faber, Ltd., 1967), 351.

¹⁰⁹ Philip Meilinger, *10 Propositions Regarding Air Power* (Washington D.C.: Air Force Historical Studies Office, 1995).

¹¹⁰ Richard Hallion, "The Future of Airpower," in *The War in the Air: 1914-1994* ed. Alan Stephens, (Maxwell AFB, AL: Air University Press, 2001), 377-414.

¹¹¹ Colin Gray, *Airpower for Strategic Effect* (Maxwell AFB, AL: Air University Press, 2012).

Ader and R.P. Hearne; airpower theory must be situational and enable a joint force to achieve the political objective.¹¹²

Summary

The literature of airpower theory has remained remarkably consistent for almost one hundred years. A senior officer would present a theory of general air superiority and a punishment strategy of bombing to win a war either through total destruction, such as Douhet proscribed, or destruction of the will to fight, such as Trenchard, or disruption of industrial capacity, such as Mitchell. Airpower theorists advocating the primacy of a punishment strategy tended to be high ranking officers also attempting to gain, or maintain, autonomy for their air service. Douhet was a Major General, Mitchell was a Brigadier General, and Trenchard was an Air Chief Marshal. This institutional bias was most evident in the writings of Billy Mitchell. What started out as an airpower theory of joint operations transformed into a call for independence from the U.S. Army. By emphasizing general air superiority and a punishment strategy requiring large numbers of bombers, not only was he advocating a 'magic bullet' to end war but also attempting to minimize a recurrence of the costly and largely ineffective ground war that decimated European powers during World War I. These theorists also tended to discount historical lessons in favor of projecting what technology would possibly be capable of in future wars.

In contrast to the theories put forth by the Air Marshal and the Generals, authors such as Mecuzzi, Slessor, and Sherman were lower ranking and less concerned with motives of air autonomy. Their theories were based on historical lessons from World War I and various other early-twentieth century conflicts. Not

¹¹² "Although the character of contemporary airpower is always changing and every situation wherein airpower is applied is unique, the whole subject can be revealed convincingly in a general theory." Ibid., 267. Gray then provides twenty-seven dicta on pp. 275-303.

surprisingly, their writings reflect a preference for local air superiority and a denial strategy focused on an adversary's military forces. Sherman, in particular, utilized data from contemporary aircraft and artillery manufacturers to refute many of Douhet's claims. Of all the pre-World War II theorists, Spaight (a civilian) utilized the most balanced methodology, combining World War I historical data with Liddell-Hart's strategy of the indirect approach. His theory was also the first to explicitly state the ability of powerful air forces to deter an adversary before combat. In this respect, Spaight was unique among the pre-World War II theorists.

Perhaps of all the pre-World War II theorists, Chennault's emphasis on intelligence-driven operations, radar-directed pursuit aircraft, and a balance between denial strategy of bombing with local air superiority tends to be the theory providing the best explanatory power for airpower operations during this time period. Unfortunately, his theory is somewhat devalued based on the paucity of his writings. With the exception of air superiority, Chennault was unable to fully develop the concepts in a manner suitable for critical analysis.

The common thread among all pre-World War II theorists was a desire to utilize airpower in an offensive manner to limit the duration and bloodshed of war, however the question about how to best utilize airpower remained a divisive issue. The rift between opposing theorist is well characterized by Air Corps Tactical School instructor Lieutenant Colonel William Ryan in 1940:

The useful effect of the bombardment airplane seems, at least in general, to be as far removed from the utopian speculations by fanatics of the "autonomous" aerial warfare as from the inflexible dogmas of the traditionalists who, refusing to consider technical progress, would like to grant the airplane only a modest role of a secondary auxiliary weapon.¹¹³

¹¹³ William Ryan, "Military Aviation " Lecture to Army War College, 6 May 1940, Air Force Historical Research Agency, microfiche 248.251-5.

Despite the tremendous amount of airpower operations in World War II and the various wars of nationalism during the Cold War era, it was not until 1990 that airpower theory received an update in the form of John Warden's strategic paralysis and enemy-as-a-system methodology.

By essentially bypassing the fielded forces and targeting enemy leadership directly, Warden developed a hybrid theory of punishment that prioritized enemy leadership and infrastructure above fielded forces and would also require general air superiority. While Warden's lack of analytical rigor was reminiscent of Mitchell, Robert Pape's denial theory utilized extensive historical analysis to determine that traditional views of coercion, such as the Air Corps Tactical School's industrial web theory or Trenchard's targeting of military complexes for civilian effect, were not as effective as targeting an enemy's fielded forces. In this respect, Pape was returning to the theories presented initially by Slessor, Sherman, and Mecuzzi. The next chapter introduces the definitions and research methodology developed based on the literature review of both human security and airpower theory. Chapter Four will then build an airpower theory that adds to the body of literature by introducing human security principles to airpower strategy and operations.

Chapter Three

Definitions and Research Methodology

Case studies allow a researcher to achieve high levels of conceptual validity, or to identify and measure the indicators that best represent the theoretical concepts.

Alexander George, Stanford University
“Case Studies and Theory Development in the Social Sciences”

This chapter outlines the requisite definitions to develop a theory of airpower strategy to support human security political objectives. The chapter also develops a methodology to test the validity of the theory against historical case studies of the predominant human security air campaigns from the twentieth and twenty-first century. The desired outcome is a parsimonious theory of airpower based on rigorous historical analysis that explains airpower strategy for human security operations. Social science research methods serve as the foundation to accomplish this goal. This chapter will first define human security and place it contextually with state security, peacekeeping, and nationbuilding operations. The second section of this chapter discusses plausibility probes and the selection of case studies for qualitative analysis.

Defining the Independent Variable—Human Security

Chapter Two identified a lack of definitional clarity as the primary critique of human security. This critique states human security scholarship lacks analytical rigor based on all-encompassing and expansive definitions. The U.N. Development Program’s (UNDP) 1994 *Human Development Report* is consistently cited as an example of this type of definition by defining human security with seven variables covering virtually every aspect of daily life.¹ The 1994 UNDP definition could apply to over seven billion referents globally at the mercy of a variety of ever-present threats.

¹ The seven areas of human security are economic, food, health, environmental, personal, community and political security. These components are a “universal concern, relevant to people everywhere.” United Nations, *Human Development Report 1994*, (New York, NY: United Nations, 1994), 22-25.

Many scholars rightly argue that this definition tends to be too expansive for either policy development or academic study and does not delineate human security from concepts such as human rights and human development. In an attempt to maintain definitional parsimony and provide explanatory power, this analysis develops a working definition categorizing human security study within the broader field of security studies.²

The source of insecurity, or threat, is the first definitional component required for human security. For this study, only cases where a military threat to security are included. This military threat can be either from another state, as was the case between ethnic groups backed by Bosnia and Serbia during the Balkan conflicts of the 1990s; from the state itself, as in the case of the Iraqi government-sanctioned violence against the Kurdish minority; or from a sub-state actor threatening another sub-state actor, as in the case of the Taliban-backed violence against various Afghan tribes. Limiting the source of insecurity to only military threats intentionally narrows the human security paradigm from the aforementioned UN definition for two reasons. First, it is not possible to analyze a deterrent effect if there is no military threat to deter. Lack of a threat also implies there is no entity to challenge airpower so military operations may not be needed and non-governmental organizations could accomplish human security operations. Examples of these types of cases include search and rescue efforts in the aftermath of Hurricane Katrina in 2005, and intelligence, surveillance and reconnaissance gathering during tsunami relief in Asia in 2004.³ Second, excluding economic, food, health, and environmental threats provides a focus on factors that airpower can influence while treating as exogenous factors that

² Roland Paris, "Human Security: Paradigm Shift or Hot Air?," *International Security* 26, no. 2 (2001), 87-102.

³ Conversely, because Operation FREQUENT WIND, the aerial evacuation of Saigon in 1975 faced a military threat and more than a single mission was accomplished, it is included in the plausibility probes.

airpower cannot generally influence. Utilizing cases without a threat or cases of economic, food, health, and environmental insecurity would lead to incorrect conclusions due to the limited character of military operations.

The second variable used to build the definition of human security is the referent for security actions. As shown in Chapter Two, airpower theory historically tended to focus on one of three referents, or recipients, of airpower's effects: the enemy's fielded forces, political leadership, or civilian populace. This focus is appropriate for operations designed for state security once combat operations have commenced since the threat either originates with the enemy's political leadership or is implemented by the fielded forces. However, a focus on the enemy for human security operations is not appropriate because the objective of operations is to provide security, not coerce or militarily degrade an enemy.

Chapter Two identified a referent for security actions ranging from the entire state populace to an individual citizen. The referent range implies analysis can be conducted at the macro-, meso-, or micro-level. Macro-level analyzes human security at the state level. This view assumes a homogenous society and a transnational human security threat. The benefit to macro-level analysis is utilization of well-established sources such as the Human Security Index, World Bank, International Monetary Fund and United Nations agencies to determine levels of human security. This level of analysis is the most inclusive but findings may be too general to apply to other cases or results can mask human security issues.⁴ For example, the 1990 United Nations Human Development Report graded human development in Yugoslavia

⁴ Inglehart and Norris note: "Saying that a country such as Somalia or Haiti ranks low in overall Human Security (which seems intuitively obvious) tells us nothing about whether donor aid should be spent strategically on, say, training the police force, funding water wells, or supporting clinics." in Ronald Inglehart and Pippa Norris, "The Four Horsemen of the Apocalypse: Understanding Human Security," *Scandinavian Political Studies* 35, no. 1 (2011), 71-96.

as “high” and Iraq as “medium” based primarily on life expectancy and literacy rates of the dominant populations.⁵ The human development of the minority populations (Kurds and Kosovars respectively) was effectively masked.

Micro-level analysis is representative of the 1994 UNHDR definition and analyzes human security at the individual level. This level tends to be the most inclusive of a referent population but, as Chapter Two identified, study can become untenable based on very large sample sizes. This level of analysis may also lose explanatory power when attempting to evaluate security with macro-level data sets, such as economic or environmental indicators. For example, the 1991 Iraqi Gross Domestic Product per capita was estimated at \$2,836, but the majority of wealth was concentrated in the Sunni minority.⁶ The Iraqi Shia and Kurds per capita GDP was much lower while the likelihood of their persecution by the Iraq regime was significantly greater than Sunni persecution.

The meso-level of analysis ranges can be the most nebulous level to define because it ranges in size from two individuals to one less than the state population. A meso-level group may include associations such as cultural, or socio-linguistic (Bosniak, Croat, Slavic in the former Yugoslavia for example), the population of a city (urban, census designated location, etc.), or ethnic groups within a state (such as the Kurdish population in Iraq). For this study, the meso-level is an appropriate level of analysis due to military operations conducted to provide security for a sub-state level population. The recent preponderance of intra-state conflict involving rival sub-state populations is another reason for meso-level analysis. The Correlates of War project at the University of Michigan identifies ninety-six conflicts since the end of the Cold War

⁵ United Nations, *Human Development Report, 1990*, (New York, NY: Oxford University Press, 1990).

⁶ “GDP per capita,” *The World Bank*, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD?page=4> (accessed 20 February 2014).

with seventy-nine classified as intra-state war and seventeen as inter-state or extra-state wars. The meso-level of analysis provides wide variance in population size to create a rich dataset while developing a framework applicable to a significant percentage of current military conflicts.⁷

Ensuring the security referent is thoroughly defined in terms of either a geographic area of habitation or an upper and lower population number is an important consideration when utilizing meso-level analysis. The bounding criteria for each case study and plausibility probe will be identified and explained to ensure a macro- or micro-level of analysis is not inadvertently used.

Figure 3-1 depicts the relationship between military threats to security and the referent level of security in relation to the concepts of state security, human security, nationbuilding, and humanitarian operations. The methodology is adapted from a matrix developed by Roland Paris to explain the relationship between human security studies and other types of security studies.⁸

⁷ Meredith Reid Sarkees and Frank Wayman (2010). *Resort to War: 1816 - 2007*. CQ Press. http://www.correlatesofwar.org/COW2%20Data/WarData_NEW/WarList_NEW.html (accessed 18 May 2013). An interstate war is defined as “those in which a territorial state that qualifies as a member of the interstate system is engaged in a war with another system member.” Intrastate war is defined as “wars that take place within the recognized territory of a state” and extrastate wars are defined as “wars between a state and a nonstate entity outside its borders” This typology implicitly states the majority of conflict does not reflect an exogenous threat to state security or sovereignty. Instead, the majority of military operations are conducted at the intrastate level against an indigenous threat.

⁸ Paris, "Human Security: Paradigm Shift or Hot Air," 87-102.

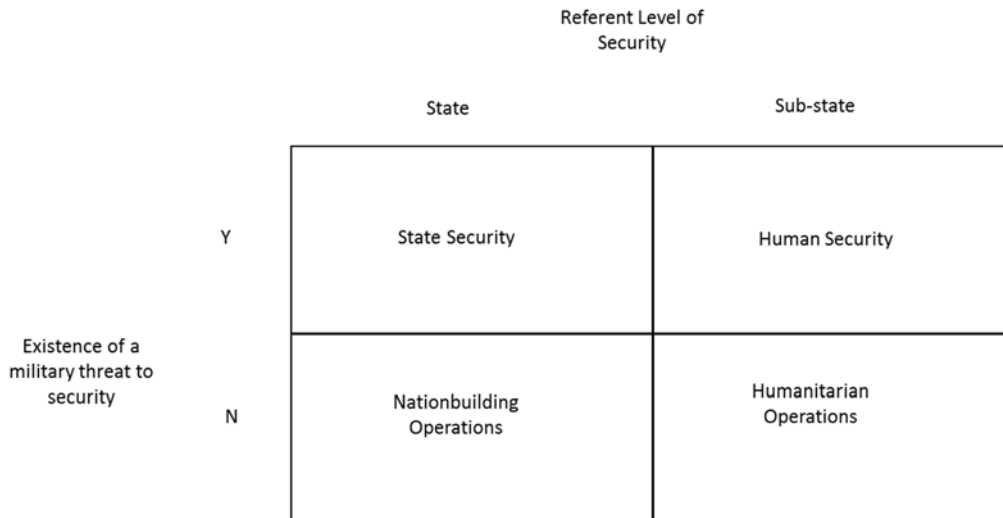


Figure 3-1: Conceptual Security/Mission Relationship

Source: Developed by author

This study will refine the security concepts of each quadrant to provide a definition of human security in relation to other concepts. State security operations are military operations designed to counter a military threat to national security.⁹ Examples of military action fitting this definition are U.S. involvement in World War II and Korea and Operation DESERT STORM to liberate Kuwait from Iraqi occupation. Nationbuilding operations are military operations to improve the security of a sovereign state in the absence of a military threat. U.S. Africa Command engagement with Malawi and U.S. Southern Command exercises with Brazil and Belize are examples of nationbuilding operations. Humanitarian operations are military operations to stabilize or improve the environment for the advancement of human rights and/or human development for a sub-state referent in the absence of a military

⁹ The works of Kenneth Waltz and John Mearsheimer will serve as the foundation for a discussion of national security from a Realist perspective. See for example Kenneth Waltz, *Theory of International Politics* (New York, NY: McGraw-Hill, Inc, 1979) and John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York, NY: W.W. Norton and Company, 2001). For a liberal viewpoint, the works of Robert Keohane and Alexander Wendt serve as a departure point for analysis. See Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, NJ: Princeton University Press, 2005) and Alexander Wendt, *Social Theory of International Politics*, Cambridge Studies in International Relations (University of Cambridge, United Kingdom: Cambridge University Press, 2001).

threat to security. Of the four types of security, defining the security referent in terms of geographic location is most prevalent for humanitarian operations. These operations are typically accomplished in support of and with the concurrence of a host nation.

The international response to the Japanese tsunami in 2011 and U.S. Department of Defense Hurricane Katrina relief efforts along the Gulf coast in 2005 are examples of humanitarian operations fitting this definition. *Human Security operations are military operations to counter a military threat, either indigenous or exogenous, threatening the security of sub-state actors.* Examples include Operation PROVIDE COMFORT in Iraq, no-fly zone enforcement in Iraq and Bosnia, and Operation ALLIED FORCE over the former Yugoslavia.

Defining human security narrowly offers several benefits. First, human security is placed within a generally accepted paradigm relative to state security. Second, the definition is consistent with the generally acknowledged human security definitions in theory and practice. Theoretically, scholarly definitions focus on a sub-state security referent and the general desire to counter any threat that impedes freedom from fear or freedom from want. The government of Canada defines human security, practically, as “freedom from pervasive threats to people's rights, safety and lives” while the government of Japan defines human security as “the preservation and protection of the life and dignity of individual human beings.”¹⁰ The narrow Canadian definition focuses on threat mitigation without regard to referent levels and the broad Japanese definition focusing on individual protection of life and dignity. The definition

¹⁰ The Canadian Department of Foreign Affairs definition of human security can be found at: Department of Foreign Affairs and International Trade (DFAIT) Canada, "Freedom from Fear: Canada's Foreign Policy for Human Security," Ottawa, 2000. <http://www.dfa-it.gc.ca/foreignp/humansecurity/HumanSecurityBooklet-e.asp> (accessed 12 May 2013). The Japanese Ministry of Foreign Affairs definition can be found at: Ministry of Foreign Affairs of Japan, "Statement by Mr. Yukio Takasu, Director-General of Multilateral Cooperation Department, at the Third Intellectual Dialogue on Building Asia's Tomorrow Toward Effective Cross-sectorial Partnership to Ensure Human Security in a Globalized World," Tokyo, 2000. http://www.mofa.go.jp/policy/human_secu/speech0006.html (accessed 12 May 2013).

used for this analysis retains the narrow definition characteristics of Canada but further refines the definition to focus on a sub-state referent. Third, the definition constrains threats to referent security as originating from either endogenous or exogenous military forces. This assertion may seem at odds with one line of human security literature but it is based on the assumption that policymakers will only allocate military forces to conduct operations against other military forces. Put another way, this study utilizes a threshold definition consistent with the Chapter Two literature review. The definition assumes policymakers determine the threshold to use military means has been achieved and military force is necessary for achieving human security political objectives. This concept will be fully analyzed and developed for each case study.

Research Methodology Outline

Studies of military strategy generally utilize two different research methodologies. Historical process tracing of a major campaign or operation is the first, and most common, methodology. This methodology allows the researcher to focus on the specific causal inferences and nuanced variables of the specific case resulting in a detailed analysis of the causal variables and outcome. Tami Davis Biddle's *Rhetoric and Reality in Air Warfare* is an exemplifying work using this methodology. Her analysis traces the evolution of British and American concepts of strategic bombing chronologically from 1914-1945. While producing a study rich in detail and analysis a drawback of this methodology is findings and/or recommendations only applicable to that specific case.

The second type of research methodology is a small-n qualitative analysis of three to five cases. This methodology provides opportunity for detailed analysis of what Harry Eckstein defines as crucial, most-likely, and least-likely cases in order to

provide the opportunity to test, validate, and/or falsify a theory.¹¹ An example of this type of methodology is Benjamin Cooling's *Case Studies in the Achievement of Air Superiority*. As the title suggests, this work utilizes case studies to determine the importance of air superiority during combat operations. Studies utilizing this methodology generally produce recommendations with broader explanatory power but a drawback, especially for military strategy studies, is a potential for generalized case analysis lacking nuanced analysis.

Notable exceptions to the aforementioned methodologies include Robert Pape's *Bombing to Win* and James Corum and Wray Johnson's *Airpower in Small Wars*. Both studies utilize a mixed-methods approach based on a large-n sample of cases with detailed analysis of a small number of cases. Pape analyzes thirty-three coercive air campaigns with detailed analysis of five case studies. Corum and Johnson analyze twenty-seven cases of airpower in what they term "small wars" ranging from a two-page discussion of Italian airpower in Libya to a fifty-five page chapter on U.S. airpower in South Vietnam. This study uses a mixed-methods methodology similar to Pape and Corum and Johnson by utilizing a multi-stage research strategy. Large-n analysis of plausibility probes is first conducted on the universe of relevant cases with three case studies then selected for detailed analysis.

The intent of a mixed-method approach is to avoid the pitfall described by Sidney Verba nearly fifty years ago.¹² Verba identifies the dichotomy between general analysis that loses explanatory power when applied to a specific case and specific

¹¹ Harry Eckstein, "Case Studies and Theory in Political Science," in *Handbook of Political Science*, ed. Fred Greenstein and Nelson Polsby (Reading, MA: Addison-Wesley, 1975), 79-137.

¹² "To be comparative, we are told, we must look for generalizations or covering laws that apply to all cases of a particular type... Generalizations fade when we look at particular cases...since the cases are few in number, we end up with an explanation tailored to each case. But if we follow more recent trends, we find just the converse problem...As we bring more and more variables back into our analysis in order to arrive at any generalizations that hold up across a series of political systems, we bring back so much that we have a "unique" case in its configurative whole." Sidney Verba, "Some Dilemmas in Comparative Research," *World Politics* 20, no. 1 (1967), 113.

analysis that provides explanatory power only for a discreet case. Verba espouses methodological discipline ensuring analysis and recommendations contain appropriate explanatory power for future analysis. To meet the rigor espoused by Verba this study uses plausibility probes to provide general context while three case studies ensure rich detail applicable to refining analysis and providing recommendations applicable to future human security operations.

A concern with any study of airpower is the pace of technological advancement. In the one-hundred and ten years from the Wright Brothers first flight at Kitty Hawk airpower has evolved from cloth-strewn machines powered by a sprocket chain drive to supersonic radar evading jets equipped with advanced avionics. In *Masks of War*, Carl Builder states that the Air Force in general, and air power strategists in particular, worship at the altar of technology.¹³ To minimize the impact of technological factors on this study, the large-n analysis treats equally airpower campaigns from 1903 until the present that meet the definition of human security. Equality is achieved by analysis focused on variance of the independent variable, measured by achievement of human security for the referent population. In essence, it is irrelevant whether the airpower strategist utilizes a Wright Flyer from 1903 or an F-22 from 2014 to conduct operations; the effect on referent security is the crux of analysis.

The Universe of Analysis

One-hundred and one cases of air power operations supporting human security political objectives are identified for this study (Table 3-1). These operations covered a wide range of airpower employment from the 1916 Punitive Expedition against Mexican bandits to World War II to the Berlin Airlift. Some of these cases could be researched from multiple vantage points due to various parties engaged in conflict

¹³ Carl Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore, MD: Johns Hopkins University Press, 1989), especially pp. 17-30 and 67-73.

during multiple campaigns. For example, World War II airpower operations have been extensively researched from multiple national perspectives as well as theater of operations, branch of service, and mission type. Twenty-eight of the one-hundred and one cases possessed a political objective stated in terms of human security. These twenty-eight cases define the universe of analysis.

The structured focused comparison approach is utilized to analyze the twenty-eight cases with plausibility probes conducted on each case to test the validity of the hypothesized airpower theory. Of the twenty-eight cases, three are selected for detailed analysis. This mixed-method research methodology provides the appropriate rigor to avoid the pitfalls identified by Sidney Verba earlier in this chapter. Utilizing the plausibility probes for general theoretical explanation and case studies for detailed analysis allows development and testing of a general theory with broad explanatory power.

	Case	Year	Airpower Nation	Political Objective		Case	Year	Airpower Nation	Political Objective
1	Third Afghan War	1919	Britain	State	52	Algerian War of Independence	1954-62	France	State
2	Airpolicing in Somaliland	1920	Britain	State	53	Rhodesian Bush War	1964-79	France	State
3	Airpolicing in Iraq	1920-25	Britain	State	54	Operations in Chad	1978	France	State
4	Airpolicing in Ireland	1922	Britain	Human	55	Operation Manta in Chad	1983-84	France	State
5	Airpolicing in India	1922-1935	Britain	State	56	Operation Epervier in Chad	1986-87	France	State
6	Airpolicing in Transjordan	1922	Britain	Human	57	Operation Turquoise in Rwanda	1994	France	Human
7	Airpolicing in Aden	1928-1934	Britain	State	58	Operation Artemis in Congo	2003	France	Human
8	Airpolicing in Palestine	1921	Britain	Human	59	Central African Republic	2007	France	State
9	Operations in Palestine	1945-47	Britain	State	60	Ivory Coast	2002	France	State
10	Operations in Malaya	1948-60	Britain	State	61	Mozambique	1992	United Nations	State
11	Operations in Kenya	1953-55	Britain	State	62	UNITAF	1992-93	United Nations	Human
12	Operations in Cyprus	1955-59	Britain	State	63	Vietnam Evacuation	1975	United States	Human
13	Operations in Aden	1947-49	Britain	State	64	UNAMSIL in Sierra Leone	1999-2006	United Nations	Human
14	Operations in Oman	1952-58	Britain	State	65	ONUB in Burundi	2004-07	United Nations	Human
15	Operations in Borneo	1962-66	Britain	State	66	Monuc in Congo	2009-2010	United Nations	Human
16	Operations in Aden	1963-65	Britain	State	67	Berlin Airlift	1948	United States	Human
17	Operations in Oman	1970-75	Britain	State	68	Lebanon Crisis	1958	United States	State
18	World War I	1914-48	Multiple	State	69	Crisis in the Congo	1964	United States	Human
19	World War II	1939-1945	Multiple	State	70	Dominican Crisis	1965-66	United States	Human
20	The Vietnam Conflict	1955-75	Multiple	State	71	Airlift to Israel	1973	United States	State
21	The Korean Conflict	1950-53	Multiple	State	72	Border War	1966-1989	South Africa	State
22	Operation DESERT STORM	1991	Multiple	State	73	Mayaguez Incident	1975	United States	Human
23	Operation IRAQI FREEDOM	2003-2011	Multiple	State	74	Crisis in Grenada	1983	United States	Human
24	Operation ENDURING FREEDOM	2001- ongoing	Multiple	State	75	Raid on Libya	1986	United States	State
25	The Iran-Iraq War	1980-88	Multiple	State	76	Operation EARNST WILL	1987-88	United States	State
26	The Falklands War	1982	Multiple	State	77	Operation JUST CAUSE	1989-90	United States	State
27	Arab-Israeli War	1967	Multiple	State	78	Operation PROVIDE COMFORT	1991	United States	Human
28	Yom Kippur War	1973	Multiple	State	79	Operation PROVIDE COMFORT II	1991-96	United States	Human
29	Spanish Civil War	1936-39	Multiple	State	80	Operation SOUTHERN WATCH	1992-2003	United States	Human
30	Second Sino-Japanese War	1937-45	Multiple	State	81	Operation PROVIDE PROMISE	1992-96	United States	Human
31	Soviet invasion of Afghanistan	1980-1989	Soviet Union	State	82	Operation DENY FLIGHT	1993-95	United States	Human
32	First Chechan War	1994-96	Russia	State	83	Crisis in Haiti	1994	United States	State
33	Second Chechan War	1999	Russia	State	84	Operation DELIBERATE FORCE	1995	United States	Human
34	South Ossetia War	2008	Russia	State	85	Operation DELIBERATE GUARD	1995-98	United States	Human
35	Ethiopia/Eritrea Conflict	1998-2000	Multiple	State	86	Operation UNIFIED PROTECTOR	2011	United States	Human
36	Arab-Israeli War	1948	Multiple	State	87	Operation NORTHERN WATCH	1997-03	United States	Human
37	Indo-Chinese Conflict	1962-63	Multiple	State	88	Operation DESERT FOX	1998	United States	State
38	Kargil War (India-Pakistan)	1999	Multiple	State	89	Operation JOINT GUARD/FORGE	1996-1998	United States	Human
39	Arab-Israeli War of Attrition	1967-70	Multiple	State	90	Operation ALLIED FORCE	1999	United States	Human
40	Indo-Pakistan War	1965	Multiple	State	91	Mexican Punitive Expedition	1916-17	United States	State
41	Indo-Pakistan War	1971	Multiple	State	92	Operations in Haiti	1920-34	United States	State
42	Cenepa War (Ecuador-Peru)	1995	Multiple	State	93	Operations in Dominican Rep.	1916-24	United States	State
43	Israel-Hezbollah War	2006	Israel	State	94	Operations in Honduras	1924-25	United States	State
44	Gaza War	2008	Israel	State	95	Operations in China	1937	United States	State
45	Lebanon War	1982	Israel	State	96	Operations in Nicaragua	1912-33	United States	State
46	First Indochina War	1946-54	France	State	97	Sino-Vietnamese War	1979	Multiple	State
47	Gabon Insurgency	1962	France	State	98	Chad-Libyan conflict	1987	Multiple	State
48	Chad Insurgency	1968-75	France	State	99	Operation IRAQI FREEDOM	2003-2011	Multiple	State
49	Mauritania Operations	1975-81	France	State	100	Operation SOUTHERN FOCUS	2003	Multiple	State
50	Zaire Operations	1978	France	Human	101	Operation ENDURING FREEDOM	2001-2014	Multiple	State
51	Mauritania Operations	1978-79	France	Human					

Table 3-1: Airpower Universe of Analysis

Source: Developed by author.

Structured Focus Comparison

Analysis in this dissertation will conform to the structured focus comparison methodology advanced by Alexander George and Andrew Bennett in the book *Case Studies and Theory Development in the Social Sciences*. The advantages of structured focus comparison include a standard method for addressing causal variables,

procedures to evaluate and modify hypothesis and achieving a high level of validity.¹⁴ Within-case analysis will utilize process tracing to identify causal inferences for the relationship between the independent and dependent variables. The case studies and findings are contained in Chapters Five through Seven. Chapter Eight will consolidate and summarize the findings and provide recommendations for additional study.

A key component of the structured focus comparison method is development of research questions to guide research.¹⁵ The following seven questions serve as the baseline for plausibility probes and case study process tracing.

Independent Variable: The following question is asked to trace the relationship between the political objective and airpower strategy:

- 1) Is there a causal linkage between the political objectives and the airpower strategy developed?

Intervening Variable (IntV): Plausibility probe analysis identified cases in which airpower was either used exclusively, as part of a joint operation (with military forces from the same state), as part of a coalition (with military forces from other states), or under the auspices of supra-governmental organizations (such as the United Nations or the North Atlantic Treaty Organization (NATO)). Human security operations are not typically conducted by airpower assets indigenous to a single state. Coalition political objectives, ground or maritime forces and airpower from coalition nations can shape the development of an airpower strategy. The three case studies are representative of these different type of airpower operations and analyzed due to a need to determine the impact of these external variables. One is a joint operation, one involves coalition

¹⁴ George and Bennett state structured focus comparison allows “[the] potential for achieving high conceptual validity; strong procedures for fostering new hypotheses; placing causal mechanisms in the context of individual cases; and a capacity for addressing causal complexity.” Alexander George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences*, Bcsia Studies in International Security (Cambridge, MA: MIT Press, 2005).114

¹⁵ George and Bennett, *Case Studies and Theory Development in the Social Sciences*, pp. 67-72.

operations with other states' forces and non-governmental organizations, while a third involves a supra-national organization (NATO).

Because of the external variables, airpower strategy for human security should be viewed as a necessary but not sufficient condition for successful human security operations. This statement, as with any phenomena possessing unique characteristics that cannot be exactly replicated, is not absolute. To account for the effect these external variables exert, the following two questions will be asked:

- 2) Was there an intervening variable between the political objective and the airpower strategy? If so, to what extent did the IntV influence, augment, or complement airpower employment?
- 3) Were there exogenous variables that could explain the level of air superiority and reassuring or deterrent effects produced by airpower?

Dependent Variable: The airpower strategy developed for the human security operation is the dependent variable and is analyzed based on air superiority, referent assurance, and threat deterrence. As such, the following three questions are asked:

- 4) Does the airpower strategy contain operational concepts to gain and maintain air superiority for the duration of the case?
- 5) To what extent did the airpower strategy provide security assurances to the referent population?
- 6) To what extent did the airpower strategy deter threat actions on the security referent?
- 7) Did airpower operate in accordance with the airpower strategy? If not, how did the deviation affect fulfillment of the airpower strategy?

Plausibility Probes

One-hundred and one cases involving airpower strategy were subjected to a two tier analysis. The first tier analyzes and codes the stated political objectives as state security, human security, nationbuilding, or humanitarian. Political objective coding is based upon Presidential, Secretary of State, and Secretary of Defense public

statements, Presidential Executive Orders, and directives conveyed to the Joint Force Commander.¹⁶ In many cases, the statements and directives may be contradictory or evolve as the beginning of military operations approaches. To mitigate the possibility of analyzing obsolete information, the statement of political objectives issued closest to the start of military operations are the primary references for coding. Twenty-eight of the one-hundred and one cases were coded with human security political objectives and subjected to a plausibility probe as a second tier of analysis.

Plausibility probes are conducted for two primary reasons: 1) initial assessment and potential refinement of a theory prior to conducting detailed analysis; and, 2) assessing the suitability of particular cases for detailed research.¹⁷ George and Bennett emphasize plausibility probes ideally serve as a precursor for detailed and richer analysis but care should be taken to adhere to the same standards of evidence.¹⁸ To avoid this pitfall, the plausibility probe analysis utilizes the same structured focused comparison methods as the case studies to review the airpower strategy for components of air superiority, referent assurance, and threat deterrence. The probes were not designed to eliminate any cases for study but to provide a broader understanding of cases in which the theory can be tested.

The lack of large-n analysis is a recurring concern of social science methodologies. The concerns could be mitigated either by making a hypothesis more general to include additional observations or accepting small-n universe of analysis. These choices are made at the expense of losing potential explanatory power and

¹⁶ This is a US-centric chain of command. For cases not involving the U.S. or utilizing a supra-national chain of command (NATO, U.N., etc), the civilian equivalents to the U.S. chain of command are utilized.

¹⁷ Jack Levy, "Case Studies: Types, Designs, and Logics of Inference," *Conflict Management and Peace Studies* 25, no. 1 (2008), 1-18.

¹⁸ Plausibility probes are "not intended to lower the standards of evidence and inference." George and Bennett, *Case Studies and Theory Development in the Social Sciences*, 75.

limiting applicability of results to future policy.¹⁹ Plausibility probes combined with case studies provide a better option by increasing the universe of analysis while providing a foundation for detailed analysis and findings. The results of the plausibility probes are contained in Appendix A.

Case study selection and analysis

George and Bennett define a case study as a detailed analysis of a singular episode to develop an explanation that can help to explain other cases or events.²⁰ Harry Eckstein, on the other hand, notes case studies can range from “microcosmic” to “macrocosmic” but analysis must contain explanatory power.²¹ Based on George and Bennett’s definition the military confrontation between Iraq and the U.S. from the 1990 invasion of Kuwait until the 2011 withdrawal of U.S. forces would not constitute a case due to lack of detail and a multitude of discreet military clashes. Specific events such as coercive military action in 1991, United Nations sanction enforcement, or deterrent uses of military force in 1998 or 2002 would be considered cases. Selection, therefore, must ensure a proper scaling of the historical episode under consideration.

At first glance the cases chosen for analysis appear as an eclectic representation of airpower campaigns in terms of duration, number of personnel involved, and type of aircraft utilized. While the cases do experience variance, each case is treated as a homogenous unit for analysis.²² This approach allows a focus on

¹⁹ For a detailed discussion of large-n research in social science, see Robert O. Keohane Gary King, and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton, NJ: Princeton University Press, 1994). For discussion on the benefits of small-n research see *Rethinking Social Inquiry: Diverse Tools, Shared Standards* ed. Henry Brady and David Collier, (Lanham, MD: Rowman and Littlefield Publishers, Inc., 2010).

²⁰ Cases are “the detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events.” George and Bennett, *Case Studies and Theory Development in the Social Sciences*, 46.

²¹ Harry Eckstein, *Case Study Method* (London, United Kingdom: SAGE Publications, 2000).

²² ‘Homogenous unit’ and ‘case study’ are defined as an airpower campaign from statement of political objective until the mission completion. This definition is in-line with George and Bennett’s definition “an instance of a class

airpower strategy while minimizing the endogenous variables such as type of aircraft, technological capabilities, or number of personnel involved. The plausibility probes revealed that airpower strategy is influenced by several of the aforementioned endogenous variables, especially in cases involving the United States and/or United Kingdom after World War II. This phenomena is explained by possessing capability in excess of what was required for mission execution. In the majority of cases, however, the airpower strategy developed was constrained by the type and/or quantity of airpower available. For example, during the 1916 Punitive Expedition to Mexico only eight aircraft were available and maintenance parts were difficult to acquire. As a result, the airpower strategy was modest.

Case study selection was also influenced by the level of interaction with the security referent. Operation PROVIDE COMFORT relied on direct contact with the security referent, the Kurdish population of northern Iraq. Operation ALLIED FORCE relied on indirect contact with the security referent, focusing much of the airpower strategy on the threat. Operations NORTHERN WATCH was intended to achieve human security political objectives without direct interaction with the security referent. The varied level of interaction with the security referent in each case provides broader perspective rather than focus on a fixed level of interaction.

A common theme between each case study is a minimal presence of traditional land-based or maritime-based military forces. Each case study relied almost exclusively on airpower. This theme allows greater isolation of airpower effects. The final factor in case study selection is the predominant mission executed in each case. Operation PROVIDE COMFORT emphasized air superiority and mobility mission sets while Operation NORTHERN WATCH relied on no-fly zone and suppression/

of events.” See George and Bennett, *Case Studies and Theory Development in the Social Sciences*. On homogenous unit, see King, Keohane, and Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research*, 91-94.

destruction of enemy air defense missions with occasional bombing missions. Of the three case studies, traditional bombing missions were most prevalent in Operation ALLIED FORCE, however intelligence, surveillance, and reconnaissance and air superiority missions, among others, were also flown. The differing strategies of each campaign, coupled with the limited contribution of land and maritime military forces, provides a divergent range of cases to analyze airpower strategy.

A main concern of case study methodology is the potential for case selection bias. Collier and Mahoney define selection bias occurring when systematic error is introduced into either study design or case selection.²³ Case selection on the dependent variable, extreme values of the dependent variable, and foregone case knowledge can introduce errors that could invalidate the study. Another source of selection bias is the researcher's active participation in two of the three cases (Operation NORTHERN WATCH and ALLIED FORCE) which could lead to case analysis biased towards the researcher's memories or actions. This is mitigated by utilizing primary sources, historical archives, and focusing on the development of airpower strategy as opposed to the tactical aspects of the case.²⁴

United States Air Force participation in all three cases within a span of ten years could also induce selection bias. The peculiar "American way of war" that traditionally emphasizes attrition warfare and, in the case of airpower, large scale strategic bombing could lead to similar airpower strategies.²⁵ This bias is overcome in

²³ Selection bias occurs "when some form of selection process in either design of the study or the real-world phenomena under investigation results in inferences that suffer from systematic error." David Collier and James Mahoney, "Insights and Pitfalls: Selection Bias in Qualitative Research," *World Politics* 49, no. 1 (1996), 59. This discussion of selection bias also relies on George and Bennett, *Case Studies and Theory Development in the Social Sciences* and King, Keohane and Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research*.

²⁴ The author flew interdiction, air superiority, Close Air Support, and armed reconnaissance missions during both ONW and OAF. Selection bias is minimized because at no time was I involved in the strategy development process for either case.

²⁵ Annihilation warfare and destruction of the enemy's armed forces are central themes in Russell F. Weigley, *The American Way of War* (Bloomington, IN: Indiana University Press, 1973). Thirty years after Weigley, Max Boot

several ways. First, analysis utilizing a human security paradigm effectively counters attrition warfare and strategic bombing missions as these types of operations tend to run counter to human security political objectives. Of the twenty-eight human security cases, none involved traditional attrition warfare or large scale strategic bombing. Second, the plausibility probes include cases from Britain, France, Italy, and the United Nations. Third, all three cases received operational mandate from supra-national organizations and only Operation Allied Force conducted a sustained bombing campaign.

Summary

The multi-stage research methodology is designed to analyze the airpower strategy of human security air campaigns from the twentieth and twenty-first century. By utilizing structured focus comparison to conduct plausibility probes of the twenty-eight human security campaigns and detailed analysis of three case studies, this analysis combines the benefits of both large-n and small-n studies. The multi-stage research methodology also remains mindful of potential research pitfalls such as confirmation bias and selection bias that may invalidate research results. The structured focus comparison method also provides a rigorous framework for analyzing airpower operations. As Chapter Two noted, previous theories of airpower have limited explanatory power for operations other than major combat operations. This methodology provides more accurate explanatory power. The next chapter develops an airpower theory to complement the structured focused comparison methodology.

would provide a view on the American way of war based on military action in the post-Cold War era. Boot writes “the U.S. military has adopted a new style of warfare the eschews the bloody sloggng of old. ...Its hallmarks are speed, maneuver, flexibility, and surprise” in Max Boot, “The New American Way of War,” *Foreign Affairs* 82, no. 4 (2003), 42. Two years later, Colin Gray writes “the American way, in effect, is to treat warfare as a near autonomous activity, all but separate from its political purpose and consequences” in Colin Gray, “The American Way of War,” in *Rethinking the Principles of War*, ed. Anthony D. McIvor (Annapolis, MD: Naval Institute Press, 2005), 34. Ban Maitre states the American way of war is based on historical and cultural determinism in Ban Maitre, “Echoes and Origins of an American Way of War,” *Comparative Strategy* 27, no. 3 (2008), 248-266.

Chapter Four

Airpower Strategy for Human Security Operations

The only real security upon which our military principles can rely is that you must be master of your own air.

—Winston Churchill

The human security definition provided in Chapter Two is based on a military threat to a sub-state referent population and serves as the baseline for developing a theory of airpower strategy. It is important to note this study draws an explicit division between doctrine and theory. Doctrinal concepts are foundational principles that guide development and implementation of strategy. Doctrine coupled with a commander's input becomes guidance to the military forces. Military strategists generally consider doctrine authoritative whereas theory is neither considered authoritative nor provide guidance. Theory provides a description of an event and probable outcome.¹

Chapter Two identified air superiority and the offensive application of airpower as two common threads in traditional airpower theory. The occurrence is not surprising as the first airpower theories were developed at a time when military strategy was dominated by thought termed "the cult of the offensive."² For airpower, the dominant early theorists saw an opportunity to avoid the carnage of trench warfare while simultaneously delivering decisive military power against an enemy.

¹ Theory is a "general statement that describe and explain the causes or effects of classes of phenomena." Stephen Van Evera, *Guide to Methods for Students of Political Science* (Ithaca, NY: Cornell University Press, 1997), 6-7.

² "When strategy went awry [in World War I], it was because a penchant for offense helped the military organization to preserve its autonomy, prestige, and traditions, to simplify its institutional routines, or to resolve a dispute within the organization... On balance, offense tends to suit the needs of military organizations better than defense does, and militaries normally exhibit at least a moderate preference for offensive strategies and doctrines for that reason." in Jack Snyder, "Civil-Military Relations and the Cult of the Offensive," *International Security* 9, no. 1 (1984), 109. See also Jack Snyder, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914*, (Ithaca, NY: Cornell University Press, 1989). "Europeans embraced a set of political and military myths which obscured both the defender's advantages and the obstacles an aggressor would confront. This mindset helped to mold the offensive military doctrines which every European power adopted during the period 1892-1913." in Stephen Van Evera, "The Cult of the Offensive and the Origins of the First World War," *International Security* 9, no. 1 (1984), 59.

The offensive nature of airpower seemed validated by World War II and reinforced during the Cold War with the advent of nuclear weapons and intercontinental bombers.

A review of twentieth and twenty-first century air campaigns, however, reveals limited explanatory power of previous airpower theories. Giulio Douhet's theory provides much greater explanatory power for United States air strategy against Japan in World War II than for Royal Air Force air policing of Ireland in 1922. Similarly, the theories of Alexander de Seversky and John Slessor fall short of explaining the U.S. air strategy during the 1983 crisis in Grenada. John Warden's "enemy-as-a-system" theory does not explain the airpower strategy utilized in Operation SOUTHERN WATCH over Iraq or no-fly-zone employment over Bosnia. This critique is not meant to denigrate the contribution of previous airpower theorists but to highlight a gap in current airpower theory.

While the dichotomy between these specific theories and the operations mentioned should be intuitive, the comparison shows the realm of airpower theory is incomplete. Previous theories provide explanation of major contingency operations and the offensive application of airpower but lose significant explanatory power in the context of the full range of airpower operations. When viewed in context of human security political objectives, the two components lacking are an ability for airpower to deter or coerce an adversary while simultaneously providing security assurances to a referent population. This section develops an airpower theory to fill this gap and addresses these two components.

Airpower Theory: Inductive or Deductive?

Deductive analysis first develops a theory or hypothesis to explain predicted outcomes and then accomplishes tests with relevant data.³ The theory and hypothesis are then either validated or modified based on the explanatory power of the tested theory. Deduction was appropriate for the early airpower theorists due to the limited availability of airpower operational data.⁴ However, the dominant theorists either overlooked or ignored important data sets that could have significantly altered their proscribed theories. Douhet overlooked the capabilities of anti-aircraft defenses, Trenchard largely ignored the inter-war Royal Air Force air policing operations, and Mitchell purposely excluded the lessons of joint military operations in later writings.

John Warden attempts to compare induction and deduction to strategic and tactical thinking, respectively. His analysis is useful to illustrate the dichotomy facing airpower theorists between induction and deduction. Warden argues that deduction begins with broad generalizations to discern detail while induction relies on gathering detailed observations to determine generalizations. Warden goes a step further by equating deduction to strategic-level thinking and induction to tactical-level thinking.⁵ Strategic thinking, and therefore strategy, require deduction according to Warden. This recommendation may work well for identifying broad target categories for offensive airpower plans, the method is not appropriate for designing airpower *theory*

³ Brady and Collier define deductive analysis as “the use of theories and hypotheses to make empirical predictions, which are then routinely tested against data.” Brady and Collier, *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, 320.

⁴ An example of a deductive statement from Douhet: “To get an idea of the nature of future wars, one need only imagine what power of destruction that nation would possess whose bacteriologists should discover the means of spreading epidemics...Air power makes it possible not only to make high-explosive bombing raids over any sector of the enemy’s territory, but also ravage his whole country by chemical and bacteriological warfare.” Douhet, *The Command of the Air*, 6-7.

⁵ Deduction, “starts with general principles from which detail can be learned” and is strategic while induction, “the gathering of many small facts to see if anything can be made of them,” is tactical. John A. Warden, “The Enemy as a System,” *Airpower Journal* IX, no. 1 (1995). http://www.airpower.maxwell.af.mil/airchronicles/apj/apj95/spr95_files/warden.htm (accessed 14 December 2013).

for two reasons. First, deduction falls into the same pitfalls of early airpower theorists, namely developing a theory with limited empirical testing. In Warden's case, deduction is based largely on comparing airpower to a human body and tested primarily with data from the 1990-91 Gulf War against Iraq.⁶ Second, the relation between deductive and inductive reasoning and strategic and tactical thinking is tenuous at best.⁷

A deductive approach to airpower theory raises two primary concerns. The first concern is the largely deterministic nature of the theories. Giulio Douhet, Hugh Trenchard, and Billy Mitchell all believed the overwhelming offensive application of airpower *would* induce adversary collapse. Warden generally equated an adversary to a human body with enemy leadership akin to a brain and it stood to reason targeting the brain would cause adversary failure. These deterministic relationships discounted important data to arrive at largely foregone conclusions. The second concern is development of theory without diligent testing. This phenomena is evident in post-World War II airpower operations in counter-revolutionary scenarios. These important data points were not utilized to test existing theories or develop new theories. In

⁶ This is another common thread of thought Warden inherited from J.F.C. Fuller. See Kiras, *Special Operations and Strategy*, pp. 16-34.

⁷ For example, Air War Plans Document-1, which served as the foundation for World War II strategic bombing against Germany, was developed via largely inductive means. The chief architect of AWPD-1, Major Haywood Hansell stated the plan was based on the "growing experience with the fighting capability and strength of the German Air Force." Haywood Hansell, *The Air Plan That Defeated Hitler* (Atlanta, GA: Longino and Porter, 1972), 163. In addition, "United States banks had largely underwritten the construction of electric facilities in pre-Nazi Germany... They [Air War Plans Division] used the bank sources along with scientific journals and trade magazines to put together a study of the German electric-power system, including aiming points and bomb sizes. Progress on petroleum and synthetic oil plants was made partly through the same sources and partly through individuals who had worked in Germany, Romania, and the Middle East. After much effort, this shoestring intelligence operation had produced target folders on all the major target systems." in Charles Griffith, *The Quest: Haywood Hansell and American Strategic Bombing in World War II* (Maxwell AFB, AL: Air University Press, 1999), 61-62. See also "Plans and Early Operations, January 1939 to August 1942" in *The Army Air Forces in World War II* ed. W.F. Craven and J.L. Crate (Washington D.C.: Office of Air Force History, 1983). Interestingly, this method contrasts sharply with the mainly deductive line of thinking that permeated the Air Corps Tactical School prior to 1940. At ACTS, because airpower was viewed by senior Army officers as "a new, untried, unproven theory," deductive reasoning was required to determine the benefits of airpower and to counter inductive logic that looked to the past instead of the future of warfare. See Lieutenant Colonel Donald Wilson, "Long Range Aircraft Development," Air Force Historical Studies Office, file no. 248.213 1938.

essence, deterministic theories and lack of testing has contributed less to airpower theory generation than to airpower dogma.

An inductive approach, in contrast to deduction, is data driven. An inductive approach reaches conclusions based on data analysis.⁸ Theorists such as J.C. Slessor, Amadeo Mecuzzi, William Sherman, and Claire Chennault reached conclusions largely through inductive means utilizing data from World War I and various pre-World War II airpower operations. This study follows the example set by these theorists. An airpower theory is developed inductively by first conducting plausibility probes to observe patterns contained within the universe of human security airpower operations and then develop a theory. The next section defines the three components of the airpower theory: air superiority, threat deterrence, and referent assurance.

Air Superiority

The basis of air superiority dates to the bi-planes of World War I and has remained remarkably consistent to the present day.⁹ The airpower strategy of the Saint Mihiel offensive during World War I called for 1,500 Allied aircraft “hurled at the enemy’s aviation, no matter where he might be found, until a complete ascendancy had been obtained over him in the air.”¹⁰ The Saint Mihiel offensive was the first example of localized air superiority and the ability to control the airspace over a specific adversary location. Despite World War I experience, early airpower theorists utilized a deductive approach to develop a broader conception of air superiority. Douhet did not explicitly define air superiority, preferring the term air command which

⁸ Induction is “A method that employs data about specific cases to reach more general conclusions.” Brady and Collier, *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, 323.

⁹ One of the best air superiority historical accounts from World War I until the end of the Vietnam conflict is *Case Studies in the Achievement of Air Superiority* ed. Benjamin F. Cooling, (Washington DC: Air Force History and Museums Program, 1994).

¹⁰ William Mitchell, “The Air Service at St. Mihiel,” *World's Work* 38 (1919), 365. It is important to note the scope of battle Mitchell used as his frame of reference. The St. Mihiel salient was approximately 35 miles wide and 15 miles deep.

was an ability to provide complete protection from aerial attack while possessing the offensive capability to overwhelm an adversary's defense.¹¹ This definition implies a different type of air superiority extending geographically beyond the local battlefield to the entire country.

Despite the central importance of air superiority in World War I and Douhet's proclamation, the study of air superiority languished during the 1920s and early 1930s.¹² It would take the U.S. Army's 1936 Muroc Lake maneuvers and 1940 Carolina maneuvers to illustrate the importance of air superiority. Field Manual 100-20, *Command and Employment of Air Power* (1943), recognized air superiority as the first priority of air forces and a prerequisite for success of land operations but, curiously, the document did not define the concept. Field Manual 100-20 did describe air superiority similar to Douhet- as a generalized concept achieved through destruction of the enemy's offensive air capability.¹³

Air superiority is currently defined in Department of Defense Joint Publications as "that degree of dominance in the air battle by one force that permits the conduct of its operations at a given time and place without prohibitive interference from air and missile threats."¹⁴ A more accurate definition based on plausibility probe analysis is *that degree of dominance in the air by one force that permits the conduct of its*

¹¹ Air command is "to be in a position to wield offensive power so great it defies human imagination...it means complete protection of one's own country...in short, it means to be in a position *to win*." (Emphasis in original), Douhet, *The Command of the Air*, 23.

¹² Lt. Gen. Elwood Quesada was a member of the Air Corps Tactical School and would become a numbered air force commander in World War II. He states "there was almost an ignorant disregard for the concept of air superiority" during the period of 1919-1935. Lt. Gen. Elwood Quesada, *Air Superiority in World War II and Korea*, ed. Richard H. Kohn, Project Warrior (Washington DC: Office of Air Force History, 1983), 14.

¹³ "Air superiority is best obtained by the attack o[n] hostile airdromes, the destruction of aircraft at rest, and by fighter action in the air. This is much more effective than any attempt to furnish an umbrella of fighter aviation over our own troops. At most an air umbrella is prohibitively expensive and could be provided only over a small area for a brief period of time." War Department, "Field Manual 100-20: Command and Employment of Air Power," (Washington DC: Government Printing Office, 1943), 10-11.

¹⁴ Department of Defense Joint Staff, "Department of Defense Dictionary of Military and Associated Terms," (Washington DC: US Government Printing Office, 2013), 12

operations at a given time and place without prohibitive interference. The difference between these definitions is the deletion of the words “battle” and “air and missile threats.” Battle is removed because it implies armed conflict and human security operations do not necessarily involve “battle.” The 1948-49 Berlin Airlift, as well as United Nations operations in Burundi from 2004-07 and in the Congo from 2009-10 are examples of human security operations that were not comprised of traditional battle but required localized air superiority. The second difference is deletion of “air and missile threats” to provide a greater understanding of threats to airpower during human security operations.

Surface-to-air missiles are historically the most lethal threats to aircraft during human security operations. The two aircraft shot down during Operation ALLIED FORCE and one Canadian aircraft shot down by Syrian missiles as part of the United Nations Emergency Force attest to the lethality of such missiles.¹⁵ However, limiting the threat to only air and missile systems may lead to disregarding of a large number of other important threats to airpower. Anti-aircraft artillery and small arms fire are the greatest threats from a quantitative perspective based on their low cost, mobility, and accessibility. It is important to broadly define the threat to operations to determine measures the resultant strategy developed to mitigate the threat. The larger threat definition also increases the explanatory power of the theory.

The definition of air superiority also favors the localized concept of air superiority instead of generalized air superiority advocated by the early airpower theorists and stipulated in Field Manual 100-20. Of the twenty-eight human security

¹⁵ The two aircraft shot down during Operation ALLIED FORCE were an F-117 and an F-16. Both aircraft were shot down with Russian built SA-3 surface to air missiles. See Benjamin Lambeth, NATO's *Air War for Kosovo* (Santa Monica, CA: RAND Corporation, 2001). The Canadian aircraft was a C-115 shot down by multiple Syrian surface to air missiles. See Flight Safety Network, "Safety Report of De Havilland CC-115 Buffalo," Flight Safety Foundation, <http://aviation-safety.net/database/record.php?id=19740809-0>. (accessed 21 August 2013).

cases, nine defined the operating area as an entire country that necessitated general air superiority (Transjordan [1922], Zaire [1978], Mauritania [1978], Congo [1964, 2003], Rwanda [1994], Sierra Leone [1999-2006], Burundi [2004-7], and Chad [2007-10]. Six of these cases conducted the majority of air operations in urban areas, largely dismissing rural areas. Only Rwanda and both Congo cases required air superiority throughout the entire country.

Air Superiority Propositions

Human security airpower theory postulates local air superiority against the threat to the referent population as a necessary, but not sufficient, condition. Air superiority is necessary in either time or geography. Twenty-nine percent of plausibility probe cases (nine of twenty-eight) defined the operating environment as an entire country which implies general air superiority, but airpower operations were not required over the entire country in the majority of cases. Air superiority was achieved over the area of human security operations and only for the time required to complete operations. In cases in which general air superiority is required, the airpower strategist should prioritize the areas and duration of air superiority based on the operating environment and available resources. Two propositions of air superiority result from this analysis.

Proposition #1: The threat to air superiority will not be constrained to air or missile threats but will also include anti-aircraft artillery and small arms fire.

Proposition #2: Localized air superiority is necessary for airpower operations in support of human security. The difference between general air superiority and local air superiority is geography and time requirements.

Influence via Airpower

Deterrence, broadly defined, is influencing an adversary that the costs of implementing a course of action outweigh its perceived benefits. The concept implies the adversary has yet to take action. Compellence, in contrast, is influencing an adversary to cease an action because the costs of continuing the action outweigh the perceived benefits. From the adversary's perspective, deterrence maintains a status quo while compellence is an attempt to force policy change.¹⁶ Of the twenty-eight plausibility probes, the influence component comprised twenty-three deterrence cases and five compellence cases. In general, the pre-World War I British air policing operations utilized a deterrent strategy while post-World War II colonial operations and virtually all United Nations operations were compellent. The United States operations are split with ten examples of a deterrent strategy and six compellent strategies.

Study of deterrence and compellence date to Thucydides and rose to prominence during the Cold War era.¹⁷ Two main assumptions underlie both concepts. First, the adversary and the deterring state are rational actors desiring to maximize the utility value of an action. Actors conduct a cost/benefit analysis and

¹⁶ This analysis utilizes a methodology introduced by Daniel Bynam and Matthew Waxman to differentiate between coercion, deterrence, and compellence. "In practice deterrence and compellence tend to blur, and both ultimately boil down to inducing the adversary to choose a different policy than it otherwise would. Classifying cases as compellence or deterrence is always speculative to some degree, given the inherent opacity of enemy intentions." See Daniel Bynam and Matthew Waxman, *Confronting Iraq: U.S. Policy and the Use of Force Since the Gulf War*, (Santa Monica, CA: RAND, 2000), especially pp. 6-12.

¹⁷ The literature on deterrence and coercion is vast and a complete review is beyond the scope of this study. For a thorough review see Paul Huth, "Deterrence and International Conflict: Empirical Findings and Theoretical Debates," *Annual Review of Political Science* 2 (1999), 25-48 or Jeffrey W. Knopf, "The Fourth Wave in Deterrence Research," *Contemporary Security Policy* 31 no. 1 (2010), 1-33. Robert Jervis and Janice Gross Stein are the leading scholars for analyzing psychology in deterrence and coercion studies. Their foundational work is *Psychology and Deterrence* ed. Robert Jervis, Richard Ned Lebow and Janice Gross Stein (Baltimore, MD: The Johns Hopkins University Press, 1985). The classic study of psychology in international relations is Robert Jervis, *Perception and Misperception in International Politics*, (Princeton, NJ: Princeton University Press, 1976). For a timely discussion of deterrence in a world characterized by complexity see *Complex Deterrence Strategy in the Global Age*, ed. Patrick Morgan T.V. Paul, and James Wirtz, (Chicago, IL: University of Chicago Press, 2009).

select action based on the greatest expected benefit. Second, the threat of force is credible and clearly articulated. As Alexander George emphasized, “The general intent of coercive diplomacy is to back a demand on an adversary with a threat of punishment for noncompliance that will be credible and potent enough to persuade him that it is in his interest to comply.”¹⁸

Despite the decision to deter or compel remaining in the hands of policymakers, the roots of both can be found in the writings of the early airpower theorists described in Chapter Two.¹⁹ A speech by General Henry Arnold to the Army War College in 1939 concisely summarizes the deterrent thought of the early airpower theorists:

You may ask ‘is there no reasonable hope of avoiding air attack entirely?’ It is believed that there is one defense that stands an excellent chance of being one-hundred percent successful- that is, the possession by a nation of such power of retaliation as to deter an enemy from initiating air warfare.²⁰

Whereas military forces traditionally could deter by denying an adversary territorial gain, the rise of airpower provided the possibility to punish a country by imposing an unacceptable destructive cost on infrastructure or population centers.²¹ The difference between punishment and denial strategies is important to better understand the influence component of an airpower strategy for human security.

¹⁸ Alexander George, *Forceful Persuasion: Coercive Diplomacy as an Alternative to War* (Washington DC: US Institute of Peace Press, 1991), 4.

¹⁹ “But it was the coming of the airplane that truly set the stage for twentieth-century warfare and deterrence theory.” Alexander George and Richard Smoke, *Deterrence in American Foreign Policy* (New York, NY: Columbia University Press, 1974), 19.

“Contemporary strategic usage [of deterrence] is normally traced back to the early airpower theorists of the 1920s and 1930s who wondered whether the only way to prevent air raids...was to demonstrate a capability to return in kind.” Lawrence Freedman, *Deterrence* (Cambridge, UK: Polity Press, 2004), 9. See also George Quester, *Deterrence before Hiroshima* (New Brunswick, NJ: Transaction Books, 1986).

²⁰ Major General Henry Arnold, “Address at the Army War College,” Air Force Historical Studies Office, file no. 248.1236-1242, 18 September 1939.

²¹ For the best discussions on denial and punishment, see Glenn H. Snyder, *Deterrence by Denial and Punishment* (Princeton, NJ: Princeton University Press, 1959) and Pape, *Bombing to Win: Air Power and Coercion in War*. Snyder provides the academic foundation for the difference between denial and punishment while Pape analyzes both concepts within the context of coercion and airpower.

Punishment strategies impose unacceptable costs to reduce adversary will to resist. Glenn Snyder (1959) and Robert Pape (1996) relate adversary will to holding civilian populations at risk to strategic air attack either through nuclear weapons (Snyder) or conventional bombing (Pape). Pape further expands punishment to include military personnel in large numbers.²² The inclusion of killing military personnel blurs the line, especially for human security, between denial and punishment strategies for two main reasons. First, the killing of large numbers of personnel, civilian or military, risks the possibility of widening the conflict beyond a human security objective to a larger objective affecting national interests of survival or state sovereignty. Second, military organizations promulgate the majority of human security threats. Killing adversary military forces can be seen as punishment but removal of military forces from the equation effectively *denies* the adversary an ability to conduct operations contributing to insecurity. For these reasons, Pape's caveat about killing large numbers of military personnel as a punishment strategy will not be considered in this study. Instead, punishment strategies are narrowly defined using Snyder's methodology focused on affecting the adversary will by military action against the civilian population.

Punishment strategies will rarely be utilized for a human security operation for two reasons. First, the threat of punishment may not be deemed credible by the adversary. If providing security to a referent population is the stated objective, a punishment strategy aimed at civilians, as part of the referent or not, would seemingly undermine the stated security objectives. Second, the targeting of civilian populations is, by definition, contrary to the intent of human security. If adversary will is not directly related to the security of the civilian population a punishment strategy may be

²² Pape's rationale for including large quantities of military personnel is to exploit a civilian population's aversion to casualties. See Pape, *Bombing to Win: Air Power and Coercion in War*.

effective. For example, in the early 1990s a Serbian official emphasized “You [America] cannot stand the idea of your children dying. But we Serbs can look at death. We are not afraid. This is why we will defeat you.”²³ If true, a punishment strategy targeting a civilian populace will not prove effective for many of the same reasons Pape identified punishment would not succeed. It is incumbent in a case such as this to determine what influences an adversary’s will to resist, such as national infrastructure or personal holdings.²⁴

For both Snyder and Pape, denial strategies raise costs to a level preventing an adversary from using military forces to achieve territorial gains or a political objective. This can be accomplished in several ways. The adversary may perceive the deterrer’s military force as numerically or qualitatively superior enough to deter the adversary. Alternatively, compellent military action may degrade an adversary’s military force to the point it is incapable of conducting operations against the referent population. In this case, the adversary loses the ability to conduct insecure actions against the referent population. Denial strategies will generally be preferred for human security operations. Threats to human security are commonly from a military unit and by rendering the military unit incapable of generating insecurity, the threat to a referent population should be removed. A denial strategy is also compatible with human security due to an exclusive focus on military forces vice civilian populations. Not only does a denial strategy remove the threat to a referent population but it may also indirectly provide security assurances to the same referent.

²³ Quoted in David Reiff, *Slaughterhouse: Bosnia and the Failure of the West*, (New York, NY: Simon and Schuster, 1995), 160.

²⁴ For a very good discussion on determining how to influence an adversary see Julian Tolbert, (2006), *Crony Attack Strategic Attack’s Silver Bullet?* MAAS Thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL, especially pp. 15-26.

Propositions on Influence

This airpower theory postulates that the ability of airpower to influence an adversary from conducting actions contributing to insecurity is a sufficient condition for human security operations. All twenty-eight plausibility probes contained a component of influence. The main difference between cases is a strategy based on denial, punishment, or some other type of deterrence/compellence. Conversely, an airpower strategy should be mindful of the political objective and avoid the possibility of conflict escalation.²⁵ The mechanism for avoiding conflict escalation can take many forms and is analyzed in each case study. As a result, two propositions on influence strategies focus analysis for the three case studies:

Proposition #3: An airpower strategy seeking to influence a threat will utilize a denial strategy of deterrence/coompellence.

Proposition #4: An airpower strategy will put in place mechanisms to mitigate the possibility of conflict escalation.

Assurances

Assurances are generally considered a component of an influence strategy but have received significantly less study than deterrence or compellence.²⁶ Jeffrey Knopf categorizes assurance directed towards allies and as a component of a broader deterrent strategy towards adversaries for either conventional or nuclear

²⁵ This is commonly referred to as “escalation dominance.” See Daniel Byman, Matthew Waxman and Eric Larson, *Air Power as a Coercive Instrument*, Project Air Force (Santa Monica, CA: RAND, 1999), especially pages 30-36 and 130-132.

²⁶ “In contrast to the amount of research on most of the other influence strategies, no previously published work has attempted to develop a general theory of security assurances or to conduct systematic empirical research on the effectiveness of assurances” in Jeffrey Knopf, “Varieties of Assurance,” *Journal of Strategic Studies* 35, no. 3 (2012), 378. “There is a need for more systematic analysis of the conditions and modalities for choosing between deterrence and reassurance, or combining them in an optimal manner” in Alexander George, “The Need for Influence Theory and Actor-Specific Behavioral Models of Adversaries,” *Comparative Strategy* 22, no. 5 (2003), 466.

proliferation.²⁷ Assurances to mitigate nuclear proliferation are the most widely researched and comprise positive and negative reassurances but are impractical for human security due to a grounding in nuclear diplomacy. Although this study identifies a different “target” for assurance than for the deterrent/compellent strategy, it is important to leverage existing concepts of assurance before developing propositions for an airpower theory.

Thomas Schelling’s *Arms and Influence* (1966) was the first widespread academic discussion of assurances. Schelling stated a complete coercive strategy requires a threat and assurance. The assurance could be explicit, such as a trade agreement or promise to not attack. More commonly an assurance is an implicit component of a greater coercive strategy.²⁸ Alexander George refines Schelling’s discussion by identifying referent motives, needs, and goals as necessary components of an assurant strategy.²⁹ In addition, George is explicit about a consistent reassessment of the assurant measures as the environment and threats evolve. Based on Schelling and George’s work, three fundamental qualities of assurances are apparent: the capacity to demonstrate resolve, credible commitment based on referent security requirements, and consistent review of the strategy as events affect the assuring state, threat state, or security referent.

The capacity to demonstrate resolve is determined primarily by force structure and rules of engagement. An airpower strategy will identify a force structure designed to utilize specific aircraft capabilities to mitigate the adversary threat. For example, during Operation SOUTHERN WATCH over Iraq, the primary threat to the referent

²⁷ Assurances can be “a component of deterrence, as a measure directed against allies, as a strategy directed at potential adversaries, and as a tool for preventing nuclear proliferation.” Knopf, “Varieties of Assurance,” 376.

²⁸ “The assurances that accompany a compellent action are harder to demonstrate in advance” and “we often forget that both sides of the choice, the threatened penalty and the proffered avoidance or reward, need to be credible.” Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 74-75.

²⁹ George, “The Need for Influence Theory and Actor-Specific Behavioral Models of Adversaries.”

population was ground attack aircraft and helicopters. Air-to-air combat and air surveillance aircraft served as the dominant aircraft types to fulfill the airpower strategy. United Nations operations over Bosnia identified the primary threat to the referent as low-flying helicopters in mountainous terrain. The air strategy relied heavily on surveillance and reconnaissance aircraft and medium-altitude aircraft with a capability to detect the threat visually or with radar. Importantly, actions by U.N. air forces taken to demonstrate resolve also contained a significant strategic communication element. An airpower strategy should recognize the interplay between airpower action and strategic communications in order to continually provide the referent with a perception of resolve.

Credible commitment may serve as a challenge for air forces stationed away from the operating areas. Sarah-Myriam Martin-Brûlé notes that the presence of a great power tends to confer an automatic sense of credibility. This credibility, however, only lasts until a threatening situation arises or the actions of the great power contribute to decreased credibility.³⁰ Coupled with Schelling's observation on the difficulty of demonstrating assurances early, an airpower theory will recognize these limitations and strive to build credibility early in the operation. The airpower strategy should also continually ensure actions reinforce a credible commitment in the eyes of the security referent. Credibility can be achieved by a variety of airpower actions such as targeted key leader engagement, strategic communications, surveillance and reconnaissance of the adversary to potential attack operations and medical evacuation.

³⁰ Sarah-Myriam Martin-Brûlé, "Tackling the Anarchy Within: The Role of Deterrence and Great Power Intervention in Peace Operations," in *Intra-State Conflict, Governments and Security*, ed. Stephen Saideman and Marie-Joelle Zahar (London, United Kingdom: Routledge, 2008), 182-203.

The plausibility probes uncovered that the most important action to credible commitment is to mitigate the power disparity between referent and threat. Of the twenty-eight cases in the universe of human security airpower operations, state military organizations were the source of insecurity in twenty-six.³¹ In Libya and Iraq the state utilized modern helicopters and aircraft against a minority population. In both instances, airpower from an external coalition mitigated the previously asymmetric airpower capabilities of the threat state, by utilizing no-fly zones and conducting strike operations. These actions served to increase the credibility of airpower in the eyes of the referent population.³²

Propositions on Assurance

Assurances convince a referent population that its security will not be harmed by a specific threat. Conducting actions to demonstrate resolve and provide a credible commitment are necessary, but not sufficient, components of an assurant airpower strategy for human security operations. The plausibility probes identified a variety of actions that serve as mechanisms for conducting assurant actions ranging from kinetic actions to overt “presence” missions. The actions can be categorized into two propositions on assurance:

Proposition #5: An airpower strategy seeking to assure will demonstrate credible commitment by conducting actions tailored to the security requirements of the referent population.

Proposition #6: An airpower strategy will identify, utilize, and coordinate airpower resources to demonstrate resolve to the referent population.

³¹ Ireland in 1922 and Berlin in 1948 are the two examples of Human Security operations without a state military threat.

³² See Adam Hebert, “Libya: Victory Through Airpower,” *Air Force Magazine*, 94 no. 12 (2011), 4; Erica Borghard and Costantino Pischedda, “Allies and Airpower in Libya,” *Parameters* (Spring 2012), 63-74.

Summary

The airpower theory for human security operations contains three necessary elements: air superiority, threat deterrence, and referent assurance. In turn, these three elements generate six propositions. These propositions are general in nature specifically to force theoretical description as opposed to doctrinal prescription.

Proposition #1: The threat to air superiority will not be constrained to air or missile threats but will also include anti-aircraft artillery and small arms fire.

Proposition #2: Localized air superiority is necessary for airpower operations in support of human security. The difference between general air superiority and local air superiority is geography and time requirements.

Proposition #3: An airpower strategy seeking to influence a threat will utilize a denial strategy of deterrence/compellence.

Proposition #4: An airpower strategy will put in place mechanisms to mitigate the possibility of conflict escalation.

Proposition #5: An airpower strategy seeking to assure will demonstrate credible commitment by conducting actions tailored to the security requirements of the referent population.

Proposition #6: An airpower strategy will identify, utilize, and coordinate airpower resources to demonstrate resolve to the referent population.

One additional proposition identifies the need for a consistent revaluation of strategy based on changes in referent population requirements, threat capability or the operating environment. As such, the final proposition of an airpower theory is:

Proposition #7: An airpower strategy will be refined based on consistent review of the threat, referent population, and operating environment.

These propositions serve as the foundation for an airpower theory to support human security operations. The next chapter will test these seven propositions during Operation PROVIDE COMFORT over Iraq in 1991.



Chapter Five

Case Study: Operation PROVIDE COMFORT

Now you can't go from Kirkuk to Erbil any more without an armored vehicle. All of this basin, from Koysinjaq to here [Kirkuk]...I'm going to evacuate it [sic]. I will evacuate it as far as Gweir and Mosul. No human beings except on the main roads. For five years I won't allow any human existence there... In the summer nothing will be left.¹

-- Iraqi General Ali Hassan al-Majid

"At stake are...the lives of hundreds of thousands of innocent men, women, and children."

-- President George H.W. Bush

Introduction and Context

The relationship between the Iraqi government and the Kurdish population of Northern Iraq has always been one of contention and mutual mistrust. The Ba'ath party coup of 1968 and Saddam Hussein's rise to the Iraqi presidency in 1979 began a new chapter of animosity between the government and the Kurds. The 1980-1988 Iran-Iraq War further exacerbated the relationship as many Kurds openly sided with Iran. In October 1986, the Patriotic Union of Kurdistan (PUK) and the government of Iran concluded an agreement that Iran would provide arms and financial support to the PUK to overthrow the Iraqi government.² Leaders of the Iraqi government perceived the PUK-Iranian alliance as an attempt by all Kurds to overthrow the Hussein regime. Saddam Hussein initiated the Al-Anfal campaign in reprisal to punish Kurds and

¹ Human Rights Watch, *Genocide in Iraq: The Anfal Campaign against the Kurds*, (New York, NY: Human Rights Watch, 1993). <http://www.hrw.org/reports/1993/iraqanfal/ANFAL1.htm> (accessed 29 September 2013). This quote is taken from Appendix A which contains translated and transcribed comments from confiscated audiotapes of Ali Hassan al-Majid (commonly known in the West as "Chemical Ali"), the Iraqi Commander in Northern Iraq before, during, and after Operation Provide Comfort.

² Human Rights Watch, *Genocide in Iraq: The Anfal Campaign against the Kurds*. For a discussion on Kurdish history, reference David McDowall, *A Modern History of the Kurds* (London, UK: I.B. Tauris, 1996). For a historical discussion on the relationship between Kurds and the Iraqi government see Denise Natali, *The Kurds and the State: Evolving National Identity in Iraq, Turkey, and Iran* (Syracuse, NY: Syracuse University Press, 2005) especially 26-69.

other ethnic minorities within Iraq.³ An estimated four thousand Kurdish villages were destroyed and fifty to one hundred thousand civilians were massacred between 1986 and 1989.⁴

During the 1990 Iraqi invasion of Kuwait, Iraq placed the majority of its military forces in southern Iraq and Kuwait but kept two corps-size Army formations in the Kurdish region. Iraq's I Corps operated from Dahuk and V Corps operated from As Sulaymaniyah. The Dahuk forces could play an important role in any possible ground assault originating from Turkey or Syria. The As Sulaymaniyah forces, over two hundred miles from the Turkish or Syrian border, were most likely garrisoned to deter another PUK-Iranian agreement or to forcefully respond to a possible Kurd uprising. I and V Corps would not partake in Operation DESERT STORM but they would form the backbone of the Iraqi response to the subsequent Kurdish uprising.

At the conclusion of Operation DESERT STORM on 27 February 1991, the Iraqi central government was badly defeated and suffered a significant decrease in military combat capability. Prompted by Western rhetoric and a historical desire for autonomy, Kurdish rebels in northern Iraq sought to take advantage of the weakened armed forces to overthrow the Hussein regime and establish an independent Kurdish state.⁵ From 5 March until 20 March 1991, Kurdish rebels seized control of numerous northern cities including economic centers Erbil, Dahuk, and Kirkuk. Saddam Hussein characterized the uprisings as insurgent activity to overthrow the government

³ "Since the time of the first Ba'ath regime in 1963, Kurdish villagers had learned to protect themselves against aerial attack by building primitive shelters outside their homes. Now the pace of shelter construction accelerated, their design becoming more elaborate. Many were virtual underground rooms, high enough to stand up in, covered with wooden planks or corrugated iron sheeting and layers of dirt, stones and branches. The more sophisticated had twisting entrance tunnels to protect the occupants against shrapnel and blast. Many whole villages moved into nearby caves and rock overhangs and came to lead a virtual nocturnal existence, emerging to tend their animals and fields only when darkness fell." in Human Rights Watch, *Genocide in Iraq: The Anfal Campaign against the Kurds*.

⁴ Ibid.

⁵ For a review of the American rhetoric partially responsible for the Kurdish revolt, reference R.W. Apple, Jr., "After the War: Politics, Another Gulf War?" *The New York Times*, 10 March 1991, A1.

of Iraq conducted by non-Baathists Iranians with assistance from DESERT STORM coalition forces.⁶ In response to the uprising Hussein ordered the provincial governors to re-establish local security and protect ethnic Sunni Iraqis with assistance from federal military forces.⁷

Iraqi forces subsequently responded with artillery, ground forces, and airpower to quickly route Kurdish forces creating an exodus of approximately one million refugees to Iran and Turkey. The Kurdish diaspora openly discussed the scene in northern Iraq, describing indiscriminate artillery shelling of residential neighborhoods and fleeing helicopter gunships.⁸ A common Iraqi helicopter tactic involved rocket and cannon passes against stationary vehicles caught in a traffic jam fleeing the cities.⁹ In trying to understand the reason for the exodus, non-governmental workers distributing humanitarian aid to refugees attempted to reconstruct the sequence of events leading to Kurdish persecution. The workers determined the Kurds were emboldened by the defeat of the Iraqi military in DESERT STORM and the rhetoric from coalition leaders to overthrow the regime. The Kurds felt betrayed by a lack of U.S. support once

⁶ "Saddam Hussein, Interview by Federal Bureau of Investigation Agent George Piro," (13 Mar 2004), <http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB279/15.pdf>, 3. (accessed 19 Sep 13).

⁷ Ibid., 5.

⁸ "Iraqi tanks and airplanes shelled indiscriminately everywhere...helicopter gunships even followed people and shot them." Middle East Watch, *Unquiet Graves: The Search for the Disappeared in Iraqi Kurdistan*, (New York, NY: Human Rights Watch, 1992), 17. For additional references on the use of Iraqi airpower against Kurdish civilians see: "President Bush said the US is not attempting to impose a new government on Iraq, but he maintained his pressure on President Saddam Hussein by saying Iraq's use of attack helicopters to suppress internal rebellion could delay the withdrawal of American forces from the region." in Dan Balz, "Bush Criticizes Iraq's Use of Helicopters on Rebels," *Washington Post*, 15 March, 1991, A37. "Iraqi helicopters are bombing civilians without letup, indiscriminately" in Allen Cowell, "Kurdish Refugees by Thousands Flee Vengeance of the Iraqi Army," *New York Times*, 4 April 1991, A10.

⁹ "Our immediate problem was not the traffic jam. Iraqi army helicopter gunships were operating just out of sight on the other side of Salahuddin. From the sound of it, they were making methodical rocket and cannon passes on the trapped vehicles that had fled the trapped city of Erbil." Jonathan Randal, *After Such Knowledge, What Forgiveness* (New York, NY: Farrar, Straus and Giroux, 1997), 31.

Iraq countered the Kurdish uprising.¹⁰ Without coalition military support the Kurds could not counter the threat they face from Iraqi gunships and ground forces.

A report by the Iraqi Republican Guard notes attack helicopters, in addition to the bombing raids, played a decisive role in both command of units and rapid battlefield mobility during the Kurdish purge. Commanders utilized helicopters to identify concentrations of Kurdish refugees and then maneuvered air and ground forces to engage the refugees.¹¹ Iraqi airpower, in terms of additional manpower and increased combat effectiveness, provided an asymmetric advantage that could not be countered by either Kurdish civilians or the armed Kurdish *peshmerga* forces.

Aware of the impending humanitarian crisis, the United Nations Disaster Relief Organization pre-positioned supplies in Syria, Iran, and Jordan for seventy-five thousand potential refugees in mid-March. The Government of Turkey, still coping with over twenty thousand refugees from the Iran-Iraq War, closed its border with Iraq and denied supply pre-positioning to dissuade a further influx of refugees. Despite the border closing, refugees continued to stream into Turkey and quickly overwhelmed Turkey's ability to provide assistance. The magnitude of the refugee crisis, coupled with an inability to provide relief in the mountainous border terrain, resulted in a plea for assistance to the international community. On 2 April the Turkish Ambassador to the United Nations (U.N.) requested Security Council assistance, stating in a letter to the Security Council president that Iraq's actions threatened regional peace and

¹⁰ "Panic spread when President Bush, reversing himself, ruled out use of allied airpower to knock down Saddam Hussein's attack helicopters. At that moment, the Kurds felt wholly abandoned." Karl Meyer, "Why the Kurds Fled," *New York Times* 2 May 1991, A2.

¹¹ "Military Analysis and Description of the Quelling of the 1991 Rebellion in the Northern and Southern Sectors from 1991 March 05 to 1991 April 21," *Saddam Hussein Collection*, translated Iraqi Republican Guards document, Conflict Records Research Center, SH-RPGD-D-000-581, National Defense University (NDU), March 1991, 7.

stability.¹² The Government of Iran also requested U.N. General Assembly assistance one day later. The Security Council responded on 5 April with Security Council Resolution (UNSCR) 688 requesting humanitarian assistance from member states and humanitarian organizations. The resolution demanded Iraq cease repression and provide international assistance and access to internally displaced refugees remaining in Iraq.¹³

President Bush authorized U.S. assistance the same day and the resulting international coalition comprised thirteen states and over forty non-governmental organizations (NGOs). Military forces were commanded by U.S. personnel and worked side-by-side with NGOs. Coalition forces airdropped over twelve thousand tons of supplies, trucked in an additional four thousand four hundred tons of aid, and resettled four hundred fifty thousand Kurdish refugees over the next three months.¹⁴ On 7 June, the U.N. High Commissioner for Refugees assumed control of coalition safe havens and U.S. forces completed a phased withdrawal by 15 July 1991.

During this period, Iraq neither authorized the deployment of coalition forces onto nor overflight of its sovereign territory. The Iraqi U.N. ambassador continually lobbied the Security Council and General Assembly to withdraw coalition forces, to no avail.¹⁵ To emphasize the Iraqi perception of coalition motives, Saddam Hussein recollected that:

Once things settled down in the South, we moved to the North...and the situation was eliminated. The American, British, and French came after that and they made an air landing in certain areas, claiming they want to

¹² Mustafa Aksin, "Letter from the Permanent Representative of Turkey to the United Nations Addressed to the President of the Security Council," Document number S/22435, (2 April 1991), 1.

¹³ United Nations Security Council, "Resolution 688 (1991) of 5 April 1991," <http://daccessdds.un.org/doc/RESOLUTION/GEN/NR0/596/24/IMG/NR059624.pdf?OpenElement>. (accessed 17 August 2013).

¹⁴ On the delivery of supplies see Warner T. Ferguson, *Operation Provide Comfort: A Logistical Operation*, Personal Experience Monograph, U.S. Army War College (May 1992).

¹⁵ For a discussion on United Nations and Iraq diplomatic interaction both contextually and specific to this time period see David Malone, *The International Struggle over Iraq: Politics in the U.N. Security Council, 1980-2005* (New York, NY: Oxford Press, 2006) especially pp. 84-113.

protect the Kurdish. Then the Security Council starts issuing resolutions, as one of my comrades may have said, 'they did not even read what they agreed on'...In addition, every day they remembered something new that serves their vision of the regime falling and every time they sense they are a step away, they issue a new resolution. All of these resolutions issued after the war [Operation DESERT STORM] were settled, like the cease-fire, separating the forces and no foreigners on the Iraqi land, then the air landing occurred in the Northern area of Iraq... Then they requested permission for American aircrafts [sic] to fly [over Iraq] and we rejected. *Until this day, we will never accept such a thing – rejection, it will always be rejection.* [Italics added]¹⁶

Independent Variable: Political Objective

As late as 31 March, 1991 the U.S. government was not willing to intervene on behalf of the Kurds due to perceptions of a relatively small number of refugees. Then-U.S. Ambassador to Turkey, Morton Abramowitz, stated the U.S. lacked credible intelligence on the crisis, assuming there were no more than one hundred thousand Kurdish refugees and probably closer to fifty thousand trying to enter Turkey.¹⁷ Once the scope of the crisis became known, President Bush articulated the rationale for Operation PROVIDE COMFORT with a narrow human security definition on 5 April 1991. Military operations would provide humanitarian assistance to the Kurdish refugees but would not serve as a precursor for a larger U.S. effort to remove the Hussein regime.¹⁸

¹⁶ "Meeting between Saddam Hussein and Iraqi Ministers regarding Iraq under sanctions," *Saddam Hussein Collection*, translated Iraqi National Council audio recording, Conflict Records Research Center, SH-SHTP-A-001-298, undated, 3. Based on the topics of the meeting, it can be assumed this meeting was held around 1996-1997.

¹⁷ "Although we were concerned about the fighting in Northern Iraq after the war, not being sure how it would end...and with some expectations that the Kurds running in and out of Turkey for sanctuary and some refugees. I don't think anybody, I certainly didn't expect anything more than 50 to 100,000, not even 100,000 more. So when the Kurds came out, it was a surprise." Morton Abramowitz, interview by Patrick Carlton, "Interview with Ambassador Morton Abramowitz," (20 December 1991) in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, National Defense University Special Collections, Box 14, 1-2.

¹⁸ "The human tragedy unfolding in and around Iraq demands immediate action on a massive scale... I have directed a major new effort be undertaken to assist Iraqi refugees...I want to emphasize that this effort is prompted only by humanitarian concerns." George Bush, "Statement on Aid to Iraqi Refugees," 5 April 1991. George Bush Presidential Library and Museum, http://bushlibrary.tamu.edu/research/public_papers.php?id=2844&year=1991&month=4 (accessed 4 Sep 2013). Another view is that PROVIDE COMFORT was part of a broader US policy to contain Iraq. Daniel Byman, for example, believes American policy focusing on containing Iraqi aggression, preventing a build-up of Weapons of Mass Destruction, and preserving regional stability were all vital U.S. interests supported during the PROVIDE COMFORT timeframe. See Daniel Byman, "After the Storm: U.S. Policy towards

The U.S. political objectives in Iraq in 1991 contained the necessary components to be categorized as a human security operation. The source of insecurity derived from the state military and the threat was to a sub-state referent. By describing PROVIDE COMFORT as a human tragedy perpetrated by the Saddam Hussein regime and relief designed for humanitarian concerns, President Bush articulated political objectives within the human security definition outlined in Chapter Three.¹⁹

American, British, French, and Italian cargo planes subsequently dropped one-thousand-and-four-hundred-and-five tons of relief supplies (1,020 from the U.S., 184 tons from the UK, 146 tons from France, and 54 tons from Italy) along the Iraq-Turkey border by 15 April.²⁰ Despite the effort, the near-inaccessible terrain, poor weather, and underdeveloped infrastructure contributed to a significant amount of the aid not reaching refugee encampments. A European diplomat estimated that forty percent of Kurdish refugees did not receive aid due to terrain and weather.²¹ Secretary of State James Baker witnessed the limited success first-hand during a tour of the Turkish border area. His frustration at the insufficient nature of the airdrop strategy resulted in a recommendation to deploy U.S. forces to manage the relief effort within the

Iraq since 1991," *Political Science Quarterly* 115, no. 4 (Winter 2000), 493-516. The difference between Byman's discussion and this study is the timeline of analysis. Byman focuses on all instruments of national power applied to Iraq from 1991-2000 while this analysis is only concerned with the period from April-July 1991. See also James Baker, "Secretary James Baker 7 April Remarks "Iraqi Refugees: The Need for International Assistance." Department of State Dispatch 2 (15 April 1991), 271.

¹⁹ There are other views about the political objectives. Fran Hazelton states PROVIDE COMFORT "was an attempt to appease Turkey" see Fran Hazelton, *Iraq since the Gulf War: Prospectus for Democracy* (London, UK: Zed Books Limited, 1994), 234. While Hazelton's argument is made with the best information available at the time, recent unclassified sources from the Bush Presidential Library, the Army Center for Military History, and Marine Corps History Office provide evidence that diminishes the strength of this position.

²⁰ Letter from U.S. Mission Geneva to SECSTATE Washington DC, (23 April 91). In *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, National Defense University Special Collections, Box 19, unfiled.

²¹ Clyde Haberman, "Kurdish Refugee Plight Worsens, and Relief Efforts Still Fall Short," *New York Times* 16 April 1991, A1.

refugee camps.²² As a result, U.S. political objectives were modified on 16 April 1991.²³

President Bush based the change in political objectives on a joint British and French proposal put forth one week prior. The new objectives contained two components: 1) position the Kurds at locations which humanitarian relief could be delivered; and, 2) relieve refugee pressure on Turkey. President Bush codified this desired endstate on 16 April in terms of assuring the Kurdish refugees while deterring Iraqi aggression. Bush also clarified the military means the coalition would utilize to establish encampments in northern Iraq and a no-fly zone.²⁴

Conversely, the Government of Iraq lobbied the U.N. on the illegality of the proposed encampments. In a letter to the Secretary General, Iraqi Foreign Minister Ahmed Hussein described the infringement upon Iraqi sovereignty, violation of international law and interference in internal Iraqi issues.²⁵ Bush and the coalition political leaders remained mindful of Ahmed Hussein's concerns. Statements by coalition leaders for the remainder of the operation emphasized international legitimacy of their actions conferred by U.N. Security Council Resolution 688. The

²² Ambassador Morton Abramowitz as quoted in Carlton, "Interview with Ambassador Morton Abramowitz," 4.

²³ One Turkish diplomat is quoted as wryly stating "How do you think your country would react if 500,000 Mexicans stood on the Texas border demanding to get in?" in Haberman, "Kurdish Refugee Plight Worsens, and Relief Efforts Still Fall Short," A8.

²⁴ "I'm announcing a greatly expanded and more ambitious relief effort...Consistent with United Nations Security Council Resolution 688...I have directed the U.S. military to begin immediately to establish several encampments in northern Iraq where relief supplies for these refugees will be made available in large quantities and distributed in an orderly way. I can well appreciate that many Kurds have good reason to fear for their safety if they return to Iraq. And let me reassure them that adequate security will be provided at these temporary sites...We continue to expect the Government of Iraq not to interfere in any way with this latest relief effort. The prohibition against Iraqi fixed- or rotary-wing aircraft flying north of the 36th parallel thus remains in effect." George Bush, "Remarks on Assistance for Iraqi Refugees and a News Conference." *President George H.W. Bush Archives* (16 April 1991), 1. http://bushlibrary.tamu.edu/research/public_papers.php?id=2882&year=1991&month=4 (accessed 11 September 2013).

²⁵ Ahmed Hussein, "Identical Letters Dated 8 April 1991 from the Permanent Representative of Iraq to the United Nations Addressed Respectively to the Secretary-General and the President of the Security Council," (9 April 1991). United Nations, document S/22459. See also document S/22513 from the Iraq Permanent Representative stating "the measures taken by the United States forces and the forces cooperating with them constitute a flagrant violation of Iraq's sovereignty and territorial integrity." <http://documents-dds-ny.un.org/doc/UNDOC/GEN/N91/127/41/img/N9112741.pdf?OpenElement> (accessed 2 Oct 2013).

statements also downplayed violations of sovereignty while emphasizing humanitarian aid to displaced Kurds. The U.N. political objectives mirrored the U.S. political objectives but specifically limited the scope of operations to minimize the perceived effect on Iraqi sovereignty and potential for conflict escalation. The constraints contained in the political objectives affected the development of military strategy and the resultant operation.

Intervening Variable: Military Strategy

United Nations Security Council Resolution 688 (Appendix B) provided the nascent objectives for developing PROVIDE COMFORT military strategy. The Security Council demanded the Iraqi regime end Kurdish repression and allow humanitarian agencies to assist internally displaced Kurds.²⁶ President Bush limited the initial U.S. actions to providing humanitarian aid to Kurds airlift. Bush's 5 April remarks are significant because he uses similar language as contained in UNSCR 688 and also states U.S. aircraft would fly into Iraqi airspace to provide assistance.²⁷

The military strategy originated with an Alert Order issued by the Chairman of the Joint Chiefs of Staff to the Commander of U.S. European Command on 5 April. The order defined the mission as immediate relief to displaced Iraqi civilians until international relief agencies and private voluntary organizations could assume overall supervision.²⁸ "Immediate" is one of the key words in the mission statement. The initial military strategy consisted of airdropping food, clothing, and medical supplies

²⁶ United Nations, "Resolution 688 (1991) of 5 April 1991," United Nations Security Council, (5 April 1991), <http://daccessdds.un.org/doc/RESOLUTION/GEN/NR0/596/24/IMG/NR059624.pdf?OpenElement>. (accessed 12 September 2013).

²⁷ "U.S. Air Force transport planes will fly over northern Iraq and drop supplies of food, blankets, clothing, tents, and other relief-related items for refugees and other Iraqi civilians suffering as a result of the situation." George Bush, "Statement on Aid to Iraqi Refugees." *President George H.W. Bush Archives* (5 April 1991) http://bushlibrary.tamu.edu/research/public_papers.php?id=2844andyear=1991andmonth=4 (accessed 17 September 2013).

²⁸ J3 Operations Directorate, "Operation Provide Comfort Briefing," (April 1991) in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* National Defense University Special Collections, Box 19, unfiled, 2.

as soon as possible with the first mission flown on 7 April from Incirlik Airbase (AB), Turkey by MC-130 and C-130 aircraft.

The alert order did not specify an expected duration of the operation. EUCOM planners expected it to run between ten and thirty days.²⁹ The duration was implicitly left open-ended due to the unknown length of time needed for U.N. forces to deploy and assume command of aid operations. Military planners at EUCOM hedged against an open-ended policy by ensuring the force structure allowed for rapid disengagement in the event of Iraqi civil war or overthrow of the Hussein regime.³⁰

Neither the United Nations nor U.S. policymakers framed objectives designed to utilize military force against the Iraqi government. Military commanders used airdrop of supplies as the preferred military means to specifically avoid what President Bush termed “a Vietnam quagmire” with the presence of ground forces.³¹ The alert order only authorized the provision of relief supplies to Kurdish encampments. The strategy of employing cargo planes escorted by fighter aircraft sought to achieve the desired end state within ten days without affecting the territorial sovereignty of Iraq. Additionally, the strategy allowed for a low-risk and rapid military disengagement if required.

The initial PROVIDE COMFORT commander, Major General James Jamerson, was buoyed by early success of delivering almost one thousand seven hundred tons of relief supplies. He quickly changed his view of what would constitute success once

²⁹ Robert Chelberg, interview by Patrick Carlton, "Interview with Lieutenant General Chelberg," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* 20 May 1992, National Defense University Special Collections, Box 2, File 4, 14. Chelberg was the European Command Chief of Staff during PROVIDE COMFORT.

³⁰ Ibid., 14.

³¹ President Bush was concerned about becoming embroiled in an Iraqi civil war, telling the Turkish Prime Minister “I don’t want the U.S. to become bogged down in a civil war in Iraq.” See George Bush, "Telecon with President Özal of Turkey," *President George H.W. Bush Archives*, (20 April 1991). http://bushlibrary.tamu.edu/research/pdfs/memcons_telcons/1991-04-20--Özal.pdf (accessed 22 September 2013).

the magnitude of the operation became known.³² In early April aerial reconnaissance indicated the presence of forty-three separate mountain camps comprised of over four hundred thousand refugees. On 15 April General Jamerson recommended through European Command for additional air and ground forces to ensure supplies would reach the refugees. This recommendation was confirmed by Secretary of State Baker's previous assessment and contributed, in part, to President Bush's subsequent restatement of political objectives on 16 April.

On 17 April, the commander of Combined Task Force-PROVIDE COMFORT, Lieutenant General (LTG) John Shalikashvili, stated the revised mission, objectives, and tasks resulting from the updated political objectives (Figure 5-1). Shalikashvili believed the political objectives mandated a shift from a "push" strategy of providing supplies the coalition thought the Kurds could use to a "pull" system. The pull system envisioned military personnel embedded at each refugee camp to determine needed supplies while also assuring responsibility for distribution once supplies arrived.³³

³² James Jamerson, interview with Thomas Raab, "Interview with Lt Gen James Jamerson," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* 21 June 1991, National Defense University Special Collections, Box 3, File 8.

³³ John Shalikashvili, interview with Patrick Carlton, "Interview with Lieutenant General John Shalikashvili," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* 13 August 1991, National Defense University Special Collections, Box 6, File 10, 2.

PROVIDE COMFORT MISSION

Combined Task Force PROVIDE COMFORT conducts multinational humanitarian operations to provide immediate relief to displaced Iraqi civilians until international relief agencies and private voluntary organizations can assume overall supervision.

PROVIDE COMFORT OBJECTIVES

Immediate: Stop the dying and suffering; stabilize the population.

Midterm: Resettle population at temporary sites; establish sustainable secure environment.

Long-term: Return population to their homes.

PROVIDE COMFORT TASKS

1. Provide immediate relief/stabilize population.
2. Build distribution system/infrastructure.
3. Conduct transit centers and transfer displaced civilians to transit centers.
4. Transition operation to international relief organizations and private voluntary organizations.
5. Facilitate ultimate objective to return displaced civilians to their homes.

Figure 5-1: Operation PROVIDE COMFORT Mission, Objectives, Tasks

Source: *Aspects of Anti-Chaos Aid to the Soviet Union: Hearings Before the Defense Policy Panel of the Armed Services, House of Representatives*, 102nd Cong., 1st sess., 1992, 9-10.

The 16 April decision by President Bush to expand the mission and create safe havens inside Iraq preceded a significant change to the military strategy. The change resulted in creation of a thirty-six by sixty-three mile “safe zone” inside northern Iraq intended to exclude Iraqi ground forces and artillery from harming Kurdish civilians. Iraq was also prohibited from flying fixed-wing and rotary-wing aircraft north of the thirty-sixth parallel. This restriction resulted in an approximately twenty-thousand-and-nine-hundred square mile air-exclusion zone from the town of Mosul north to the Turkish border and from the Syrian to Iranian border.³⁴ The change in the desired political end state from providing humanitarian aid to creating safe havens carried the potential to create broader conflict due to the challenge posed to Iraqi sovereignty. Using military personnel to create safe havens without the consent of the Iraqi government and in a potentially hostile environment could have been considered an

³⁴ For comparison, the size of the ground safe zone was slightly larger than the state of Rhode Island and the no-fly zone was equivalent in size to West Virginia.

act of war.³⁵ This change in political objectives presupposed the need to deter Iraqi forces from engaging either the coalition forces or the returning refugees and greatly expanded the geographic requirement for air superiority. This change would play a significant role in airpower strategy after 16 April.

Prior to the expanded mission, force structure was heavily biased towards air operations with little ground force involvement. The revised political objectives required Combined Task Force- PROVIDE COMFORT to expand force structure by augmenting the existing Air Force component with two subordinate ground task forces. Task Force-A coordinated relief efforts within refugee camps while Task Force-B (TF-B) ensured security conditions within Iraq allowing the safe return of Kurds to their homes.³⁶ TF-B would ultimately comprise military assets from six countries and would be characterized as a light infantry battalion with limited organic artillery support.³⁷ The task force's lack of significant organic firepower would influence the airpower strategy and require a majority of airpower to operate in coordination with TF-B.

The 16 April change in political objectives also required an increase in Civil Affairs (CA) personnel to coordinate relief efforts between government and non-governmental agencies. CA command stood up on 22 April and established the Military Coordination Center to coordinate operations between U.S. and Iraqi military leadership.³⁸ The command consisted of 447 reserve personnel from the 20th Special Forces Group that previously deployed to Turkey for Operation DESERT STORM. This

³⁵ The change in political objective also preceded an increase in public statements by U.S., British, and French leaders emphasizing the humanitarian aspect of the mission and the desire to not affect Iraq sovereignty.

³⁶ John M. Shalikashvili, "Statement, U.S. Congress, House Committee on Armed Services" as quoted in John W. Cowan, *Operation Provide Comfort: Operational Analysis for Operations Other Than War* (Newport, RI: Naval War College Press, 1995), 4.

³⁷ Gordon Rudd, *Humanitarian Intervention* (Washington, DC: Department of the Army, 2004), 255-256.

³⁸ *Ibid.*, 274.

prior deployment provided the necessary experience for CA personnel to rapidly understand and operate in Northern Iraq. Through establishment of the Civil Military Operations Center (CMOC), CA personnel coordinated and integrated the relief efforts of over 50 organizations and played a significant role in allocating military resources, such as engineers and medical units, to the various refugee camps and safe havens. Both the Military Coordination Center and the CMOC were two of the most significant force structure initiatives required by the military strategy.

The first use of the Military Coordination Center was on 19 April when Lieutenant General Shalikashvili met with Iraqi General Nashwan Thanoon to establish operational level communications between coalition and Iraqi leaders. This meeting codified the conditions necessary to notify Iraqi forces of coalition operations.³⁹ The Military Coordination Center coordinated activities between coalition and Iraqi forces to minimize misunderstandings and limit potential conflict escalation.⁴⁰ Lieutenant General Shalikashvili used the Military Coordination Center for official discussion with all levels of Iraqi military leadership and as a formal venue for information sharing between coalition and Iraqi forces.⁴¹ The establishment of the Military Coordination Center served the same purpose at the operational level as rules of engagement developed for tactical level operators, namely to restrict the use of force and ensure coalition and Iraqi military leaders understood the intentions and scheme of maneuver of forces in Northern Iraq.⁴²

³⁹ For example, this meeting allowed LTG Shalikashvili to notify Iraqi General Nashwan that coalition forces would enter Zahko and establish a 30 kilometer security zone around the town. See Rudd, *Humanitarian Intervention*, 229.

⁴⁰ Goff, *Operation Provide Comfort*, 13.

⁴¹ "The MCC was absolutely essential. It would have been extraordinarily difficult, if not impossible, to run an operation like this without the mechanism of [the MCC]." Shalikashvili, "Interview with Lieutenant General John Shalikashvili," Box 6, File 10, 6.

⁴² For an overview of MCC operations, see Linda Brandon, "Military Coordination Center: Forward Component of Provide Comfort," *Special Warfare* 7 no. 3 (July 1994), 30.

Dependent Variable: Airpower Strategy

Strategic nuclear or large-scale conventional warfare against the Soviet Union and Warsaw Pact permeated airpower thought and doctrine in the years immediately prior to Operation PROVIDE COMFORT.⁴³ Massive retaliation and second-strike doctrine fueled nuclear war theory after World War II and AirLand Battle formed the doctrinal foundation for conventional airpower strategy during the latter part of the Cold War period. The lopsided outcome of Operation DESERT STORM appeared to validate AirLand Battle. The doctrine for humanitarian operations was much less developed during this time and PROVIDE COMFORT would highlight this doctrinal limitation. Doctrinal guidance was only partially filled by the 1990 publication of Army Field Manual (FM) 100-20/ Air Force Pamphlet 3-20, *Military Operations in Low Intensity Conflict*.

Field Manual 100-20 vaguely defined low intensity conflict as confrontation between adversaries that did not rise to the level of conventional warfare.⁴⁴ During the time period of PROVIDE COMFORT, Field Manual 100-20 served as the doctrinal foundation for any operation other than large-scale conventional warfare.

⁴³ A review of two professional journals suggest that the Cold War paradigm was still driving military doctrine and strategic thought. The following articles are representative of strategic thought during the timeframe of PROVIDE COMFORT: Wolfgang Schlör, "Barrier Defense in Europe: An option for the 1990s," *Parameters* 20, no. 1 (March 1990), 20-37; David Sorenson, "Getting Back to Europe: Strategic Lift Needed Now More Than Ever," *Parameters* 20, no. 2 (June 1990), 64-74; Dan Coats, "U.S. Defense Policy and the Emerging European Security Environment," *Strategic Review* 43, no. 1 (Winter 1990), 9-15; Mackubin Thomas Owens, "Force Planning in an Era of Uncertainty," *Strategic Review* 43, no. 2 (Spring 1990), 9-22. But thinking about the new environment was beginning to percolate. See Richard Szafranski, "Thinking About Small Wars," *Parameters* 20, no. 3 (September 1990), 39-49 and George Crist, "A U.S. Military Strategy for a Changing World," *Strategic Review* 43, no. 1 (Winter 1990), 16-24.

⁴⁴ Low Intensity Conflict was "a political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states." United States Air Force, "Air Force Pamphlet 3-20, Military Operations in Low Intensity Conflict," (Washington, DC: United States Air Force, 1990), I-3. The Departments of the Army (DA) and Air Force (DAF) jointly released this publication. Because DA was the lead agency, further references to this document will be annotated FM 100-20. To provide context of the foundational importance of this document, it was superseded by Joint Publication 3-07, *Joint Doctrine for Military Operations Other Than War* (16 June 1995) and Field Manual 3-07, *Stability Operations and Support Operations* (20 Feb 2003) which was subsequently superseded by Field Manual 3-24, *Counterinsurgency* (15 Dec 2006).

Commanders should rely on “visions of success” and “inspired action.”⁴⁵ Field Manual 100-20 was the product of limited Air Force and Army understanding of the military strategy required for low intensity conflict or operations other than war. PROVIDE COMFORT occurred at a time when air commanders could not rely on airpower doctrine for guidance due to a bias toward traditional state security principles and a military environment driven by possible large-scale conventional and/or nuclear conflict. For an operation such as PROVIDE COMFORT, air commanders would need to develop a flexible and responsive strategy based on events unfolding in the operational environment.

The airpower strategy for PROVIDE COMFORT was informed by the 6 April political objectives and the resulting military strategy. The strategy contained three key unknowns, each affecting a different portion of the airpower strategy. The air superiority requirement was the first unknown. The initial PROVIDE COMFORT commander, Major General Jamerson, utilized Iraqi air operations during Operation DESERT STORM as the initial framework for achieving air superiority.⁴⁶ Although Iraq had not fully utilized air forces during the last three weeks of DESERT STORM, Jamerson was concerned about the fighter aircraft stationed north of Baghdad. Jamerson’s concern was not unwarranted. Iraqis were prohibited from flying fixed-wing aircraft north of the thirty-sixth parallel but on 22 March, coalition F-15 aircraft shot down two fixed-wing Iraqi aircraft, a Sukhoi SU-22 air-ground attack aircraft and a Pilatus PC-9 trainer near Tikrit. The shoot down occurred approximately sixty miles south of the no-fly zone. In addition, Iraq continued operating helicopters north of the thirty-sixth parallel until early April while its surface-to-air missiles remained a

⁴⁵ Ibid., I-11.

⁴⁶ Jamerson stated the coalition did not know “what kind of threat were we going to face. That was fairly unknown, but we had been here not that long ago [for Operation DESERT STORM]. We knew roughly what we could expect.” Rabb, “Interview with Lt Gen James Jamerson,” 8.

constant threat to U.S. and coalition aviators. An assumption Iraq would utilize similar tactics as it had during DESERT STORM, including advanced air interceptors and man-portable air defense missiles, dictated an initial U.S. and coalition force structure and strategy heavily reliant on air superiority and suppression of enemy air defense aircraft.⁴⁷

The magnitude of the refugee crisis was the second unknown. Initial estimates ranged from fifty thousand to seven hundred thousand refugees spread out along the one-hundred-and-sixty mile Turkey-Iraq border. The continuing refugee influx from Iraq also contributed to the significant variance in estimates.⁴⁸ In addition to their numbers, the needs of the refugees were largely unknown. Initial estimates of up to one thousand refugee deaths per day from unknown reasons increased the uncertainty for coalition planners.⁴⁹ The airpower strategy mitigated this unknown initially with aerial reconnaissance flights by Turkish F-4 and U.S. U-2 aircraft to determine refugee sites. Airdropping basic supplies such as tents, meals-ready-to-eat, and blankets were then delivered to known encampments under the premise that any aid would help. However, the inaccuracies of airdropped supplies through poor weather conditions would have dangerous consequences.⁵⁰ On 12 April, four Kurdish civilians near Cukura were crushed and killed by airdropped pallets.⁵¹ By 16 April U.S. ground forces were able to provide on-site assessments and establish drop-zones,

⁴⁷ The Iraqi military primarily utilized Soviet weapons. This study will not utilize the Soviet nomenclature for weapons, instead referencing the North Atlantic Treaty Organization numbering and naming convention in order to standardize with primary and secondary sources.

⁴⁸ General Jamerson stated "The population that we were trying to save, or help survive, was still a moving population at that time." Rabb, "Interview with Lt Gen James Jamerson," 9.

⁴⁹ LTG Shalikashvili noted at the beginning of CTF-PC that "you could not get the right amount of food and shelter to those people." Carlton, "Interview with Lieutenant General John Shalikashvili," 2.

⁵⁰ The poor weather was predominantly above 2,000 feet. C-130 aircraft would generally drop pallets at 5,000 feet above ground to allow the parachute to deploy but several pilots were qualified to airdrop at lower altitudes. In addition, the winds in mountainous terrain were not from a constant direction or constant velocity. The swirling winds also contributed to errors with airdropped pallets. Helicopters largely mitigated this concern by flying below the weather and either hovering or landing to deliver aid.

⁵¹ "Relief Bundles Kill 4 Kurds," *New York Times*, 13 April 1991, A4.

mitigating the potential hazard of airdropping pallets on unsuspecting refugees. As a result, a shift in airpower strategy was evident as fixed-wing airlift provided supplies to central hubs, such as Incirlik AB, which were then either flown or trucked to helicopter bases closer to refugee encampments. The helicopters, less impacted by poor medium-altitude weather, would then deliver supplies directly to refugees.

The third unknown originated with the 16 April change in political objectives directing ground forces to enter Iraq. CTF-Provide Comfort commanders and strategists did not know the resistance level to expect from Iraqi forces and how it would drive the deterrent or coercive component of strategy. General Jamerson believed the deterrence and coercion requirements were second only to airlift for developing a strategy and force structure.⁵² This unknown also affected the rules of engagement, but was reinforced by U.S. diplomatic efforts and direct talks between the coalition commander, LTG Shalikashvili, and his Iraqi counterpart, General Nashwan Thanoon. Because of the minimal organic firepower of the ground forces, Shalikashvili was careful to ensure a visible airpower presence during these meetings to reinforce deterrence.⁵³

The three unknowns would play a large role in the development and refinement of the subsequent airpower strategy. The initial strategy was developed only to gain air superiority against the air and missile threats and achieve referent assurance by airdropping aid. With the 16 April political decision to resettle Kurdish refugees back to Iraq, by force if necessary, the strategy incorporated actions to deter Iraqi

⁵² Jamerson stated "Were we going to use air power against Iraqi forces which were, we thought, perhaps were pursuing the Kurds, harassing the Kurds, killing the Kurds... But the issue was, how did you identify those forces? So we structured the package based on our best guess." Rabb, "Interview with Lt Gen James Jamerson," 8.

⁵³ Major General Jay Garner noted "what [Shalikashvili] does when he goes down to deal with [the Iraqis], he brings some A-10s and attack helicopters and he deals with them from a position of strength." Jay Garner, interview by Patrick Carlton, "Interview with Major General Jay Garner," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* National Defense University Special Collections, (28 Feb 1992), Box 3, File 7, 25.

aggression against both the returning refugees and coalition ground forces. The expanded objectives required a reevaluation of air strategy that was most evident in the enlarged force structure and the evolution of command and control since the 5 April planning order.

Setting the Stage: Force Structure

Due to the immediate operations ordered by the 5 April Joint Chiefs of Staff Alert Order, initial airpower strategy was constrained to using EUCOM airpower assets remaining in Turkey at the conclusion of Operation DESERT STORM.⁵⁴ This force comprised C-130 cargo transport aircraft and A-10 attack aircraft at Incirlik Airbase (AB). Elements of the 39th Special Operations Wing (SOW) at Diyarbakir AB were also apportioned to the relief effort. The 39th's aircraft included MC-130 "Talon" aircraft, MH-53J Pave Low helicopters, and HC-130 aerial refueling aircraft.⁵⁵ During DESERT STORM, the 39th SOW conducted search-and-rescue operations in northern Iraq in the event coalition aircrew were shot down and were the most familiar with the operating environment and location of Iraqi air defense equipment. Brigadier General Anthony Zinni, the initial PROVIDE COMFORT Deputy Commander, described the initial effort as attempting to use the C-130s and special operations aircraft to airdrop as much aid as possible in the shortest amount of time until the force structure could be increased.⁵⁶

⁵⁴ Joint Task Force PROVEN FORCE was the named European Command contribution to Operation DESERT STORM.

⁵⁵ The 39 Special Operations Wing possessed 4x MH-60G helicopters and 2x HC-130 aircraft for combat search and rescue. See Richard Potter, interview by Patrick Carlton, "Interview with Brigadier General Potter," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, (22 May 1992), National Defense University Special Collections, unfiled, 23.

⁵⁶ "We just used a push system, put as much on the ground as quickly as we can and air drop was the quickest way to stop the dying and suffering in the short term until we could get in in [sic] full force." Anthony Zinni, interview by Patrick Carlton, Interview with Brigadier General Zinni, in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, (19 May 1992), National Defense University Special Collections, unfiled, 16.

On 7 April General Jamerson requested air superiority aircraft, suppression of enemy air defense, reconnaissance, and additional mobility aircraft from United States Air Forces, Europe (USAFE) to augment already available forces. To emphasize the need of additional aircraft in the wake of unknown Iraqi threats and the unknown magnitude of the crisis, Jamerson stated

were we going to, in fact, use air power against Iraqi forces which were, we thought perhaps were pursuing the Kurds, harassing the Kurds, killing the Kurds? The rules of engagement that we got were 'Yes, you would, if you could identify them.' One issue was, how did you identify those forces? So we structured the package based on our best guess of what the threat would be, and what the circumstances were with this Kurdish exodus.⁵⁷

The Joint Staff, through European Command, approved the request the next day and the first forces arrived two days later from Europe. Ultimately the air forces consisted of approximately 50 fighter and command and control aircraft and a multinational contingent of mobility aircraft. Table 5-1 depicts the type of aircraft utilized and primary mission during PROVIDE COMFORT.⁵⁸

⁵⁷ Jamerson, "Interview with Lt Gen James Jamerson," 8.

⁵⁸ Major Allardice, "Joint Unified Lessons Learned System Long Report 71024-35616 Summary- Combined Task Force Provide Comfort," (Stuttgart, GE: U.S. European Command, 1992), 24. See also Rudd, *Humanitarian Intervention*, Figure 15.

AIRCRAFT	UNIT	COUNTRY	PRIMARY MISSION
A-10	81st Tactical Fighter Wing	US	Close Air Support
F-15	36th Tactical Fighter Wing	US	Air Superiority
F-16	86th Tactical Fighter Wing	US	Air Superiority
E-3	552nd Air Control Wing	US	Command and Control
KC/RC-135	306th Strategic Wing	US	Refueling/Surveillance
EF-111/EC-130	43rd Electronic Combat Squadron	US	Electronic Warfare
F-4G	52nd Tactical Fighter Wing	US	Enemy Air Defense
RF-4	123rd Tactical Rec Squadron	US	Reconnaissance/Surveillance
C-130	37/61/302/317/143 Tactical Airlift Sqdn	US	Fixed-wing Mobility
C-130	Canadian/Portuguese/UK/Belgian	Various	Fixed-wing Mobility
C-160	French Air Force	France	Fixed-wing Mobility
G-222	Italian Air Force	Italy	Fixed-wing Mobility
UH-60	4/8 AVN and 4/11 ACR	US	Rotary Wing Mobility
CH-47	502 AVN	US	Rotary Wing Mobility
CH-47	Royal Air Force	UK	Rotary Wing Mobility
CH-47/ UH-1	Italian Air Force	Italy	Rotary Wing Mobility
CH-53/CH-46/ UH-1/AH-1	HMM-264 (Marines)	US	Rotary Wing Mobility
Table 5-1: Operation PROVIDE COMFORT Airpower Forces			
Source: Developed by author			

Until the arrival of air superiority aircraft on 7 April, MC-130's proved valuable due to specialized electronics and radar warning receivers capable of identifying and countering Iraqi air defense systems.⁵⁹ Although the MC-130 did not carry air-to-air weapons its avionics suite allowed both the aircraft and other airborne aircraft to avoid potential Iraqi threats. One threat the MC-130 could not counter was small arms fire.⁶⁰ This threat, coupled with the mountainous terrain and poor weather, limited C-130 aircraft to flying above three-thousand-five-hundred feet above ground level which decreased aircrew ability to identify possible drop zones. The MC-130 aircraft again proved valuable because the pilots were qualified to fly low enough through the terrain and weather to identify potential drop zones.

⁵⁹ Rabb, "Interview with Lt Gen James Jamerson," 9.

⁶⁰ Small arms fire is defined as rifle, machine gun, or pistol fire of any caliber that is portable by a single individual.

By 8 April, United Kingdom C-130s were flying two missions per day escorted by U.S. A-10 attack aircraft. After the humanitarian supplies were airdropped, Turkish F-4 reconnaissance aircraft would fly over the area to provide post-mission intelligence and identify additional encampments for subsequent airdrops.⁶¹ The Turkish reconnaissance flights initially identified a total of forty-three refugee encampments and would continue throughout the operation. The Turkish flights became less important once Jamerson received the requested forces from European Command. The additional reconnaissance assets available to him aided the identification of camps and drop zones. The final component of Jamerson's force structure was the integration of helicopters and ground forces. These forces could effectively provide final delivery of supplies to the refugees however effectiveness came at a price to command and control. From 6-16 April command and control of airpower adhered to joint doctrinal procedures but would undergo many revisions and updates from 16 April until the end of the operation.

Setting the Stage: Command and Control

The immediate nature of the political objectives forced the airpower strategy to rely heavily on command and control procedures established during Operation PROVEN FORCE. Air tasking orders, airspace control measures, and ingress/egress routes of flight were readily available and, most importantly, operating procedures with Turkish air traffic control were in place. One unique aspect of command and control procedures not in place was coordination procedures between fixed-wing aircraft and helicopters.

⁶¹ On Turkish reconnaissance see United Kingdom Number One Air Mobility Wing, "Operation Provide Comfort Royal Air Force Transport and Support Helicopter Operations," (Royal Air Force Station Lyneham, 1991), in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* (19 May 1992), National Defense University Special Collections, Box 14, 4.

During Operation DESERT STORM, and in accordance with joint doctrine, fixed-wing and rotary-wing aircraft were separated geographically or via altitude by airspace control measures. Typically the missions and operating parameters of all aircraft, fixed- or rotary-wing, flying above a specified altitude were identified on the daily air tasking order. The Army's theater air control system typically controlled rotary-wing aircraft below the predetermined altitude.⁶² The doctrinal separation measures were designed to compensate for the organic control of Army and Marine helicopter missions and to ensure airborne deconfliction.

Prior to 16 April all coalition fixed- and rotary-wing aircraft (except German helicopters) were identified on a single air tasking order, contrary to established joint doctrinal procedures.⁶³ The concept worked well because of the relatively limited number of missions (forty-five to sixty) flown on a daily basis.⁶⁴ Aggregating all aircraft allowed for either geographic or time-based deconfliction on the air tasking order. Command and control required revision with the arrival of an Army combat aviation brigade (CAB) operating in Iraq and along the full length of the Turkish-Iraq border, a distance of over 150 miles.

⁶² For the contemporary guidance on command and control see Department of Defense, *Joint Publication 3-56.24 Tactical Command and Control Planning Guidance and Procedures for Joint Operations, Joint Interface Operational Procedures* (Washington DC: Government Printing Office, 1 Aug 1986). See also Carlton, "Interview with Lieutenant General John Shalikashvili," 48-50 for Shalikashvili's discussion of airpower command and control.

⁶³ Due to German domestic political decisions, the Luftwaffe was not a formal member of the coalition, instead working directly with the Turkish government to provide humanitarian aid. As a result of coordination between the European Command Commander and the Chief of the German Staff, a German General Officer was placed on the PROVIDE COMFORT staff to coordinate air and ground activities. See "Interview with Lt Gen James Jamerson," 3. The main issue for German lawmakers was the extent PROVIDE COMFORT served as a precedent for utilizing military means in U.N. humanitarian operations that may violate a state's sovereignty. For a discussion on German foreign and defense policy during this period, see Jeffrey Lantis, *Strategic Dilemmas and the Evolution of German Foreign Policy since Unification* (Westport, CT: Praeger, 2002) especially pp. 41-46.

⁶⁴ Rabb, "Interview with Lt Gen James Jamerson," 23 and United Kingdom Number One Air Mobility Wing, "Operation Provide Comfort Royal Air Force Transport and Support Helicopter Operations," Royal Air Force Station Lyneham, (1991).

The additional helicopters were initially added to the ATO with coordination accomplished through a liaison officer from the CAB assigned to the air operations center at Incirlik AB. The increased helicopter requirements eventually necessitated a change to the air command and control process as helicopter flights eventually outnumbered fixed-wing flights. To integrate the helicopters, Air Force planners divided the airspace into assigned geographic areas for deconfliction between the fixed-wing aircraft and helicopters. Because C-130 aircraft had a longer range, planners assigned C-130s to the easternmost camps with helicopter remaining closer to the main operating base at Silopi. Despite the increased safety measures inherent in the division of airspace, ground forces within the western camps perceived helicopters as more responsive than C-130s and better able to tailor humanitarian aid to the needs of each camp.

The geographic separation process created friction between ground and air commanders based on an air component requirement to submit flight routes and airdrop times at least forty-eight hours prior to mission execution.⁶⁵ Forty-eight hours was often too long given the rapidly changing conditions within the refugee camps. Coupled with the perceived inflexibility of airlift to deliver specific humanitarian aid to each camp, personnel from TF-A requested a cessation of fixed-wing airdrops in eastern refugee camps. Initially supportive of the single air tasking order construct, General Richard Potter, the TF-A commander, called deconfliction measures after the CAB arrival “dumber than dirt” and requested assistance from General Jamerson to cease fixed-wing airdrop missions to the eastern camps.⁶⁶

⁶⁵ Department of Defense, *Joint Publication 3-30: Command and Control of Joint Air Operations*, (Washington DC: Government Printing Office, 2010), F-1.

⁶⁶ General Potter quoted in Rudd, *Humanitarian Intervention*, 96. Not only was Potter the TF-B commander during PROVIDE COMFORT, he was also the Special Operations Command, Europe Commander. See also Thomas

Jamerson agreed with Potter that the addition of the CAB resulted in an air control construct lacking flexibility. The command and control structure was modified to time-based deconfliction with helicopters provided thirty minute priority windows throughout the day with fixed-wing aircraft allocated secondary windows.⁶⁷ The revised procedure satisfied Jamerson's initial safety concerns and avoidance of mid-air collisions. The procedures also allowed Potter's forces to benefit from the large load capacity of the fixed-wing aircraft and the responsiveness of helicopters to tailor humanitarian aid to the easternmost camps.⁶⁸ Ultimately, command and control for air reverted to doctrinal procedures for the remainder of PROVIDE COMFORT. The air tasking order contained all fixed-wing and Air Force helicopters while the Army Theater Air Control System controlled Army and Marine helicopters.⁶⁹ The revised command and control structure provided the flexibility desired by Potter and the safety required by Jamerson.

Air Superiority

For PROVIDE COMFORT, air strategy based on local air superiority would be identified by operations centered about a specific area whereas general air superiority would be identified by operations throughout Iraqi airspace north of the thirty-sixth parallel. Air superiority was one of the first concerns for leadership and strategists alike beginning on 6 April. Although the Iraqi Air Force was weakened during Operation DESERT STORM, it still retained capability to challenge air superiority with

Adams, *US Special Operations Forces in Action: The Challenge of Unconventional Warfare*, (Oxon, UK: Routledge, 1998), especially pp. 244-254.

⁶⁷ Raab, "Interview with Lt Gen James Jamerson," 24-25.

⁶⁸ Rudd, *Humanitarian Intervention*, 94-98.

⁶⁹ "[General Potter] wanted to get helicopters into camps out in the east. We were still doing a fair amount of airdropping, the fixed wing airdrops out to the east. So we were concerned about conflicts between the helicopters and airplanes... there may have been better ways to do air space early on. Though, in point of fact, we got the job done in the long haul." Maj Gen Jamerson in Raab, "Interview with Lt Gen James Jamerson," 24-25.

Mikoyan-Gurevich (MiG)-29, MiG-25, and MiG-23 aircraft stationed at Al-Taqaddum, Al-Asad, K-1, K-2, and Kirkuk airbases.⁷⁰

Iraq also possessed Soviet-built radar and infrared guided surface-to-air missile systems, anti-aircraft artillery and significant amounts of small arms artillery, such as AK-47s and 12.7mm machine guns capable of targeting coalition helicopters and aircraft. Iraqi leaders, including Saddam, resented coalition infringement of sovereignty. Emphasizing the Iraqi policy at the time Saddam Hussein ordered, “verify how many planes come so that you can shoot them down. In this manner we have a comprehensive air defense line.”⁷¹ General Jamerson directed air strategists to correctly assume Iraq would counter coalition operations and also explore innovative means to achieve air superiority.⁷²

Strategists produced a scaled-down version of the PROVEN FORCE air superiority plan utilized during Operation DESERT STORM.⁷³ The size of the no-fly zone made general air superiority very difficult given the initial force composition. As a result, the strategy utilized a local air superiority plan centered about aircraft delivering supplies to known refugee camps. Local air superiority remained the focus of the strategy for the remainder of PROVIDE COMFORT although the Iraqi reluctance to challenge the coalition with either fighter aircraft or surface-to-air missiles resulted in *de facto* general air superiority north of the thirty-sixth parallel. Based on current sources, there are only four reports of Iraqi military forces engaging coalition aircraft,

⁷⁰ For a discussion on Iraqi aircraft capabilities, the best reference is *Jane's All the World's Aircraft*, ed. Paul Jackson and Lindsay Peacock (London, U.K.: Janes Information Group, 2011).

⁷¹ Saddam Hussein, “Revolutionary Command Council Meeting Attended by Saddam Hussein and High Ranking Military Commanders,” translated audio recording, *Saddam Hussein Collection*, Conflict Records Research Center, SH-SHTP-A-000-786, undated, 1.

⁷² Jamerson noted that the air superiority problem posed a unique threat to coalition aircraft and until suppression of enemy air defense aircraft were available “it was just up to the task force to figure out how we were going to do it.” Raab, “Interview with Lt Gen James Jamerson,” 3.

⁷³ The PROVEN FORCE air superiority plan relied on two squadrons of U.S. F-15C aircraft conducting Offensive Counterair in Iraq and coordination with the Turkish Air Force, which were expected to fly F-16 and F-4 and conduct Defensive Counterair in Turkey. See Rabb, “Interview with Lt Gen James Jamerson,” 13.

all of which involved only small arms fire. A Navy A-6 on 7 May, a medical evacuation helicopter on 9 May, an OH-58 helicopter on 14 May, and an AH-64 helicopter on 17 May reported being targeted by small arms fire.⁷⁴ It is not surprising that anti-aircraft artillery and small arms fire were the only effective Iraqi air defenses. The coalition would utilize a broad array of aircraft to deter and suppress Iraqi aircraft and air defenses.

A typical air tasking order consisted of four separate two-ship formations of F-15s conducting Offensive Counter-Air. Each two-ship formation performed staggered three hour windows or "vul periods" during hours of daylight. Each F-15 carried four AIM-7 radar missiles, four AIM-9 infrared missiles and 900 rounds of 20 millimeter ammunition.⁷⁵ In addition, a two-ship of F-15s remained on four-hour alert at Incirlik AB throughout the twenty-four hour air tasking order period in case additional Offensive Counter Air assets were required. The advanced F-15 radar and avionics provided capability to find and track up to eight enemy targets. For the period 21 April- 21 May, the F-15C's were augmented with F-14 and F/A-18 aircraft from Task Force 60 aboard the U.S. Navy Carrier Group Eight in the Eastern Mediterranean. The naval planes possessed similar capabilities as the F-15s and would fly 141 dedicated air superiority missions when F-15s were unavailable.

⁷⁴ Brigadier General Campbell, "Joint Task Force Bravo Command Brief to General Powell," in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, (1991), National Defense University Special Collections, Box 14, unfiled, slide 3-4. After action reports and mission reports for PROVIDE COMFORT are available at the Air Force Historical Studies Office but remain classified. It is possible additional reports may surface but the available unclassified reports accurately correspond to the official record that no Air Force aircraft were hit by Iraqi anti-aircraft artillery or missile fire.

⁷⁵ Discussion of air tasking orders and specific aircraft missions can be found in the unclassified summaries developed by the European Command's Command Center. These documents can be found in box 19 of the personal papers of Colonel Carlton at the National Defense University Special Collections Branch. The missile loadout is considerable given the threat posed by Iraq. At the time, the AIM-7 was the most advanced air-air missile in the Air Force inventory and accounted for 24 of the 41 confirmed air-air kills in Operation DESERT STORM. The AIM-9 accounted for 12 of the 41 air-air kills. The remaining kills were either from aerial gunnery, forcing the enemy to fly into the ground, or with a precision munition such as the GBU-10 laser guided bomb. See *A Statistical Compendium and Chronology*, ed. Eliot Cohen, Gulf War Air Power Survey, vol. 5 (Washington, DC: Government Printing Office, 1993) especially pp. 652-654.

The fighter aircraft were supported by intelligence, surveillance and reconnaissance aircraft monitoring both Iraqi airspace north of the thirty-sixth parallel and Iraqi airfields. An E-3 Airborne Warning and Control System (AWACS) aircraft airborne for nine hours during the day provided command and control of aircraft, airspace deconfliction, and early warning of airborne threats to coalition aircraft and ground forces. While the E-3s provided valuable information to PROVIDE COMFORT forces, the rugged terrain and 8,000 foot mountains limited the capability of AWACS to maintain continuous surveillance of low-flying aircraft. Since AWACS remained in Turkish airspace, humanitarian camps on the southern sides of mountains generally had intermittent or no communication capability with the aircraft.⁷⁶ To compensate, fighter combat air patrol (CAP) orbits were placed to the south of the Turkey-Iraq border. These orbits allowed the fighters' on-board radar, augmented by aircrew visual-lookout, with the ability to monitor the airspace for low-flying Iraqi aircraft and also provide a radio relay ability to the southern camps. Additionally, a single RC-135 augmented the command and control functions of the E-3 during a six-hour daytime period. The RC-135 gathered electronic intelligence and provided a communication link between command elements at Incirlik Airbase and ground forces in refugee camps.

Although no Iraqi fixed-wing aircraft threatened PROVIDE COMFORT air or ground forces or Kurdish refugees, their helicopters continued to fly. The most serious infringement occurred on 22 April near Zakho when a formation of F-16s intercepted two Mi-8 helicopters.⁷⁷ The helicopter flights had not been coordinated with coalition forces and they occurred in the vicinity of U.S. and British ground forces

⁷⁶ This is based on requiring line-of-sight from the AWACS to the ground encampment for radar and radios to remain effective.

⁷⁷ Ronald Brown, *Humanitarian Operations in Northern Iraq, 1991 with Marines in Operation Provide Comfort* (Washington, DC: History and Museums Division, Headquarters U.S. Marine Corps, 1995), 63.

operating in northern Iraq. Mindful of the rules of engagement, the F-16 pilots conducted flight and radio procedures to notify the helicopters of their presence. The helicopters did not overtly threaten the U.S. or British forces and returned to base, landing without incident as the F-16s shadowed their flight route.

A minor issue affecting air superiority in April was an Iraqi request to utilize fixed-wing aircraft and helicopters to perform crop-dusting activities north of the 36th parallel. Iraq stated a requirement for the flights due to the upcoming planting season and a need to ensure a sustainable crop. Ultimately the flights were approved by Shalikashvili with several caveats: the fixed-wing aircraft would be flown only by Polish contract pilots and helicopters would not conduct dusting activities within 5 kilometers of coalition personnel.⁷⁸ The flights were coordinated through the Mission Coordination Center and placed on the air tasking order. Air superiority and AWACS aircraft monitored the flights and maintained radio contact to the maximum extent possible. Even with Shalikashvili's approval, the addition Iraqi fixed-wing aircraft flying north of the 36th parallel complicated the rules of engagement aircrew followed for employing weapons against hostile Iraqi ground or air forces.

At the outset of PROVIDE COMFORT when military operations focused solely on airdrops of supplies to Kurds along the Turkish-Iraq border, rules of engagement were limited to guidance for defending against Iraqi ground based air defenses. Partially due to the political sensitivity of coalition aircraft flying into Iraqi airspace and against the air defenses, no aircraft released ordnance prior to 16 April.⁷⁹ Once the political

⁷⁸ "CINCEUR message dated 23 May 91 to Joint Staff" in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* (19 May 1992), National War College Special Collections, Box 18, unfiled.

⁷⁹ George Kramlinger, *Sustained Coercive Air Presence: Provide Comfort, Deny Flight, and the Future of Airpower in Peace Enforcement* (Maxwell AFB, AL: Air University Press, 2001), 23. Kramlinger was a F-111 pilot and operations officer for the 523rd Fighter Squadron and flew fifty missions during Operation PROVIDE COMFORT. Of note, aircrew were authorized to perform simulated attacks against Iraqi ground forces. The procedure involved flying over the forces but not releasing any weapons. These procedures not only maintained aircrew proficiency but also served as a form of deterrence against the Iraqi forces.

objectives of the mission changed to resettling Kurds, PROVIDE COMFORT planners developed rules of engagement focused on defensive measures and further restricting the use of force (see Figure 5-2). The restrictions were primarily due to the aircraft operating well within Iraqi airspace but also to adhere to the mandate stipulated in U.N. Security Council Resolution 688.

Rules of Engagement for Operation PROVIDE COMFORT⁸⁰

(As Authorized by JCS [EUCOM Dir 55-47])

1. All military operations will be conducted in accordance with the laws of war.
2. The use of armed force will be utilized as a measure of last resort only.
3. Nothing in these rules negates or otherwise overrides a commander's obligation to take all necessary and appropriate actions for his unit's self-defense.
4. US forces will not fire unless fired upon unless there is clear evidence of hostile intent.

Hostile Intent - The threat of imminent use of force by an Iraqi force or other foreign force, terrorist group, or individuals against the United States, US forces, US citizens, or Kurdish or other refugees located above the 38th parallel or otherwise located within a US or allied safe haven refugee area. When the on-scene commander determines, based on convincing evidence, that hostile intent is present, the right exists to use proportional force to deter or neutralize the threat.

Hostile Act - Includes armed force directly to preclude or impede the missions and/or duties of US or allied forces.

5. Response to hostile fire directly threatening US or allied care shall be rapid and directed at the source of hostile fire using only the force necessary to eliminate the threat. Other foreign forces as (such as reconnaissance aircraft) that have shown an active integration with the attacking force may be engaged. Use the minimum amount of force necessary to control the situation.
6. You may fire into Iraqi territory in response to hostile fire.
7. You may fire into another nation's territory in response to hostile fire only if the cognizant government is unable or unwilling to stop that force's hostile acts effectively or promptly.

Figure 5-2: Operation PROVIDE COMFORT Rules of Engagement

⁸⁰ Donald Goff, *Building Coalitions for Humanitarian Operations: Operation Provide Comfort* (Carlisle Barracks, PA: U.S. Army War College, 1992), 16-19.

8. Surface-to-air missiles will engage hostile aircraft south of the 36th parallel only when they demonstrate hostile intent or commit hostile acts. Except in cases of self-defense, authorization for such engagements rests with the designated air defense commander. Warning bursts may be fired ahead of foreign aircraft to deter hostile acts.

9. In the event US forces are attacked or threatened by unarmed hostile elements, mobs, or rioters, the responsibility for the protection of US forces rests with the US commanding officer. The on-scene commander will employ the following measures to overcome the threat:

1. Warning to demonstrators.
2. Show of force, including the use of riot control formations.
3. Warning shots fired over the heads of hostile elements.
4. Other reasonable use of force necessary under the circumstances and proportional to the threat.

11. Use the following guidelines when applying these rules:

1. Use of force only to protect lives.
2. Use of minimum force necessary.
3. Pursuit will not be taken to retaliate; however, immediate pursuit may begin and continue for as long as there is an immediate threat to US forces. In the absence of JCS approval, US forces should not pursue any hostile force into another nation's territory.
4. If necessary and proportional, use all available weapons to deter, neutralize, or destroy the threat as required.

Figure 5-2 (continued): Operation PROVIDE COMFORT Rules of Engagement

Because political guidance generally determines the content and constraints of the rules of engagement, Operation PROVIDE COMFORT presented a unique and unfamiliar situation for airpower. Instead of an offensive focus, the rules of engagement for this operation were defensive and restrictive in nature. Tactically, Iraq was recently defeated on the battlefield by similar coalition forces and coalition policymakers harbored significant uncertainty about how Iraqi military forces stationed in northern Iraq would react to coalition military operations. Strategically, countries such as Russia and China viewed coalition actions with skepticism and believed PROVIDE COMFORT was an attempt to undermine Saddam Hussein's rule by

violating Iraqi sovereignty and strengthening Kurdish resistance.⁸¹ Developing restrictive rules of engagement helped allay Russian and Chinese concerns while providing a strategic level of understanding of the limited military and focused humanitarian nature of PROVIDE COMFORT.

At the tactical level, armed conflict was a distinct possibility due to military operations in Iraq without Iraqi consent. However, rules of engagement specifically designed to avoid confrontation allowed a measure of control over potential confrontation and conflict escalation with Iraqi air and ground forces. Shalikashvili ensured the Iraqis were aware of coalition rules of engagement during his meetings with General Nashwan at the Military Coordination Center. Iraqi commanders understood coalition forces would not preemptively engage their forces but retained the right to self-defense. Applying the rules of engagement was a central concern for air planners trying to decide how best to deter Iraqi aggression while achieving air superiority, two historically offensive missions.

PROVIDE COMFORT air strategists applied the rules of engagement to the threat of fixed and rotary-wing aircraft and ground-based anti-aircraft artillery and small arms fire. The ground-based threats proved more numerous and dangerous as evidenced by damage to an A-6 and several helicopters during May. Against ground-based threats, the rules of engagement allowed the aircraft to only attack threats with a proportional response and with a minimum use of force. Against airborne threats, air superiority rules of engagement limited retaliatory actions based on the Iraqi threat to coalition forces. Use of force for coalition aviators was authorized only if the Iraqi military immediately threatened coalition personnel with a hostile act. If a hostile act

⁸¹ British Broadcasting Corporation, "No-Fly Zones: The Legal Position," n.d. http://news.bbc.co.uk/2/hi/middle_east/490361.stm. (accessed 4 Oct 2013). It is important that although these perceptions were voiced by Chinese and Russian officials, neither country exercised veto authority on UNSCR 688. Russia voted for the resolution and China abstained. Reference UNSCR 688 in Appendix 2.

was committed, coalition forces would counter the threat through progressively greater use of force beginning with a show of force, escalating to warning shots and culminating with an engagement to destroy the threat.

The air superiority plan also remained grounded in local air superiority procedures, further limiting the possibility of inadvertent conflict. Initial air superiority was limited to escort of cargo planes delivering humanitarian aid along the Turkey-Iraq border with MC-130 and A-10s, aircraft not normally used for the air superiority mission. With the addition of F-15C and F-16 aircraft, air superiority expanded to conducting combat air patrols over the known encampments and, after 16 April, coalition ground force operations. F-4G aircraft were also airborne to suppress Iraqi air defense missile and radar sites from conducting hostile actions against coalition aircraft. These SEAD/Wild Weasel aircraft concentrated their effort over the major Iraqi cities and the air corridors leading to the refugee camps.

PROVIDE COMFORT rules of engagement minimizing offensive actions of aircraft comprised the final component of local air superiority. The rules of engagement stated “pursuit will not be taken to retaliate; however, immediate pursuit may begin and continue for as long as there is an immediate threat to US forces.”⁸² In essence, if an Iraqi aircraft contested air superiority by flying north of the thirty-sixth parallel, coalition aircraft could only engage with weapons if the Iraqi aircraft committed a hostile act by threatening coalition forces or Kurdish refugees. Instead, the rules of engagement tended to emphasize deterrence via presence over offensive application of airpower. Because of this, deterrence of the Iraqi threat to coalition operations will be discussed in the next section.

⁸² Goff, *Building Coalitions for Humanitarian Operations: Operation Provide Comfort*, 19.

Deterrence of Iraqi Threat

Chapter Three identified a deterrent air strategy utilizing either denial or punishment means. A denial strategy raises the military costs to a level preventing an adversary from achieving a political objective whereas a punishment strategy reduces the enemy's will to resist by imposing unacceptable costs. If a denial strategy is being utilized, the target of airpower actions will be elements of the Iraqi military. If a punishment strategy is used instead, the target of airpower will be infrastructure and civilian populace of the state. During PROVIDE COMFORT, the Iraqis maintained four divisions, approximately thirty thousand soldiers, in Northern Iraq with artillery and attack helicopters. The coalition, at the height of its operations, numbered approximately twenty-three thousand military personnel with very limited self-defense capability.⁸³ The airpower strategy was intended to provide the capability to offset the numerical disparity and self-defense deficiency by presenting the appearance of a much stronger offensive capability than the coalition actually possessed. Coalition leaders believed the recent capability of airpower demonstrated during DESERT STORM in which Iraqi air and ground units were devastated, would provide a baseline for Iraqi perceptions.⁸⁴ However, the Iraqi military was the primary impediment to returning the Kurds and, as a result, the preponderance of airpower was devoted to deterring Iraqi military activity.

Deterrence was achieved by tasking aircraft for the Close Air Support role. Seven separate two-ships of F-16's each armed with two one thousand pound Cluster Bomb Unit-87's, two five-hundred pound general purpose bombs, and AIM-9 air-air

⁸³ Lt Gen Shalikashvili testimony in Committee on Armed Services House of Representatives, *Hearings before the Defense Policy Panel*, 102nd Congress, 4 Sep 1991, 12.

⁸⁴ Jamerson stated "You would like to think that on the Iraqi side that they have some significant perspective of what airplanes can do. That's what makes us comfortable if action were required, that we have the capability to do that." Raab, "Interview with Lt Gen James Jamerson," 65-66.

missiles, maintained a constant aerial presence during the day.⁸⁵ Additionally, two F-16's remained on four-hour alert during the entire 24-hour ATO period. The F-16s became the preferred aircraft for airborne tasking due to the multi-mission capability to rapidly transition from Close Air Support to air superiority if needed. General Jamerson emphasized this point when he stated, "the F-16s bring some air-to-air capability to us and some other things we need to be able to have to enforce the rules of about no [sic] flying above the thirty-sixth parallel, and range and speed, they can get out there and get to areas better" to support the ground mission.⁸⁶

Augmenting the F-16s was a formation of two A-10 aircraft providing continuous Close Air Support overwatch armed with two Air-Ground Missile-65's. Two A-10's were also on continuous four-hour alert at Incirlik Airbase.⁸⁷ Because of their relatively lower airspeed compared to the F-16, the A-10s tended to remain close to the border and coalition forces. F-16s, in contrast, provided greater ability to rapidly respond to any event in the no-fly zone given their greater speed and range.⁸⁸ In order to meet aircraft fuel needs for extended periods, seven tankers were airborne throughout the day capable of offloading approximately three-hundred-and-fifty-thousand pounds of fuel. One tanker also remained on four-hour alert to support any alert fighter launch. This resulted in a total of forty-four CAS missions per day for the fighters and support aircraft. In cases when CAS aircraft were not immediately available for deterrent actions, air superiority aircraft were utilized to provide a visible presence. Although not a part of tactical training, air superiority F-15s would conduct

⁸⁵ The vast majority of airpower operations occurred during the day because the Iraqi threat tended to be a day only threat. The Iraqis possessed very limited night flying ability. Historically, the Iraqi Air Force rarely flew at night.

⁸⁶ Ibid., 50.

⁸⁷ All aircraft references from EUCOM Command Center message dated 26 May 1991 in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War"*, 20 December 1991, National Defense University Special Collections, Box 14, unfiled.

⁸⁸ Jamerson noted "There's value in just the image of the A-10, people on the ground look up and see it. It's a big airplane. It has its own kind of impact on those who see it." Raab, "Interview with Lt Gen James Jamerson," 50.

a low-altitude fly-by of Iraqi forces at an altitude of five hundred to five thousand feet above ground level.⁸⁹ The aircraft maximized the deterrent posture by performing the fly-by in full afterburner and dispensing flares as needed to reinforce their presence.

As coalition ground forces began operating in Iraq after 16 April, a visual and constant airpower presence became increasingly important. The coordination between aircraft presence and ground maneuver typically occurred in one of two ways.⁹⁰ The preferred way for aircrew was through prior coordination during the air tasking order development process. This method allowed aircrew to understand the coalition ground force scheme of maneuver, utilize intelligence estimates to determine expected Iraqi locations and develop specific tactics. Although this method maximized effectiveness, the seventy-two hour development process often meant the ground situation had changed by the time aircraft arrived overhead and would need to be re-allocated to different missions.

The second method, preferred by the ground forces, was real-time airborne tasking. This method relied on the ground forces coordinating with either the tactical air operations center or the AWACS to request air cover. The request would then be routed to airborne Close Air Support aircraft with a radio frequency to coordinate directly with the ground forces. This was the preferred method for ground forces given its flexibility and adaptability to real-time situations that would arise. Although this was the most common method for tasking Close Air Support aircraft, for aircrew it was not preferred because of the limited ability to plan ahead for the specific mission.

Despite the misgivings, these methods proved superior for rapidly delivering relief to

⁸⁹ "F-15 aircraft would modify tactics and flight procedures in order to provide a visible deterrent presence to the Iraqi military. Typically flying 20,000 feet above ground, the aircraft would fly between 500 and 5,000 feet above ground." Chuck Sudetics, "U.S. Relief Commander Will Meet Iraqi Military," *New York Times*, 19 April 1991, A8.

⁹⁰ Colonel Phil Darcy, interview by author, 26 September 2013, transcript in personal files. Colonel Jack Hruby, interview by author, 19 October 2013, transcript in personal files. Both Colonel Darcy and Col Hruby were U.S. Air Force officers that flew combat missions during PROVIDE COMFORT.

the enclaves and deter subsequent Iraqi threats against the Kurdish refugees.⁹¹ From the perspective of the ground commander, the ability to rapidly call on aircraft to provide a visible deterrent was often critical to preventing conflict with Iraqi ground forces. The key, according to ground commanders, was not to drop bombs or engage the Iraqis, but to provide a reminder of presence through any means possible.⁹² Typically aircraft would orbit above the Iraqi positions or perform periodic low-fly shows of presence.

The PROVIDE COMFORT airpower strategy satisfies the deterrence propositions presented in Chapter Four. First, the deterrent actions were concentrated towards the Iraqi military and not Iraqi civilians. In conjunction with diplomacy and ground forces, the airpower strategy successfully deterred Iraqi military aggression towards the returning Kurdish refugees and the coalition forces. Second, the airpower strategy relied on the aforementioned rules of engagement to mitigate the possibility of conflict escalation. One of the stated desires of President Bush, British Prime Minister Tony Blair and Turkish President Turgat Özal was the desire to avoid an Iraqi civil war. An excessive application of force to deter the Iraqis could have undermined this desire. However, it is a testament to the aircrew's discipline that no aircraft released ordnance or fired on Iraqi personnel during the entirety of PROVIDE COMFORT. In addition, at no point during the operation did the Iraqi's mount a significant threat to either the coalition forces or returning Kurdish refugees. There were minor confrontations on the Iraqi border and several tense standoffs as coalition forces moved into safe zones

⁹¹ David Clary, *Operation Provide Comfort: A Strategic Analysis*, Air War College Thesis (Maxwell, AFB, AL: Air University, 1994), 15. Clary was an A-10 pilot and flew missions during PROVIDE COMFORT.

⁹² Lt. Col. John Abizaid, commander of the 3rd Battalion, provides a general description of how this method worked to deter Iraqi ground forces. "In most of our meeting engagements, we took the following actions: we kept air cover circling above or near the Iraqi positions, deployed infantry into defensive positions well within view of the enemy and immediately began digging in... It was only a matter of time before the Iraqi's withdrew." John Abizaid, "Lessons for Peacekeepers," *Military Review* 73 no. 3 (March 1993), 15.

inside Iraq, but the combination of visible airpower and stated diplomatic resolve precluded armed conflict.

The rules of engagement provided appropriate operational constraints for maintaining the balance between deterring military aggressions and maintaining an ability to manage conflict escalation. This balance conforms with the second proposition of deterrence that an airpower strategy will put in place mechanisms to mitigate the possibility of conflict escalation. The rules of engagement specified “the use of armed force will be utilized as a measure of last resort only” and only authorized a gradual and incremental application of force.⁹³ In essence, airpower would utilize the minimum required force to deter the Iraqis. Aside from protecting coalition ground forces and providing freedom of maneuver in Iraq, the deterrent actions complemented activities to reassure Kurdish refugees of coalition efforts to protect the Kurds from Iraqi aggression. The airpower strategy of reassurance is covered in the next section.

Reassurance of Kurdish Population

A central tenet of the political objectives after 16 April was to persuade the Kurds to return to a country and regime responsible for their exodus just one month prior. For the Kurds, the central issue was assuring security from the Iraq military, especially tanks and airpower. Jalal Talabani, a long-time leader of the Patriotic Union of Kurdistan, emphasized the Kurds despondency as “we are alone. We have no money, no ammunition, no antitank weapons, no anti-aircraft weapons. No one is supporting us.”⁹⁴ President Bush, in a telephone conversation with Turkish President Turgut Özal, reached a similar conclusion on Kurdish vulnerability and the need to counter Iraq’s asymmetric airpower advantage. In requesting Turkish support for

⁹³ Goff, *Building Coalitions for Humanitarian Operations: Operation Provide Comfort*, 16.

⁹⁴ Talabani quoted in Randal, *After Such Knowledge, What Forgiveness*, 106.

repatriating the Kurdish diaspora Bush believed that airpower was a required component to reassuring the Kurds to return to Iraq.⁹⁵

In addition to the strategic level concerns about Kurdish repatriation, individual Kurds were quickly tiring of life in the refugee camps. Mustafa Shaheen, a clan chieftain, echoed the concerns of many Kurds stating, "If the American government protects us in Iraq, we would like to go back because it is our home."⁹⁶ Additionally, there was strong desire among the Kurds to return to their land and resume farming as the traditional planting season for crops in northern Iraq was starting in late April.⁹⁷ The Kurdish farmers were wary of Iraqi intentions if the military was left unchecked and were willing to forego a quick and unsafe return for a safer return over a longer period of time.⁹⁸

Ironically, the airdrop of humanitarian aid around which the PROVIDE COMFORT airpower strategy was initially designed perhaps had a greater qualitative impact on Kurdish morale than quantitative impact on sustenance. Due to poor weather and limited knowledge of the location of refugee camps, the initial airdrops were largely symbolic as only limited supplies reached the Kurds, either due to inaccurate delivery in poor weather and mountainous terrain or destruction upon ground impact. For the Kurds the sight and sound of airpower overhead was much more effective. Non-governmental workers in refugee camps noted the positive effect

⁹⁵ In a telephone conversation with Turkish President Özal, Bush stated "As for the security of the flat area encampments ...*the U.S. air forces, with your permission in terms of operations out of Turkey, would provide cover with our air power to see that these camps were not attacked.* We also think, Turgut that we need ground forces and the reason for that is *simply to reassure the Kurds that they can move into Iraq without fear.* We think if Saddam says 'I promise not to hurt you' that won't be good enough. The Kurds will say 'The hell with that. You killed us once before' [italics added]." Bush, "Telecon with President Özal of Turkey" 16 Apr 91, 1.

⁹⁶ John Kifner, "After the War: The Dread Runs Deep," *New York Times*, 19 April 1991, A9. See also "Allies to Extend Safe Zone in Iraq 70 Miles Eastward," *New York Times*, 2 May 1991, A1 and Clyde Haberman, "Iraqis Pull Back in North; U.N. To Send Some Guards," *New York Times*, 19 May 1991, A8.

⁹⁷ Kifner, "Allies to Extend Safe Zone in Iraq 70 Miles Eastward," A1.

⁹⁸ Saleh Youssef, a Kurdish farmer summed up the dominant Kurdish opinion when he stated. "Nobody wants the Americans and the allies to go because we know our enemy well." Saleh Youssef as quoted in Clyde Haberman, "Kurds, Fed by Fearful Still Dubious on Future," *New York Times*, 24 May 1991, A8.

an aircraft overflying the location had on the refugees. The Kurds would initially run for cover, believing an attack from the Iraqi Air Force was imminent. Instead, once the aircraft were visually identified as a coalition aircraft, Kurds would cheer and wait expectantly for airdropped supplies.⁹⁹

Aside from the airdrops, the airpower strategy for reassurance hinged on three interconnected actions, with overt displays of airpower capabilities to Kurdish leaders serving as the first action. An example of this occurred immediately after Shalikashvili met with the Kurdish elders on 12 Jun 1991. These Kurdish leaders observed a demonstration of coalition airpower capabilities at the northern Iraq airfield at Sirsenk. The fighter aircraft simulated low-altitude combat tactics that could be utilized against Iraqi infantry and armor formations as well as low-altitude air-to-air tactics against helicopters.¹⁰⁰ The intent of the demonstrations was assuring the Kurdish leaders of coalition airpower capabilities as coalition ground forces were being replaced by U.N. observers. Kurdish leaders openly voiced skepticism about U.N. capabilities to counter the Iraqi threat and the airpower demonstrations assuaged their concerns.¹⁰¹ While the visible presence of airpower demonstrated coalition resolve and capability, it was just one component to providing assurances. The second component was direct engagement and verbal assurances from U.S. leadership.

⁹⁹ Dr. Marcel Bonnot, a member of the French Ministry of Foreign Affairs, noted after watching an airdrop on 8 April: "The noisy camp hushed when the sound of arriving aircraft was heard. At first most of the refugees rushed for cover, thinking the humming engines heralded a reappearance of Saddam's air force. However, when no bombs began falling, eyes focused upward and followed a lumbering C-130 as it slowly circled the camp. A roll of toilet paper thrown from the plane tested wind direction. Suddenly, a series of large objects dropped from the plane's tail section. The fearful Kurds were astounded when gigantic white parachutes blossomed and bundles of food floated to the earth." Dr. Bonnet quoted in U.S. Army Quartermaster Museum, "Quartermaster Aerial Delivery: The Story of the Airborne Rigger," US Army Quartermaster Foundation, <http://www.qmfound.com/riggers.htm>. (accessed 1 Oct 13). See also Randal, *After Such Knowledge, What Forgiveness*, 65-69.

¹⁰⁰ "Kurds Urge Allies to Stay in Iraq," *The Washington Post* 15 Jun 1991, A18.

¹⁰¹ A common refrain from Kurds was "the United Nations is terrific, but the protection of the Americans is better." Ahmed Youssef quoted in Clyde Haberman, "Kurds' Fears Not Allayed by U.N. Force," *New York Times*, 20 May 1991, A6.

In early June, coalition leaders informed the Kurds JTF-A and JTF-B would be replaced by a U.N. force within thirty days. On 4 June, two separate demonstrations occurred in Zakhu and Dihok in which Kurdish refugees chanted pro-coalition and pro-American slogans while voicing their desire for coalition forces to remain in Iraq.¹⁰² General Shalikashvili met with Kurdish leaders and confirmed the general timeline for ground force withdrawal by mid-July but ensured the Kurds understood coalition air cover would persist. Shalikashvili emphasized airpower would remain stationed in Turkey and provide a capability to deter Iraqi military activity north of the thirty-sixth parallel for the foreseeable future.¹⁰³

As Kurdish aid delivery transitioned from U.S. to U.N. control, Shalikashvili and Garner encouraged subordinate commanders to continually remind Kurds of the coalition force remaining in southeastern Turkey. The talking points commanders used discussed airpower rapid response and offensive capabilities relative to the Iraqi military.¹⁰⁴ The residual force would comprise aircraft stationed at Incirlik Airbase capable of air superiority, interdiction and command and control, as well as a carrier air wing in the eastern Mediterranean. A reinforced rapid reaction battalion of approximately four hundred light infantry Army personnel stationed in eastern Turkey augmented the aircraft. Department of Defense spokesman Pete Williams emphasized the intent of the forces as, “a multinational residual force of warplanes, attack helicopters and air-transportable infantry poised outside Iraq to enforce the ultimatums and, more broadly, to respond militarily to Iraqi actions that disturb the peace... I don’t consider it a quagmire, I consider it an insurance policy. We’re

¹⁰² 4 June Department of Defense press briefing, in *Papers of Colonel Patrick W. Carlton, "Civil Affairs in the Persian Gulf War,"* Box 19, unfiled.

¹⁰³ Raab, "Interview with Lt Gen James Jamerson," 71 and Carlton, "Interview with Major General Jay Garner," 38.

¹⁰⁴ General Jameson would tell Kurdish leaders “air based Provide Comfort force[s] still have more than enough capability...to enforce any kind of guidelines that we need to have enforced to ensure the conditions stay as they ought to stay [in Iraq].” Raab, "Interview with Lt Gen James Jamerson," 72.

ensuring that [Saddam] understands that we're deadly serious about...protecting the Kurds. We will leave this force in place as long as we think it's appropriate."¹⁰⁵

The third component of Kurdish reassurance was accomplished by psychological operations (PSYOPS) delivered through airpower. PSYOPS are operations designed to convey a specific message or information to a specific audience, the Kurds in this case. The language barrier became an impediment to reassuring the Kurds to return to Iraq because very few refugees spoke English and fewer Americans spoke a Kurdish dialect. As a result, over five million Arabic language PSYOPS products, in the form of leaflets, pamphlets and handbills, were distributed in northern Iraq.¹⁰⁶ The purpose of the PSYOP campaign was to assist in bridging the communication barrier and also provide another means to encourage Kurds to return to Iraq. The leaflets dropped by aircraft included instructions on how to utilize humanitarian aid, mine awareness maps, and various other leaflets. Perhaps the most important leaflet was the "safe conduct pass" which, in English, Kurdish, and Arabic stated:

Please allow the bearer of this pass safe passage. They have been sheltering in Turkey and are returning home with the assistance of international force...this person is an innocent civilian caught in circumstances beyond their control.¹⁰⁷

The reassuring nature of overt displays of airpower, direct engagement with Kurdish refugees, and psychological operations tended to convince the Kurds to return to Iraq instead of relying on continued humanitarian aid. The archival evidence shows that airpower's ability to provide referent assurance during PROVIDE COMFORT was

¹⁰⁵ Pete Williams quoted in Barton Gellman, "Last Coalition Units Are Leaving Iraq," *The Washington Post*, 13 Jul 1991, A1. See also Eric Schmitt, "Last Troops Begin Withdrawing from Northern Iraq," *New York Times*, 13 Jul 1991, A1.

¹⁰⁶ Army 4th Psychological Operations Group, *Psychological Operations Support for Operation Provide Comfort* (Ft Bragg, NC: United States Army, 1994), 3.

¹⁰⁷ Ibid., 23. For a visual depiction of select PSYOP products, reference <http://www.psywarrior.com/ProvideComfort.html> (accessed 26 Oct 13).

consistent with the two propositions presented in Chapter Four. First, a reliable and visible presence of aircraft to the population was required. Second, airpower's actions were coupled with broader diplomatic measures and key leader engagement with the referent population. In addition, the role of ground forces was instrumental for the initial movement of the Kurds back to Iraq. With the mid-June decision to remove coalition ground forces from Iraq within thirty days became public, however, Kurds still willingly returned to Iraq. A significant reason was the desire to return home, but a common sentiment was the confidence Kurdish leaders had in ability of airpower stationed in Turkey to deter Iraqi aggression and respond to Iraqi use of force.¹⁰⁸ Combined with the direct communication between senior coalition and Iraqi military officers at the Mission Coordination Center, the strategy provided a minimal force structure to successfully repatriate the Kurdish diaspora at a risk level acceptable to coalition and U.S. leadership.¹⁰⁹ In addition, the small commitment of credible military force had the side benefit of achieving a level of perceived infringement on sovereignty tolerable to the Iraqi regime. The Kurdish return to Zakho is illustrative of how airpower was integrated into an overall military strategy to deter the Iraqi military and provide assurances to the returning refugees.

Bringing it together: The return to Zakho

The vignette of the 24th Marine Expeditionary Unit's (MEU) move into Zakho on 20 April is representative of airpower's use in PROVIDE COMFORT. Before the Kurdish exodus, Zakho was a town of approximately one hundred thousand

¹⁰⁸ "Kurdish leaders in northern Iraq said that they had rejected an autonomy deal offered by Baghdad...the Kurdish quest for greater autonomy, however, apparently reflects confidence that the proposed creation of an allied force in neighboring Turkey will...deter persecution of Iraq's 3.5 million Kurds." in Alan Cowell, "Iraqi Kurds Reject Autonomy Accord as Allied Plan Stirs Some Confidence," *New York Times*, 30 Jun 1991, A6.

¹⁰⁹ As General Jameson stated, "air based Provide Comfort force[s] still have more than enough capability I think to enforce any kind of guidelines that we need to have enforced to ensure the conditions stay as they ought to stay [in Iraq]." Raab, "Interview with Lt Gen James Jamerson," 72.

inhabitants and the largest city in northwest Iraq. By mid-April several organizations estimated only two thousand people remained. Returning Kurds to Zakho and ensuring security served two important purposes. First, Zakho was a transportation hub for northern Iraq with the main roads from Turkey to Baghdad ran through the city. Second, Iraq's 44th Infantry Division (ID), partly responsible for the military action against the Kurds in March and April, was headquartered in Zakho.¹¹⁰

Securing Zakho would be an important objective to not only deter potential Iraqi aggression but also reassure the Kurds that the coalition forces could provide security against the Iraqi military.

Prior to the Marine entry into Zakho, F-15C aircraft maintained air superiority combat air patrols to ensure Iraqi aircraft and helicopters would not threaten ground forces. The focus of air superiority efforts remained localized to threats from Tall Afar AB approximately fifty-three miles south of Zakho. A fighter aircraft taking off from Tall Afar could threaten coalition forces in Zakho in less than ten minutes. MH-53J helicopters from the 39th Special Operations Wing conducted photographic and video reconnaissance of the Iraqi military positions and provided the data to Marine intelligence personnel.¹¹¹ The reconnaissance data was utilized to determine the relative strength and location of the 44th Infantry Division and the location of potential opposition from Iraqi police and irregular forces. Marines driving U.S. light attack vehicles attempted entry into Iraq but Iraqi border guards refused passage of the forces until they received permission from higher headquarters. Concurrently, several Iraqi military formations occupied higher ground around the Marines in what

¹¹⁰ John Cavanaugh, (1992), *Operation Provide Comfort: A Model for Future NATO Operations*, MA Thesis, School of Advanced Military Studies, Fort Leavenworth, KS, 19. This document also serves as a personal experience monograph due to Lieutenant Colonel Cavanaugh participating in PROVIDE COMFORT.

¹¹¹ Brown, *Humanitarian Operations in Northern Iraq, 1991 with Marines in Operation Provide Comfort*, 67.

could be considered an attempt to either intimidate the coalition force or prepare to initiate offensive operations from a position of advantage.

The Marines relied on shows of force from A-10 aircraft and AH-1 helicopters to demonstrate coalition capability to make up for their positional disadvantage. Before word was received from Iraqi authorities, the Iraqi forces relinquished their offensive positions and border guards allowed the Marines to continue on to Zakho.¹¹² As the Marines travelled towards Zakho, aircraft maintained an orbit around the convoy of vehicles and provided the Marines with an awareness of Iraqi forces in their vicinity. The A-10s not only were able to provide real-time intelligence and reconnaissance but also serve as an armed escort to compensate for the limited offensive capability of the Marine ground forces.

As the Marines approached Zakho, the visible presence of airpower augmented them. As General Garner emphasized, “the [U.S. Marine commander] brought over his LAVs (light attack vehicles), and now he begins to drive them through the streets, so we have a lot of show of force in there, *and we up the ante on air*, but really we are really out-manned. There were a lot more Iraqis than us so this is really a big bluff on our part (italics added).”¹¹³ A constant presence of A-10s, F-16s, and helicopters was maintained during the entirety of the Marine movement into Zakho.¹¹⁴ By 20 April, the Iraqi military had pulled out of Zakho and the coalition forces maintained security of the town with assistance from indigenous police forces, a battery of 105mm howitzers, Marine unmanned aerial vehicle reconnaissance, and the constant presence of airpower. By 1 May approximately four thousand Kurds had returned to Zakho and

¹¹² Ibid., 60.

¹¹³ Carlton, "Interview with Major General Jay Garner," 16.

¹¹⁴ An A-10 pilot, Major David Clary, noted “A-10s and F-16s were called by the ground forces to help convince the Iraqi military to continue to pull out during some of the minor confrontations.” Clary, *Operation Provide Comfort: A Strategic Analysis*, 19.

by mid-May almost sixty-five thousand Kurds had returned.¹¹⁵ Shalikashvili, Jamerson, and Garner considered the operation a success and would utilize the same operational plan for providing security for Kurds returning to Al Amadiyah, Dihok and other towns in northern Iraq.¹¹⁶

Conclusion

Operation PROVIDE COMFORT is an example of how political objectives driven by human security principles affect the development of military and airpower strategy. Commenting on the unconventional aspect of military operations, LTG Shalikashvili described scenes of assistance to Kurdish women and children by military personnel who, two months prior, were engaged in combat against Iraqi forces.¹¹⁷ The scenes described by Shalikashvili were possible because military leaders developed a strategy pervaded by human security concepts. The military strategy was not based on conventional applications of military power but by a simple and thorough understanding of political objectives and how they influenced strategy. The airpower strategy was a direct reflection of the military strategy with an emphasis on maintaining air superiority, deterring the Iraqi military threat, and assuring the referent population. Commanders and strategists ensured rules of engagement were aligned with the human security objectives and the policymaker's desire to avoid a larger confrontation.

Harry Summers, Jr., notes policymakers should provide clearly stated objectives, but he is only half-correct. Military leaders must also be able to understand

¹¹⁵ Carlton, "Interview with Major General Jay Garner," 54.

¹¹⁶ Raab, "Interview with Lieutenant General John Shalikashvili, 6-8.; "Once A-10s began circling over Dihok on 2 May and the marines and paratroopers began pushing south, Nashwan fully expected the coalition forces to take the city and ordered the Iraqis to retreat from the area." Col Richard Naab quoted in Rudd, *Humanitarian Intervention*, 180.

¹¹⁷ Shalikashvili noted "The most amazing thing to me... was to see people 6 foot 5 with 'Ranger' on the side of their uniforms, who just a few weeks before were in the process of eradicating an enemy, with children in their arms, walking with food." John Shalikashvili statement. House, Committee on Armed Services, *Aspects of Anti-Chaos Aid to the Soviet Union*, 102nd Congress, 1st sess., 4 September 1991, 32.

the political objective to develop an appropriate strategy.¹¹⁸ At the outset of PROVIDE COMFORT, the political objective was to stop the dying and immediately assist the refugees with airpower but doctrine did not possess a framework for this type of operation. Military and airpower planners developed a strategy that evolved over time to assist over four hundred thousand refugees and ultimately return them to their homes in Iraq. PROVIDE COMFORT is an example of how a human security paradigm can assist in the development and implementation of strategy and how human security objectives are fundamentally different from state security objectives. By developing an airpower strategy based on air superiority, deterrence of the Iraqi military and assurance to the Kurdish referent, PROVIDE COMFORT leadership clearly understood the political objectives and implemented an effective strategy.

PROVIDE COMFORT occurred less than two months after the cessation of DESERT STORM hostilities and policymakers could have viewed operations as a continuation of previous military action. Significant American air and ground forces remained in Turkey and could quickly commence offensive action against northern Iraq forces. However, the human security objectives approved by President Bush curtailed offensive action and explicitly focused on the defensive application of airpower to protect the Kurdish referent. Several findings are apparent about how human security principles, and not previous experience from DESERT STORM, influenced the development of military and airpower strategy.

First, military strategists relied on a force structure designed to minimize the overt impact on Iraqi sovereignty. The majority of ground personnel in Iraq were members of the forty-nine non-governmental and volunteer organizations, such as the

¹¹⁸ Harry Summers, *On Strategy* (Carlisle Barracks, PA: Strategic Studies Institute, 1981).

Red Crescent and Doctors Without Borders.¹¹⁹ To compensate for the minimal military ground forces, airpower assets were deployed and utilized. Three reasons explain why a force structure heavily reliant on airpower was important for human security. The first reason was to overcome the lack of infrastructure in the rugged terrain of northern Iraq. Airpower, specifically rotary-wing aircraft, was instrumental in providing supplies to remote parts of the area. The second reason was to provide overwhelming firepower in case ground forces engaged enemy forces. These missions allowed the ground component greater freedom of maneuver without the need for heavy artillery or armor. For example, the British government forbade a heavy artillery battalion to enter Iraq because of human security objectives and the desire to minimize any overt threat to Iraqi sovereignty.¹²⁰ Instead, the British government authorized United Kingdom ground forces to work directly with coalition airpower. The third reason was to counter the Iraqi threat north of the thirty-sixth parallel. The Kurds proved adept at fending off Iraqi infantry forces, but could not counter the Iraqi Air Force or the helicopter gunships of the Iraqi Army. Coalition aircraft effectively provided Kurds with freedom from persecution by Iraqi airpower.

The second finding is the ability to rapidly develop, implement, and adapt a strategy based upon changing political objectives. This conclusion may seem counter-intuitive given the lack of military doctrine available at the outset of PROVIDE COMFORT. The lack of doctrine may actually have been beneficial, allowing leadership to develop strategy without preconceived notions or expectations based on historical doctrine. British General Sir Frank Kitson, a veteran of many colonial campaigns, noted, "Doctrine is prepared in order that the Army should have some basis for

¹¹⁹ Donald G. Goff, *Operation Provide Comfort: Personal Experience Monograph* (Carlisle Barracks, PA: Army War College, 1992), 13. Colonel Goff was the J3 (Operations Officer) for JTF-B under Combined Task Force Provide Comfort.

¹²⁰ Goff, *Building Coalitions for Humanitarian Operations*, 18.

training and equipping itself. You certainly don't fight based on your doctrine! If you actually do fight based on your doctrine you're letting yourself in for disaster."¹²¹

Although the initial strategy was less than ideal, the strategy after 16 April contained the requisite components to successfully accomplish the human security objectives.

Due to a lack of doctrine, PROVIDE COMFORT planners returned to the fundamental principle of developing a strategy based on stated political objectives. Even as the 5 April political objectives were revised on 16 April, the military strategy would remain wedded to policy. The lack of doctrine and historical lessons benefitted the proactive minded strategists. In addition, there was limited institutional knowledge about humanitarian efforts. The largest humanitarian effort the Air Force had undertaken since Vietnam was the transport of six thousand ground forces and evacuation of approximately seven hundred citizens from Grenada in 1983.¹²² PROVIDE COMFORT provided aid on a much larger scale to refugees. In terms of missions flown, aid delivered, and refugees repatriated, PROVIDE COMFORT was the largest humanitarian effort for either the U.S. Air Force or the Royal Air Force since the 1948 Berlin Airlift.

The preceding conclusion does not recommend changing military doctrine, but rather understanding the unique nature of each human security operation and the importance of commander's guidance.¹²³ As noted in Chapter Three, doctrine is useful for developing a strategy for conventional warfare, but PROVIDE COMFORT highlights

¹²¹ Quoted in John Nagl, *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam*, (Chicago, IL: The University of Chicago Press, 2002), 204.

¹²² For a brief synopsis of airpower during Operation URGENT FURY in Grenada see A. Timothy Warnock, *Short of War: Major USAF Contingency Operations 1947-1997* (Maxwell AFB, AL: Air University Press, 2000), 135-144. For a detailed analysis see Ronald Cole, *Operation Urgent Fury: The Planning and Execution of Joint Operations in Grenada* (Washington, D.C.: Joint History Office, Office of the Chairman of the Joint Chiefs of Staff, 1997).

¹²³ Although not labeled human security, current military doctrine does cover operations similar to PROVIDE COMFORT. See Department of Defense, *Joint Publication 3-07.6, Joint Tactics, Techniques, and Procedures for Foreign Humanitarian Assistance*, (15 August 2001) and *Joint Publication 3-07.3, Peace Operations*, (17 October 2007).

that human security operations require flexibility and a thorough understanding of political objectives in order to achieve the mission. John Hillen, commenting on the difficulties of developing strategy for United Nations military operations, reaches a similar conclusion. Hillen notes U.N. peace enforcement operations can occur in a broad operational spectrum that may change rapidly from benign peacekeeping to hostile warfare depending largely on U.N. strategy.¹²⁴

In developing a human security airpower strategy, strategists should utilize applicable doctrine as needed but remain mindful of the unique character of political objectives and the human security mission. As General Jamerson emphasized when developing the initial strategy, “we had no idea what the Iraqi reaction was going to be to us going into Iraq and dropping things.”¹²⁵ The unknown aspect of the Iraqi response, coupled with the human security objectives, presented a potential tension between the desires to use enough force to deter the Iraqi military while also avoiding conflict escalation by constraining the use of force. This tension was overcome by restrictive rules of engagement.

Defensive and restrictive rules of engagement provided legitimacy at the international level and a focus on human security at the unit level. The development of restrictive rules of engagement is not unique to human security operations as defined in this study, but is similar to the rules utilized by the United Nations for Chapter VII peace enforcement missions. As this case study illustrates, military strategy for human security operations must take into account the effect of rules of engagement not only on military forces but also on the international political environment. In the case of human security operations, the United Nations or other supranational organization may provide a mandate for military action, but the

¹²⁴ John Hillen, *Blue Helmets: The Strategy of U.N. Military Operations* (Washington, D.C.: Brassey's, 2000), 17.

¹²⁵ Raab, "Interview with Lt Gen James Jamerson," 5.

judicious allocation of force will ultimately sustain its legitimacy.¹²⁶ An incident on 21 May illustrates the unbiased application of rules of engagement. A group of recently repatriated Kurdish refugees attacked the Iraqi commander, General Nashwan, and his driver near Dahuk. In a show of impartiality American ground forces rescued Nashwan by dispersing the Kurdish refugees and providing an armed escort for the Iraqi general to continue his travel. The ability to act impartially not only provides credibility in the eyes of local belligerents but can also promote legitimacy and assuage the concerns of states and international organizations quick to condemn the perceived excessive use of military power.

The third finding was a concerted effort during the strategy process to review assumptions and unknowns and adapt the strategy based on changes in the operating environment, especially after 16 April. This is consistent with the final proposition identified in Chapter Four that airpower strategies will be refined based on a consistent review of the threat, referent population, and the operating environment. The PROVIDE COMFORT operating environment changed significantly once ground forces entered Iraq and Kurdish refugees began the return journey to their homes. Jamerson directed the airpower planners to modify the airpower strategy by increasing Close Air Support missions and allowing air superiority aircraft to conduct low-fly visual deterrent acts to augment Close Air Support aircraft. A corresponding decrease in air-drop mobility requirements was offset by an increase in aerial port mobility requirements, particularly at Silopi and Diyarbakir airfields. Helicopters became the

¹²⁶ William Durch states, “The rules of engagement for a peace enforcement operation...will seek to minimize casualties, among both the peace enforcers and the local population. An enforcement operation may also attempt to maintain the appearance of impartiality, using minimum necessary force evenhandedly.” William Durch, *U.N. Peacekeeping, American Policy, and the Uncivil Wars of the 1990s*, (New York, NY: St. Martin’s Press, 1996), 6. Durch focuses on United Nations Chapter VI and VII operations. Further study would be warranted to determine the relevance of these operations (and Durch’s analysis) to counterinsurgency operations.

primary method for direct delivery but the aerial port ability was necessary to process and transfer cargo delivered by the fixed-wing aircraft.

Prior to 16 April, the airpower strategy was feasible, sustainable, and desirable but not suitable or acceptable to PROVIDE COMFORT military commanders. It was feasible due to the available military assets and the perception of military commanders about the scope of operations. Based on existing coalition and non-governmental personnel and infrastructure, the operation was sustainable for the expected duration of operations, first for ten then thirty and ultimately ninety days. Importantly, the strategy was desirable from the perspective of U.S. policymakers because it did not involve the increased risk of embroiling the U.S. into a possible Iraqi civil war or increase the risk to U.S. personnel flying along the Turkey-Iraq border. However, the strategy cannot be considered suitable or acceptable once the magnitude of the crisis became known. As surveillance flights unveiled the scope of the refugee crisis, an unknown requirement emerged for medical, sustenance, and humanitarian supplies. This requirement contributed to a growing need for a more suitable strategy to achieve the political objectives. General Shalikashvili noted the initial airdrop strategy was the only immediate option available but not suitable for a large scale humanitarian mission in rugged terrain.¹²⁷ A more acceptable military strategy was required.

With the international press reporting up to one thousand Kurdish deaths per day in the mountains, the initial political objectives became less acceptable to U.S. and U.N. policymakers. The visit to refugee camps by Secretary of State Baker on 8 April spurred the need for a more robust response to the crisis. Much like Shalikashvili, Baker noted the airdrops were not providing the level of aid needed by

¹²⁷ Shalikashvili stated "I think that the decision was made initially to airdrop supplies because there was simply no other option. So it was the most speedy [sic] way to get the necessary basics--food, shelter, clothing to the refugees. However, there are great limitations to such airdrops in this harsh terrain." Raab, "Interview with Lieutenant General John Shalikashvili," 2.

the Kurds.¹²⁸ As a result, airpower strategists were charged with reducing risk to an acceptable level for ground forces to operate inside Iraq and Kurdish refugees to return to their homes. By 16 April, the airpower strategy exhibited the attributes of a coherent strategy to protect the referent population while also deterring Iraqi military actions. The shift to utilizing helicopters for the majority of humanitarian aid and fixed-wing aircraft for deterrence and assurance had a significant impact on the ability to focus airpower effects. Additionally, the inclusion of ground forces ensuring airdropped supplies were properly distributed increased the suitability of the airpower strategy. The final piece of the strategy was arrival of helicopters. The airlift portion of the strategy could be modified to deliver supplies to forward operating bases which were then distributed via the helicopters. Once this change was made, the airpower strategy became suitable and acceptable.

By almost any measure, PROVIDE COMFORT was a success. How did the military achieve political objectives without resorting to force against a country that although recently defeated on the battlefield retained significant combat capability? This analysis shows that the human security basis for political objectives played an important role in developing both the overall military and airpower strategy. In the case of PROVIDE COMFORT, political objectives and military strategy dictated an airpower strategy based not on force but on the judicious and visible presence of airpower. Air superiority, threat deterrence, and referent assurance were important components of the overall strategy. As PROVIDE COMFORT transitioned to Operation PROVIDE COMFORT II in July 1991 and Operation NORTHERN WATCH in 1997

¹²⁸ Baker stated, "Our relief efforts, including air drops of supplies, have begun, but they alone are not going to be enough." Baker, "Secretary James Baker 7 April Remarks "Iraqi Refugees: The Need for International Assistance," 271.

similar foundational concepts would still be present. NORTHERN WATCH is the subject of the next chapter.



Chapter Six

Case Study: Operation NORTHERN WATCH

Introduction and Context

On 15 July 1991 the ground component of Operation PROVIDE COMFORT left Northern Iraq, leaving the air component as the sole military element north of the thirty-sixth parallel.¹ Operation PROVIDE COMFORT transitioned to Operation PROVIDE COMFORT II but the mandate remained the same: to enforce the northern no-fly zone and protect the Kurdish population. Based on requests from the Turkish government, PROVIDE COMFORT II disbanded on 31 December 1996 and Operation NORTHERN WATCH was established the next day. NORTHERN WATCH aircrew flew the first mission on 1 Jan 1997 and continued flying over northern Iraq until 17 March 2003 and the commencement of Operation IRAQI FREEDOM.

During its six years, NORTHERN WATCH gradually transformed from an operation protecting the Kurdish minority of northern Iraq to an instrument of containment and coercion of the Iraqi regime. By 1998, the purpose of military operations shifted from protecting the Kurdish population to enforcing U.N. sanctions and coercing Iraq to accept U.N. mandated weapons inspections. This shift culminated with Operation DESERT FOX in December 1998 and continued until the invasion of Iraq in March 2003. As a result, this study will only analyze NORTHERN WATCH from the period of 1 January 1997 to 1 February 1998, when protection of the Kurdish population, or referent, remained the primary political objective.

The transition from PROVIDE COMFORT II to NORTHERN WATCH was precipitated in May 1996 when the Kurdish parliament refused to meet and disbanded. This reignited armed conflict between the Patriotic Union of Kurdistan

¹ Chapter Five provided a brief overview of Iraqi-Kurdish animosity. This chapter starts the narrative on 15 July 1991 after the conclusion of Operation PROVIDE COMFORT.

(PUK) and the Iraqi Kurdish Democratic Party (KDP). The PUK quickly aligned with Iran and assisted an Iranian Army advance into northern Iraq to attack the Iranian-backed KDP. KDP leadership requested assistance from the Iraqi government to counter the growing Iranian influence in Kurdish territory, especially in urban areas such as Mosul and Irbil. The Hussein regime was quick to offer support, realizing an opportunity to weaken both Iran and Kurdish opposition while flagrantly opposing the U.S.-led coalition. On 29 August Hussein ordered thirty thousand Iraqi Army personnel, led by Republican Guard armor units, to attack Irbil. The Iraqi-KDP alliance quickly routed the Iranian backed PUK but, importantly, provided a rationale for the Hussein regime to maintain a military force north of the thirty-sixth parallel. Iraq did not deploy additional aircraft to support the ground forces but did attempt to rebuild air defense missile sites.²

Approximately six thousand Iraqi Kurds sympathetic to coalition efforts and Western-backed aid organizations fled Iraq for Turkey where they were transported to Anderson Air Force Base, Guam, as part of Operation PACIFIC HAVEN.³ By December 1996, over six-thousand-and-four hundred Iraqis had been transported to Guam and awaited further transportation to the United States. An unintended consequence of PACIFIC HAVEN was the diminishment of the U.S. human intelligence sources in northern Iraq.⁴ This lack of ground-based intelligence sources would become a factor of the Operation NORTHERN WATCH airpower strategy.

² Robin Wright, "U.S. Warns Iraq to Halt Rebuilding of Air Defense Sites," *Los Angeles Times*, 9 September 1996, A1. On an attempted engagement by an Iraqi air defense site, see Wire Report "U.S. Jet Fires at Air Defense Site," *Los Angeles Times*, 5 November 1996, A2.

³ Joe Cochrane, "Refugees Find Pacific Haven from Saddam," *USA Today*, 20 September 1996, 5A.

⁴ Paul White, "Airpower and a Decade of Containment," *Armed Forces Journal*, Winter (2001), 37. See also R. Jeffrey Smith and David Ottoway, "Anti-Saddam Operation Cost CIA \$100 Million," *The Washington Post*, 15 September 1996, A1; Evan Thomas, Christopher Dickey and Greg Vistica, "Bay of Pigs Redux," *Newsweek*, March 23, 1998, 36-37.

The U.S. military response to Iraq's incursion consisted of forty-four cruise missile strikes against air defense sites south of the thirty-second parallel.⁵ The response was heavily criticized by both international partners and domestic politicians because of their limited nature and apparent disconnect between striking targets in southern Iraq for actions that occurred in the northern portion of the country. During Congressional testimony, Secretary of Defense William Cohen and former Secretary of State James Baker identified the lack of significant military action as a decision to maintain a measure of neutrality between Iraq, Iran, and the Kurdish factions. Cohen and Baker believed U.S. involvement in a Kurdish conflict, with both sides backed by Iraq and Iran, would be a "devil's bargain."⁶ On 4 December 1997, Lord George Robertson, the U.K. Secretary of State for Defence, succinctly summarized the conundrum as:

The No Fly Zone is policed by coalition forces in order to make sure that Saddam himself does not attack the native Kurdish population in the area. But there is a dispute between the two Kurdish forces in that part of the world which is complicating both the No Fly Zone as well as their own possible future. The Turkish authorities have taken action against those who use northern Iraq as an insurgency base for southern Turkey, but clearly the integrity of Iraq itself is something that we in the past have said must be protected.⁷

The political complication to which Robertson referred would result in additional U.N. Security Council resolutions, increased concerns from Turkish policymakers about U.S. policy, and the gradual shift of U.S. political objectives from protection of the Kurdish referent to coercion of Iraq to accept U.N. inspections.

⁵ The cruise missiles were launched from B-52 bombers and naval ships. For an overview of the operation see "Operation DESERT STRIKE Factsheet," *Air Force Historical Studies Office*, <http://www.afhso.af.mil/topics/factsheets/factsheet.asp?id=18633>. (accessed 1 April 2014).

⁶ Senate, Committee on Armed Services, *The Situation in Iraq*, 104th Congress, 1st Sess., 12 September 1997.

⁷ Lord George Robertson, "Press Conference Between George Robertson, U.K. Secretary of State for Defense and William S. Cohen, U.S. Secretary of Defense," *Department of Defense News Briefing*, 4 December 1997.

Independent Variable: Political Objective

The mandate for Operation NORTHERN WATCH, like PROVIDE COMFORT, originated from U.N. Security Council Resolution 688. Passed in April 1991, the resolution condemned the repression of the Iraqi civilian population by the Hussein regime and called on member states to contribute to humanitarian efforts. Passed by a wide majority vote, the Resolution provided wide latitude for interpretation. Importantly, the Resolution was not passed under U.N. Chapter VII authorities nor was a no-fly zone north of the thirty-sixth parallel authorized.⁸ The establishment of PROVIDE COMFORT and implementation of no-fly zones over both northern and southern Iraq was met with widespread approval by both international and domestic U.S. audiences.⁹

The impact of Kurdish internecine fighting during 1996 caused a re-evaluation of policy by U.S. and regional partners. Hesitant to support specific Kurdish factions, the Turkish Grand National Assembly voted in December to deny use of Turkish airspace and airbases for U.S. and regional forces for PROVIDE COMFORT II. The restructured mission would be named NORTHERN WATCH and continue the PROVIDE COMFORT II mandate with a reduced force structure. The NORTHERN WATCH political objective on 1 January 1997 remained enforcement of the no-fly zone north of the thirty-sixth parallel to monitor and enforce Iraqi compliance with Resolution 688. In addition, France shifted support from northern Iraq operations to

⁸ Chapter VII authorities derive from Article 42 of Chapter VII of the U.N. charter. This article authorizes the U.N. Security Council to “take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.” These authorities allow the use of military force to achieve the U.N. mandate. Chapter VI authorities derive from Article 34 of Chapter VI of the U.N. charter. This article authorizes the U.N. Security Council to “investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.” These authorities do not allow the use of military force. See “Charter of the United Nations,” <http://www.un.org/en/documents/charter/> (accessed 10 August 2014).

⁹ Of note, Russia voted for Resolution 688 and did not pose a serious effort to hamper coalition operations.

southern Iraq operations. In Congressional testimony, Secretary Baker stated the Kurdish infighting required a reevaluation of U.S. policy, but any new policy should still center on Kurdish protection.¹⁰

Additional U.N. resolutions were passed throughout 1997 gradually shifting the rationale for NORTHERN WATCH from protection of the Kurds to coercing Iraq to adhere to U.N. mandated weapons inspections. On 27 June U.N. Security Council Resolution 1115 demanded Iraq allow the U.N. Special Commission (UNSCOM) immediate and unrestricted access to all facilities connected to production and storage of weapons of mass destruction (WMD).¹¹ Four months later, Resolution 1134 (passed on 23 October) reiterated the unacceptable nature of Iraqi attempts to deny access to the WMD sites. This Resolution specifically authorized the use of fixed-wing and helicopter flights by the UNSCOM inspectors throughout Iraq. The Resolution went further and also authorized the use of Iraqi airfields.¹² Although the Resolution passed with ten affirmations and zero votes against, the five abstentions were notable because they were from three of the five permanent members of the Security Council.

¹⁰ When questioned during Congressional testimony, former Secretary of State Baker stated U.S. policy “should be one of containment. I think we should continue the policy approach that has been in effect since 1991, with a reexamination of that policy approach as it affects the area in the north, in light of the fact the Kurds have now had a bloody war with Iraq and some with Iran. James Baker statement. Senate, Committee on Armed Services, *Hearing 104-788*, 104th Congress, 2nd sess., 21 September 1996.

¹¹ United Nations Security Council Resolution 1115, document S/RES/1115, United Nations, 21 June 1997, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1115 (accessed 18 March 2014). The Resolution was passed by unanimous vote with no abstentions. Importantly, it was passed under Chapter VII. See f.n. 8 in this chapter for an explanation of Chapter VII authorities. The UNSCOM was a United Nations inspection regime established to monitor, inspect, and ensure Iraq’s compliance with U.N. Security Council Resolutions. The regime mandate was established by U.N. Security Council Resolution 687. For an overview see Raymond Zilinskas, “UNSCOM and the UNSCOM Experience in Iraq,” *Politics and Life Sciences* 14, no. 2 (1995), pp. 230-231.

¹² This resolution specifically would “allow the Special Commission and its inspection teams to conduct both fixed wing and helicopter flights throughout Iraq for all relevant purposes including inspection, surveillance, aerial surveys, transportation and logistics without interferences of any kind and upon such terms and conditions as may be determined by the Special Commission, and to make use of their own aircraft and such airfields in Iraq as they may determine are most appropriate for the work of the Commission,” United Nations Security Council Resolution 1134, document S/RES/1134, United Nations, 23 October 1997, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1134 (accessed 18 March 2014).

China and Russia abstained due to concerns about increased sanctions on Iraq.¹³

France abstained because the resolution punished Iraq for non-compliance instead of implementing a plan for UNSCOM to improve cooperation with Iraq.¹⁴ France's abstention was the first public acknowledgement of the rift occurring in the U.S.-British-French alliance that had proven effective during PROVIDE COMFORT and PROVIDE COMFORT II.

Continued Iraqi non-compliance with inspection protocols resulted in passage of Resolution 1137 one month after Resolution 1134. This Resolution imposed travel bans on Iraqi officials and members of the armed forces responsible for obstructing WMD inspections.¹⁵ Resolution 1137 was created and passed also in response to a letter from the Permanent Representative of Iraq to the United Nations, in which he called the continued air presence in both northern and southern Iraq unacceptable and the result of a hostile policy by the U.S. and U.K. against Iraq, including flights of U-2 spy planes.¹⁶ By passing this Resolution, the U.N. Security Council implicitly accepted the continuation of the no-fly zones despite the Iraqi protests.

¹³ Russia actively supported Iraq during this timeframe with intelligence of U.S. and coalition actions. In a letter dated 23 February 1998, Republican Guard Major General Namiq Hassan Ali reports the Russian military attache informed the Directorate of Military Intelligence of an impending U.S. attack in late February. The military attache also reported the French members of the UNSCOM inspection team were providing intelligence to U.S. military sources. Namiq Hassan Ali, "Presidency of the Republic Secretariat of the Republican Guards Document D2/1950," *Saddam Hussein Collection*, Conflict Records Research Center, SH-SGPD-D-000-472, (n.d), 1-3.

¹⁴ Alain Dejammet, French Ambassador to the United Nations, "Press Release SC/6432/Rev.1 3826th Meeting (PM)," *United Nations Security Council*, 23 October 1997. <http://www.un.org/News/Press/docs/1997/19971023.SC6432.R1.html> (accessed 21 March 2014).

¹⁵ United Nations Security Council Resolution 1137, document S/RES/1137, United Nations, 12 November 1997, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1137 (accessed 21 March 2014).

¹⁶ The Iraqi representative pointed out a number of grievances, including the following: "The U-2 plane is an American spying plane which has been spying on Iraq and its leadership in order to execute America's hostile policy against Iraq under cover of the Special Commission's operations. It also provides the Special Commission with deliberately misleading information with a view to create problems and superficial crises as specifically happened in June and September 1997...In the light of current developments, Iraq anticipates that the United States will engage in military aggression against it, as it has done on previous occasions. Accordingly, the entry of a United States spy plane into Iraqi airspace cannot be accepted." "Letter dated 2 November 1997 from the Permanent Representative of Iraq to the United Nations addressed to the Executive Chairman of the Special Commission, *United Nations Press Release*, 12 November 1997.

Resolution 1154 was passed unanimously on 2 March 1998 and provided the final impetus for a change in political objectives. The Resolution provided Security Council endorsement of a memorandum of understanding between the U.N. Secretary General and the Government of Iraq.¹⁷ The memorandum of understanding confirmed Iraqi acceptance of all U.N. resolutions passed since 1991 and formally announced Iraq's desire to cooperate fully with U.N. Special Commission inspections, including Resolution 688.¹⁸ The U.S. response to Resolution 1154 provides the clearest example of the change in political objective. On 2 March, the day the Resolution passed, President William Clinton reinforced the need for Iraq to comply with unrestricted inspections or face severe consequences.¹⁹ During press conferences over the next three days, White House Press Secretary Mike McCurry repeatedly emphasized the relationship between Iraqi compliance with weapons inspectors and the possibility of military action. The protection of the Kurdish population in the north and the Shia population in the south was not mentioned.²⁰

Prior to 2 March, the human security political objectives were articulated as deterring Iraq from utilizing military force to threaten the Kurdish referent residing in northern Iraq. The basis for the objective remained U.N. Security Council Resolution 688, just as it had been for PROVIDE COMFORT. This Resolution condemned Iraqi

¹⁷ United Nations Security Council Resolution 1154, document S/RES/1154, United Nations, 2 March 1998.

¹⁸ "The Government of Iraq reconfirms its acceptance of all relevant resolutions of the Security Council, including resolutions 687 (1991) and 715 (1991). The Government of Iraq further reiterates its undertaking to cooperate fully with the United Nations Special Commission (UNSCOM)," "Memorandum of Understanding between the United Nations and the Republic of Iraq," document number S/1998/166. United Nations Special Commission, 27 March 1998. <http://www.un.org/Depts/unscom/s98-166.htm>. (accessed 24 March 2014).

¹⁹ "Iraq must make good on its commitment to give the international weapons inspectors immediate, unconditional, and unrestricted access to any suspect site, any place, any time. All of the members of the Council agree that failure to do so will result in the severest consequences for Iraq." William Clinton, "Statement by the President on the United Nations Security Council Vote on Iraq," *White House Press Release*, 2 March 1998.

²⁰ Mike McCurry, "White House Press Briefing." The briefs were conducted on 2, 3 and 4 March 1998. The briefs can be located at: <http://www.presidency.ucsb.edu/ws/index.php?pid=48199> (2 March); <http://www.presidency.ucsb.edu/ws/index.php?pid=48201> (3 March); <http://www.presidency.ucsb.edu/ws/index.php?pid=48202> (4 March). (all content accessed 2 April 2014).

repression of citizens and authorized the Secretary General and all member states to use available resources to end the repression and provide humanitarian aid. By 2 March 1998, the combination of internecine Kurdish fighting and continued Iraqi refusal to comply with U.N. weapons inspections shifted the political objective from protection of the Kurdish referent to coercion of the Hussein regime. U.N. Security Council Resolution 1154 referenced the prohibitions on use, development, or acquisition of WMD contained in Resolution 687 and warned “any violation would have severest consequences for Iraq.”²¹ The difference between Resolutions 688 and 1154 illustrate clearly the shift in objectives from human security focused on the Kurdish referent to state security based on limiting the Hussein regime’s pursuit of WMD.

Two important components exogenous to the U.N. and the U.S. also contributed to the shift of the political objective from Kurdish protection to Iraqi coercion. The first component involved Turkey. Senior Turkish politicians increasingly believed the no-fly zone over Iraq of the previous six years provided a safe haven inside Iraq for the Kurdistan Workers Party (PKK) to stage attacks against Turkey. Turkey responded with armed incursions into Iraq in 1995 (Operation *Çelik*) and again in 1997 (Operations *Çekiç* and *Şafak*).²² The 1997 operations occurred between May and September and involved over thirty thousand Turkish personnel advancing approximately twenty miles into Iraq. The military operations and the growing conflict between Turkey and a militant faction of the Iraqi Kurds likely contributed to a desire by the U.S. government to downplay support for Kurds, preferring instead to support

²¹ United Nations Security Council Resolution 1154, document S/RES/1154, United Nations, (2 March 1998), http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1154 (accessed 21 March 2014).

²² On the 1995 operations see “Turkey May Have Bought Itself a World of Trouble,” *Business Week*, 9 April 1995. Archived at <http://www.businessweek.com/stories/1995-04-09/turkey-may-have-bought-itself-a-world-of-trouble>. (accessed 12 August 2014). On the 1997 operations see Michael Gunter, “Turkey and Iran Face-off in Kurdistan,” *Middle East Quarterly* 5, no. 1 (March 1998), 36.

Turkey, a NATO ally that provided a critical base of operations for U.S. military activity within the region.²³

The Iraqi regime of Saddam Hussein was the second component affecting the shift of the political objective. The request from the Kurdistan Democratic Party for Iraqi intervention against the PUK in September 1996 provided Saddam Hussein with reason to increase military force in northern Iraq to counter Iranian-backed Kurdish factions. The international community, particularly regional states, were not overly concerned with Hussein's actions against the Kurds as the use of military force against an internal referent decreased the chances Hussein would use military force against his neighbors. The increasing factionalism weakened the Kurds to a point they were not a significant threat to the Hussein regime. Instead, by early 1998 Hussein turned his attention to the coalition enforcement of the no-fly zone, as evidenced by Iraqi protests to the U.N. regarding U-2 surveillance flights and violation of sovereignty. The Clinton administration cautioned against Kurdish factionalism and was wary of the possibility Kurdish actions could strengthen the Iraqi and Iranian regimes.²⁴

During a Revolutionary Command Council meeting Saddam emphasized the Iraqi perceptions of the U.N. operation as a cover for U.S. intelligence gathering and a desire to shoot down an American aircraft:

We can look at it a different way...America is an invader. These planes are gathering military information for America. There isn't any control from the United Nations over it. There isn't any system of control that

²³ During the case study timeframe, Turkey hosted the NATO Air Operations Center at Eskeshir, a weapons training range at Konya, and most importantly airbases at Izmir, Incirlik, Diyarbakir, Van, and Balikeshir.

²⁴ "This Administration continues to warn all concerned that internecine warfare in the north can only work to the advantage of Saddam Hussein and Iran, which we believe has no role to play in the area. In this connection, we remain concerned about Iraqi Kurds contacts with either Baghdad or Tehran." William Clinton, "Letter to Congressional Leaders Reporting on Iraq's Compliance With United Nations Security Council Resolutions," 7 March 1997. *Public Papers of the Presidents of the United States, Book 1-- January 1 to June 20, 1997*, (Washington, DC: Government Printing Office, 1998), 262.

assures that it will remain in the bounds of looking for prohibited weapons.... We gave sixty barrels (four barrel anti-aircraft artillery pieces) to the anti-aircraft unit. That's the answer. We'll arrange ambushes like this in the North. I told the intelligence Directorate to tell Mas'ud (Barzani) that any planes that fall on their side, they are to bring us the pilot and leave.²⁵

Saddam's monologue is important for three reasons. First, it illustrates the Iraqi perceptions of no-fly zone operations as a means to gather U.S. intelligence. Second, Hussein outlines a political objective to shoot down a U.S. plane in the hopes of capturing a pilot. Third, the quote accurately describes the cooperation between Hussein and Mas'ud Barzani, the leader of the Kurdistan Democratic Party.

It was evident U.S. political objectives evolved by February 1998 from Kurdish protection to coercing the Hussein regime to allow UNSCOM. In a 3 February 1998 letter to Congress, President Clinton emphasized the Iraqi lack of compliance with the UNSCOM and failure to comply with UNSCR 707, 909, 1134, and 1137. Listing Iraqi non-compliance actions from 12 and 17 January, the letter emphasized political objectives "in view of Saddam's accumulating record of brutality and unreliability, it is prudent to retain a significant U.S. force presence in the region to deter Iraq and respond rapidly to possible Iraqi aggression or threats against its neighbors."²⁶ The letter contained a discussion of Iraqi human rights violations, but this discussion focused on Iraqi repression of the Shi'a population in the south. The discussion of the Kurdish population focused on maintaining a cease-fire between the PUK and KDP.

²⁵ Saddam Hussein, "Revolutionary Command Council Meeting Attended by Saddam Hussein and High Ranking Military Commanders," translated audio recording, *Saddam Hussein Collection*, Conflict Records Research Center, SH-SHTP-A-000-786, n.d., 23.

²⁶ William Clinton, "Letter to Congressional Leaders Reporting on Iraq's Compliance With United Nations Security Council Resolutions," 3 February 1998. *Public Papers of the Presidents of the United States, Book 1-- January 1 to June 30, 1998*, (Washington, DC: Government Printing Office, 1999), 164.

There was no mention at all about protecting the Kurdish referent from Iraqi repression.²⁷

Intervening Variable: Military Strategy

The U.S. military strategy utilized for Operation NORTHERN WATCH was heavily influenced by the broader military strategy towards Iraq. Unlike the period from 1991 to 1996 when Operations NORTHERN WATCH and SOUTHERN WATCH were treated as separate operations, by 1996 the U.S. military strategy linking the two operations demonstrated elements of cohesiveness and mutual support. Operation DESERT STRIKE in September 1996, for example, occurred in response to Iraq's military operations in northern Iraq against the PUK but also targeted forty-four air defense targets in southern Iraq with cruise missile strikes. These targets were nominally a threat to SOUTHERN WATCH operations but were approved by President Clinton in response to Iraqi aggression against the Kurdish referent.

The broader military strategy against Iraq increasingly focused on enforcement of the southern no-fly zone for several reasons. First, Turkey imposed restrictions limiting the number of aircraft participating in NORTHERN WATCH to forty-eight, primarily stationed at Incirlik airbase.²⁸ Any Naval or Marine Corps aircraft that participated in NORTHERN WATCH, such as EA-6B jamming aircraft, counted against this number because they were required to operate from a land base as international

²⁷ Although by February 1998, the U.S. political objective had clearly shifted from protection of the Kurds to coercing Iraq to accept UNSCOM inspections, policymakers in the U.K. continued to rely on Resolution 688 to justify no-fly zone operations. In 2000, the U.K. Secretary of State for Defence explained to the House of Commons Select Committee on Defence that no-fly zones were justified "based on the overwhelming humanitarian necessity of protecting people on the ground, combined with the need to monitor the effect of UNSCR 688; so it is the two taken in combination that provide the legal justification." House of Commons. "Iraqi No-Fly Zones," *Select Committee on Defence Thirteenth Report*, 2 August 2000, para. 30.

²⁸ At this time the Turkish prime minister was Necmettin Erbakan. His administration generally supported closer relations with Iraq while actively countering Kurdish separatists in southeastern Turkey. This policy served as the Turkish rationale for limiting NORTHERN WATCH operations. Erbakan's government was replaced by a military coup in 1997 due to his leanings towards Islam causing a perceived threat to Turkish secularism. Interview with Dr. Ömer Taşpınar, 27 November 2013, transcript in personal files of author. See also Banu Eligür, *The Mobilization of Political Islam in Turkey*, (Cambridge, MA: Cambridge University Press, 2010), pp. 66-68.

waters were over five hundred miles from northern Iraq. Turkey also emphasized the transient nature of NORTHERN WATCH by requiring a review of its mandate every six months in June and December.²⁹ In effect, the Government of Turkey could cease NORTHERN WATCH operations at any time. Conversely, Saudi Arabia and Kuwait placed far fewer restrictions on SOUTHERN WATCH force structure.³⁰ Coupled with direct access to Iraq by Navy air wings afloat in the Arabian Gulf, the SOUTHERN WATCH mission packages would approach over seventy aircraft and provide greater flexibility to respond to Iraqi aggression.³¹ Second, the threat from Iraq generally was focused to the south against Kuwait and Saudi Arabia instead of towards Turkey. As a result, U.S.-led regional presence accompanied by U.K. and French military elements tended not only to assure Saudi Arabia and Kuwait against the Iraqi threat but also deter Hussein from conducting military action against his southern neighbors.

The military relationship between SOUTHERN WATCH and NORTHERN WATCH can be best characterized in terms of support. SOUTHERN WATCH was the primary mission based on preponderance of assets, support from allies for base access, overflight rights, and limited operational restrictions. Additionally, once the southern no-fly zone was extended in 1996 from the thirty-second parallel to the thirty-third parallel, the area of enforcement became almost four times greater than the northern

²⁹ "Operation NORTHERN WATCH History," U.S. Air Force Fact Sheet. http://www.incirlik.af.mil/library/factsheets/factsheet_print.asp?fsID=5345&page=1 (accessed 15 March 2014).

³⁰ Although Saudi Arabia supported SOUTHERN WATCH, it did not allow the use of Saudi bases for Operation DESERT STRIKE.

³¹ Personal experience of author. See also A. Timothy Warnock, *Short of War: Major USAF Contingency Operations, 1947-1997*, Air Force History and Museums Program (Maxwell AFB, AL: Air University Press, 2000), 189-196.

no-fly zone.³² By 1997 NORTHERN WATCH was seen as an ancillary operation supporting the larger effort being conducted for SOUTHERN WATCH.³³

U.S. policy towards the warring Kurdish factions was the most significant input to the military strategy. The internecine fighting was a result of three dominant Kurdish parties, the KDP, the PUK, and the PKK, vying for the dominant position in Kurdish politics. With the KDP aligned with Iraq, the PUK aligned with Iran, and Turkey concerned with the PKK terrorist threat, it was increasingly difficult for the U.S. to identify a Kurdish group to protect without undermining larger policy objectives relative to Iraq, Iran, or Turkey.³⁴ The military strategy reflected this difficulty and intentionally constrained the use of force to avoid either the perception of U.S. support for a particular faction or to provide an advantage that would favor Iraqi or Iranian backed forces. Despite the historical use of airpower over Iraq since 1991 and the passage of resolutions under U.N. Chapter VII authority to use force, the military strategy was characterized by caution and deliberation.³⁵ This strategy drove the mission of NORTHERN WATCH to enforce the no-fly zone north of the thirty-sixth parallel and monitor Iraqi compliance with U.N. Security Council Resolutions 678, 687 and 688 while limiting Iraq's air activities against Kurdish civilians. This mission

³² The southern no-fly zone comprised a total area of approximately 80,000 square miles as opposed to the northern no-fly zone area of 20,900 square miles.

³³ Correspondence contained in *General Hugh Shelton Papers*, various dates, National Defense University Special Collections, Box 54, unfiled.

³⁴ For example, on 6 April 1997 Turkish F-16s conducted bombing attacks against Kurdish KPP encampments in northern Iraq. See Lieven DeWitte, "Turkish F-16s continue to bomb Kurds in Northern Iraq." Archived news story at <http://www.f-16.net/f-16-news-article476.html> (accessed 27 March 2014). See also "Turks' Jets Strike Rebels in Kurdish Area of Iraq," *The New York Times*, 3 Jan 1997, A3.

³⁵ See for example the various papers contained in both the Shalikashvili (from June 1996 to 30 September 1997) and Shelton papers (from 1 October 1997 to 2 March 1998) in the National Defense University Special Collections. The Shalikashvili and Shelton papers do not possess call numbers or reference numbers. The Special Collections curator references the collections by name of officer, box number and file (if available). Subsequent reference to these sources will utilize this methodology. Although the contents of much of these papers remain classified, they are characterized by the need for caution and restrained operations during this time period in northern Iraq.

remained very similar to the PROVIDE COMFORT and PROVIDE COMFORT II missions, albeit with much greater political restrictions on the use of force.

Dependent Variable: Airpower Strategy

Chapter Five traced the development of Air Force doctrine prior to 1991 and the emphasis on large scale conventional warfare. This perspective was reinforced by Operation DESERT STORM in 1991 and Operation DELIBERATE FORCE in 1995. By 1997, despite six years of protecting Shi'a and Kurds in Iraq and three years of protecting ethnic Bosnians in the former Yugoslavia, airpower doctrine remained heavily biased towards conventional warfare. The sole doctrinal reference for the Air Force was Air Force Doctrine Document 2-3 (AFDD 2-3), *Military Operations Other Than War*, which contained limited discussion of operations to protect a referent population or conduct no-fly zone operations. AFDD 2-3 provides a description of fifteen separate missions ranging from support to insurgency to protection of maritime shipping but allocates just a single paragraph to air exclusion zones.³⁶ The Document did, however, contain a useful discussion on command and control procedures. As a result of this doctrinal shortcoming, NORTHERN WATCH strategists relied heavily on the precedent of PROVIDE COMFORT II for command and control procedures, airspace control measures, and tasking of aircraft. However, three unknowns unique to the NORTHERN WATCH mandate would affect the refinement of airpower strategy away from the PROVIDE COMFORT II precedent. Unlike the unknowns of PROVIDE COMFORT that affected tactics and missions, those of NORTHERN WATCH were at the policy level.

The first unknown was U.S. strategic policy. At the beginning of 1997, U.S. policy remained generally aligned with U.N. Security Council Resolution 688 and the

³⁶ United States Air Force, *Air Force Doctrine Document 2-3 Military Operations Other Than War*, (Washington D.C.: Government Printing Office, 1996).

protection of the Kurdish referent from Iraqi persecution. This allowed an airpower strategy assuring the referent population by conducting continuous and visible presence activities. As U.S. policymakers increasingly viewed the Kurdish referent as proxies for the continuing struggle between Iraq and Iran, however, assurant actions gradually receded. This unknown was also manifested in the gradual shift of U.S. policy away from the guidance contained in Resolution 688 to the more forceful containment objective of Resolution 1154. The shifting political objectives would cause uncertainty among the airpower strategists as to the necessity of assurant actions for the referent population.³⁷

The second unknown was the Iraqi threat to either the referent population or coalition aircraft. As demonstrated in 1996, Iraq possessed the capability and intent to threaten the Kurdish referent with air and ground forces. However by 1998, the internecine fighting amongst the Kurds appeared to reduce the intent of the Hussein regime to overtly threaten the referent, preferring instead to allow the various factions battle each other until Iraqi interests were threatened.³⁸ In 1996 Iraq possessed the capability, through both air and missile systems, to threaten coalition aircraft but appeared to lack intent. By 1998 Iraq visibly demonstrated increased intent with the Hussein regime publically offering a \$14,000 reward for shooting down a coalition aircraft and a \$2,800 reward to any Iraqi able to capture a coalition pilot.³⁹

Determining Iraqi capability and intent towards both the Kurdish referent and

³⁷ "The political reality is we're not at war with Iraq at this point, and if we reacted rashly we could force the hand or limit the options of US policy-makers who are trying to figure out what to do about Saddam Hussein." Brigadier General Edward Ellis (a NORTHERN WATCH Commander) quoted in James Kitfield, "The Highs and Lows of Northern Watch," *Air Force Magazine*, August (2002), 53.

³⁸ General Ellis stated "It makes for a tense and sometimes deadly game. "Saddam has gotten smarter about our methods and he knows we care more about Iraqi civilians than he does. That makes the mission more difficult and sometimes more frustrating." In *ibid.*, 53.

³⁹ Suzanne Chapman, "The War Between the War," *Air Force Magazine* 87, no. 2, (February 2004), 56.

coalition aircraft would cause uncertainty as to the apportionment of aircraft for air superiority, deterrence, and referent assurance.

The third unknown was the increasingly assertive role of Turkey. Turkey's leaders wanted to counter the Kurdish PKK threat and this would influence the persistence of airpower over northern Iraq. As Turkish leaders used military means to suppress the Kurdistan Worker's Party, they also placed restrictions on the timing and duration of daily NORTHERN WATCH operations. As a result, NORTHERN WATCH was limited to a single three-to-seven hour period per day. This uncertainty required air strategists to develop detailed understandings of Turkish operational timelines to allow optimal timing of coalition operations in Iraq.⁴⁰ The periods varied each day to both ensure flight operations remained unpredictable and to deconflict from Turkish activity.⁴¹

Over time, these three unknowns significantly affected the airpower strategy. At the beginning of NORTHERN WATCH, the airpower strategy retained the tenets of air superiority, threat deterrence, and referent assurance from PROVIDE COMFORT II. Thirteen months later, by February 1998, the airpower strategy focused almost exclusively on maintaining air superiority and deterring the Iraqi regime from conducting threatening actions against the Kurdish referent north of the thirty-sixth parallel. The shifting U.S. policy hampered abilities to provide assurances while Turkish assertiveness affected the persistence of airpower. Lastly, the Iraqi capability and intent to threaten the coalition vice the referent population would play a significant role in determining the NORTHERN WATCH force structure.

⁴⁰ The means air strategists utilized to understand Iraqi military operations remains classified.

⁴¹ John Tirpak, "Legacy of the Air Blockades," *Air Force Magazine* (February 2003), 50.

Setting the Stage: Force Structure

NORTHERN WATCH occurred at a time when the Air Force transitioned from traditional deployment rotations to the Air Expeditionary Force (AEF) concept. The AEF attempted to provide a Combatant Commander and, by extension, the Joint Force Air Component Commander (JFACC), with a tailored force optimized for the specific mission requirements dictated by the Combatant Commander.⁴² The AEF construct proved adept at meeting the requirements of U.S. Central Command and SOUTHERN WATCH during this time period, but was not implemented for NORTHERN WATCH.⁴³ This was due to NORTHERN WATCH's status as a composite task force within European Command. Unlike Central Command, European Command's Air Force component, United States Air Forces, Europe (USAFE), directly controlled airpower assets permanently stationed in theater. F-15E and F-15C aircraft stationed at Royal Air Force Station Lakenheath, F-16 aircraft stationed at Aviano Airbase and Spangdahlem Airbase and E-3 NATO aircraft stationed at Geilenkirchen Airbase regularly participated in NORTHERN WATCH, typically for one to three months. HH-60 aircrew, stationed at Royal Air Force Station Mildenhall, were responsible for search and rescue operations and deployed every six weeks.⁴⁴ Table 6-1 depicts the typical NORTHERN WATCH force structure.

⁴² Richard Davis, *Immediate Reach, Immediate Power: The Air Expeditionary Force and American Power Projection in the Post Cold War Era* (Washington DC: Air Force History and Museums Program, 1998), 3-9.

⁴³ The first AEF rotation deployed in October 1995 to Operation SOUTHERN WATCH. Stationed at Shaikh Isa Airbase in Bahrain, the unit deployed with eighteen F-16 aircraft to augment forces already participating in SOUTHERN WATCH. See Warnock, *Short of War*, 193.

⁴⁴ Linda Kozaryn, "Patrolling Iraq's Northern Skies," *American Forces Press Service*, 1 June 1998. <http://www.defense.gov/news/newsarticle.aspx?id=43185> (accessed 22 March 2014).

AIRCRAFT	COUNTRY	PRIMARY MISSION	AIRCRAFT	COUNTRY	PRIMARY MISSION
F-15C	U.S.	Air Superiority	TORNADO GR-7	U.K.	Interdiction
F-16CG/CJ	U.S.	Suppression of Air Defense/ Strategic Attack	E-3	U.S./NATO	Command and Control
F-15E	U.S.	Air Superiority/ Strategic Attack	VC-10	U.K.	Refueling
EA-6B	U.S.	Electronic Warfare	KC-135	U.S.	Refueling
HH-60	U.S.	Search and Rescue	F-4/ F-16	Turkey	Interdiction
HC-130	U.S.	Helicopter refueling			
Source: Developed by autor					
Table 6-1: Operation NORTHERN WATCH Air Forces					

The forces permanently assigned to USAFE were augmented by Air National Guard and Air Force Reserve squadrons typically providing between four and twelve aircraft and approximately one-hundred personnel. These squadrons deployed to NORTHERN WATCH for a period ranging from four weeks to three months.⁴⁵ As a result, the annual turnover of both operations and maintenance personnel approached seven-hundred percent.⁴⁶ Conversely, the turnover for SOUTHERN WATCH was approximately three-hundred percent based on the AEF concept. Despite the high turnover rate, the experience level remained high. The majority of USAFE assigned

⁴⁵ "Forty-nine percent of all the Northern Watch units since the inception of NORTHERN WATCH have been either Guard or Reserve air forces." Brigadier General Dave Deptula quoted in John Correll, "Northern Watch," *Air Force Magazine*, February (2000), 37. While several unit histories remain classified, representative unit histories that discuss Air National Guard and Air Force Reserve deployments are: 138th Fighter Wing, "Operation NORTHERN WATCH After Action Report," Unit History 1 Jan 1995-31 December 1998, *Air Force Historical Studies Office*, K169.011-138 (FW), Reel 49183; 127th Wing, "C-130 Aircraft Participate in Operation NORTHERN WATCH form Incirlik," Unit History 1 Jan 1996-31 December 1998, *Air Force Historical Studies Office*, K169.011-127 (WG)V.1, Reel 49181; 174th Fighter Wing, "256 WING PERSONNEL DEPLOYED TO INCIRLIK AIR BASE (AB), TURKEY, IN SUPPORT OF OPERATION NORTHERN WATCH, ENFORCED NO FLY ZONE OVER NORTHERN IRAQ, 29 AUG 1997," Unit Fact Sheet, 31 December 1997, *Air Force Historical Studies Office*, K169.011-174 (FW) V.1, Reel 49193.

⁴⁶ Colonel Sephen West, the NORTHERN WATCH Chief of Staff stated: "We have a seven-hundred percent annual turnover rate in personnel. More than 9,000 troops cycle through Operation Northern Watch each year" in Robert Thompson, "Forces Rotate for Operation Northern Watch," *Air Force News*, 16 December 2002. <http://www.af.mil/News/ArticleDisplay/tabid/223/Article/140217/forces-rotate-for-operation-northern-watch.aspx> (accessed 12 August 2014).

squadrons would rotate to NORTHERN WATCH at least twice per year and the average experience level of the Guard and Reserve personnel was nearly twice as high as active duty personnel.⁴⁷

The relation between active duty and Reserve/National Guard composition is best illustrated in early 1997. While the air superiority aircraft were active duty F-15 and F-16 units from RAF Lakenheath (UK) and Spangdahlem Airbase (Germany), twelve additional Air Force Reserve and National Guard F-16 aircraft were assigned to NORTHERN WATCH as strategic attack aircraft. The 466th Fighter Squadron was an Air Force Reserve unit acting as the lead F-16 unit with four F-16s deployed from 1 June to 31 July. They were augmented by four F-16s and associated pilots from both the 162nd and 176th Fighter Squadrons. The 162nd was an Air National Guard unit from Ohio and the 176th was an Air National Guard unit from Wisconsin. The composite unit not only provided experienced pilots and maintenance personnel to augment the active duty forces, but also allowed the Guard and Reserve personnel to gain combat experience they could share with the remainder of their squadrons.

Despite the Turkish limitation on the number of coalition aircraft stationed at Incirlik Airbase, NORTHERN WATCH maintained a robust force structure with multi-role aircraft able to conduct a wide variety of missions. The daily air tasking order would typically task between forty and forty-five aircraft for air superiority, strategic attack and suppression of enemy air defenses. The force structure and resultant taskings were reminiscent of composite force training events conducted both within

⁴⁷ For example, the 494th and 492nd Fighter Squadrons from RAF Lakenheath each deployed to NORTHERN WATCH twice during both 1997 and 1998. The NATO E-3 component retained a constant presence at NORTHERN WATCH with aircrew from the 552nd Air Control Wing (Tinker Air Force Base) integrated into the NATO aircrew roster.

NATO and at U.S. training areas.⁴⁸ Combined with the experience of the personnel, the similarity to training resulted in a small but highly experienced and professional force capable of achieving NORTHERN WATCH objectives. Despite the experience and professionalism of the force, its distance between Incirlik Airbase and the operating area in Iraq created several challenges, the most significant being updating command and control procedures.

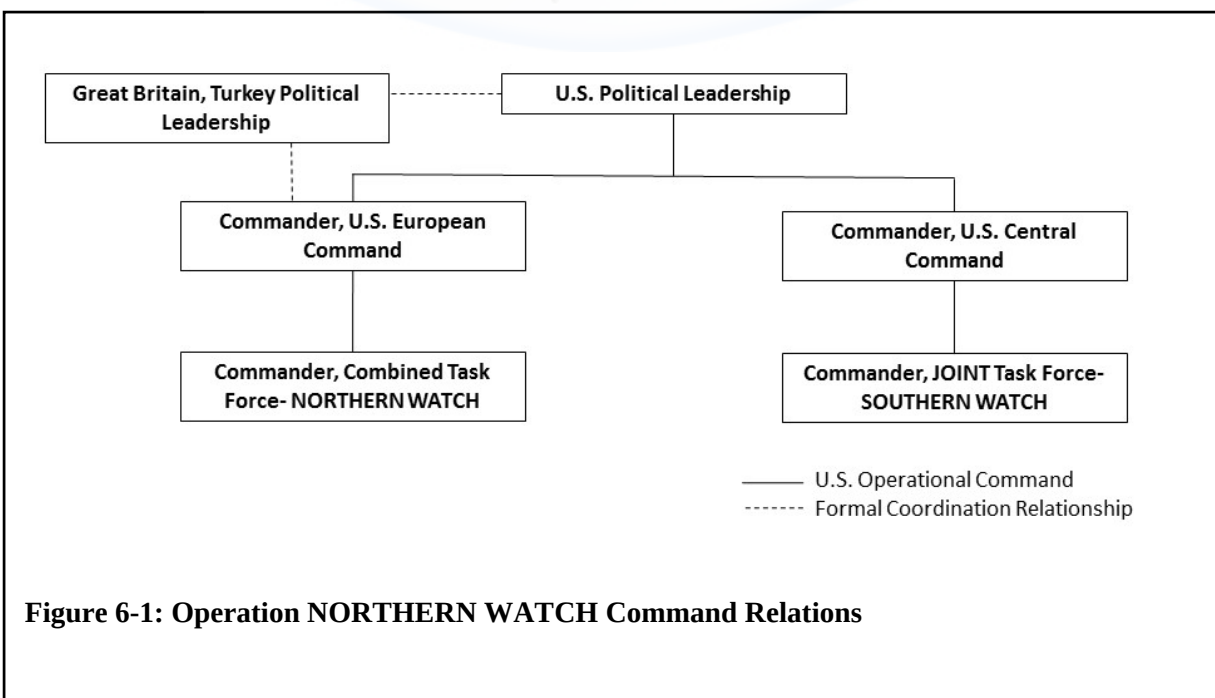
Setting the Stage: Command and Control

NORTHERN WATCH relied heavily on the existing command and control structure utilized for PROVIDE COMFORT II. This is not surprising as PROVIDE COMFORT ceased on 31 December 1996 and NORTHERN WATCH was established on 1 January 1997. Air tasking orders, airspace control measures, and routes of flight remained the same, however the most significant difference between NORTHERN WATCH and PROVIDE COMFORT was the lack of ground forces and coalition rotary wing aircraft flying in northern Iraq. As a result, the command and control of aircraft reverted to doctrinal procedures, simplifying the airpower strategy. AFDD 2-3, *Military Operations Other Than War*, served as the baseline for developing the required command and control procedures.⁴⁹ Just as recommended in doctrine, NORTHERN WATCH relied on a command structure headed by a Joint Force Air Component Commander dual-hatted as the Coalition Task Force-NORTHERN WATCH commander.

⁴⁸ The size, composition and missions executed during NORTHERN WATCH were very similar to the type of training events conducted at NATO's Tactical Leadership Programme and the U.S. Air Force's RED FLAG and Weapons School Mission Employment phase. Personal experience of author. On Red Flag see the air force factsheet at <http://www.nellis.af.mil/library/factsheets/factsheet.asp?id=19160>. On Weapons School see the fact sheet at <http://www.nellis.af.mil/library/factsheets/factsheet.asp?id=19837>. On NATO's Tactical Leadership Programme, see <https://www.tlp-info.org/home/> (all three websites accessed 15 March 2014).

⁴⁹ Published in 1996 Air Force Doctrine Document 2-3 utilized Operation SOUTHERN WATCH over Iraq and Operation DENY FLIGHT over Bosnia as the baseline for discussing air exclusion zones. Air exclusion zones are "established to prohibit specified activities in a geographic area." In this case, the action to be prevented was military action, by either air or ground forces, against the Kurdish referent by the Hussein regime. See United States Air Force, *Air Force Doctrine Document 2-3: Military Operations Other Than War*, (Washington D.C.: Government Printing Office, 1996) especially pp. 8-10 and 23-35.

Similar to PROVIDE COMFORT II, NORTHERN WATCH was designated a combined task force reporting to Commander, U.S. European Command. The dual-hatting was necessary because the preponderance of military assets apportioned to the task force were air assets. Although the Commander reported to the U.S. European Command Commander, he retained a formal coordinating relationship with the British political leadership through liaison officers at European Command headquarters. In addition, the deputy commander of the task force generally remained a British Air Commodore (U.S. Brigadier General equivalent) retaining direct liaison with the British military staff at European Command headquarters. A formal coordinating relationship was also maintained with the Turkish government through liaison officers at NORTHERN WATCH headquarters and through the U.S. embassy to Turkey. Similar to the British appointment of an Air Commodore, the Turkish General Staff appointed a Brigadier General to serve as the senior liaison to the NORTHERN WATCH Commander. Figure 6-1 depicts the command structure for NORTHERN WATCH.



Unlike PROVIDE COMFORT, all flying units were co-located at Incirlik Airbase with the Air Operations Center (AOC). Co-location allowed for close coordination between units and the AOC during strategy development and execution. In addition, co-location allowed aircrew flying the daily missions to attend a flight coordination brief to review standard operating procedures and develop specific tactics based on the daily mission requirements. This daily coordination streamlined the command and control by providing a venue for aircrew to understand the operational mission and tactics while also providing the NORTHERN WATCH Commander the opportunity to directly pass his/her intent and mission guidance.

NORTHERN WATCH also appointed liaison officers to SOUTHERN WATCH to maintain a level of coherence between the two operations.⁵⁰ Although SOUTHERN WATCH remained under the command of the Commander, U.S. Central Command, the liaison officer performed several activities that benefitted both operations. First, the liaison officer coordinated intelligence and surveillance requirements. Despite intelligence and reconnaissance platforms, such as the U-2, remaining under the command of each commander, routes of flight would periodically transition from the airspace of one operation to the other. The liaison officer ensured the routes of flight were supported by air superiority and command and control aircraft from each Operation. Second, the liaison officer ensured operating procedures between the two operations remained complimentary. For example, during Operation DESERT FOX in December 1998, attacks on Iraq utilizing SOUTHERN WATCH forces required ceasing NORTHERN WATCH operations for several days.⁵¹ The liaison officer coordinated the

⁵⁰ Correll, "Northern Watch," 36.

⁵¹ The Department of Defense's official DESERT FOX website is located at www.defense.gov/specials/desert_fox/. This website contains primary source transcripts of press briefing, maps of targets struck, and a list of forces utilized. (accessed 14 May 2014). The stand down of NORTHERN WATCH is from the personal experience of the author.

timing of the cessation of operations and kept the task force commander and planning cell apprised of SOUTHERN WATCH combat plans.⁵²

The NORTHERN WATCH reliance on PROVIDE COMFORT II command and control procedures extended from the command headquarters to the execution of missions. Command of planning operations was delegated from the task force commander to a planning staff designed to produce a daily air tasking order. The members of this planning staff were comprised of both permanently assigned planning experts and aircrew from the units assigned to NORTHERN WATCH. This resulted in a planning cell containing a mix of doctrinally experienced planners and tactically proficient operators able to fully integrate specific airframe capabilities into the daily air tasking order. Once the tasking order was disseminated to the units, a mission commander was appointed from either the F-15C, F-16, F-15E, or Jaguar unit. Mission commander duties consisted of coordinating the timing of ingress and egress routes, ensuring deconfliction between aircraft orbits, and recommending mission activities to the Mission Director.

The Mission Director was a critical component of the NORTHERN WATCH command and control structure. Typically a senior Colonel, flew aboard the E-3 Airborne Warning and Control System (AWACS) aircraft and served as the direct representative of the JFACC. Because the aircraft operated beyond radio range from the Air Operations Center, the JFACC was unable to directly control airpower over northern Iraq if a change in mission was required.⁵³ This limitation required an

⁵² Interview with Colonel Warren Henderson by author. (1 February 2014), transcript in files of author. Colonel Henderson was the Commander of the 494th Fighter Squadron and in close coordination with the NORTHERN WATCH planning cell during this time.

⁵³ This time period was also before the incorporation of fighter data link. The Incirlik Air Operations Center was capable of receiving surveillance tracks from the E-3 AWACS, however communication was limited to satellite channels. The mission could be altered for a variety of reasons to include Iraqi actions, weather within Iraq, Turkish requirements or weather/environmental changes at Incirlik.

airborne command element, the Mission Director, providing the necessary guidance to the Mission Commander and possessing authority to modify the mission based on Iraqi actions. The Mission Director monitored the various radio frequencies used by NORTHERN WATCH forces in conjunction with a radar display to maintain awareness of the position of air assets and the location of any possible Iraqi aircraft. In addition, the Mission Director was equipped with a satellite communications relay to the Incirlik Air Operations Center to discuss urgent matters with the JFACC.

The lack of coalition rotary-wing aircraft not only simplified command and control but also clarified the rules of engagement for control of weapons expenditure. Since the 1994 shoot-down of two U.S. Army UH-60 helicopters by F-15C aircraft, the identification codes and routes of flight of helicopters had been included on the daily air tasking order.⁵⁴ The Special Instructions issued to all units required aircrew to complete visual identification tests to differentiate between coalition and Iraqi helicopters and aircraft. Without a friendly rotary-wing presence, any helicopter would be considered Iraqi and therefore a non-friendly aircraft.⁵⁵ This did not automatically authorize aircrew to fire upon the contact because of the possibility the unknown aircraft was operated by a non-governmental organization. In order to verify the aircraft was not hostile, aircrew were required to visually identify the helicopter. Only after a positive identification and a demonstrated hostile activity against either a coalition aircraft or the Kurdish referent could aircraft fire upon the Iraqi aircraft. These procedures ensured the control of weapons employment remained wedded to

⁵⁴ On the shootdown see Scott Snook, *Friendly Fire: The Accidental Shootdown of U.S. Black Hawks over Northern Iraq*, (Princeton, NJ: Princeton University Press, 2000) and U.S. General Accounting Office, *Review of U.S. Air Force Investigation of Blackhawk Fratricide Incident*, (Washington, DC: Government Printing Office, 1997).

⁵⁵ A Bogey is a "radar or visual air contact whose identity is unknown." A Gopher is "a bogey that has not conformed to safe passage routing, airspeed, or altitude procedures." A Bandit is "an aircraft identified as an enemy IAW theater identification criteria." Finally, Hostile is "A contact identified as an enemy upon which clearance to fire is authorized by the theater rules of engagement." All definitions from United States Air Force, *Air Force Tactics, Techniques and Procedures 3-1.1, Change 1*, (Nellis AFB, NV: Air Warfare Center, 2001), pp 1-2 to 1-12.

the stated political objectives, was not likely to result in an unlawful action, or repeat the 1994 Blackhawk shootdown incident did not occur.⁵⁶

The rules of engagement were also influenced by internecine fighting between Kurdish factions and increased Iraqi intransigence. U.S. policymakers were reluctant to conduct overt operations construed as supporting one Kurdish faction over the other. Coupled with Turkey's increased military activity against the PKK, the U.S. response to any Iraqi violations would be measured and balance military effectiveness against political risk. President Clinton's desire to strengthen the U.S. brokered ceasefire between the KDP and PUK meant weapons would only be released if collateral damage to Kurdish infrastructure could be avoided.⁵⁷ Coalition aircraft were authorized to defend against air defense sites that fired either missiles or anti-aircraft artillery at the aircraft but were designed specifically to minimize political risk. By avoiding collateral damage and limiting military offensive actions, the rules of engagement accurately reflected the human security political objectives and ensured command and control procedures provided latitude for airpower operations to respond to the expected Iraqi tactics.

Iraqi Air Defense Tactics

Iraqi air defense sites were badly crippled During Operation DESERT STORM. The fixed sites, along with their command and control centers, were priority targets whose destruction allowed for air superiority and freedom of maneuver by coalition

⁵⁶ For a complete discussion on the legal relationship between U.N. Security Council Resolution 688 and the NORTHERN WATCH rules of engagement, see Michael Schmitt, "Clipped Wings: Effective and Legal No-Fly Zone Rules of Engagement," *Loyola of Los Angeles International and Comparative Law Journal*, December (1998). For a tactical perspective on the rules of engagement, see Peter Bartos, "A Day on Northern Watch: November 2, 2000," *Air Power History* 54, no. 1 (2007). Although the article describes events in 2000, the portrayal corroborates the authors 1998 experiences in NORTHERN WATCH.

⁵⁷ The desire to avoid siding with a Kurdish faction, and by default either Iraq or Iran, partially explains why coalition military force was predominantly conducted against targets in southern Iraq. When Iraq utilized military forces to assist the KDP in August 1996, the coalition responded with strikes on 3-4 September against military targets in southern Iraq. See Warnock, *Short of War*, 194 and Baker, 104th Congress, 2nd session Armed Services Committee, 21 Sep 96.

forces. Subsequent international sanctions and arms embargoes ensured Iraq could not adequately repair or replace the majority of its air defense infrastructure.⁵⁸ By 1997, Iraqi air defenses remained concentrated in and around Baghdad with periodic deployments to areas near the northern and southern no-fly zones. Surface-to-Air (SA)-2, SA-3, and SA-6 missiles were the predominant radar missile threat to coalition aircraft while infrared manportable air defense missiles posed a much smaller threat. Anti-aircraft artillery capabilities, in size up to fifty seven millimeter, remained robust but were generally not deployed to the no-fly zones until mid-1997.

The primary air threat to Operation NORTHERN WATCH aircraft were Mirage F-1 and MiG-25/29 aircraft stationed at Al-Asad and Al-Taqqadam airfields. The Mirage F-1s were capable of supersonic low altitude flight and attacks on the Kurdish referent while MiG-25s and MiG-29s were capable of high altitude supersonic flight. Flying at over fifty thousand feet at speeds in excess of Mach 2.5 (over 1,500 miles per hour at that altitude), the aircraft were capable of targeting NORTHERN WATCH aircraft within fifteen minutes of takeoff from Al-Asad. United Nations' sanctions severely limited the operational capability of the French-built Mirage aircraft and, as a result, the Iraqi Air Force relied on the Russian-built MiG-25s and MiG-29s for daily training and operational flights.⁵⁹ Table 6-2 displays the Iraqi air defense order of battle coupled with operational aircraft.

⁵⁸ General Anthony Zinni, then-Commander of U.S. Central Command stated “[Hussein] obviously maintains an Air Force that still is capable, and an air defense system that's pretty robust.” General Anthony Zinni, “Department of Defense Press Briefing,” official transcript, 2 December 1997. <http://www.defense.gov/Transcripts/Transcript.aspx?TranscriptID=1303> (accessed 15 May 2014).

⁵⁹ Anthony Cordesman and Ahmed Hashim, *Iraq: Sanctions and Beyond*, (Boulder, CO: Westview Press, 1997), 263-280.

Aircraft	Quantity	Mission	Air Defense	Quantity	Type
MiG-25	19	Air Superiority	SA-2	2+	Radar Guided Missile
MiG-29	12	Air Superiority	SA-3	5+	Radar Guided Missile
SU-25/SU-20	42	Ground Attack	SA-6	20+	Radar Guided Missile
Mirage F-1	38	Air Superiority	MANPADS	10,000+	Infrared Potable Missiles
Attack Helicopters	65	Ground Attack	Anti-aircraft artillery	100+	23mm-57 mm
Table 6-2; Iraqi Air Defense Inventory, 1997 Source: Developed by author utilizing information from The International Institute for Strategic Studies, <i>Military Balance, 1995-1996</i> , 121-149.					

Iraqi air defense tactics had not changed since DESERT STORM and coalition personnel were familiar with expected Iraqi actions. Mirage F-1 and MiG-29 aircraft generally would fly harassing profiles south of the thirty-sixth parallel and not directly confront coalition aircraft. Conversely, MiG-25 aircraft would takeoff from Al-Asad, rapidly climb to between thirty-and fifty-thousand feet and then fly directly towards the no-fly zone. Prior to crossing the thirty-sixth parallel, the MiG-25s would turn, descend and return to their base without having engaged coalition aircraft or threatening the Kurdish referent. MiG-23 and MiG-27 aircraft would routinely fly south of the thirty-sixth parallel and not engage coalition aircraft but remain at low altitude and capable of threatening the Kurdis referent. From 1 January 1997 until 2 March 1998, no Iraqi aircraft were shot down nor did any Iraqi aircraft employ weapons against the referent population or coalition aircraft.

Iraqi anti-aircraft artillery and surface-air missile tactics were offensively oriented. Unlike aircraft, artillery and missile systems were not prohibited north of the thirty-sixth parallel and the Hussein regime regularly placed air defense sites in urban areas such as Mosul, Irbil, and Tall Afar. Prior to 1997, engagements by artillery or missile battery operators was very limited as there were no incentives to

attack a coalition aircraft. This situation disappeared in 1997, when Saddam Hussein placed a bounty on captured U.S. pilots. Due to the regime's emphasis on engaging coalition aircraft, artillery and missile sites would occasionally fire at coalition aircraft but with negligible effect. Several reports from pilots during this period demonstrate the Iraqis would fire missiles but appear to not use radar systems to guide missiles to impact based on fear of being targeted by coalition high speed anti-radiation missiles on EA-6B and F-16CJ aircraft.⁶⁰

Despite the negligible ability to engage, Iraqi military forces utilized a variety of means to identify and track coalition aircraft. Visual observers stationed along the Iraqi border and in cities such as Irbil and Mosul provided real-time data on coalition aircraft flying below twenty-five thousand feet. By utilizing radar and passive detection sensors to augment visual observers, Iraq was able to develop awareness and report the presence of U-2 aircraft flying above fifty thousand feet. The Iraqi Air Force Chief of Intelligence provided the Revolutionary Command Council and the Military Intelligence Directorate information on type of aircraft, altitude, speed, route of flight, and duration in Iraqi airspace.⁶¹ Although no Iraqi soldiers ever collected the reward offered by the Hussein regime to shoot down a coalition aircraft, the ability of the Iraqi military collectively to track, identify and engage coalition aircraft posed a significant threat to NORTHERN WATCH operations. Iraq's combined air, missile and artillery threat was not discounted by air strategists, but required a coherent air superiority plan. Unlike PROVIDE COMFORT II, the air superiority plan would place

⁶⁰ Personal experience of author; Col James Bowen, interview by author, 2 April 2014, transcript in personal files; Lieutenant Colonel Christopher Ederle, interview by author, 6 April 2014. Col Bowen and Lt Col Ederle flew combat missions during NORTHERN WATCH as F-15E aircrew assigned to the 494th Fighter Squadron.

⁶¹ Air Commodore Iuhammad Salman Muhammad, "Intelligence and Air Surveillance System, SATTS: 1/K/4," translated document, *Saddam Hussein Collection*, Conflict Records Research Center, SH-AADF-D-000-979, 29 June 1993, 2-4. This file contains forty-two pages of intelligence reports tracking coalition aircraft by air defense sectors in both northern and southern Iraq over a period of five years from 1993.

an almost equal emphasis on countering the Iraqi air threat and suppressing the Iraqi missile and artillery threat.

Air Superiority

The propositions contained in Chapter Four postulate that an air strategy based on local air superiority is identified by airpower operations centered around specific geographic locations and limited to certain times. The locations could be areas where the referent population is concentrated or where the threat to airpower is expected to originate. For PROVIDE COMFORT, local air superiority was centered about the displaced Kurds referent and the coalition ground forces in Iraq and shifted southward as the referent returned to their residences. By 1997 the Kurdish referent population was not displaced, instead remaining in the historical Kurdish cities and villages of northern Iraq. Given the location of the population, the logical choice for local air superiority operations would be the most populous Kurdish cities north of the thirty-sixth parallel: Kirkuk, Irbil, Mosul, and As Sulaymaniah.⁶² In addition, the timeframe for local air superiority would not be continuous but focused on specific times when a threat to the referent population would be greatest. Due to the limited experience of both the Iraqi air force and missile threat operating at night, the timeframe for local air superiority would be almost exclusively during the period from dawn to dusk.⁶³

A strategy based on general air superiority, in contrast, would contain tactics to patrol the entirety of Iraqi airspace north of the thirty-sixth parallel. General air superiority would not focus solely on protecting the referent population but, rather,

⁶² This strategy is similar to the use of combat air patrols over major U.S. cities, such as New York and Washington D.C., in NOBLE EAGLE missions after the 9/11 attacks. For information on NOBLE EAGLE, see the fact sheet developed by the Air Force Historical Studies Office at <http://www.afhso.af.mil/topics/factsheets/factsheet.asp?id=18593> (accessed 15 August 2014).

⁶³ Although unclassified source data is limited, one of the best discussion on Iraqi air force tactics and readiness during the time period of 1990-1997 can be found in: Kevin Woods, *Iraqi Perspectives Project Phase II: Um Al-Ma'arik: Operational and Strategic Insights from an Iraqi Perspective*, (Washington, DC: Institute for Defense Analysis, 2008) especially pp. 197-203.

serve as a component of a broader deterrence strategy. If general air superiority is a component of the airpower strategy, it becomes necessary for strategists to prioritize the areas and duration of air superiority based on the expected threat and available coalition resources.

Air superiority was a central component of the airpower strategy due to the Iraqi capability to contest air superiority with MiG-25 and Mirage F-1 fighter aircraft or SA-2 and SA-3 surface to air missiles. Despite the international arms embargo, the Iraqi Air Force and missile defense forces maintained enough forces to threaten coalition airpower and challenge air superiority.⁶⁴ MiG-25 aircraft stationed at Al-Asad airbase approximately one-hundred-and-twenty miles south of the thirty-sixth parallel. Mirage F-1 aircraft stationed at Al-Taqqadam airbase near Baghdad but could forward deploy to Tall Afar and Irbil Airbases, both north of the thirty-sixth parallel. The dispersed airfield locations translated to a risk Iraq could threaten either the Kurdish referent or coalition aircraft from various axis along the thirty-sixth parallel.

Iraq's 1996 incursion with ground forces north of the thirty-sixth parallel to aid KDP forces increased the threat to coalition aircraft from small arms and man portable air defense missile systems. A small contingent of Iraqi forces remained north of the thirty-sixth parallel, providing weapons and ammunition to KDP forces and actively

⁶⁴ During this period, Iraq maintained a desire to obtain modern air defense systems and spare parts for existing aircraft and missile systems. The best primary source of this desire is "Meeting between Saddam Hussein and Iraqi Ministers regarding Iraq under sanctions," Document SH-SHTP-A-001-298 translated audio recording, *Conflict Records Research Center*, National Defense University. The transcript is undated but, based on the discussions, is likely from 1997. On the acquisition of air defense from Bulgaria and Czechoslovakia, see "Iraq Set to Buy Air-Defense," *Independent News Network*, (12 November 1997), <http://www.wnd.com/1997/11/3155/> (accessed 18 February 2014). For a comprehensive overview of the Iraqi attempts to circumvent arms sanctions see either Anthony Cordesman and Ahmed Hashim, *Iraq: Sanctions and Beyond*, (New York, NY: Westview Press, 1997), especially pp. 263-281 or Anthony Cordesman, *Iraq and the War of Sanctions*, (Wesport, CT: Greenwood Publishing, 1999).

encouraging militants to target coalition aircraft and capture coalition aircrew.⁶⁵

Unlike PROVIDE COMFORT, Iraq actively challenged air superiority by periodically flying near the thirty-sixth parallel and also placing air defense missile systems among Kurdish villages and towns.⁶⁶ The combined threat posed by air, missile, and small arms weapons from a variety of axis required strategists to place air superiority at the forefront of the airpower strategy.

Air strategists modified the PROVIDE COMFORT II strategy from one based on local air superiority to one of general air superiority given the Iraqi air, missile, and small arms threat and the dispersed nature of the Kurdish referent. In order to mitigate the small arms and man portable air defense missile systems, coalition aircraft remained above ten-thousand feet. The Mission Director could approve flight at lower altitudes only for mission essential purposes including shows of force for referent assurance, visual identification of low flying aircraft or helicopters, or release of weapons against Iraqi ground forces. A general air superiority strategy allowed the coalition to protect the geographically dispersed referent population while also countering Iraqi threats that could originate anywhere along the two-hundred mile length of the thirty-sixth parallel.

Air superiority relied heavily on E-3 AWACS maintaining air surveillance north of the thirty-sixth parallel. The E-3 provided capability to identify threats over one hundred miles south of the thirty-sixth parallel and before any threatening action could occur. The E-3 orbited in southern Turkey and was on-station fifteen- to thirty-

⁶⁵ "Note on payment to Air Defense Forces," *Saddam Hussein Collection*, Conflict Records Research Center, SH-AADF-D-001-148, 1 (n.d.). This document discusses the reward of forty-five thousand dinars for the shootdown of coalition aircraft with five percent allocated to the air defense sector headquarters, fifteen percent to the brigade headquarters, five percent for the tactical unit headquarters and the remainder provided to the personnel responsible for shooting down an aircraft.

⁶⁶ "494th Fighter Squadron Operation NORTHERN WATCH After Action Report," (February 1998), 4. Unclassified unit history in the personal files of the author.

minutes prior to the first fighter aircraft entering Turkey. This allowed the E-3 to conduct radar surveillance extending to Al-Taqqadam and Al-Asad to determine any Iraqi air activity. The early on-station time also allowed the E-3 to ensure radio and satellite communications systems were operable and a direct link existed between the aircraft and the Incirlik AOC.⁶⁷

In addition to air surveillance, the E-3 was a critical air superiority command and control node for the air strategy. The Mission Director occupied a station on the E-3 and maintained awareness of any threats to air superiority. If a threat arose, the Director would evaluate the situation and authorize the coalition response. Just as important as the Mission Director was the Turkish presence aboard the E-3. Every E-3 mission required a Turkish officer onboard to monitor the mission and ensure coalition aircraft operated within bounds established by the Turkish government. This officer coordinated closely with the Mission Director but also maintained direct contact with the regional Turkish headquarters at Diyarbakir.⁶⁸ The Turkish officer retained the authority to override the Mission Director or limit actions counter to the air strategy if he believed Turkish interests would be harmed. Although Turkish interference occasionally impeded coalition responses to Iraqi missile or artillery fire, they did not impede air superiority operations against Iraqi aircraft.

A typical air tasking order consisted of twelve to sixteen air superiority aircraft. After the E-3 arrived on station, a single four-ship formation and one two-ship formation of F-15C would enter Iraq. Armed with long range AIM-7 and AIM-120 radar guided missiles and short range AIM-9 infrared guided missiles, the F-15C

⁶⁷ The E-3 provided a live feed of air operations to the Incirlik air operations center via satellite links. See Correll, "Northern Watch," 37.

⁶⁸ Major Richard Martino, interview with author, 18 April 2014, Washington, D.C., transcript in personal files. Martino is a Master Air Battle Manager and former Weapons School Instructor. He participated in Operation NORTHERN WATCH and was responsible for training aircrew to accomplish the E-3 mission.

augmented E-3 capabilities by conducting low altitude radar and visual surveillance for any Iraqi aircraft. The F-15C established combat air patrols providing optimal radar coverage of Iraqi airfields while maintaining capability to search for low altitude aircraft (below ten-thousand feet) along the Turkish-Iraqi border. Once the F-15C flight lead determined there were no Iraqi air threats, four of the F-15C aircraft established combat air patrols oriented towards Al-Asad and Al-Taqqadam airfields. The location of these patrols were on opposite sides of the airspace requiring the remaining two aircraft to establish a combat air patrol in the center of the airspace. This tactic provided general air superiority against the probable Iraqi air threats while also ensuring air superiority extended across the entirety of the airspace over the Kurdish referent. Once the F-15C aircraft were established in the combat air patrols, F-16CJ and EA-6B aircraft provided the final component of the air superiority strategy.

The most significant addition to the NORTHERN WATCH air superiority strategy was inclusion of EA-6B and F-16CJ suppression of enemy air defense aircraft capable of either electronically suppressing or kinetically destroying Iraqi missile systems. EA-6B aircraft equipped with the ALQ-99 Tactical Jamming System were able to intercept and process radar emissions originating from various radars associated with Iraqi missile systems.⁶⁹ Depending on the anticipated intensity of the threat, air strategists directed the aircraft to carry either one, two, or three ALQ-99 pods. Because Iraq was nearly four hundred miles from Incirlik Airbase, the typical EA-6B load out consisted of one jamming pod, two external fuel tanks and one AGM-88 High Speed Anti-Radiation Missile (HARM). The integration between the ALQ-99 jamming

⁶⁹ Much of the information on the ALQ-99 is classified. For an unclassified overview see "ALQ-99 Tactical Jamming System Fact Sheet," U.S. Naval Air Systems Command, n.d. <http://www.navair.navy.mil/index.cfm/index.cfm?fuseaction=home.displayPlatformandkey=24B1B2E4-3410-4808-ADBB-287FCD83C984> (accessed 18 May 2014).

pod and the HARM missile system allowed an EA-6B crew to identify an Iraqi radar, pass targeting data to the HARM missile, and then fire the missile within seconds.⁷⁰ Despite this impressive capability, the EA-6B's limited maneuverability left it vulnerable to supersonic surface to air missiles. To offset this limitation, strategists utilized the EA-6B as a jamming platform remaining outside of known threat ranges while the more maneuverable F-16CJ entered threat rings if needed to kinetically destroy the radar systems.

Four-to-six F-16CJ aircraft would be assigned to air superiority on the daily air tasking order. The aircraft carried AIM-9 and AIM-120 missiles and possessed an air-to-air radar capable of tracking and targeting Iraqi aircraft if F-15C aircraft were unavailable due to maintenance or location. In addition to the air-to-air missiles, the primary weapons load out consisted of the AGM-88 HARM missile and the HARM Targeting System (HTS). The HTS provided F-16 pilots the ability to detect, locate, and identify Iraqi radar missile sites.⁷¹ This unique ability provided a means to quickly destroy a threatening Iraqi missile system that air strategists were able to exploit. By combining the F-16CJ HTS target locating capability with the precision weapons capability of F-15E and F-16CG aircraft, air strategists developed procedures for integrated operations designed to destroy any Iraqi radar site that posed a threat to coalition aircraft.

At the beginning of NORTHERN WATCH rules of engagement allowed aircraft to only target the missile site directly threatening coalition aircraft. This proved problematic and could result in collateral damage if the Iraqis placed the missile site

⁷⁰ On AGM-88 HARM capabilities see the official website of the manufacturer: "High Speed Anti-Radiation Missile (HARM)" <http://www.raytheon.com/capabilities/products/harm/> (accessed 18 May 2014).

⁷¹ Many of the HARM Targeting Systems capabilities are classified. For an unclassified overview of the HTS system see "AN/ASQ-213A, Raytheon" *Defense Update International Online Defense Magazine*, 2 (2006). <http://defense-update.com/products/h/HTS.htm> (accessed 17 May 2014).

within urban areas. In February 1998, Turkey, the U.K. and U.S. developed rules of engagement authorizing attacks on any component of the air defense system. General Dave Deptula emphasized the change when he said “we have flexibility to respond, not just against the gun or missile firing at us, but also the whole array of equipment and architecture that goes along with [the threat system].”⁷² The modified rules of engagement not only provided a liberal environment to target the entire Iraqi air defense system, but also simplified the air superiority component of air strategy.

Under the previous rules of engagement, an attack on a threatening Iraqi missile or artillery system may not occur until the next day and would not be guaranteed based on collateral damage concerns. The time delay allowed the missile or artillery site an opportunity to move after threatening coalition aircraft and provided a measure of protection from coalition response. Under the new rules of engagement, pre-planned targets, called response options, were approved during strategy development and included in the daily air tasking order.⁷³ Response options were briefed during the mass briefs and the targets were identified by aircrew upon entering Iraqi airspace. In the event Iraq engaged coalition aircraft, the Mission Director or Mission Commander could authorize a strike on the response option target with weapons employed within minutes of the approval. This improvement allowed air strategists to identify critical command and control nodes, such as sector headquarters and maintenance facilities that were free of collateral damage concerns and would contribute to lessened Iraqi military capability if destroyed.⁷⁴

⁷² Correll, "Northern Watch," 35.

⁷³ Michael Knights, *Cradle of Conflict: Iraq and the Birth of Modern U.S. Military Power*, (Annapolis, MD: Naval Institute Press, 2005), 215-216.

⁷⁴ A complete discussion of the effectiveness of the new rules of engagement is beyond the scope of this discussion due to its implementation occurring at the end of the period of analysis. The best discussion is Knights, *Cradle of Conflict*.

By operating the EA-6B and F-16CJ aircraft in conjunction, airpower strategists developed a strategy providing effective suppression of the Iraqi surface to air missile threat. EA-6B aircraft provided stand-off jamming capability while the F-16CJ's provided identification, location, and an ability to kinetically destroy the radar systems. Combined with the air-to-air radar, F-16CJ pilots were able to develop an understanding of the entire Iraqi threat picture to air superiority. Coupled with the F-15C capability to engage Iraqi aircraft and rules of engagement prohibiting flight below ten-thousand feet, the coalition was able to achieve general air superiority within the NORTHERN WATCH area of operations. The strategy proved successful as from 1 January 1997 to 1 February 1998 the Kurdish referent was not threatened by Iraqi aircraft and no coalition aircraft were damaged or destroyed by the Iraqi air defense system.

Deterrence of Iraqi Threat

Chapter Four presented a proposition that the deterrent component of an airpower strategy for human security will utilize a denial strategy identified by holding the military component of Iraqi power at risk. By targeting the military, the coalition would effectively deny Iraq the capability to threaten the Kurdish referent. Conversely, a punishment strategy would impose unacceptable costs by targeting non-military infrastructure and reduce the Iraqi regime's will to conduct actions against the Kurdish referent. Although Iraq actively assisted the PUK in late 1996 with up to thirty-thousand Army personnel, Operation DESERT STRIKE and the resulting fear of another U.S. invasion led the Hussein regime to redeploy the majority of personnel to the vicinity Baghdad by early 1997.⁷⁵ The Iraqis maintained a military presence in

⁷⁵ During a 9 February 1998 meeting, Saddam Hussein stated "The partition of Iraq was and still is on the agenda... is it in America's plan to create a Kurdish state? Yes, if they plan to create a Kurdish state with the Kurds in Iraq." "Saddam and Senior Advisors Discussing a Potential Military Conflict with the United States," *Saddam Hussein*

northern Iraq with only limited capability for offensive action but could rapidly deploy additional Republican Guard Divisions, up to twenty-four thousand personnel, from the vicinity of Baghdad to threaten the Kurdish referent. As a result of the Iraqi capability, deterrence of the Iraqi threat to the Kurdish referent was the second main component of the NORTHERN WATCH strategy.

There were two systemic constraints to an effective deterrent strategy. Turkish government limitations on the number of aircraft allowed to participate in NORTHERN WATCH was the first constraint. Whereas PROVIDE COMFORT operated with over one-hundred fixed- and rotary-wing aircraft, NORTHERN WATCH was limited to a total of forty-eight aircraft. The second constraint was the perception by senior U.S. military commanders of NORTHERN WATCH as an ancillary operation to SOUTHERN WATCH.⁷⁶ As previously discussed, SOUTHERN WATCH protected an area four times greater and a population twice as numerous as NORTHERN WATCH with twice as many aircraft. In addition, Saudi Arabia and Kuwait did not place restrictions on the number of aircraft stationed in their respective countries. If restrictions did arise the U.S. and U.K. could position aircraft carriers with strike aircraft in international waters of the Arabian Gulf to augment the land-based forces.⁷⁷ Both constraints resulted in limited capability to provide continuous coverage over northern Iraq while placing a premium on multi-role aircraft such as the F-15E and F-16CG. To offset these constraints, air strategists focused the deterrent strategy not on individual Iraqi units but on the Hussein regime's decision calculus, in effect countering Iraq's military

Collection, transcript of translated audio recording of the Revolutionary Command Council, Conflict Records Research Center, SH-SHTP-A-000-756, 9 February 1998, 7-10. During this meeting Hussein also discusses the effect of redeploying military forces in and around Baghdad in case of an impending attack from coalition forces operating from Turkey, Jordan, Saudi Arabia, and Kuwait.

⁷⁶ Correspondence contained in *General Hugh Shelton Papers*, various dates, National Defense University Special Collections, Box 54, unfiled.

⁷⁷ For example, President Clinton ordered an additional aircraft carrier to the Arabian Gulf and thirty-eight tactical fighter aircraft to Kuwait and Bahrain in November 1997 to bolster the SOUTHERN WATCH forces.

as a means to deterring the regime intent to threaten the Kurdish referent.⁷⁸ This focus attempted to utilize the limited aircraft for maximum deterrent effect.

Unlike PROVIDE COMFORT and PROVIDE COMFORT II, air strategists could not utilize the A-10 as part of the deterrent strategy. The A-10 was an important component of previous deterrent strategies based on its ability to conduct Close Air Support for ground forces and also to loiter over the referent population for an extended period of time. The lack of a ground component in NORTHERN WATCH and the restriction to operate above ten thousand feet would have rendered the A-10 largely ineffective. As a result, air strategists did not allocate aircraft for Close Air Support on the air tasking order, preferring instead to allocate aircraft for strategic attack.⁷⁹ Whereas Close Air Support attempted to achieve an effect against military forces (normally destruction of military capability), strategic attack attempted to identify military targets that, if struck, would degrade military capability and also deter the Hussein regime from threatening the referent population.⁸⁰

As depicted in Table 6-1, F-15E and F-16CG aircraft were assigned to the strategic attack role with four-to-six F-15E tasked on each air tasking order. Capable of employing a variety of weapons, F-15Es had a typical loadout comprised two-to-four laser guided five-hundred pound bombs, one laser guided two-thousand pound bomb and two-to-four unguided five-hundred pound bombs. In addition, two AIM-120

⁷⁸ As noted in Chapter Five, the primary deterrent strategy was aimed at individual units that could threaten the Kurdish referent. Air strategists utilized A-10 aircraft to conduct shows of force and Close Air Support to not only deter Iraqi units north of the thirty-sixth parallel but also to reassure the referent population.

⁷⁹ Contemporary doctrine defines Close Air Support as “air operations against hostile targets in close proximity to friendly forces” and strategic attack as “operations intended to directly achieve strategic effects by striking at the enemy’s [center of gravity] (sic). These operations are designed to achieve their objectives without first having to necessarily engage the adversary’s fielded military forces in extended operations.” Department of the Air Force, *Air Force Doctrine Document 1: Air Force Basic Doctrine*, (Washington D.C.: Government Printing Office, 1997), 49-52. Ironically, a picture of an A-10 accompanies the discussion of Close Air Support and a picture of an F-15E and F-16 in formation accompanies the discussion of strategic attack.

⁸⁰ Brigadier General Dave Deptula summed up the deterrent strategy as “When [Iraq] acts in an aggressive fashion, with the intent to kill or harm our people, the response needs to be one which reduces their capacity to do that in the future.” Quoted in John Tirpak, “Legacy of the Air Blockades,” *Air Force Magazine*, February (2003), 52.

missiles and two AIM-9 missiles were carried allowing F-15E aircrew to conduct the air superiority mission.⁸¹ Four F-16CG were also tasked on each air tasking order. Smaller but more maneuverable than the F-15E, the F-16 loadout typically consisted of two five-hundred pound laser guided bombs and two unguided five-hundred pound bombs. In addition, two AIM-9 missiles were carried providing F-16 pilots with a visual air-to-air capability.⁸² Importantly, both aircraft possessed the AN/AAQ-14 targeting pod with a high resolution infrared sensor providing an ability to identify Iraqi ground targets and employ precision laser guided weapons.

Due to the limited airpower resources for NORTHERN WATCH and Turkish operational constraints, optimizing the deterrent strategy was based on determining ideal flight times over Iraq and demonstrating capability and intent to attack critical military targets. The times were developed to counter any expected Iraqi military activity north of the thirty-sixth parallel and were lengthened as long as seven hours during times of increased Iraqi activity, such as during national holidays, Ba'ath party events, and military exercises. The times were shortened or cancelled outright during known Iraqi periods of inactivity such as religious holidays. Typical flight times were during either early morning or late afternoon when Iraqi military activity historically occurred. Adjusting the timing of flight operations ensured coalition military capability was available to respond to any Iraqi military activity while remaining unpredictable.⁸³

⁸¹ The official Air Force website provides F-15E capabilities. "F-15E Strike Eagle," *U.S. Air Force Fact Sheet*, <http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104499/f-15e-strike-eagle.aspx> (accessed 27 March 2014). Although the fact sheet states the F-15E can carry "any air-to-surface weapon in the Air Force inventory" the aircraft was not capable of carrying any weapon weighing more than five thousand pounds nor was it capable of carrying the AGM-142 or AGM-158 missiles in 1998. Personal experience of author as of 1 June 2014.

⁸² "F-16 Fighting Falcon," *U.S. Air Force Fact Sheet*, <http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104505/f-16-fighting-falcon.aspx> (accessed 27 March 2014).

⁸³ "Saddam has a very robust early warning system of radars that track our movements, so we try and mix it up as much as possible by flying different profiles and going to different places on each mission," Unnamed CAOC

F-15E and F-16CG aircraft formations freely roamed the NORTHERN WATCH airspace collecting surveillance and reconnaissance data of Iraqi ground force locations with the AN/AAQ-14 targeting pod. The missions generally focused on the area around Irbil, Mosul, and Tall Afar. These areas not only contained the largest population density of the Kurdish referent but also the historic areas where Iraqi leadership tended to concentrate military force. In addition, Iraqi military units periodically dispersed air defense sites in the vicinity of the thirty-sixth parallel to counter the varied times of vul periods. By conducting surveillance and reconnaissance, NORTHERN WATCH personnel could discern a pattern of dispersal locations. The surveillance information was combined with various other intelligence sources to develop target folders on critical military targets north of the thirty-sixth parallel.⁸⁴

On subsequent missions, coalition aircrew flew simulated attacks against the targets. Aircrew gained familiarity with possible targets and also demonstrated to Iraq both the capability and intent of coalition forces to identify and target critical military targets. This tactic assumed Iraqi air surveillance units maintained capability to monitor coalition aircraft with air surveillance equipment stationed south of the thirty-sixth parallel. In truth, Iraqi military leadership allocated visual observers, detection and electronic equipment in addition to air surveillance equipment to track coalition aircraft. Beginning as early as 1993, the Iraqi Intelligence Directorate reported to the Hussein regime the status and flight profile of coalition air activities in both

Commander quoted in Kitfield, "The Highs and Lows of Northern Watch", 53. The officer remains anonymous for security reasons.

⁸⁴ Staff Sergeant Morgan Quiroga telephonic interview with author at Washington D.C., 27 December 2013 and personal experience of author. Quiroga was an intelligence analyst with an F-15E fighter squadron during the period of analysis.

NORTHERN and SOUTHERN WATCH.⁸⁵ The Intelligence Directorate information provided the Hussein regime with a reliable estimate of activity that could be used to plan against future coalition operations. During a February 1998 Revolutionary Command Council meeting, Saddam Hussein stated “[the U.S.] is going to attack in the same manner generally; it is going to use its missiles and its aircraft mainly and might use the infantry....We do not exclude the possibility of [the U.S.] using infantry, but we didn’t give it the same importance.”⁸⁶ To which a senior Iraqi official responded “[the U.S.] will provide air cover; it will cut off transportation lines, bridges, radios, all of these things so that it creates a state of psychological instability in the [Iraqi society].”⁸⁷

The NORTHERN WATCH airpower strategy satisfies the deterrence propositions presented in Chapter Four. The deterrent component of the airpower strategy was designed to hold the military capability at risk while affecting the Iraqi regime’s decision calculus to threaten the Kurdish referent. After the 1996 incursion to aid the KDP, Iraq demonstrated the capability and intent to threaten at least a component of the referent population. However, the Iraqi regime did not threaten the Kurdish referent with military force during 1997 and early 1998. While the NORTHERN WATCH airpower strategy was but one component of a larger U.S. policy towards Iraq, utilizing a denial strategy affected the decision calculus of senior members of the Iraqi regime. Aware of coalition airpower capabilities, Iraqi regime leaders chose to cautiously avoid conducting actions that may provide rationale for coalition military

⁸⁵ This assumption was later validated. For examples of Iraq’s monitoring capability see “Correspondence among the Office of the Presidency, the Ministry of Defense and the General Military Intelligence Directorate; forwarding reports on the American spying aircrafts,” translated reports, document SH-AADF-D-000-979, *Conflict Records Research Center*, (29 June 1993). Although dated 1993, the document demonstrates a well-developed Iraqi capability that remained in operation. See also f.n. 81 in this chapter.

⁸⁶ “Saddam and Senior Advisors Discussing a Potential Military Conflict with the United States,” *Saddam Hussein Collection*, transcript of translated audio recording of the Revolutionary Command Council, document SH-SHTP-A-000-756, *Conflict Records Research Center*, (9 February 1998), 2.

⁸⁷ *Ibid*, 17.

activity, to include an invasion against Iraq. Demonstrating both resolve and capability by holding Iraqi military forces at risk, the airpower strategy contained an effective denial component.

The airpower strategy also relied on restrictive rules of engagement to mitigate the possibility of conflict escalation.⁸⁸ This is in accordance with the second proposition on deterrence that an airpower strategy will place constraints on the use of force to avoid conflict escalation. Secretary of Defense William Cohen emphasized this point on 14 November 1997. Cohen stated, “We’re not looking to bomb [Iraq] back into either a stone age or into any sort of submission.”⁸⁹ A stated desire of U.S., Turkish, and U.K. political leaders was to avoid perceptions of siding with either Iranian or Iraqi backed Kurds. In addition, Turkish leaders voiced concern about the increasing use of northern Iraq as a staging ground by the PKK for terrorist attacks in southern Turkey. Airpower strategists walked a fine line by developing a strategy overtly demonstrating airpower resolve and capability while effectively constraining the use of force. From 1 January 1997 until 1 February 1998 there is no evidence that coalition aircraft released weapons in northern Iraq.⁹⁰ While retaining an offensive posture, the rules of engagement ensured the use of force was measured and did not precipitate a larger conflict that could destabilize Turkey, increase Iranian influence, or provide Iraq with an opportunity to exploit coalition military actions.

⁸⁸ Another important component of deterrence beyond the scope of this analysis is the effect of airpower operations on Iranian actions within northern Iraq. During 1996, Iran was actively supporting the PUK against the Iraqi regime. By 1997, overt support for the PUK had waned. It is possible that the increased role of deterrence in the NORTHERN WATCH strategy vice PROVIDE COMFORT II provided an effective deterrent against overt Iranian support to Kurdish factions.

⁸⁹ William Cohen, “Department of Defense News Briefing: Secretary Cohen,” Department of Defense News Transcript, (14 November 1997). <http://www.defense.gov/Transcripts/Transcript.aspx?TranscriptID=1222> (accessed 29 May 2014).

⁹⁰ This is based on a review of official Department of Defense (DoD) press releases and news conferences during the time period. See the official DoD archive at <http://www.defense.gov/transcripts/archive.aspx> (accessed 31 May 2014). A similar point was made in Correll, “Northern Watch,” 34. Correll writes that no weapons were released in northern Iraq between September 1996 and 28 December 1998.

Assurance of the Kurdish Referent

Unlike PROVIDE COMFORT and PROVIDE COMFORT II, assurances for the referent population were not a component of the airpower strategy. Whereas Jalal Talibani emphasized the Kurdish plight in 1991 as “we are alone,” by 1997 the Kurds enjoyed relative autonomy from the Hussein regime in Baghdad.⁹¹ Although concerned about Iraqi aggression, the dominant concern of Kurds during this time was internecine fighting between the various political factions, especially the PUK and KDP.

Aside from conducting periodic shows of presence, airpower strategists could do little else as a result of the political constraints and the force structure. The political constraints were designed to limit U.S. actions that could be perceived as supporting either Iraqi or Iranian backed Kurdish factions. During 1996, over six thousand Kurds assisting PROVIDE COMFORT II forces requested political asylum due to Kurdish factional fighting and the impending redeployment of coalition ground forces.⁹² Many of the asylum seekers had provided intelligence to coalition forces and as a result of their departure reliable intelligence information about Iraqi activity in northern Iraq became extremely limited. The lack of intelligence hampered U.S. efforts to understand the shifting Kurdish political landscape and drove a policy designed to minimize overt U.S. assurances to any one faction.

Another factor limiting assurant actions was Turkish government hesitancy to allow operations supporting Kurdish activities due to the Iraq-based PKK terrorist threat. Turkish operations against the PKK were particularly significant in 1997 with Operations HAMMER and DAWN involving over thirty-thousand personnel forcibly

⁹¹ Jalal Talabani quoted in Jon Randal, *After Such Knowledge What Forgiveness*, (Boulder, CO: Westview Press, 1998), 106.

⁹² “Operation PACIFIC HAVEN Wraps Up Humanitarian Efforts,” Department of Defense Press Release 177-97, 15 April 1997.

entering Iraq and confronting the PKK.⁹³ Because of the ongoing battle with the PKK, the Turkish government periodically cancelled NORTHERN WATCH missions to allow Turkish air and ground forces to conduct operations in northern Iraq. The cancellations would typically occur prior to strategists developing an air tasking order but also while NORTHERN WATCH missions were being flown in Iraq.⁹⁴ Because of the Turkish government's concern over any activities that would provide an assurance or protection for the PKK, airpower strategists minimized assurant actions in favor of deterring Iraqi forces.

The force structure, depicted in Figure 6-1, contained only two platforms capable of direct assurant actions to the Kurdish referent, HH-60 helicopters and the HC-130. These aircraft were dedicated for search and rescue operations and were not allocated to the assurant mission. Instead, any assurant actions would be conducted by fighter aircraft utilizing shows of presence. Air strategists would not assign a fighter for assurant actions in the air tasking order, instead the Mission Director would authorize shows of presence based upon the current threat environment and requirement. There is no documentation that the Mission Director authorized any assurant actions during the period of analysis.⁹⁵ Despite the lack of assurant actions within the air strategy, a typical NORTHERN WATCH mission package contained the

⁹³ On Operation Dawn and Hammer see "Results of Crossborder Operations," <http://fotoanaliz.hurriyet.com.tr/GaleriDetay.aspx?cid=6755andp=4andrid=4369> (accessed 12 May 2014). The University of Maryland's Minorities at Risk (MAR) project provides a comprehensive timeline of Turkish-Kurdish conflict from 1990-2007. Nineteen reports of conflict are reported in 1997 resulting in 1,290 casualties and over 2,000 prisoners. See "Chronology for Kurds in Turkey," *Minorities at Risk Database*, University of Maryland. <http://www.cidcm.umd.edu/mar/chronology.asp?groupid=64005> (accessed 26 April 2014).

⁹⁴ Personal experience of author.

⁹⁵ This does not mean that documentation does not exist that may change the analysis. Additional oral history interviews, declassified documents, or new sources may come to light that do, in fact, provide evidence of a greater Assurant component to the airpower strategy. The researcher reviewed records contained at the Air Force Historical Studies Office, mission reports submitted to the Joint Chiefs of Staff contained in both the Shalikashvili and Shelton personal papers in the National Defense University Special Collections and personal correspondence with the 39th Air Base Wing Historian at Incirlik Airbase. All research conducted during August 2013 and August 2014 and contained in the personal files of the author.

requisite forces to maintain general air superiority, deter the Iraqi regime, and conduct assurant actions if needed.

Bringing it together: A NORTHERN WATCH mission

Strategists developed the daily air tasking order based on intelligence estimates of Iraqi threat activity and the expected route of flight of intelligence and surveillance aircraft. The air tasking order would be released not later than twelve hours prior to the mission brief but varied depending on when the flights would first enter Iraqi airspace.⁹⁶ Six hours prior to the first aircraft entering Iraqi airspace a mass brief was conducted by the task force commander and the mission commander. The mass brief covered the flow of aircraft from takeoff to expected arrival time in Iraq and expected land time. A major portion of the brief focused on rules of engagement for engaging Iraqi aircraft or surface to air missile systems as well as known Kurdish military activity. This portion of the brief also covered visual recognition of Iraqi helicopters, fixed-wing aircraft, and surface-to-air missile systems.⁹⁷ The brief also covered updated special instructions and any changes to airspace or routes of flight. The brief ended with a review of search-and-rescue procedures in the event aircraft were shot down. At the conclusion of the mass brief, individual formations would brief tactical flight procedures and report to the aircraft.

Because all aircraft were stationed at Incirlik AB, ground operations were closely orchestrated to ensure deconfliction and the correct takeoff priority of aircraft. Typically the E-3 AWACS and KC-135 air refueling aircraft would takeoff first followed by the fighter and electronic jamming aircraft. The E-3 aircraft would establish an

⁹⁶ Lieutenant Colonel Maury Forsyth, an F-16 Squadron Commander, stated ““We try to remain unpredictable. We try to take off at different times. We try to fly longer sorties some days, shorter on other days.” Quoted in Kozaryn, “Patrolling Iraq’s Northern Skies.”

⁹⁷ The inclusion of visual recognition was a direct result of the 1994 Blackhawk fratricide incident. “My intelligence officer has pictures of all different kinds of airplanes, and we have to identify them before we go fly just as a reminder and a refresher.” Forsyth quoted in Kozaryn, “Patrolling Iraq’s Northern Skies.”

orbit over southeast Turkey and begin conducting air surveillance of Iraqi airspace and establish a satellite communications link to the Incirlik air operations center. Air superiority F-15 aircraft followed the E-3 five-to-fifteen minutes later and were the first aircraft to enter Iraq. The F-15 oriented combat air patrols to identify any air activity originating from Al-Asad or Al-Taqaddam airbases and conducted visual lookout and radar to search the south side of the mountainous Turkish-Iraqi border terrain that obscured E-3 radar surveillance.

Once the F-15 flight lead determined there was no threat from Iraqi aircraft, the remaining coalition aircraft entered the airspace. F-16CJ and EA-6B aircraft equipped to suppress the Iraqi air defenses by electronic jamming or high speed anti-radiation missiles next entered the airspace. These aircraft oriented orbit patterns to maintain awareness on the known or suspected locations of Iraqi missile systems. F-15E, F-16CG, and/or Tornado GR-1 strategic attack aircraft followed and were the last aircraft to enter Iraq. Equipped with laser guided bombs, these aircraft maintained a combat orbit optimizing visual lookout for air and missile threats while also providing the ability for a rapid transition to an attack formation if the Iraqis fired upon coalition aircraft. The HH-60 aircraft did not enter Iraqi airspace but remained on an alert status in the event a search and rescue was ordered.

The fighter aircraft remained on station in Iraq with periodic air refueling in Turkish airspace. In the event an Iraqi air threat flew north of the thirty-sixth parallel, the strategic attack, F-16CJ, and EA-6B aircraft would flow into Turkey to allow the F-15 air superiority aircraft an unobstructed route of flight to intercept and engage the Iraqi threat. In the event an Iraqi missile system engaged coalition aircraft, the Mission Director determined if the attack warranted a response and, if so, authorized the strategic attack aircraft to engage the missile site that fired upon the coalition

aircraft. The aircraft would then accomplish the attack plan briefed earlier during the mass brief. At the conclusion of flight operations in Iraqi airspace, aircraft would return to Incirlik AB at a predetermined time and ensure landing deconfliction was maintained.

After all aircraft landed, the mission commander conducted a mass debrief to review the overall mission and provide input to air strategists for the next air tasking order. The immediate feedback from the mass debrief allowed air strategists to rapidly modify the tasking order based upon daily events and incorporate any revisions for the next day's mission. The speed of this feedback mechanism was unique to NORTHERN WATCH operations and provided the air strategists with an ability to consistently ensure air strategy was developed based on revised threat assessments, updated commander's guidance, and any change to airpower capabilities.

Conclusion

Unlike PROVIDE COMFORT and PROVIDE COMFORT II, NORTHERN WATCH was constrained by U.S. political objectives gradually shifting from protecting the Kurdish referent to coercing the Hussein regime to accede to U.N. weapons inspections. The shifting objectives were driven by a pragmatic U.S. policy governed by regional strategic issues and Iraq's increasing intransigence. NORTHERN WATCH occurred during a time of internecine fighting between Kurdish factions backed by Iraq and Iran as well as increased Turkish military action against Kurdish militia that utilized northern Iraq as a safe haven for attacks against Turkey. As a result of the strategic environment and political objectives, NORTHERN WATCH airpower strategy contained two components, air superiority and assurant actions, that were not congruent with an expected strategy to support human security political objectives.

Chapter Four presented a proposition that a human security airpower strategy would utilize a local air superiority construct based on the referent location and expected threat. The NORTHERN WATCH airpower strategy developed a general air superiority construct for two reasons: the Kurdish referent was geographically dispersed throughout the operating area and the Iraqi air-and ground-based threats came from multiple sources. The use of general air superiority does not discredit the airpower theory presented in Chapter Four nor are the air superiority propositions invalidated but it does illustrate an important finding. The level of air superiority is contextual based upon interplay between the referent location and the airpower force structure. Of the twenty-eight cases studied, NORTHERN WATCH was one of five that utilized a general air superiority construct. In each of the cases, the referent population was dispersed throughout the entire area of operations with the threat capable of attacking the referent from multiple directions. While local air superiority remained an option in each of these cases, general air superiority was the preferred method because it simplified the air strategy and provided a more flexible operational construct to counter the threat.

The tradeoff to a general air superiority construct is the airpower force must maintain a robust force structure. In the case of NORTHERN WATCH, E-3 long range air surveillance and dedicated F-15C aircraft, augmented by multi-role F-15E and F-16CG aircraft, provided the required force structure to maintain general air superiority. Had the area of operations been larger or the referent population more dispersed it is likely general air superiority could not be maintained within the politically constrained force structure limitations.

The second component of the airpower strategy that was not congruent with the expected strategy to support human security objectives was the lack of assurances to

the referent population. Given the U.S. political desire to avoid perceptions of supporting either the Iranian or Iraqi backed Kurdish factions, airpower strategists walked a fine line incorporating any assurant action into the airpower strategy. The desire to avoid favoring a Kurdish faction was magnified by Turkish concerns that the PKK used northern Iraq as a safe haven for attacks into southeastern Turkey. As a result of the political constraints, airpower strategists minimized any direct assurant actions in favor of increasing deterrent activity towards Iraq. This does not invalidate the assurant propositions presented in Chapter Four but it does present a case in which focused deterrent actions were effective enough that assurant actions could be minimized. Had the deterrent actions not been effective, a greater need for assurances would be required. Additionally, NORTHERN WATCH presented a case, unique within the twenty-eight cases studied, in which the referent population was not displaced. Despite the infighting among Kurdish factions, direct assurances to the population, such as basic supplies and medicine, were not required. This fact downplayed the need for direct assurances in favor of deterring any threatening action from Iraq.

Two additional findings are relevant from this case study. The first finding is the importance of command and control. The complex political environment during NORTHERN WATCH resulted in political objectives intended to demonstrate capability and resolve while minimizing the use of force. This dichotomy required effective command and control. Additionally, the distance between the air operations center and the area of operation contributed to the need for reliable command and control. Unlike PROVIDE COMFORT or PROVIDE COMFORT II, there were no ground forces in northern Iraq that could serve as a command element or a relay to the air operations center. Instead, command and control relied on both close interaction of the

NORTHERN WATCH Commander with aircrew and on satellite communications link between the E-3 and the air operations center.

Unlike most airpower operations, the NORTHERN WATCH force structure was concentrated at Incirlik Airbase. This allowed for close coordination between the air strategists and operational aircrew. The central location, coupled with the mass briefs and debriefs, provided the NORTHERN WATCH Commander and air strategists venues to effectively provide updated guidance and commander's intent. The central location also ensured the rapid dissemination of special instructions and revised rules of engagement. Once airborne, the satellite link between the E-3 and the air operations center allowed the air component commander to maintain awareness of aircraft activity and also coordinate directly with the Mission Director. Through the satellite link and the authority of the Mission Director, the airpower strategy was effective in overcoming the "tyranny of distance" associated with NORTHERN WATCH operations.

The second finding is the consistency of air strategy despite the complex political environment. From 1 January 1997 until 2 March 1998, NORTHERN WATCH commanders emphasized an air strategy focused on general air superiority and denial-based deterrence while lacking assurances. This strategy was suitable based on the political desire to avoid perceptions of favoring one Kurdish faction over another. Consistency also enabled the strategy to remain feasible based on the resources available to NORTHERN WATCH and in the eyes of Turkish political leadership. When viewed in conjunction with SOUTHERN WATCH (OSW), the ability to modify the force structure and strategy of OSW allowed NORTHERN WATCH to retain consistency. This consistency ensured sustained Turkish political support for basing aircraft at Incirlik Airbase and a continued presence over northern Iraq.

The most important effect of consistency was the strategy remained sustainable strategically for an indeterminate period. By 1997 the international legitimacy for NORTHERN WATCH, provided by Resolution 688, was six years old and had faced scrutiny from three members of the U.N. Security Council and opposition from regional countries concerned about increased U.S. influence in the Middle East. By maintaining a consistent air strategy focused on deterring Iraq with a minimal use of force, the air strategy allayed perceptions of U.S. overstepping international mandates and alleviated regional country concerns of U.S. influence. By maintaining a consistent airpower strategy despite a dynamic political and operational environment, airpower strategists ensured NORTHERN WATCH would remain suitable, feasible, and sustainable.

While the airpower strategy utilized in NORTHERN WATCH was a successful component of a broader U.S. effort to protect the Kurdish referent from the threatening actions of the Iraqi government, the same could not be said of contemporary airpower strategy in the Balkans. Since 1992, coalition airpower provided a presence over the former Yugoslavia with mixed results. The next chapter focuses on the Balkan air strategy and the efforts to protect the Kosovar referent from Serbian aggression resulting in Operation ALLIED FORCE.

Chapter Seven

Case Study: Operation ALLIED FORCE

No place in Serbia is better suited than the field of Kosovo for saying that unity in Serbia will bring prosperity to the Serbian people.

-- Slobodan Milošević, 1989

We act to protect thousands of innocent people in Kosovo from a mounting military offensive...by acting now, we are upholding our values, protecting our interests, and advancing the cause of peace.

-- President Bill Clinton, 1999

Introduction and Context

On 24 March 1999 the North Atlantic Treaty Organization initiated military operations to coerce the regime of Slobodan Milošević to cease ethnic cleansing operations against minorities residing in the Serbian province of Kosovo. The genesis of the conflict originated over 600 years ago. The Ottoman invasion and subsequent 1389 Battle of Kosovo Polje inextricably linked the Principality of Serbia to Kosovo. Although the combined Serb-Bosnian-Kosovar force suffered defeat at the hands of the Ottoman Empire, the battle is remembered by all parties as a symbol of determination in the face of a numerically superior foe. While the anniversary of the battle has been celebrated annually in the 600 years since, Serbians view the battle as a source of nationalistic pride in weakening an enemy capable of threatening Europe. Conversely, non-Serb minorities in Kosovo view the anniversary as a time to remember half-hearted Serb attempts to defend Kosovo.¹

¹ For an excellent discussion about how reality and myths of the Battle of Kosovo have been utilized in the identity of both Serbia and Kosovo see Gerlachus Duijzinga, *Religion and the Politics of Identity in Kosovo* (New York, NY: Columbia University Press, 2000) especially pp. 176-202. An analysis of contemporary Kosovar thought about independence is contained in Tim Judah, *Kosovo: War and Revenge* (New Haven, CT: Yale University Press, 2002) and Stephen Schwartz, *Kosovo: Background to War* (London, UK: Anthem Press, 2000). A detailed analysis of Kosovo history, the effects of Operation ALLIED FORCE, and humanitarian operations after the dissolution of Yugoslavia is contained in *Lessons From Kosovo: The KFOR Experience* ed. Larry Wentz, (Washington D.C.: Department of Defense Command and Control Research Program, 2002). Pertinent chapters include Josef Fuduli, "Kosovo's Political Evolution," pp. 65-76; Walter Clark, "The Humanitarian Dimension in Kosovo: Coordination and Competition," pp. 207-232; and Larry Wentz, "Coalition Command Arrangements," pp. 399-424.

The battle also gave rise to the so-called “Kosovo Curse” attributed to Serbian field commander Prince Lazar. Reportedly angry at the limited support provided by Serbian principalities, Lazar stated:

Whoever is a Serb and of Serb birth, and of Serb blood and heritage, and comes not to fight at Kosovo, may he never have children born from marriage, neither son nor daughter! May nothing grow on his farm, neither red wine nor white wheat! And may he be dying in filth as long as his children are alive!²

For the next 600 years, the words of Prince Lazar would resonate with Serbs attempting to link Kosovo to Serbia and with ethnic Albanians determined to distance themselves from the alleged indifference demonstrated by Serbians during the battle.

Following World War I and the dissolution of the Austro-Hungarian Empire, Serbia and Kosovo were joined as part of the Kingdom of Yugoslavia. The 1946 Yugoslav constitution recognized Kosovo as an autonomous province with special voting and parliamentary representation. Based on Yugoslav President and Prime Minister Josef Tito’s anti-nationalism policies, autonomous status was designed to minimize Kosovar desires for independence. The revised Yugoslav constitution of 1974 placed Kosovo under the Serbian state but paradoxically increased Kosovar autonomy. The Kosovo parliament was given veto power over Serbian legislation but Serbia was not provided a corresponding veto power over Kosovo. Tito’s intent for this bureaucratically odd arrangement was to undermine restive Kosovar’s calls for

² The original text is in Serbian and appears on the Gazimestan monument in Kosovo: “Ко је Србин и српскога рода, и од српске крви и колена, а не дош’о на бој на Косово, не имао од срца порога, ни мушкога ни девојачкога! Од руке му ништа не родило, рујно вино ни пшеница бела! Рђом капо док му је колена!” This translation was provided by Serbian Colonel Goran Zekic on 13 Dec 2013.

independence by providing just enough autonomy to not spark a nationalistic push for independence.³

Tito's death in 1980 served as a catalyst for increased nationalism within Yugoslav ethnic minority communities. The pull of nationalism was strongest in Kosovo. A food protest at the University of Pristina in 1981 spread throughout Kosovo but was repressed by Yugoslav armor and infantry units. A reported 1,000 protestors were imprisoned, an event directly leading to establishment of the Kosovo Liberation Army.⁴ Demographic changes in Kosovo reinforced rising nationalism and calls for independence. By the late 1980's Kosovo was approximately ninety percent ethnic Albanian based on greater birthrates and Serbian emigration back to Serbia.

Perhaps the greatest pull of nationalism within Yugoslavia was in the Socialist Republic of Serbia where, in 1987, Slobodan Milošević was elected President by espousing Serbian nationalism. To Milošević, Serbia was the epicenter of Slavic history and culture and Kosovo was a vital component of Serbia. On the 600th anniversary of the Battle of Kosovo Polje, Milošević emphasized the relationship between Serbia and Kosovo in the following way "nobody should be surprised that all Serbia rose up last summer [1988] because of Kosovo. Kosovo is the very center of its history, its culture, and its memory. All people have a love which burns in their hearts forever. For a Serb that love is Kosovo. That is why Kosovo will remain in Serbia."⁵

³ Glenn E. Curtis. "Political Innovation and the 1974 Constitution" in *Yugoslavia: A country study* ed. Glenn E. Curtis. Library of Congress Federal Research Division (December 1990).

⁴ Henry Perritt, *Kosovo Liberation Army: The Inside Story of an Insurgency* (Urbana, IL: University of Illinois Press, 2008), 23. Many of those imprisoned would become senior leaders of the Kosovo Liberation Army in the 1990s.

⁵ Slobodan Milošević, "Speech at Kosovo Brotherhood and Solidarity Rally in Belgrade," (19 November 1988), British Broadcasting Corporation, <http://www.slobodan-milosevic.org/documents/sml12188.htm> (accessed 22 November 2013). On the eve of ALLIED FORCE, General Nebojša Pavković, Commander of the Yugoslav 3rd Army in Kosovo, is quoted as "The defence of Kosovo is a strategic task and our major national interest. If we lose Kosovo, we will lose all Serbia, the FRY (Federal Republic of Yugoslavia) and our freedom which is sacred to all citizens" in Judah, *Kosovo: War and Revenge*, 237. Five weeks into ALLIED FORCE, on 30 April 1999, Milošević would reiterate the importance of Kosovo, "To us Kosovo is critically important because it is the heart of [a] country

The break-up of Yugoslavia into constituent nations of Serbia, Bosnia, Croatia, Macedonia, and Slovenia precipitated the Yugoslav Wars of the 1990's. The United Nations (U.N.) responded to the violence with numerous Security Council Resolutions, the most significant being Resolutions 743, 762, and 770. U.N. Security Council Resolution 743 created the United Nations Protection Force (UNPROFOR) while 762 and 770 expanded the UNPROFOR mandate and defined "Protected Areas" within Croatia. In October 1992, Security Council Resolution 781 prohibited flight by military aircraft of the former Yugoslav republics and established a no-fly zone over Bosnia-Herzegovina.⁶ Twelve NATO members contributed forces for no-fly zone enforcement, known first as Operation SKY MONITOR and subsequently as Operation DENY FLIGHT.

As a result of the escalating violence in the former Yugoslav republics, President George H.W. Bush warned Slobodan Milošević on 25 December 1992 that any Serbian military actions against Kosovars would precipitate a U.S. military response.⁷ Importantly, Milošević's restraint against Kosovo would have important consequences six years later as ALLIED FORCE campaign assumptions were being developed. As

and an integral part of our long history. It is also home to a quarter of million Serbs whose forebears have lived there for centuries" in "Interview with Slobodan Milošević," Arnaud de Borchgrave, United Press International, 30 April 1999. Retrieved from <http://www.slobodan-milosevic.org/int-upi99.htm> (accessed 4 January 2014). See also Jane Perlez, "Crisis in the Balkans: The Serbian Leader; Milošević Defiant but Offers a Pact," *New York Times*, 1 May 1999, A1.

⁶ Resolution 781 was adopted with a 14-0 vote by the U.N. Security Council with China abstaining due to language in the Resolution implying use of force. The Resolution "calls upon states to take nationally or through regional agencies or arrangements *all measures necessary to provide assistance to the United Nations Protection Force* [italics added]." See United Nations Security Council Resolution 781 (1992) document S/RES/781, United Nations, 9 Oct 1992, <http://unscr.com/en/resolutions/doc/> (accessed 12 December 2013). Resolution 816 expanded the mandate of UNSCR 781 by including a prohibition of all fixed- and rotary-wing aircraft over Bosnia-Herzegovina. Additionally, the Contact Group, composed of the U.S., United Kingdom, France, Germany, Italy and Russia, was created to advise policy developments in the Balkan Region, specifically with regard to Serbia.

⁷ Bush stated "In the event of conflict in Kosovo caused by Serbian action, the United States will be prepared to employ military force against the Serbians in Kosovo and in Serbia proper." Quoted in Wesley Clark, *Waging Modern War* (New York, NY: Public Affairs, 2001), 108 and "Crisis in the Balkans; Statements of United States' Policy on Kosovo," *New York Times*, 18 April 1999, A2. Text of cable included in Philip Auerswald and David Auerswald, *The Kosovo Conflict: A Diplomatic History through Documents* (The Hague, Netherlands: Kluwer Law International, 2000), 65.

warfare continued in Bosnia and Croatia, NATO conducted Operation DELIBERATE FORCE from 30 August until 20 September 1995 against the Serbian Army. DELIBERATE FORCE resulted in Milošević's acceptance of the Dayton Peace Accords ending the Bosnian War. Three years later, the apparent success of DELIBERATE FORCE would also serve as the example NATO and U.S. leadership used to develop assumptions about Milošević's susceptibility to coercive diplomacy backed by air strikes.

By 1998 the relationship between Serbia and Kosovo became increasingly strained as a result of Milošević's nationalist policies and disillusionment of Kosovar minorities with Serbian policies. During the first week of March 1998, Serb paramilitary units killed an estimated 83 civilians, including 24 women and children, in the Kosovo town of Drenica.⁸ The U.S. would send numerous envoys to Serbia, to include Ambassador Christopher Hill, Special Envoy Ambassador Richard Holbrooke, and General Wesley Clark, to persuade Milošević to cease violence in Kosovo but to little avail. During this period, NATO staff began planning military operations against Serbia.⁹

Diplomatic negotiations continued throughout 1998 characterized by Milošević ordering symbolic force withdrawals from Kosovo and the Contact Group threatening NATO military action. In the eyes of NATO and U.S. policymakers, the coercive diplomacy campaign demonstrated incremental progress but in the eyes of regional states, the plight of the Serbia's Kosovars was bleak.¹⁰ By October, NATO officials were

⁸ Human Rights Watch, *Under Orders: War Crimes in Kosovo* (New York, NY: Human Rights Watch, 2001), 38.

⁹ Secretary of State Madeline Albright summed up the meetings as "unfortunately, the Serb side has chosen to fight rather than talk seriously. We know from experience that our response must be unequivocal and unambiguous if it is to be effective." Robin Wright, "Serbs Given until Tuesday to End Attacks in Kosovo," *Los Angeles Times*, 13 June 1998, A1.

¹⁰ The Supreme Allied Commander, Europe (SACEUR) General Wesley Clark stated Milošević kept the use of force "just under the threshold at which Western nations would feel compelled to take action." The Albanian foreign minister, Paskal Milo, was much blunter than Clark, stating "The situation in Kosovo is on the eve of open

publically discussing the use of military force against Serbia. On 15 October, NATO headquarters publically released two activation orders for airstrikes against Serbia but delayed their implementation for ninety-six hours. The delay provided Serbia an opportunity to comply with U.N. Security Council Resolution 1199, released two weeks earlier, demanding an end to hostilities in Kosovo. As a result of the activation orders, Milošević acceded to NATO's demands to remove certain military units from Kosovo. He also agreed to the immediate deployment of an unarmed verification force, the Kosovo Verification Mission, under the command of the Organization for Security and Cooperation in Europe. NATO and U.S. policymakers perceived Milošević's agreement as another instance of the coercive impact of airpower.¹¹

Diplomatic negotiations were impeded when the Kosovo Verification Mission reported a massacre of forty-five Kosovars by Serbian forces in the town of Racak on 15 Jan 1999.¹² The Contact Group responded with an ultimatum that the Milošević regime attend negotiations with representatives of the Contact Group and leadership of the Kosovo Liberation Army at Rambouillet, France. Secretary of State Albright maintained optimism as late as 23 February that a diplomatic settlement could be achieved without resorting to force.¹³ From a Serbian perspective, the Rambouillet

war. Unfortunately, the Contact Group of countries has given Milošević much more carrot than stick. The Albanian government has called on NATO, the OSCE, the UN and all our partners to decide as soon as possible a solution that will stop ethnic cleansing in Kosovo." Richard Rigazio, *Politico-Military Implications of the Kosovo Crisis* (Stuttgart, GE: U.S. European Command ECJ5-E, 2000), 16. CAPTAIN Rigazio served on the GEN Clark's Plans and Policy Staff during Operation ALLIED FORCE.

¹¹ During the October meetings, GEN Clark noted Milošević "was uncomfortable about the NATO air threat. There was no doubt it was generating leverage against him." Clark, *Waging Modern War*, 145.

¹² Ambassador William Walker, "Kosovo Verification Mission Report Period Covered 16-17 January 1999," *Wesley Clark Papers*, 18 January 1999, National Defense University Special Collections, Box 73, unfiled. References from the Wesley Clark Papers are hereinafter referenced as "*Clark Papers*."

¹³ On 23 February, Albright stated "we have decisively broken the stalemate that hung over Kosovo for so long" and "we will leave Rambouillet with something that months of shuttle negotiations and years of international concern have not achieved; a viable plan for alternative democracy in Kosovo through an interim political settlement" Madeline Albright, "Transcript: Albright Briefing on Kosovo," U.S. State Department news release, 24 February 1999, <http://usembassy-israel.org.il/publish/press/state/archive/1999/february/sd4224.htm>. (accessed 2 December 2013). Dr. Predrag Simic, a member of the Serbian delegation, noted: "The biggest weakness of the Serbian negotiating positions were divisions in the country on the purpose of the entire conference. While on the one side

negotiations were tantamount to an ultimatum. Slobodan Milošević stated “Rambouillet was a recipe for the independence of Kosovo, which clearly we could not accept.”¹⁴ The Rambouillet negotiations occurred simultaneously with a Serbian military offensive against the Kosovo Liberation Army intended to crush the KLA and decide the Kosovo political status in favor of Serbia.¹⁵ Negotiations were halted on 23 March 1999 due to an inability for either Serbian or the Kosovar delegates to reach an agreement. NATO commenced military operations against Serbia the following day.

Independent Variable: Political Objective

The political objectives of Operation ALLIED FORCE were developed over the course of twelve months beginning in March 1998 by both NATO and U.S. policymakers. The U.S. and NATO political objectives, however, differed at the beginning of combat operations. While NATO objectives were value-based and tied firmly to the attempts at diplomacy, U.S. objectives tended to be framed within the context of maintaining alliance integrity and militarily defeating Serbia’s armed forces. The difference is surprising given that the leaders of both NATO and the U.S. assumed a short air campaign could achieve political objectives. Their perception that a limited duration airpower would be effective was not entirely unwarranted based on previous

were those who believed in the power of diplomacy and trying to achieve the best possible compromise and to prevent "hawks" in the Atlantic circles to end the crisis by NATO intervention, on the other hand were those convinced that the West understands only the language of force and that the Rambouillet conference was a waste of time. An aggressive performance by Madeleine Albright at the start of the conference, the dominant role of the KLA in Albanian delegation, the presence of Western advisers among Albanian representatives and, above all, the unacceptable conditions that NATO asked only strengthened doubts about the intentions of the United States and the ability of the European Union and Russia that they would seriously negotiate.” Predrag Simic, *Им У Рамбџе: Косовска Круза 1995-2000 (Mission in Rambouillet: Kosovo Crisis, 1995-2000)* (Belgrade, Serbia: NEA, 2000). This unofficial translation is approved by Dr. Simic. Correspondence in personal files of author, (18 January 2014).

¹⁴ de Borchgrave, "Interview with Yugoslav President Slobodan Milošević," 1999.

¹⁵ NATO identified “create a humanitarian crisis in Albania and Macedonia to distract NATO and the international community from internal Serb actions” as another reason for the military offensive but this is an unsubstantiated claim. United States Air Force, *The Air War over Serbia: Aerospace Power in Operation Allied Force*, (Washington D.C.: Government Printing Office, 1999), 3.

interactions with Milošević.¹⁶ Operation DELIBERATE FORCE and the resultant Dayton Peace Accords served as one example. The example was the October 1998 issuance of activation orders for air strikes against Serbia occurring prior to the Holbrooke meeting. General Wesley Clark attended the October meeting with Milošević and determined the latter would be susceptible to the threat of airpower attacks.¹⁷ The final example was the establishment of the Kosovo Verification Mission and resultant air component, Operation EAGLE EYE, to provide surveillance of Serbian actions in Kosovo from October 1998 to January 1999. Coupled with the desire of European NATO members to coerce Milošević yet inflict the least amount of damage in Serbia, an air campaign presented an option to NATO leadership balancing risk assessment with achievement of political objectives.

On 24 March, the first day of combat operations, NATO Secretary-General Javier Solana listed NATO's political objectives as:

This military action is intended to support the political aims of the international community. It will be directed towards disrupting the violent attacks being committed by the Serb Army and Special Police Forces and weakening their ability to cause further humanitarian catastrophe. We wish thereby to support international efforts to secure Yugoslav agreement to an interim political settlement. As we have stated, a viable political settlement must be guaranteed by an international military presence...Our objective is to prevent more human suffering and more repression and violence against the civilian population of Kosovo.¹⁸

¹⁶ The official United Kingdom after action report on ALLIED FORCE noted "There can be little doubt that the expectation amongst many in NATO and in the UK was that Milošević, when faced with a credible threat or the use of significant and potentially damaging force against him, such as air strikes, would quickly concede to NATO's demands." Ministry of Defence, "Defence- Fourteenth Report," (London, UK: House of Commons, 24 October 2000). During the Rambouillet negotiations Clark optimistically told National Security Advisor Talbott "I can't believe that Milošević won't sign [the accords] when the crunch comes. He always holds out. He has to be leaned on very hard." Clark, *Waging Modern War*, 170.

¹⁷ Clark assessed after the October agreement for the Kosovo Verification Mission and air monitoring was brokered, "this was diplomacy backed by threat. The air threat helped to halt the Serb campaign in Kosovo." Clark, *Waging Modern War*, 153.

¹⁸ Javier Solana, "Press Statement by Dr. Javier Solana, Secretary General of NATO," NATO news release, 24 March 1999, accessed 30 December 2013, <http://www.nato.int/DOCU/pr/1999/p99-040e.htm>.

Solana clearly subordinates military action to political aims and describes its rationale in terms of international norms to prevent human suffering and stop repression and violence. Solana further states the four overarching objectives as disrupting Serbian attacks in Kosovo, securing Yugoslav agreement to a political settlement, an international military presence in Kosovo and to prevent repression and suffering.

Although NATO created value-based political objectives, U.S. National Security Advisor Sandy Berger developed interest-based U.S. objectives. Inclusion of national interests foreshadowed a greater possibility for the use of military force. Prior to the start of military operations, Berger led U.S. policy development and authored President William Clinton's 24 March address to the nation.¹⁹ President Clinton stated:

Our strikes have three objectives: First, to demonstrate the seriousness of NATO's opposition to aggression and its support for peace. Second, to deter President Milošević from continuing and escalating his attacks on helpless civilians by imposing a price for those attacks. And third, if necessary, to damage Serbia's capacity to wage war against Kosovo in the future by seriously diminishing its military capabilities.²⁰

Clinton's remarks differ from Solana's in several ways. First, Clinton does not mention an international security force within Kosovo. The lack of agreement on committing a ground force would plague NATO and the U.S. for the duration of ALLIED FORCE. Second, Solana's speech explicitly relates military action to political objectives; however, Clinton states objectives to impose a price on Serbia by

¹⁹ Berger wrote "[The U.S.] has three strong interests at stake in the Kosovo conflict: averting a humanitarian catastrophe; preserving stability in a key part of Europe; and maintaining the credibility of NATO." Sandy Berger, "Rationale for Nato Military Action," in *Clark Papers*, Box 74, unfiled. The same memo mentions "Should military action be required, NATO would have three objectives 1) demonstrate NATO's seriousness of purpose to make clear to Milošević the cost of his current course; deter Belgrade from launching an all-out offensive against helpless civilians; further seriously damage Belgrade's military capability to take repressive action against Kosovars." For an excellent discussion on National Security Council strategic development and policy recommendations during the months leading to ALLIED FORCE, see Gregory Schulte, "Revisiting Kosovo's Air War: Strategic Lessons for an Era of Austerity," *Joint Force Quarterly* 71, no. 4 (2013).

²⁰ William Clinton, "Statement by the President on Kosovo," White House news release, 24 March 1999. President Clinton's speech can also be seen at <http://www.youtube.com/watch?v=rusF4OJzGbo>.

diminishing its military capabilities and capacity to wage war. Table 7-1 identifies the differences between NATO and U.S. political objectives. Because ALLIED FORCE was a NATO operation, Solana's statements are utilized for analysis of political objectives.

NATO Stated Objectives	U.S. Stated Objectives
Disrupt violent attacks committed by the Serb Army and Special Police Forces and weaken their ability to cause further humanitarian catastrophe	Demonstrate the seriousness of NATO's opposition to aggression and its support for peace
Secure Yugoslav agreement to an interim political settlement	Deter President Milošević from continuing and escalating his attacks on helpless civilians by imposing a price for those attacks.
An international military presence guaranteeing a viable political settlement	Damage Serbia's capacity to wage war against Kosovo in the future by seriously diminishing its military capabilities
Prevent more human suffering and more repression and violence against the civilian population of Kosovo	
Table 7-1: Stated Political Objectives, 24 March 1999 Source: Developed by author from U.S. and NATO press releases.	

The differing political objectives between NATO and the U.S. partially drove a bifurcation of command with two and subsequently three separate air operations conducted simultaneously. ALLIED FORCE was designed to achieve the NATO political objectives with a coercive denial strategy. Joint Task Force NOBLE ANVIL was an independent U.S. operation to achieve U.S. objectives utilizing a coercive punishment strategy. Operation SHINING HOPE was established to coordinate with non-governmental organizations for providing humanitarian aid to the Kosovar referent. SHINING HOPE was established by NATO but United States Air Forces Europe was designated as the supported commander.

The clashing objectives heavily burdened the three senior military commanders, who retained command authority from both NATO and the U.S. Within the U.S.

command structure, General Wesley Clark was the European Command Commander; Admiral James Ellis was Commander in Chief U.S. Naval Forces Europe; and Lieutenant General Mike Short was 16th Air Force Commander. Within the NATO structure, Clark was Supreme Allied Commander, Europe; Ellis was Commander in Chief, Allied Forces Southern Europe; and Short was Commander, Allied Air Forces, Southern Europe (See Figure 7.1). It was not until a month into the campaign, at the NATO 50th anniversary meeting, that U.S. and NATO objectives would substantially align NOBLE ANVIL and ALLIED FORCE operations under the same air campaign plan. The aligning of objectives also streamlined the command authorities among the dual-hatted U.S. and NATO commanders.

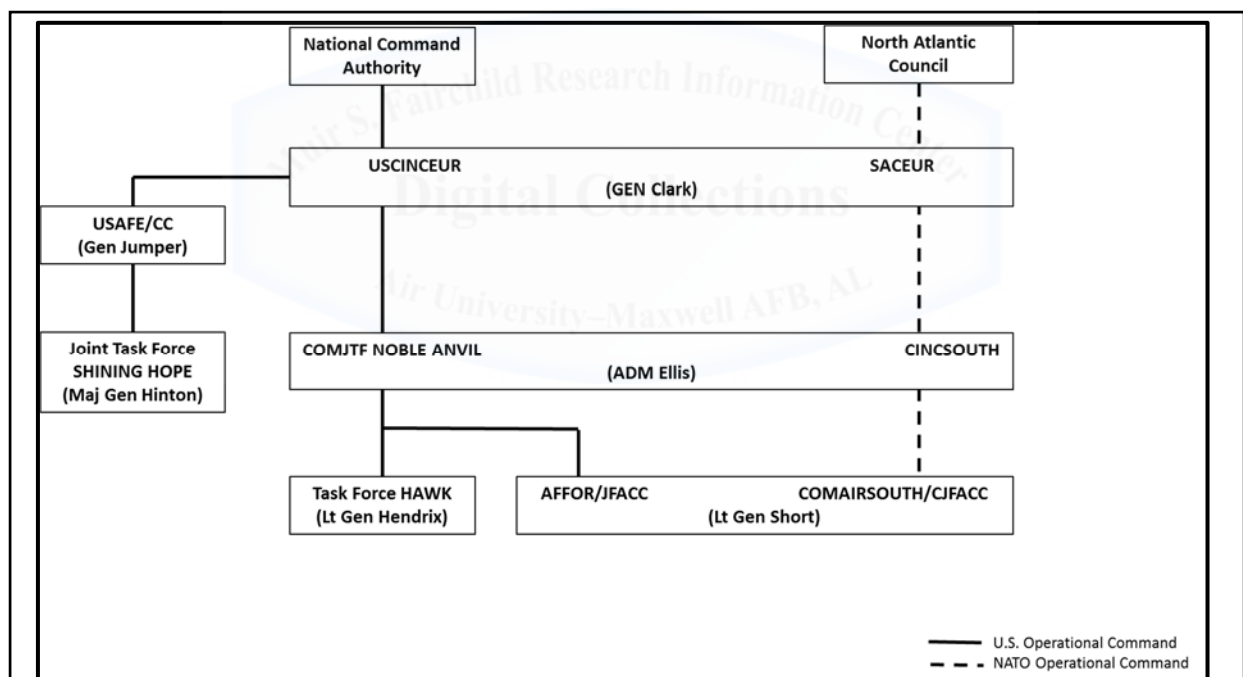


Figure 7-1: ALLIED FORCE Command Relations.

Source: Adapted from Department of Defense, *Report to Congress: Kosovo/ Operation ALLIED FORCE After Action Report*, 31 January 2000, 20.

After almost a month of negligible results from the air campaign, on 23 April NATO leaders agreed to intensify the bombing campaign and deploy additional aircraft. They also authorized increasing the target list to include military-industrial

infrastructure and other strategic targets, a critical change in guidance that added a coercive punishment component to the air strategy. In addition, NATO leaders revised the political objectives to include the following:

- Ensure a verifiable stop to all military action and the immediate ending of violence and repression in Kosovo;
- Withdraw from Kosovo the Serbian military, police and para-military forces;
- Agree to an international military presence in Kosovo;
- Agree to the unconditional and safe return of all refugees and displaced persons, and unhindered access by humanitarian aid organizations; and
- Provide credible assurance of Milošević's willingness to work for the establishment of a political framework agreement based on the Rambouillet accords.²¹

The change in objectives aligned NATO objectives closely with those of the U.S. President Clinton reinforced the alignment of U.S. and NATO objectives during official statements on both 23 April and 28 April.²² The revised objectives were significant for several reasons. First, they demonstrated unity of purpose among the nineteen NATO nations, particularly for Greece, France and Italy, where a significant proportion of the populace openly criticized military actions against Serbia.²³ Second, the unified objectives provided common guidance to the dual-hatted commanders responsible for military strategy and execution. Finally, the unified objectives reinforced the common

²¹ North Atlantic Treaty Organization, "Statement on Kosovo: Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council " NATO news release, 23 April 1999, <http://www.nato.int/docu/pr/1999/p99-062e.htm> (accessed 22 November 2013).

²² William Clinton and Javier Solana, "Remarks by President Clinton and Secretary General Solana at NATO Commemorative Ceremony," White House news release, 23 April 1999, <http://clinton4.nara.gov/WH/New/html/19990423-5920.html> (accessed 27 November 2013). On 28 April Clinton stated "this policy [of the Serbs] must be defeated, and it will be defeated. That was the clear message of the NATO Summit. Nineteen democratically-elected NATO leaders came together to demonstrate their unity and determination to prevail." "Statement by the President," 28 April 1999, <http://clinton4.nara.gov/WH/New/html/19990428-10063.html> (accessed 27 November 2013).

²³ Any one of the then-nineteen NATO member states could have vetoed military action or any of the targets. It is important to note the unity of effort required to retain alliance cohesion. For example, Greek Defense Minister Akis Tzohatzopoulos noted "ninety percent of [Greeks] polled in some public opinion surveys were against the conflict" in Linda Kozaryn, "Cohen Thanks Greek Allies for Support to NATO," *American Forces Press Service*, 15 July 1999.

resolve of NATO members and allayed many concerns about a fracturing alliance, particularly from Albania and Macedonia.²⁴

NATO objectives during the planning and execution of Operations ALLIED FORCE and SHINING HOPE display the two components of human security objectives described in Chapter Three. First, the source of insecurity is a military component of state power, the Serbian Army and Special Police. Second, a sub-state group, Kosovar Albanians, are the referent population for security actions. As such, a military strategy to achieve the NATO political objectives would be expected to counter the Serbian military threat while providing assurances to the Kosovar referent.

Intervening Variable--NATO Military Strategy

During April 1998, General Clark ordered Commander, Allied Forces Southern Europe, Admiral James Ellis, to develop a plan for a deployment of forces to Macedonia and Albania to assist in stabilization in the event of a humanitarian crisis originating from Kosovo.²⁵ These actions were followed in June 1998 with planning for both permissive and opposed use of military force against Serbia. The permissive line of operation entailed aerial surveillance coupled with a large peace enforcement ground presence similar to the United Nations Protection Force in Bosnia. Planning for this line of operation assumed Serbia would allow a NATO force to operate inside its borders. The opposed line of operation envisioned using military force to coerce Milošević to cease military operations in Kosovo. Both planning efforts envisioned a

²⁴Commenting in July 1999 about the political objectives, General John Jumper, one of the U.S. and NATO dual hatted commanders, stated "It wasn't really until the Washington summit [in April] that we had the level of consensus we really should have had to start off." United States Air Force, "The Air War over Serbia: Aerospace Power in Operation Allied Force," 18.

²⁵ Clark, *Waging Modern War* and Walter Perry, et. al., *Disjointed War: Military Operations in Kosovo, 1999* (Santa Monica, CA: RAND, 2000), 14. See also Anthony Cordesman, *The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo*, (Westport, CT: Praeger Publishers, 2001), pp. 57-72.

NATO force of 200,000 ground personnel (with up to 80,000 American personnel) entering Serbia via Kosovo.²⁶

One of the main reasons the use of ground forces was initially ruled out, however, was an assumption by NATO political leadership that offensive military operations would meet objectives within days. Conversely, a ground force of 200,000 would take months to move, assemble, and be ready for action.²⁷ By August 1998 civilian NATO leaders disapproved a ground force component to military strategy and halted planning until April of 1999, just prior to the NATO 50th anniversary summit. Another factor influencing the NATO denial of ground force planning was Milošević's reluctant approval in October to remove police and military forces from Kosovo and allow an international presence to monitor Serb compliance.²⁸ As a result of this agreement, the Kosovo Verification Mission and Operation EAGLE EYE were established. Both would subsequently form the basis for the ALLIED FORCE military strategy.

The initial strategy for EAGLE EYE relied on U-2, F-16, Tornado GR-1 and MQ-1 aircraft to perform reconnaissance missions over Kosovo with air superiority escort provided by F-15C and F-16 aircraft.²⁹ The Serbian military, particularly the Air Force, was vehemently opposed to the operation, but nevertheless EAGLE EYE was formally agreed to by NATO and the Serbian government on 16 Oct.³⁰ In addition to

²⁶ "The thing that bothers me about introducing ground troops into a hostile situation—into Kosovo and the Balkans—is the prospect of never being able to get them out." William J. Clinton, interview by Dan Rather, *60 Minutes II*, Columbia Broadcasting System, 1 April 1999. Clinton also stated "I don't think that the American people will support ground troops, U.S. ground troops in Kosovo" quoted in R. Jeffrey Smith, "Accord on Kosovo Remains Elusive," *Washington Post*, October 12, 1998, pp. A14, A22.

²⁷ For comparison, it took the coalition nearly four months to transport 200,000 soldiers to Saudi Arabia for Operation DESERT STORM.

²⁸ Clark, *Waging Modern War*, 143-155.

²⁹ "Interview with General Michael C. Short," PBS Frontline, n.d., <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/short.html> (accessed 19 December 2013).

³⁰ After being briefed in detail to President Milošević and senior Serbian military officers, Short recollected the Commander of the Serbian Air Force, Colonel General Spasoje Smiljanic, as stating "What you've proposed violates

allowing overflights in Kosovo, Serbia was required to remove or place into cantonment sites all air defense weapons within Kosovo and provide the location of all surface-to-air missiles and air defense weapons within 25 kilometers of the Kosovo border with Serbia. Although both NATO and Serbia were required to disclose all flights within Kosovo, the stipulation did not apply to U-2 or unmanned aerial vehicles that could conduct operations at all times without notification.³¹ As part of the verification mission, three members of USAFE were detailed to coordinate with the Serbian Air Force in Belgrade while three Serb airmen were assigned liaison duty to Shirt's headquarters at 16th Air Force from 16 October 1998 until the Kosovo Verification Mission ceased operations in mid-March 1999.³² EAGLE EYE's intelligence gathering against Serbian forces and airspace procedures over Kosovo contributed to the development of military strategy, similar to intelligence collection utilized against Iraq during Operation NORTHERN WATCH prior to Operations DESERT FOX in 1998.

NATO military leaders slowed the development of military strategy during November and December, girded by the apparent coercion of Milošević with the threat of air strikes. However, the 15 January Racak massacre reinvigorated development of an offensive military strategy to reinforce the diplomatic efforts underway at

everything I've stood for throughout my career as a Serb officer. NATO forces would be violating sacred Serb air space. I would break my promise with the Serb people if I allowed NATO to come into our country" in NATO Allied Forces South, "Memorandum of Understanding between Supreme Headquarters Allied Powers Europe and the General Staff of the Federal Republic of Yugoslavia (F.R.Y) on Communications and Liaisons between F.R.Y Air Force and Air Defense Forces Operations Command Center and the Combined Air Operations Center, Vicenza Italy," *Clark Papers*, Box 73, unfiled.

³¹ NATO Headquarters, "NATO- Kosovo Verification Mission Agreement," *Clark Papers*, Box 73, unfiled.

³² Clark, *Waging Modern War*, 153. For a discussion on the NATO perspective of the OSCE KVM mission see International Secretariat, "The OSCE Verification Mission to Kosovo December 1998 - March 1999," NATO Parliamentary Assembly Presentation (Brussels, Belgium, 1999). An overview of the correspondence between NATO, 16th Air Force and the Serbian Air Forces is contained in "Correspondence Between AIRSOUTH and the FRY AFADF (Air Forces and Air Defense Forces)" 19 Dec 1998, *Clark Papers*, Box 73.

Rambouillet.³³ As a result, NATO North Atlantic Council articulated military objectives to degrade Serbian military capabilities:

1. Enable unhindered NATO air operations
2. Isolate Serb military and security forces in Kosovo
3. Degrade combat capability of Serb military and security forces in Kosovo
4. Compel Yugoslav leaders to withdraw their forces from Kosovo and cease hostilities; and
5. Reduce Yugoslav capability to conduct and sustain offensive operations.³⁴

To achieve these objectives, NATO military strategy relied on two parallel lines of operations. Strategic attack formed the first line of operation comprising attacks on integrated air defenses, command and control nodes, and Serbian military and paramilitary forces. Tactical attack operations formed the second line of operation. These operations focused on degrading deployed Serbian forces in Kosovo while also isolating and interdicting forces attempting to enter Kosovo.³⁵

Conspicuously absent from the NATO military planning were operations to protect and provide security assurances to the Kosovar referent. Preventing suffering, repression, and violence against the civilian population of Kosovo was a stated NATO objective but there is not a corresponding linkage to this in military strategy or objectives. At best, the linkage can be implied based on a military objective to degrade Serbian combat capability and compel a

³³ The Racak massacre was attributed to a Serbian military force killing 45 ethnic Albanian elderly, women and children in Kosovo. U.S. Ambassador William Walker, the OSCE representative in Kosovo, provides an excellent first-hand account of the massacre and resultant international response in "Interview with Ambassador William Walker," PBS Frontline, n.d., <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/walker.html> (accessed 12 January 2014). For the impact of Racak on U.S. policy, see "Interview with Samuel "Sandy" Berger," PBS Frontline, n.d., <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/berger.html> (accessed 12 January 2014).

³⁴ Department of Defense, *Report to Congress: Kosovo/ Operation Allied Force After Action Report* (Washington, D.C.: Government Printing Office, 2000), 24.

³⁵ "Kosovo Strike Assessment," NATO presentation, slide 2, 16 September 1999 (Mons, Belgium: NATO), <http://www.nato.int/kosovo/slides/m990916a.htm> (accessed 12 December 2013).

withdrawal of forces. The lack of an explicit military objective related to protecting the referent population portended the need for reactive strategic planning once the air campaign began.³⁶ As late as 24 March, the first day of ALLIED FORCE, Deputy Supreme Allied Commander, Europe, British General Rupert Smith, and the NATO Chief of Staff German, General Dieter Stockman, recognized the emerging requirement to provide humanitarian assistance to the fleeing Kosovars. While understanding the moral and legal concerns for this mission, Clark felt the Kosovar humanitarian mission would serve as a distraction and increase risk to NATO forces.³⁷

Despite Clark's desire to avoid a complicating humanitarian effort, the increased refugee flow from Kosovo into Albania and Macedonia foreshadowed a requirement to provide security and humanitarian relief to the displaced referent. With the full-scope of the refugee crisis emerging in media reporting, the Joint Staff issued an order to European Command on 31 March to develop a concept of operations for humanitarian assistance in Albania and the Former Yugoslav Republic of Macedonia.³⁸ The scope of the planned mission was provision of food, shelter, emergency care and basic services to the referent via airdrops either in Kosovo or along the Albanian/Macedonian borders. Humanitarian aid actions were grouped under Operation SHINING HOPE with United States Air Forces, Europe, tasked as the supported command to develop the military strategy and exercise command responsibilities.

³⁶ In testimony before the U.K. House of Commons, Vice Admiral Paul Haddocks, the U.K. military representative to NATO during ALLIED FORCE stated "Perhaps with hindsight, one military objective that we did not pick up on ... was the humanitarian one ... We were unsighted on that." VADM Haddock quoted in Ministry of Defence, "Defence- Fourteenth Report," 24 October 1999.

³⁷ Clark stated "at a minimum [aid] would distract the chain of command from its primary focus on the air campaign. It might also greatly increase the risk to our forces." Clark, *Waging Modern War*, 189.

³⁸ "Joint Staff Planning Order," 31 March 1999 in *Clark Papers*, Box 72, unfiled.

One of the more contentious components of military strategy was President Clinton's statement in early March that the U.S. would not utilize ground forces against Serbia. This comment likely contributed to an increased sense within the Milošević regime that Serbia could either counter airstrikes with air defense assets or wait out the bombing until pressure mounted for NATO to cease operations. On 31 March, one week after the beginning of ALLIED FORCE, the Joint Staff issued a planning order to European Command to conduct planning for a possible ground invasion.³⁹ The planning order remained within U.S. channels only likely to maintain operational security and to avoid sparking political dissension among NATO leadership. One day later, Clark requested the deployment of 24 AH-64 Apache attack helicopters and an Army Tactical Missile System with their associated support elements. This deployment would become known as Task Force Hawk upon its arrival in Albania on 21 April. The intent of the deployment was to provide an additional method of pressure on the Milošević regime while providing a capability to complement airstrikes against Serbian military forces in Kosovo.⁴⁰ While the force did not conduct combat operations, the ground forces served an role protecting other U.S. forces against possible terrorist attacks.

Although the U.K. prime minister was a leading proponent of a ground component to military strategy, leaders of the other NATO countries remained skittish about the possibility of committing ground forces for an indeterminate period. This view was confirmed during a European Command commander's conference on 10 May

³⁹ Department of Defense Joint Staff, "Planning Order to U.S. European Command, Joint Staff, 31 March 1999" in *General Hugh Shelton Papers*, 31 March 1999, National Defense University Special Collections, Box 43, unfiled. References from the Shelton Papers are hereinafter referenced as "*Shelton Papers*."

⁴⁰ For a fascinating discussion on the inter-service concerns and the internal discussions between the Joint Staff and the combatant commander, see Clark, *Waging Modern War*, pp 230-3 for an overview and see both the *Clark and Shelton papers* in National Defense University Special Collections for more detailed primary sources. Of note, several of the documents in the personal papers are classified and, as a result, not readily accessible. Although the Apache helicopters did not fly combat missions, operating procedures and rules of engagement were discussed between Lt Gen Short and Lt Gen Hendrix on 1 May.

chaired by Clark and attended by senior leaders to discuss military strategy towards Serbia. The notes from the meeting emphasize:

There was consensus that preparations for a ground option should begin immediately to complement [an intensified] air campaign...However, there was less agreement on which ground plan preparations should be executed. Two [participants] felt Plan B was best because it provided...removal of Milošević and his regime. Two others subscribed to Plan B because of its decisive force characteristics. Six other felt Plan B-minus was more appropriate because it would not fracture NATO solidarity, would not radicalize Russia completely and could be executed this campaign season.⁴¹

In addition to the NATO effort, U.S. staff were planning a unilateral effort to develop a strategy under more liberal rules of engagement than one diluted by the need for alliance consensus. This strategy, which became Operation NOBLE ANVIL, envisioned the exclusive use of U.S. assets, such as sea-launched cruise missiles, B-2, and F-117 stealth aircraft supported by electronic protection and air superiority aircraft. The strategy focused on attacking targets deemed politically infeasible by NATO member states and also considered heavily-defended targets that carried a higher level of risk to attack. Only the U.S. possessed the stealth technology needed to mitigate the increased operational risk while assuring a high degree of mission success. General Clark, in comments that could have been made by General William Westmoreland thirty years earlier on the eve of the Vietnam ROLLING THUNDER campaign, noted the military strategy relied on incrementally greater use of force to

⁴¹ Edwin Burba, "General Burba notes, Allied Force Commander's Conference Recommendations," 10 May 99, *Clark papers*, Box 188, unfiled. The best discussion of the ground planning efforts in relation to NATO political cohesion and the air campaign progress is Clark, *Waging Modern War*, pp 268-92. Interestingly, Army personnel were strongly pushing for a ground option for several reasons. The talking points developed by General Clark for a visit by the Secretary of the Army stated "if Milošević capitulates before the U.S. Army joins the fight, the omnipotence of airpower will be the common impression in Congress. The implications for the future of the Army in that event are nothing short of disastrous. The Army will go the way of the horse cavalry" in Wesley Clark, "Talking Points for the Secretary of the Army," *Clark papers*, Box 188, unfiled. See also "Ground Force Timing Point Paper" in *Clark Papers*, Box 189, unfiled.

achieve NATO's political objectives.⁴² This observation, while valid, demonstrates the divergence between ALLIED FORCE military strategy and contemporary airpower doctrine.

Contemporary Airpower Doctrine

Operations DESERT SHIELD and DESERT STORM (1990-1991) were watershed events for airpower doctrine and strategy. Utilizing airpower from a coalition of states, these operations saw over 100,000 missions flown with 88,000 weapons employed over a period of seven weeks.⁴³ In addition to the high profile tactical utilization of stealth aircraft and precision guided munitions, the campaign also witnessed what has been described as the first time in history airpower defeated a fielded army.⁴⁴ The campaign also witnessed a departure from historical airpower strategy discussed in Chapter Two by simultaneously conducting operations against Iraqi ground forces in Kuwait and infrastructure targets in Iraq.⁴⁵ Unlike previous air operations in Vietnam, Grenada, and Panama, airpower directed against Iraq attacked a full range of the enemy regime's strategic and tactical power base. The success of simultaneous airpower operations over Iraq created a significant departure of thought away from the AirLand Battle Doctrine developed between the U.S Air Force and U.S. Army in the mid-1980's. The departure was codified with the update of Air Force Manual 1-1, the

⁴² Clark stated "NATO wanted an incremental approach in which military escalation could be held firmly under political control." United States Air Force, "The Air War over Serbia: Aerospace Power in Operation Allied Force," 8. For a discussion about a methodology on incremental use of force, reference Herman Kahn's "escalation ladder" in Herman Kahn, *On Escalation: Metaphors and Scenarios* (New York, NY: Frederick A. Praeger Publishers, 1965), especially pp. 38-44.

⁴³ The most comprehensive review of operations over Iraq in this timeframe is the five-volume Gulf War Airpower Survey published by the United States Air Force. For an overview of the survey see Thomas Keaney and Eliot Cohen, *Gulf War Air Power Survey: Summary Report* (Washington, D.C.: Government Printing Office, 1993).

⁴⁴ "My private conviction is that this is the first time in history that a field army has been defeated by airpower." General Merrill McPeak quoted in Rebecca Grant, "Desert Storm," *Air Force Magazine* 94, no. 1 (2011), 40. General McPeak was the Air Force Chief of Staff during Operation DESERT STORM. For a differing opinion see Daryl Press, "The Myth of Air Power in the Persian Gulf War and the Future of Warfare," *International Security* 26, no. 2 (2001), 5-44. Press argues "air power contributed to the coalition's effort, but the air campaign was neither sufficient nor necessary for the very one-sided victory," 7.

⁴⁵ See *Gulf War Airpower Survey*.

Air Force's capstone doctrinal document.⁴⁶ According to this publication, DESERT STORM demonstrated airpower's capability to achieve full-spectrum battlefield dominance throughout the entire range of military operations.⁴⁷

The primary doctrinal publication for airpower theory during the planning and execution of ALLIED FORCE was Air Force Doctrine Document 2-1 *Air Warfare*. Drafted in 1998 and released in 1999, this publication served as the foundational guidance for developing airpower strategy. Based on the influence of Warden's system theory and the success of DESERT STORM eight years earlier, *Air Warfare* emphasized a clear linkage between political objectives and desired physical and psychological targeting effects.⁴⁸ *Air Warfare* also provided a framework for employing airpower in rapid and parallel operations similar to Operation DESERT STORM. The document goes to great lengths to explain the advantages achieving rapid and decisive force application as opposed to long-term build-up of ground forces utilized for sequential and incremental operations. Another by-product of DESERT STORM echoed by airpower advocates of the post-World War I era is the emphasis in AFDD 2-1 on the relationship between target sets and desired outcomes. In retrospect, DESERT

⁴⁶ United States Air Force, *Air Force Manual 1-1: Basic Aerospace Doctrine of the U.S. Air Force*, 2 vols. (Washington D.C.: Government Printing Office, 1997), especially vol. 2 pp. 161-172.

⁴⁷ Operation DESERT STORM proved "given the right circumstances, the speed, range, and stunning precision of air and space power—combined with the strategic perspective of its leaders—will allow it to dominate the entire range of military operations in the air, on land, on the sea, and in space." United States Air Force, *Air Force Doctrine Document 1: Air Force Basic Doctrine*, (Washington D.C.: Government Printing Office, 1997), 73.

⁴⁸ It cannot be overemphasized that there must be a clear linkage between the targets chosen and the objectives sought. If the overall objective is to force the enemy to halt an invasion of a neighboring country, then how, exactly, will striking the power grid—or munitions factory, or armored divisions, or intelligence headquarters contribute towards achieving that objective? The process of linking ends and means is a crucial yet too often overlooked requirement for the air strategist. [Italics in original]. United States Air Force, *Air Force Doctrine Document 2-1: Air Warfare*, (Washington D.C.: Government Printing Office, 1999), 3. For an evaluation of the theory and its development, see John Andreas Olsen, *John Warden and the Renaissance of American Air Power* (Virginia: Potomac Books, Inc., 2007), pp. 101-139.

STORM was widely seen as validating John Warden's "enemy as a system" theory of airpower employment and codifying the concepts within doctrine.⁴⁹

While *Air Warfare* and supporting doctrine discussed the relationship between airpower strategy and adversary coercion, Air Force Doctrine Document 2-3, *Military Operations Other Than War (MOOTW)*, served as the capstone doctrine document for humanitarian assistance. Identifying sixteen different military missions divided into either combat, non-combat or hybrid operations, the document does not specifically categorize operations under a human security rubric but does vaguely define humanitarian assistance as "operations utilizing military to support nonmilitary objectives."⁵⁰ This apparent dichotomy illustrates an opinion that objectives could be delineated as either military or non-military in nature. In reality the military is but one of many national instruments able to achieve a political objective. If the military is to be utilized, it should be done under the purview of a military commander to develop an appropriate military objective to achieve the political objective.

Only a single page of Air Force Doctrine Document 2-3 is devoted to humanitarian assistance but eight are devoted to planning and support considerations. Unfortunately, the considerations in AFDD 2-3 were developed from a tenuous assumption that military contributions will support other agencies or nations as the lead organization for operations other than war.⁵¹ As a result, the guidance

⁴⁹ See John Warden, "The Enemy as a System," *Airpower Journal* IX, no. 1 (1995) and "Air Theory for the Twenty-First Century," in *21st Century Warfare Issues*, ed. Barry R. Schneider and Lawrence E. Grinter, *Air War College Studies in National Security* No. 3 (Maxwell AFB, AL: Air University Press, 1998).

⁵⁰ United States Air Force, "Air Force Doctrine Document 2-3: Military Operations Other Than War," (Washington D.C.: Government Printing Office, 1996), 12. Air Force Doctrine Document 2-3 cites Operation PROVIDE COMFORT as an example of humanitarian assistance.

⁵¹ Military operations "may be of a supporting nature because other U.S. Government agencies or a host nation (or factions thereof) will usually have a preeminent role." Ibid., 27. This assumption is not borne out given the contemporary experience of Operation PROVIDE COMFORT in 1991, Operation PROVIDE PROMISE in 1996, and Operations PROVIDE RELIEF and RESTORE HOPE from 1992-1994. For a comprehensive overview of USAF operations leading up to 1999 Balkan operations see A. Timothy Warnock, *Short of War: Major USAF Contingency Operations 1947-1997* (Maxwell AFB, AL: Air University Press, 2000). Warnock shows that,

initially focused on the interface required with other agencies to achieve a unity of effort with little discussion on principles of airpower strategy for humanitarian assistance. While a major shortcoming of this document is the limited strategy and planning guidance for humanitarian operations, its primary strength is the discussion of command and control. Air Force Doctrine Document 2-3 recognizes the need for flexible command arrangements due to the assumed multi-national composition of humanitarian operations. The command discussion highlights the importance of centralized control of theater air assets as the optimal command arrangement for operations other than war.⁵²

In summary, contemporary airpower doctrine, influenced by Warden's theories and reinforced by Operation DESERT STORM, remained wedded to the use of force for combat with a woefully inadequate discussion of operations other than war.

Humanitarian aid operations were given only cursory attention and based on the tenuous assumption that airpower would play a supporting role to other organizations charged with overall command, coordination, and execution. This assumption would be challenged during the strategy development and execution of ALLIED FORCE. Equally influential on the airpower strategy was Serbian air defense capabilities and tactics, the subject of the next section.

Serbian Air Defense Tactics

Serbian air defense forces had been preparing for airstrikes since the October 1998 NATO threat to conduct airstrikes. Drawing upon experiences gained from previous NATO Balkan operations and consultations with Iraqi officials, Serbian air defense planners maintained a high state of readiness by early March. Air defense

although in a supporting role, military forces are generally the first significant organization to respond and also provide the preponderance of personnel and resources.

⁵² United States Air Force, "Air Force Doctrine Document 2-3: Military Operations Other Than War," 24.

forces were comprised primarily of SA-3 and SA-6 missile systems, man portable air defense missiles and light- to medium-anti-aircraft artillery.⁵³ The Serbian Air Force consisted of modern MiG-29 aircraft and older MiG-21 aircraft for air defense and J-22 and G-4M aircraft for ground attack. While the list of offensive air defense capabilities is impressive, the strength of the system lay within a redundant network of early warning and surveillance radar systems capable of long range tracking of NATO aircraft and cueing of air defense missile systems.⁵⁴ Table 7-2 displays the Serbian air defense order of battle coupled with operational aircraft available in 1999.

Aircraft	Quantity	Mission	Air Defense	Quantity	Type
MiG-29	16	Air Superiority	SA-2	3	Radar Guided Missile
MiG-21	88	Air Superiority	SA-3	16	Radar Guided Missile
J-22 Orao	61	Ground Attack	SA-6	25	Radar Guided Missile
G-4M Galeb	70	Ground Attack	MANPADS	10,000+	Infrared Potable Missiles
			Anti-aircraft artillery	400+	23mm-57 mm
Table 7-2; Serbian Air Defense Inventory, 24 March 1999 Source: Developed by author utilizing information from United States Air Force, <i>The Air War over Serbia</i> , (Washington D.C.: Government Printing Office, 2000), 10.					

The Serbian leadership correctly viewed the 21 March pullout of the Kosovo Verification Mission as a signal of impending airstrikes. As a result, the Serbian Military Command ordered military units to prepare for air attacks.⁵⁵ For Serb air defense units, this meant dispersal to cantonment sites and the building of decoy

⁵³ The official number of missiles fired is given at 673. Given that over 38,000 sorties were flown, this is not an unreasonable number. Major General Charles Wald, Department of Defense News Briefing, 2 Jun 1999. Gen Wald states 266 SA-6, 175 SA-3, 106 MANPADs, and 126 unidentified for a total of 673, [http:// www.airforcemag. com/ MagazineArchive/Pages/1999/September%201999/0999watch.aspx](http://www.airforcemag.com/MagazineArchive/Pages/1999/September%201999/0999watch.aspx). (accessed 4 January 2014). Light to medium anti-aircraft artillery is defined as artillery firing shells ranging in size from twenty-three to fifty-seven millimeters.

⁵⁴ This type of redundancy is a legacy of Warsaw Pact-era air defense tactics.

⁵⁵ Colonel Goran Zekic, Serbian Army, interview by author, 14 December 2013, transcript in personal files. Colonel Zekic was an armor battalion commander during ALLIED FORCE and, prior to ALLIED FORCE, a military intelligence analyst in the air defense sector. After ALLIED FORCE he returned to military intelligence.

missile systems. Units such as the 250th Missile Defense Brigade, charged with defense of northern Serbia, relocated surface-air missile systems to one of eighty-eight pre-arranged locations and they moved every day to different sites.⁵⁶ Armor units in Kosovo also dispersed forces personnel, equipment, and armament from garrison. Over the course of the next three days an estimated ninety percent of Serbian ground forces in Kosovo and southern Serbia moved from garrison to dispersed locations where they remained for the duration of the campaign.

Serbia maintained a robust intelligence capability that facilitated the continual movement of air defense forces among dispersed sites.⁵⁷ The intelligence was garnered from indigenous Serb capabilities and augmented by Russian intelligence sources. Credible reports suggested Russia obtained the daily NATO air tasking order and provided Serbia with aircraft type, callsign, identification codes, and general target locations.⁵⁸ In addition, Serbia employed a network of visual observers both in Serbia and near NATO bases to determine aircraft takeoff times, number of aircraft, and general types of ordnance. This information was then relayed through a central intelligence network to the air defense operators to adjust their tactics accordingly.⁵⁹

⁵⁶ Duan Marinovi, "250. Raketna Brigada PVO: Junaci Ostaju Junaci," (250th Rocket Brigade: The heroes remain heroes), *Odbrana*, 15 November 2005. <http://www.odbrana.mod.gov.rs/odbrana-stari/odbrana004/25-27.pdf> (accessed 21 December 2013).

⁵⁷ This intelligence network included visual observers stationed near NATO bases and under the known flight routes into Serbia. There are also accounts of missile operators able to monitor NATO radio communications. Personal communications by author with Serbian Colonel Zoltan Dani, interview by author, 24 January 2014, transcript in personal files. Col Dani was the missile battery commander responsible for downing an F-117 and F-16 during ALLIED FORCE. See also Ellis Neel, "Serb Discusses 1999 Downing of Stealth," *USA Today*, 26 October 2005.

⁵⁸ 31st Operations Support Squadron Intelligence personnel discussion with author, June 1999 at Aviano airbase. In addition, a French officer assigned to NATO headquarters had provided a copy of the air campaign plan to the Serbs in October 1998. Although exact targets were not divulged, the Serbs were aware of the type of targets that could be hit over the course of the campaign. See Clark, *Waging Modern War*, 176. VADM Dan Murphy testified before Congress that "the long [Tomahawk] master target file was retained in U.S.-only channels and then shared with selected allies as necessary for consultation. But this was a reflection of the very real concern that all of the senior commanders had that we didn't have an airtight security system within some areas of the NATO operation." Dan Murphy, "Operations in Kosovo: Problems Encountered, Lessons Learned and Reconstitution," *Hearing before the Military Readiness Subcommittee of the Committee on Armed Services House of Representatives*, 106th Cong., 1st sess., 1999.

⁵⁹ Interview with Colonel Dani.

Serbian air defense forces operated under rules of engagement designed to maximize force survivability, husband resources for a long term campaign and avoid collateral damage to Serbian infrastructure. Based on Serbian intelligence assessments of NATO tactics and discussions with Iraqi operators, air defense crews maximized force survivability by changing locations a daily basis, sometimes only a few hundred meters, and limiting target acquisition and tracking radars emissions to no longer than eighteen seconds.⁶⁰ The Serbian tactics to minimize collateral damage were designed to target aircraft close to the Bosnian/Croatian borders and away from cities to ensure any debris would not fall onto populated areas.

Despite the attempts to target NATO aircraft away from populated areas, Serbia air defenses occasionally placed missile system launchers and radars near culturally significant buildings to complicate NATO targeting.⁶¹ The technique effectively deterred NATO strike aircraft from destroying the radars and launchers but it also provided reconnaissance aircraft with an exact reference point to monitor future movement of the systems. Perhaps the most effective technique utilized by Serb forces was to intermingle with civilians, either in Kosovo or Serbia. Intermingling occurred naturally when Serb forces drove air defense equipment on roads already congested with fleeing Kosovar Albanians.

Based on analysis of NATO aircraft capabilities, Serbian air defenses utilized tactics to keep aircraft as high as possible to complicate target identification. This tactic was effective when combined with camouflage and decoys to confuse NATO

⁶⁰ From a NATO perspective, one unintended consequence of this “blinking” tactic was the potential for anti-radiation missiles to switch guidance from one radar to another within its field of regard. One report identifies at least seven anti-radiation missiles guiding onto Bulgarian radars as a result of the Serb tactic. See Judah, *Kosovo: War and Revenge*, 264. On the Serbian radar times and tactics see interview with Colonel Dani. The Serbs also utilized effective camouflage and decoys missile systems to confuse NATO aircrew.

⁶¹ Personal experience of author. See also Benjamin Lambeth, *NATO's Air War for Kosovo* (Santa Monica, CA: RAND Corporation, 2001), especially pp. 101-121. On pg. 121 Lambeth writes, “VJ units simply turned off the engines of their tanks and other vehicles to save fuel, hid their vehicles in barns, churches, forests, and populated areas, hunkered down, and hoped to wait the air effort out.”

aircraft sensors operating in both the visible light and infra-red spectrum. Due to these tactics, Serbian officers stated NATO was effective in destroying stationary targets but much less effective in finding, prosecuting, and negating mobile targets.⁶² The diverse character of Serbia's air defense system would be a significant factor in developing the NATO air strategy. Senior NATO commanders were concerned Serbia's diverse air defense capabilities, robust intelligence, and ability to counter NATO sensors with movement, camouflage and decoys. The Joint Force Air Component Commander, General Mike Short, publically lauded Serbian capabilities while privately voicing concern that several NATO aircraft would likely be shot down.⁶³ Because of Short's apprehension, the airpower strategy would concentrate on degrading the Serbian air defense system.

Dependent Variable: Airpower Strategy

Airpower strategy development began in April 1998 as an independent U.S. planning exercise by the United States Air Forces, Europe planning staff in response to a query from the Supreme Allied Commander Europe headquarters. Over the next eleven months, the airpower strategy would be modified forty-four times and briefed to leadership of all nineteen NATO states.⁶⁴ The strategy called for establishing a no-fly zone south of the forty-fourth parallel and bombing airfields and air defense sites in

⁶² Colonel Zekic interview with author.

⁶³ "I expected to come out of the first couple of nights, having lost a couple of airplanes." "Interview with General Michael C. Short," PBS Frontline, n.d., accessed 19 December 2013, <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/short.html>. In testimony before Congress, the Vice Chairman of the Joint Chiefs of Staff, Air Force General Joe Ralston, stated the Serbian air defense system was "an extensive air defense system, it is a modern air defense system, it is a redundant air defense system." "U.S. Policy and NATO Military Operations in Kosovo," Hearing before the Senate Committee on Armed Services, 106th Cong, 1st sess., 15 April 1999, 69.

⁶⁴ John Jumper, "Testimony of General John Jumper, Commander United States Air Forces Europe," *Testimony before the House Armed Services Committee*, 106th Cong, 1st sess., 26 October, 1999. See also General William Hobbins, interview by author, 31 January, 2014, transcript in personal files. General Hobbins was the USAFE/DO during the planning and execution of ALLIED FORCE. He was responsible for the daily oversight of planning.

Kosovo.⁶⁵ The plan relied almost solely on U.S. aircraft stationed in Europe (almost four-hundred in total) and overflight rights of Bosnia, Albania, and Macedonia. After several iterations over the next six months the strategy became known as the Limited Air Response and would serve as the basis for Phase I of the ALLIED FORCE phased air campaign. To illustrate the comprehensive detail of the strategy, U.S. Air Force Weapons School instructors, temporarily serving as planning officers, repeatedly briefed General Clark on weaponeering and aimpoints for each of the fifty-one pre-approved targets. The briefs also included results of simulations for the delivery of each weapon and wargames for each iteration of the strategy.⁶⁶

Using the Limited Air Response as a baseline, coalition planning for ALLIED FORCE began in earnest after release of the October activation orders and the establishment of Operation EAGLE EYE.⁶⁷ The primary planners were moved to Allied Air Forces Southern Europe under Lieutenant General Short and augmented by planners remaining at USAFE headquarters familiar with the Limited Air Response strategy. The resultant coalition airpower strategy was a four-phased campaign plan. Phase I established a no-fly zone south of the forty-fourth parallel, air superiority over Kosovo, and degraded the integrated air defense system throughout Serbia and Kosovo. Phase II operations attacked military targets in Kosovo and any Serbian

⁶⁵ The forty-fourth parallel bisects Serbia at roughly the midsection of the country. For comparison, it is approximately forty miles north of the northernmost tip of Kosovo and fifty miles south of Belgrade. See "Interview with General Michael C. Short," PBS Frontline, n.d., <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/short.html>, (accessed 19 December 2013).

⁶⁶ Interview with General William Hobbins. Importantly, simulations and wargaming were conducted for each iteration of the strategy. The simulations and wargames utilized information from the Joint Warfare Analysis Center (JWAC) and the best data available from the Joint Munitions Effectiveness Manuals (JMEM, classified manuals that provide information on expected weapons effects taking into consideration warhead, fuse setting, and type of target). The simulations were conducted by the Warrior Preparation Center in coordination with JWAC. The JMEM manuals are produced by the Department of Defense Joint Technical Coordinating Group for Munitions Effectiveness Program Office.

⁶⁷ Linda Kozaryn, "United Nations, NATO Issue Warnings on Kosovo," Department of Defense news release, 24 Sep 1998, <http://www.defense.gov/News/NewsArticle.aspx?ID=41825>, (accessed 20 December 2013). An activation warning initiates NATO planning processes while an activation request initiates force generation. An activation order will precede an order to deploy forces.

military and paramilitary forces south of the forty-fourth parallel. The primary effort would be against the Yugoslav Army (*Jugoslovenske Vojske* or VJ) and the Special Police (*Ministarstvo Unutrasnjih Poslova* or MUP) units in Kosovo. A secondary effort would target military units outside of Kosovo that either directly reinforced units in Kosovo or possessed a capability to conduct threatening actions against the Kosovar referent population. Serbian Air Force infrastructure at Nis and Obvra Airfields in southern Serbia would be attacked to ensure localized air superiority south of the forty-fourth parallel. Phase III involved attacks on high value military and security force targets throughout Serbia. The targets envisioned for Phase III, although located throughout Serbia, were still limited to military and security force targets or those expected to impact Serbian fielded forces in Kosovo. In effect, Phase III was an extension of the existing denial strategy beyond the forty-fourth parallel. The strategy contained an assumption Phase III would continue until Milošević capitulated. At the completion of Phase III, Phase IV would redeploy forces as required.⁶⁸

The strategy did not initially call for attacks against dual-use facilities or strategic regime targets, especially in the vicinity of Belgrade, due to political guidance provided by NATO leadership. As a result, the strategy is an example of a gradual air campaign as opposed to a parallel attack emphasized by Warden and codified in USAF doctrine. As late as 9 March, two weeks prior to combat operations, the air strategists identified to General Clark and senior European Command leadership the importance of parallel attack against Serbian leadership, military forces, and the industrial base to affect the Serbian will to resist. Clark believed NATO political leadership would not

⁶⁸ Department of Defense, "Report to Congress: Kosovo/Operation Allied Force after-Action Report," 8. Importantly, the air strategists envisioned a night-only air campaign to mitigate the Serbian air defense system. Given the assumption of a short air campaign, this approach was prudent and feasible, however would be revisited as the air campaign extended beyond the first week.

allow attacks on strategic regime targets and opt instead for a gradual campaign emphasizing targeting and degradation of Serb military forces in Kosovo.⁶⁹

Although it ran counter to existing Air Force doctrine, there were reasons driving this specific strategy. First, NATO had successfully coerced Milošević in the past with minimal use of force. Operation DELIBERATE FORCE was a campaign measured in days while the October meetings resulted in Milošević agreeing to NATO demands without resort to military force. There was a general belief that Milošević would quickly capitulate to NATO demands once airpower operations commenced. Second, NATO coalition unity had to be maintained and there was a significant amount of public unease within NATO countries on the need to conduct military action against Serbia. A gradual air campaign solely targeting Serb military forces was seen by NATO leadership as a palatable course of action. Third, there was concern among leadership of European nations that financial assistance to rebuild Serbia would be required. They preferred a strategy for inflicting limited destruction to minimize potential reconstruction costs. Despite NATO's optimism and hope for a quick military resolution, senior air commanders remained worried the campaign would not stop Serbian ethnic atrocities.⁷⁰

The initial ALLIED FORCE strategy was an example of a coercive denial strategy designed to achieve the political objective by allocating a preponderance of strike assets to attacking Serbian military forces. This strategy would deny the Milošević regime a mechanism to harm the referent population.⁷¹ As this strategy became less successful, senior NATO airpower commanders and General Clark advocated for a

⁶⁹ "Phased Air Campaign Options, 9 March 1999," *Clark papers*, Box 165, unfiled.

⁷⁰ Lt Gen Short "never felt we were going to be able to stop the ethnic cleansing" due to the gradual phasing of the air strategy. John Tirpak, "Short's View of the Air Campaign," *Air Force Magazine*, (September 1999), 43.

⁷¹ As Short emphasized, the "number one priority, which [GEN Clark] expressed to me every day, was the fielded forces in Kosovo." *Ibid.*, 43

greater need to punish the Milošević regime by targeting Serbian infrastructure and targets that provided the regime its source of power. Such targets included the Ministry of Defense headquarters in Belgrade, the Serbian TV station headquarters and others planners believed would directly affect the decision calculus of the regime elite.⁷² By 30 March the air strategy would be revised to include a punishment component to the overall coercive strategy.

As noted earlier in this chapter, Air Force doctrine stated a coercive airpower strategy should relate a target to the psychological effect its destruction would have on an adversary regime. The relationship exposed a fundamental dilemma the initial airpower strategy was unable to solve as targets most closely likely to influence the Milošević regime required political approval from each of the nineteen NATO members. While the intent of this measure was to ensure cohesion of the alliance, it presented a problem for air strategists only partially solved after the 23 April restatement of political objectives.⁷³ To compensate, targets assessed as politically untenable within the alliance were reserved for the NOBLE ANVIL air tasking order. Targets such as arms warehouses and command and control facilities within five miles of the center of Belgrade were generally reserved for the independent U.S. air tasking order. The inadvertent bombing of the Chinese embassy on 7 May and the attack on the Radio Television of Serbia headquarters in Belgrade on 23 May were both NOBLE ANVIL B-2 missions.

⁷² It is telling that at the beginning of the air campaign on 24 March the target list contained 169 targets of which 51 were approved by NATO leadership. At the time of Serbia's acquiescence on 3 June, the approved target list had grown twentyfold to 976 targets. See "Testimony of General John Jumper, Commander United States Air Forces Europe" and Dana Priest, "Target Selection Was Long Process," *The Washington Post*, 20 September 1999, A11.

⁷³ Department of Defense, "Report to Congress: Kosovo/ Operation Allied Force after-Action Report," 14. There are substantiated reports that although all nineteen NATO members held veto authority, in practice only the U.S., France, the U.K., Germany and Italy would approve or disapprove the most sensitive targets, such as the electrical grid and telephone system. See Dana Priest, "France Played Skeptic on Kosovo Attacks," *The Washington Post*, 20 September 1999, A1.

The 23 April change in political objectives would have an immediate and influential impact on the air strategy. Coupled with an increase in combat aircraft from approximately four hundred on 24 March to over seven hundred by 23 April, the air strategy maintained a predominant denial focus but incorporated a supporting punishment strategy.⁷⁴ On 23 April, Radio Television Serbia's headquarters and two electric transformers in Belgrade were bombed, resulting in severe damage. Petroleum facilities in Lopatnika and Novi Sad, responsible for forty percent of the Serbian refining capacity, were also heavily damaged. On 3 May NATO forces attacked the Serbian power grid for the first time and deprived electricity to seventy percent of Serbia for five hours. These targets were struck based upon the revised political objectives to strike targets to maximize pressure on Milošević and would foreshadow a clear shift in strategy from almost pure denial to a combined punishment and denial effort.⁷⁵

As the campaign continued, the airpower strategy required continual modification based on the evolving nature of events in Kosovo. The first modification occurred on 7 April when improving weather allowed establishment of the Kosovo

⁷⁴ A "hybrid" strategy incorporating components of both denial and punishment highlights a weakness in airpower theory dating back to at least the differences between the Air Corps Tactical School and Claire Chennault covered in Chapter Two. For a more recent example of the preeminence of a denial airpower strategy, reference Robert Pape, *Bombing to Win*, (Ithaca, NY: Cornell University Press, 1996), especially pp 55-86. Conversely, Warden's five ring "enemy as a system" model is an example of a punishment strategy. Leadership, system essentials, and infrastructure comprise the inner three rings while fielded forces comprise the outer ring. See John Warden, "The Enemy as a System," *Airpower Journal* IX, no. 1 (1995), pp. 43-45.

⁷⁵ Kenneth Bacon, "DoD Press Conference, 23 April," <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=600>, (accessed 2 January 2014). The same night eleven ground force targets (four artillery pieces and seven military vehicles) were destroyed in Kosovo. This would be the first instance of a true NATO effort at parallel punishment and denial coercive strategies. As Assistant Secretary of Defense Kenneth Bacon stated during the press conference, "I think the lesson of last night's strikes is very clear and it contains two messages for Milošević. The first is that the air campaign is intensifying, hitting a broader range of targets throughout the country and also hitting targets on the ground in Kosovo. The fact that this is happening during the NATO summit shows that NATO remains highly committed to the air campaign, to intensifying this campaign and, in fact, to making it clear that there is no sanctuary for murderers and their forces in Yugoslavia." See also Jamie Shea and Konrad Freytag, "24 April Press Conference," NATO press release, 24 April 1999, <http://www.nato.int/kosovo/press/p990424c.htm> (accessed 27 December 2013),

Engagement Zone (KEZ).⁷⁶ The KEZ was established to provide a capability to locate and destroy mobile targets such as tanks and military formations that could threaten the referent population in Kosovo. The second modification occurred on 14 April when a refugee column inside the KEZ near Djakovica was bombed by NATO aircraft, resulting in the death of approximately 70 Kosovar refugees.⁷⁷ A contributing factor to the misidentification was rules of engagement limiting aircraft to flights above fifteen thousand feet above sea level. This rule lowered the threat posed by Serbian air defenses but complicated the target identification ability of NATO forces. After the Djakovica incident forward air controllers were authorized to descend to five thousand feet to identify targets while strike aircraft were approved momentary descents to eight thousand feet to release weapons.⁷⁸

The third modification to the airpower strategy occurred as a result of the 7 May Chinese Embassy bombing.⁷⁹ Targets located within five miles of downtown Belgrade were subsequently removed from the target list. The removal of these targets was a significant factor to the overall strategy to coerce Milošević since the majority of targets identified for a punishment strategy were again prohibited.⁸⁰ The restriction

⁷⁶ For an outstanding discussion of KEZ operations refer to Chris Haave and Phil Haun, *A-10s over Kosovo* (Maxwell AFB, AL: Air University Press, 2003).

⁷⁷ A compelling narrative from the operational and tactical level of analysis of the Djakovica incident was a press conference by Brigadier General Dan Leaf, Commander of the 31st Air Expeditionary Wing and the home unit of the pilots involved. See Daniel Leaf, "Press Conference by Brigadier General Daniel P. Leaf," NATO press release, 19 April 1999, <http://www.nato.int/kosovo/press/p990419b.htm> (accessed 18 January 2014).

⁷⁸ "Interview with General Michael C. Short," PBS Frontline, n.d. <http://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/short.html> (accessed 19 December 2013), and personal experience of author.

⁷⁹ There is voluminous information available discussing the bombing. Valuable primary sources include the following: George Tenet, "DCI Statement on the Belgrade Chinese Embassy Bombing," 22 July 1999. https://www.cia.gov/news-information/speeches-testimony/1999/dci_speech_072299.html (accessed 4 January 2013); The NATO press brief on the day after the bombing can be found at <http://www.nato.int/kosovo/press/b990508a.htm> (accessed 8 January 2014); The testimony of Deputy Secretary of Defense John Hamre to the House of Representatives Select Committee on Intelligence is at "Inadvertent Bombing of the Chinese Embassy in Belgrade Yugoslavia, May 7 1999," http://www.fas.org/irp/congress/1999_hr/990722-hamre.htm (accessed 4 January 2014).

⁸⁰ Short stated "it essentially cleared the sanctuary" by not hitting targets in Belgrade. "Interview with General Michael C. Short," PBS Frontline. Short mentions several target sets including bridges, dual-use military and civilian factories and power stations that could not now be targeted.

lasted until 22 May when NATO aircraft were again striking strategic targets within Belgrade. However, the Embassy attack would have ramifications for the remainder of the conflict. Short emphasized, “toward the end of the air effort, we were restricted by enormous concern for collateral damage and unintended loss of civilian life...that was the litmus test that we used to pick a target.”

By the time of the Embassy bombing, Short commanded an air armada that had grown from less than three hundred fifty aircraft to almost one thousand aircraft from thirteen nations. The growth in force structure provided the opportunity for around the clock operations and also to conduct denial and punishment strategies in parallel. The next section describes the evolution of the force structure and the impact on airpower strategy.

Setting the Stage: Force Structure

At the beginning of ALLIED FORCE, two-hundred-and-fourteen U.S. aircraft and one-hundred-and-thirty allied aircraft were tasked for operations against Serbia. Of the three hundred-and-thirty-four total aircraft, one-hundred-and-twenty were strike aircraft with the remainder serving support functions such as command and control, aerial refueling, or intelligence collection. U.S. aircraft were primarily drawn from aircraft assigned to United States Air Forces, Europe with minimal augmentation from U.S. based aircraft. The participation by U.S. based aircraft was limited to twelve F-117 aircraft and Marine Corps land-based EA-6B aircraft stationed at Aviano Airbase Italy. These forces allowed NATO to fly two-hundred sorties per day during the opening week of the conflict and strike approximately fifty targets per night. Keeping with the assumption by NATO leaders of a short duration conflict, strategic bombers were not a significant part of the initial force structure. Although six B-2s stationed in Missouri took part in the initial strikes and six B-52s stationed in

England launched cruise missiles, it was not until five days later that B-1 bombers deployed in theater and began attacking fielded Serbian forces on 1 April.

As the conflict continued, European Command requested additional strike forces twice and reconnaissance forces a total of seven times throughout the conflict. While the strike forces could be readily drawn from U.S.-based air wings, the reconnaissance assets were in high-demand by other U.S. combatant commanders. Coupled with the recent end of DESERT FOX in Iraq and continued large-scale North Korean exercises, the Central Command and Pacific Command commanders did not agree to provide additional forces to European Command. The Secretary of Defense ultimately overruled both commanders and transferred the forces for ALLIED FORCE.⁸¹

As a result of the 23 April change in political objectives and expansion of air strategy, European Command requested nearly three-hundred additional aircraft. By 30 April the air armada had grown to seven-hundred total aircraft with three-hundred-and-forty strike aircraft. By the beginning of June, seven-hundred-and-thirty-one U.S. aircraft and three-hundred-and-twenty-seven Allied aircraft were available for combat operations and were flying on average six-hundred-and-fifty missions per day. Of these, over two-hundred-and-thirty-five were strike missions and seventy were suppression of enemy air defense missions.

Unlike the initial forces available on 24 March, the additional forces were not constrained to operations originating from a few well-established bases. When ALLIED

⁸¹ In testimony before Congress after the cessation of conflict, General John Jumper commented on the limited reconnaissance assets available for ALLIED FORCE: "There was a constant demand for [reconnaissance] assets just as you have indicated. In fact, we could not do continuous 24-hour-a-day operations in all of the areas that we would have liked to have covered during [ALLIED FORCE]. We did, in fact, borrow...we shut down Operation NORTHERN WATCH for several days as we repositioned not only Rivet Joints and AWACS but also EA-6's to take part in the initial part of the confrontation. So the ISR assets are vital to what we do." "Testimony of General John Jumper, Commander United States Air Forces Europe," *Testimony before the House Armed Services Committee*.

FORCE started, forces were located at nine locations in five countries. By the beginning of June, however, NATO forces were operating from twenty-two bases in eleven countries. The additional operating locations included bases in Hungary, Turkey, Albania, and Macedonia and provided the ability to attack Serbia from virtually any cardinal direction. Table 7-2 depicts the aircraft utilized during ALLIED FORCE and the primary mission of each aircraft type. Importantly, the force structure did not significantly constrain the development or execution of airpower strategy. Although the U.S. provided the preponderance of airpower assets, especially command and control and aerial refueling aircraft, NATO nations provided significant reconnaissance and electronic combat resources.



AIRCRAFT	COUNTRY	PRIMARY MISSION	AIRCRAFT	COUNTRY	PRIMARY MISSION
F-15C/E	U.S.	Air Superiority/Interdiction	TORNADO GR-7	U.K.	Interdiction
F-16CG	U.S.	Air Superiority/Interdiction	GR-1	U.K.	Interdiction
F-16CJ	U.S.	Suppression of Air Defense	NIMROD	U.K.	Reconnaissance
F-117	U.S.	Interdiction	TRISTAR	U.K.	Refueling
E-3	U.S./NATO	Command and Control (C2)	VC-10	U.K.	Refueling
KC/RC-135	U.S.	Refueling/Surveillance	JAGUAR	France	Interdiction
EC-130	U.S.	Electronic Warfare/ C2	MIRAGE 2000	France	Interdiction
B-52/B-1/B-2	U.S.	Interdiction	MIRAGE F1	France	Air Superiority
F-14	U.S.	Close Air Support	MIRAGE IV	France	Interdiction
F/A-18	U.S.	Air Superiority/Interdiction	C-135	France	Refueling
EA-6B	U.S.	Electronic Warfare	SUPER E	France	Interdiction
A-10	U.S.	Close Air Support	Mig-29	Hungary	Air Superiority
AC-130	U.S.	Close Air Support	TORNADO F1	Various*	Air Superiority
RQ-1	U.S.	Reconnaissance	CF-18	Canada	Interdiction
F-16A/C/AM	Various*	Air Superiority/Interdiction			
* The countries also providing aircraft for OAF include Belgium, Denmark, Italy, Netherlands, Norway, Portugal, Spain, and Turkey.					
Table 7-3: Operation ALLIED FORCE Air Forces Source: Developed by author					

Military operations against Serbia occurred during a transition time for U.S. military forces. The national military strategy during this period directed the U.S. Department of Defense to simultaneously deter and defeat cross border aggression in two separate theaters.⁸² Two regional conflicts were a distinct possibility at this time

⁸² Chairman Joint Chiefs of Staff, "Quadrennial Defense Review," (Washington D.C.: Department of Defense, 1997), 12.

due continued Iraqi defiance of U.N. resolutions resulting in Operation DESERT FOX in December and the beginning of the North Korean winter training cycle.⁸³ As a result, U.S. Central Command and U.S. Pacific Command respectively actively requested additional intelligence, surveillance, and reconnaissance forces to monitor and deter possible Iraqi or North Korean aggression.⁸⁴ Because Balkan operations were neither cross-border aggression nor considered large-scale by policymakers, forces available for deterrence or surveillance were limited. European Command leadership's additional request for forces caused significant friction among the combatant commands responsible to respond to cross-border aggression from states such as Iran or North Korea. The friction would only be exacerbated as European Command requested additional forces an average of once every 10 days during ALLIED FORCE.⁸⁵ The allocation of forces became so acute that European Command was forced to reallocate air refueling, suppression of enemy air defense, and air superiority fighters from Operation NORTHERN WATCH. As a result, enforcement of the no-fly zone over northern Iraq was suspended for several weeks until the forces could be backfilled.⁸⁶

Setting the Stage: Air Component Command and Control

Command and control of airpower is divided into two distinct concepts, the airspace utilized for operations and the air operations center utilized for operational

⁸³ Operation DESERT FOX was the largest strike against Iraq since Operation DESERT STORM in 1991. Over 600 aircraft dropped 600 munitions and 325 Tomahawk land attack missiles attacked 100 Iraqi military facilities. See William Arkin, "The Difference Was in the Details," *The Washington Post* January 17, 1999, B1.

⁸⁴ For the effect of ALLIED FORCE on the force requirements of other Combatant Commands see the testimony of Lt Gen Marvin Esmond at "Lessons Learned from the Kosovo Conflict—the Effect of the Operation on Both Deployed/Non-Deployed Forces and on Future Modernization Plans," *Hearing before the Military Procurement Subcommittee of the Committee on Armed Services*, 106th Cong., 1st sess., 19 October 1999.

⁸⁵ European Command requested additional ISR forces seven times during the 78 day campaign. *Shelton Papers*, Box 43, unfiled. GEN Clark describes the battle between European Command and Central Command over control of the aircraft carrier *USS Teddy Roosevelt*. Clark ultimately prevailed because, in his opinion "there was only one commander at war." See Clark, *Waging Modern War*, 240.

⁸⁶ John Correll, "Northern Watch," *Air Force Magazine* 83, no. 2 (2000), 34. See also the *Shelton Papers*, Box 43.

planning and employment. The initial airspace structure was inherited from Operation DELIBERATE FORGE, the air component to the NATO stabilization forces operating in Bosnia-Herzegovina. Planners used the existing airspace structure based on the assumptions of a quick air campaign, the current status of regional state overflight rights, and limited air assets. As the operation continued and grew in intensity, the airspace control measures became increasingly unusable and resulted in several near collisions between aircraft and operational predictability exploited by Serbian air defense units.⁸⁷ The same ingress and egress routes to Kosovo and Serbia facilitated Serbian intelligence collection and placement of air defense systems.⁸⁸

It was not until 1 May that airspace control measures were updated to allow greater flexibility for operations. These measures were precipitated by Croatia, Bulgaria, and Romania providing overflight rights but the main catalyst was operational necessity. First, Joint Task Force SHINING HOPE was flying in excess of one-hundred-and-fifty missions per day in the same Albanian airspace that many ALLIED FORCE flights utilized. The increased traffic overwhelmed the Albanian airspace administration capacity to the point the Albanian parliament temporarily gave Air Force controllers at Tirana-Rinas airfield the authority to control the national airspace. Second, the increased number of missions on the air tasking order caused several near mid-air collisions. On 4 April a JSTARS aircraft passed within one hundred feet of fighter aircraft transiting to Serbia and in mid-April a JSTARS and Airborne Warning and Control System (AWACS) E-3 passed within three hundred feet of each other at night.⁸⁹ In effect, the revised airspace control plan and increased

⁸⁷ William Begert, "Kosovo Lessons Learned: Air Force and Air Mobility Briefing."

⁸⁸ Dani interview with author.

⁸⁹ Colonel (retired) William Eliason, interview by author, 13 January 2014, Washington, D.C., transcript in personal files. Eliason was the Air Control Squadron Commander at Aviano Airbase during ALLIED FORCE. The mission

overflight rights allowed NATO forces the ability to attack Serbia from any direction and support aircraft, such as air refueling tankers and reconnaissance assets, to optimize support orbits with a lower risk of mid-air collisions. The new airspace control measures instrumental to decreased Serbian air defense awareness of NATO aircraft and a reduction in mid-air near misses as aircraft were able to operate in dedicated airspace.⁹⁰

The heart of command and control was the Coalition Air Operations Center (CAOC) in which both the ALLIED FORCE and NOBLE ANVIL air strategy and air tasking orders were developed. The CAOC was organized along a NATO, and not U.S. construct. The NATO construct is similar to an Air Staff with personnel, intelligence, operations, logistics, plans and communications directorates. Conversely a U.S. CAOC is organized into five functional divisions: Strategy, Plans, Operations, Intelligence/Surveillance/Reconnaissance, and Air Mobility. The CAOC processes and manning were set-up for conducting Operation DELIBERATE FORCE over Bosnia and Operation EAGLE EYE over Kosovo, a total of approximately forty missions per day. Conversely, ALLIED FORCE flew over almost two hundred missions the first night and over eight hundred missions on 3 June. The CAOC was ill-prepared for conducting an operation of the scope and length of ALLIED FORCE and faced several significant issues that would affect the air strategy.

The lack of a dedicated strategy division was the most telling omission in the CAOC at the outset of ALLIED FORCE. According to doctrine, a strategy division is comprised of the plans, guidance, and operational assessment teams. The division is responsible for developing, assessing, and disseminating air strategy, plans, and

of the squadron was to provide airspace control for aircraft operating over Italy and the northern Adriatic Sea as well as serving as a liaison between the tactical controllers and Italian civilian airspace control authorities.

⁹⁰ Dani, Personal Interview with author, 24 January 2014, Washington, D.C., transcript in personal files. Eliason, Personal Interview with author, 13 January 2014.

orders.⁹¹ It is perhaps telling that the official U.S. Air Force ALLIED FORCE report traces the linkage between command and air tasking order processes from European Command to the CAOC but is silent on the linkage between any organization and CAOC strategy development.⁹² As a result, the CAOC focused on developing an air tasking order to prosecute pre-approved targets instead of developing a strategy linking airpower effects to political objectives for the first three weeks of ALLIED FORCE. This omission would be rectified by the third week of April with the establishment of a strategy team led by a Lieutenant Colonel. The team was established just as the political objectives were revised on 23 April and was able to publish air operations directives for revising the coercive strategy, update strategy to accommodate the new airspace control plan, and develop an assessment mechanism to determine airpower effectiveness.

The requirement for two separate targeting cells was the second issue affecting air strategy. This issue arose as a result of the dual nature of U.S. and NATO operations prior to 23 April. One cell was devoted to coordinating targets for NOBLE ANVIL missions while the second, larger cell coordinated targets for ALLIED FORCE. The division was necessary not because of target types but due to the method of attack. Because the NOBLE ANVIL targeting cell was devoted to B-2, F-117 and cruise missile targets, it tended to operate at an exclusive U.S. classification level while the ALLIED FORCE targeting cell operated at a NATO SECRET level.⁹³ The bifurcated targeting cells resulted in tension for air superiority, air refueling, and suppression of enemy air defense assets. Because NOBLE ANVIL targets tended to be in higher

⁹¹ United States Air Force, "Air Force Tactics, Techniques, and Procedures 3-3.AOC Operational Employment Air Operations Center," (Washington, D.C.: Government Printing Office, 2012), 3-1.

⁹² United States Air Force, "The Air War over Serbia: Aerospace Power in Operation Allied Force", 22, Figure 9. The figure uses arrows to depict a direct linkage between NATO guidance and ATO procedures. The one ATO process not linked to NATO is the strategy and measures of merit.

⁹³ Rigazio, *Politico-Military Implications of the Kosovo Crisis*, 59.

threat areas, the U.S. missions received a preponderance of the support assets. As the previous section noted, however, U.S. electronic combat assets were limited so NOBLE ANVIL missions would occasionally cause a reflow of NATO electronic combat assets to minimize the threat to strike packages. In these instances, the NATO strike packages would be cancelled due to lack back-up electronic combat resources. After the 23 April change to political objectives loosened the NATO targeting restrictions, the targeting cells effectively merged for all targets but the most sensitive B-2 targets and all Tomahawk targeting.

The lack of a joint Electronic Warfare cell in the CAOC based on the expectation of a short conflict was another shortfall.⁹⁴ The Electronic Warfare cell serves as the operational planning point for countering an adversary's integrated air defense system and coordinating the use of F-16CJ, EA-6B, EC-130, and RC-135 electronic collection, suppression, and destruction missions. As a result, the coordination of electronic warfare capabilities was lacking and the air component was unable to fully exploit Serbian air defenses during the first two weeks of the conflict. When the Electronic Warfare cell was established the second week of April it served two important functions. First, the cell provided expertise to integrate electronic warfare assets into plans and tasking orders. Second, the cell developed an ability to combine real time electronic intelligence from airborne assets with other sources of intelligence to provide

⁹⁴ U.S. General Accounting Office, *Kosovo Air Operations: Need to Maintain Alliance Cohesion Resulted in Doctrinal Departures* (Washington D.C.: Government Printing Office, 2001), 27. Although not discussing the operational planning for Suppression of Enemy Air Defenses (SEAD), good contemporary discussions of the SEAD tactical challenges are Benjamin Lambeth, "Kosovo and the Continuing Sead Challenge," *Aerospace Power Journal* 16, no. 2 (2002), <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj02/sum02/lambeth.html> (accessed 18 December 2013) and David Fulgham, "NATO Unprepared for Electronic Combat," *Aviation Week and Space Technology*, 10 May 1999. Fulgham quotes a veteran USAF general as "There had to be about 10 [EW] things that didn't go right. But the central issue is an overall lack of preparedness for electronic warfare."

a more complete understanding of Serbian air defenses and a quicker response to attack missile and radar systems.⁹⁵

The lack of an Air Mobility Division Another was another omission resulting from the NATO CAOC structure. Given the importance of air refueling and mobility missions as operations tempo increased throughout the campaign, the omission is striking.⁹⁶ The coordinating authority for air refueling and mobility missions instead was the Regional Air Movement Coordination Center (RAMCC) located at Ramstein Airbase, Germany. The RAMCC structure was an outgrowth of the mobility requirements for Bosnia operations and intended to integrate all European theater mobility missions into the ALLIED FORCE air tasking order. The RAMCC was also tasked to coordinate airspace requirements with the CAOC, a task that generally meant mobility airspace requirements were subordinated to ALLIED FORCE requirements.⁹⁷ The RAMCC would later be fused into the U.S. Air Forces, Europe Air Mobility Operations Control Center to provide theater wide mobility planning and execution of operations under a Director of Mobility Forces.⁹⁸ The RAMCC provided liaison officers to the CAOC but their limited experience added little value to CAOC-RAMCC integration.⁹⁹ This limited mobility experience at the CAOC meant that the RAMCC would serve as the nucleus for planning and execution of air mobility

⁹⁵ Michael Kometer, *Command in Air War* (Maxwell AFB, AL: Air University Press, 2007), 192-3 and personal observations of the author (2 March- 30 May 1999, Aviano Airbase and Camp Ederle, Vicenza, Italy).

⁹⁶ Begert, "Kosovo Lessons Learned: Air Force and Air Mobility Briefing."

⁹⁷ Ibid.

⁹⁸ "Kosovo and Theater Air Mobility," *Aerospace Power Journal*, Winter (1999), 17.

⁹⁹ The tanker planners were "two Air Force Academy professors and a contracting officer...who had not seen the tanker in years and had no AOC experience." "Kosovo Lessons Learned: Air Force and Air Mobility Briefing." The lack of staff capability was not just in the RAMCC, General Jumper testified before Congress "We essentially emptied out [USAFE] headquarters to go augment the staffs in [the CAOC]. I seriously had to toy at one point with shutting down a fighter squadron to put the right number of rated people out there that had the expertise in fighter operations to do the planning that was required for this operation." *Operations in Kosovo: Problems Encountered, Lessons Learned and Reconstitution*. USAFE deployed 181 personnel to the Vicenza CAOC and received 333 personnel from other Air Force bases to augment Jumper's staff.

missions as Joint Task Force-SHINING HOPE began. This construct would drive a further wedge into the command and control apparatus.

Once NATO decided to provide humanitarian aid, the command structure for SHINING HOPE was quickly developed and would go through several iterations. SHINING HOPE was initially established under General Clark with U.S. European Command authorities due to U.S. leadership in planning and expected force allocation. As NATO partners agreed to the mission, however, a proposal was forwarded within NATO channels to make SHINING HOPE a combined task force under General Clark's NATO authority as Supreme Allied Commander, Europe.

General Clark kept SHINING HOPE a joint task force under U.S. authorities with Air Force Major General William Hinton as the commander. For international political reasons the operation was presented as a NATO force to reinforce the alliance's lead role in Kosovo operations. It would be almost three weeks before NATO forces were able to participate in SHINING HOPE.¹⁰⁰ On 16 April, NATO forces began humanitarian aid operations and General Clark reorganized SHINING HOPE to Combined Task Force Albania-Force (CTF AFOR) under the command of British Lieutenant General John Reith. Although Reith retained overall command, Hinton remained on his staff as the primary air advisor to coordinate directly with U.S. Air Forces, Europe, and the RAMCC to ensure continued airlift operations.¹⁰¹

Command and control procedures impacted the air strategy as a result of bifurcated authorities and structural omissions. First, the bifurcated nature of

¹⁰⁰ European Command Historian, "Transcript of 6 April 1999 video-teleconference," *Clark Papers*, Box 230, unfiled.

¹⁰¹ Prior to the transition from JTF-SH to AFOR, General Hinton would keep two separate headquarter elements, one at Einsiedlerhof Air Station, Germany (called JTF-SH rear) and one at Tirana-Rinas airport (called JTF-SH forward). Hinton discusses two reasons for the split structure. The rapid nature of operations, poor communications infrastructure in Albania, and the need to coordinate directly with the RAMCC, only nine miles away at Ramstein Air Base, all contributed to his decision to split the headquarters element. See William Hinton, "Interview with Major General William Hinton by Diane Putney," Air Force Historical Studies Office, K570.051-41, 2.

command between U.S. and NATO tasking orders created tension in allocating aircraft that benefitted U.S. operations at the expense of those of NATO. Second, the organizational structure of the CAOC limited the ability of CAOC leadership to control the assets to the fullest potential. The CAOC initially lacked an electronic warfare and mobility cell that was not rectified until almost three weeks into the air campaign. This structural flaw resulted from a NATO organizational construct as well as assuming ALLIED FORCE would be a short campaign similar to DELIBERATE FORCE and EAGLE EYE. To understand the full impact these limitations would have on airpower strategy, the following sections cover air superiority, the ability to coerce the Milošević regime, and assure the Kosovar referent.

Air Superiority

Phase I of the air strategy was devoted to gaining and maintaining air superiority. Since the inception of planning, the air superiority objective was to achieve localized air superiority over Kosovo, then south of the forty-fourth parallel and ultimately expand to achieve general air superiority over the entirety of Serbia if necessary. General air superiority was not initially required due to the assumption of a short campaign within Kosovo and southern Serbia. Unlike Operations PROVIDE COMFORT and NORTHERN WATCH or the wars in Bosnia and Croatia, Serbia did not comprehensively utilize airpower to threaten the referent population. As a result, air superiority operations were designed to allow strike aircraft to attack targets in Kosovo and southern Serbia while mitigating the air defense threat.¹⁰² To demonstrate the Serbian threat to air superiority, the U.S. Department of Defense compared the

¹⁰² General Short stated: "After 34 years in service, it's clear to me that you have to establish air superiority as rapidly as you can to operate in the air. You have to control the air so your striking aircraft can go to the target and back without being under great threat from the enemy's air-to-air capability. You need to exert control over the surface-to-air threat from the ground, and you do that as rapidly as you can--otherwise you simply cannot operate. "Interview with General Michael C. Short," PBS Frontline.

Serbian threat to the Iraqi threat during Operation DESERT STORM. Although one-third fewer missions were flown in ALLIED FORCE, Serbia launched a total of six-hundred seventy-three missiles, almost the same number fired by Iraq during DESERT STORM. In addition, the operating airspace over Serbia was only thirty percent smaller by area than over Iraq.¹⁰³

The air strategy utilized three interrelated components to achieve air superiority, each designed to mitigate the threat posed by the varying components of the Serbian air defense system. Air superiority combat air patrols and self-escort aircraft would mitigate the threat of Serbian MiG-29 and MiG-21 aircraft. Suppression of enemy air defense and electronic jamming aircraft would mitigate the surface-to-air missile threat. Rules of engagement restricting all aircraft to flying above 15,000 feet would mitigate the threat from man-portable air defense (MANPAD) missiles, anti-aircraft and small arms fire.

The first component of the air superiority strategy would mitigate the air threat posed by the Serbian Air Force. To achieve air superiority against the Serbian Air Force, NATO relied initially on U.S. F-15C and F-15Es and NATO F-16s manning combat air patrols oriented against the primary airfields at Pristina, Batjina, and Nis. The aircraft carried both long-range AIM-120 radar guided missiles and short-range AIM-9 heat seeking missiles. AWACS (E-3) aircraft provided wide area air surveillance and battle management for the air superiority fighters. E-3s were augmented by ground based air control squadrons that also served as a direct link between airborne aircraft and the CAOC. During the first night of operations, F-15Cs destroyed three MiG-29s launched from Pristina Airfield while a Dutch F-16AM shot down a MiG-29

¹⁰³ Department of Defense, *Report to Congress: Kosovo/ Operation Allied Force after Action Report*, 65 for the total number of sorties. On the number of missiles fired, see Major General Charles Wald, DoD News Briefing, 2 Jun 1999. Gen Wald states 266 SA-6, 175 SA-3, 106 MANPADs, and 126 unidentified for a total of 673.

launched from Batjanica Airfield near Belgrade. In addition seven combat and four non-combat aircraft were destroyed on the ground at Batjanica by F-15E strike aircraft and a total of 34 air defense targets were damaged.¹⁰⁴

The first night's operations were followed up the next night with an additional two MiG-29s shot down by F-15Cs, all with no loss of NATO aircraft. After these engagements the Serbian Air Force chose not to challenge NATO for the remainder of ALLIED FORCE. Air superiority aircraft would continue to man combat air patrols oriented against Serbian fighter airfields to provide continual protection against any potential air threat.¹⁰⁵ The requirement for air superiority remained important during the recovery of the F-117 and F-16 pilot shot down over Serbia. On both missions, helicopters and A-10s assigned to recover the pilots were vulnerable to attack from the Serbian Air Force. F-15C and F-15E aircraft provided air superiority for the duration of the rescue mission and ensured the safe recovery of both pilots with no additional loss of NATO aircraft.¹⁰⁶ On average, 32 air superiority missions were flown per day for the remainder of the conflict.

A total of five Serbian aircraft were shot down by air superiority aircraft and approximately 100 aircraft were destroyed on the ground by a combination of weapons ranging from Air-Ground Missile (AGM)-130 rocket-powered standoff missiles to Guided Bomb Unit (GBU)-10 laser guided munitions. Overall, 2,500 missions

¹⁰⁴ For an account of the first night attacks from the Serbian air defense perspective see Milan Galovic, "Milošević Nije Dozvolio Napade Na Nato (Milošević Did Not Allow Attacks on NATO)," <http://www.politika.rs/rubrike/Drustvo/Miloshevic-nije-dozvolio-napade-na-NATO.lt.html> (accessed 6 January 2014). The numbers presented by the Serbian sources coincide with NATO reports in this instance.

¹⁰⁵ A Serbian documentary interviewed two of the pilots shot down, Slobodan Peric and Ilyo Arizanov, discussing Serbian Air Force tactics and mechanical failures of the MiG-29 fleet. See Sladjana Zaric, "No-one Said No: Serbian MiG29 Pilots vs. NATO in 1999- personal accounts," (Serbian National Radio-Television, July 2008), accessed 14 January 2014, <http://www.youtube.com/watch?v=dLngqoBpWXQ&list=UUetkARjIjEXpQJYQHbJtWW&feature=c4-overview>.

¹⁰⁶ Personal experience of the author. The author provided air superiority coverage for the F-117 rescue package. AWACS committed F-15Es onto a possible Serbian aircraft in the vicinity of the downed pilot but the contact could not be confirmed.

dedicated to air superiority were flown during ALLIED FORCE.¹⁰⁷ Serbian reports state losses of six airborne aircraft and only fourteen aircraft destroyed on the ground. The difference in aircraft numbers is a result of one Serb aircraft shot down by friendly fire from Serbian air defense and the extensive use of Serb ground-based decoys.¹⁰⁸

As the air campaign began around-the-clock operations, Marine Corps F-18s in Hungary and Italian F-104s complemented the primary air superiority aircraft. Their addition allowed combat air patrols to the north and west of Serbia, respectively, and the first opportunity to achieve general air superiority. By late April, NATO assessed that the Batajanica, Sjenica, Pristina, Obvra, and Ponikve airfields were non-operational and the aircraft and assembly facilities at Batanjica and Pancevo were destroyed. This destruction effectively inhibited any Serbian capability to either launch or repair aircraft for the duration of the campaign.¹⁰⁹

Podgorica Airport in Montenegro, however, retained special importance once Operation SHINING HOPE began operations in Albania. By late April the airfield had become a logistical staging ground for Serbian ground and air defense forces.¹¹⁰ Only a five-minute flight from the main NATO operating base at Tirana-Rinas, the airport had not been targeted previously due to NATO support of the Montenegro government

¹⁰⁷ Department of Defense, *Report to Congress: Kosovo/ Operation Allied Force after Action Report*, 70. For combat footage of a MiG-29 on the ground being destroyed by an Air-Ground Missile-130 launched from an F-15E see *Operation Allied Force F 15E Strike Eagle AGM 130 Strike MiG 29*, <http://www.youtube.com/watch?v=ZXuGmEn6kLY> (accessed 2 December, 2013).

¹⁰⁸ For a Serbian produced video on the use of decoys, see <http://www.youtube.com/watch?v=SQx33rpBffs> (accessed 14 Jan 2014).

¹⁰⁹ Kenneth Bacon, Department of Defense press briefing, 19 May 1999, <http://www.defense.gov/news/briefingslide.aspx?briefingslideid=267> (accessed 17 December 2013).

¹¹⁰ Although the airfield was a staging ground for Serbian military forces, it was not previously attacked due to the French President, Jacques Chirac, vetoing proposed attacks. Once JTF-SH and Task Force Hawk began to stage NATO forces at Tirana-Rinas, GEN Clark was able to convince the French NATO liaison to lift the veto and allow an attack on the airfield. Lt Gen Short concisely stated the problem during Congressional testimony, "The Commander of Joint Task Force Hawk expressed to all of [EUCOM leadership] concern very frequently about MiG aircraft and surface to air missile systems there...that he felt brought his forces under threat. Clearly, every night and every day I was sending the [aircrew] in through Albania understanding on their left flank sat Podgorica Airfield with surface to air systems we could not strike and interceptor aircraft that we could not strike." Michael Short, *Hearing before the Senate Armed Services Committee*, 106th Congress, 1st Sess., 21 Oct 1999, 402.

and a desire to avoid Montenegrin public outcry and civic unrest. On 26 and 29 April, NATO attacked military aircraft, radar facilities, control towers, and petroleum storage sites at Podgorica. The attack ensured Serbian forces could not threaten NATO forces or challenge the existing local air superiority maintained in Kosovo and southern Serbia.¹¹¹

Based on the early success of air superiority efforts, the coalition negated the ability of the Serbian military to conduct offensive air operations by 26 March. The second and third components of air superiority, the surface-to-air missiles, anti-aircraft artillery, and man-portable air defense missiles (MANPADs) would remain a continual issue for the duration of conflict. Air superiority against the missiles and anti-aircraft artillery was more problematic given their mobile and clandestine nature.¹¹² The initial fifty-one approved targets were fixed air defense sites in Kosovo and southern Serbia but their destruction had only a marginal effect on achieving air superiority. As the missile batteries proved increasingly difficult to attack targeting switched to early warning radars, command and control nodes, and the facilities able to sustain air defense operations.¹¹³ These attacks successfully drove fielded missile sites to an autonomous mode with limited command and control coordination or cueing capability from early warning radars. An unintended consequence of autonomous operation was increasing difficulty by NATO to track and target the missile systems. Coupled with the increased duration of the conflict, additional suppression of enemy air defense aircraft were requested on 6 April to better counter the missile threat.

¹¹¹ Jamie Shea, "NATO Morning Briefing," NATO news release, 29 April 1999, <http://www.nato.int/kosovo/press/b990429b.htm> (accessed 29 December 2014).

¹¹² This is also a function of the lack of an EW cell at the CAOC mentioned previously.

¹¹³ Vice Admiral Fry and Rear Admiral Wilson, DoD Press briefing, 30 March 1999, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=651> (accessed 1 January 2014). This briefing also includes a contentious question and answer dialog about the weight of effort towards air superiority related to ethnic cleansing.

Additional EC-130, EA-6B, and F-16CJ aircraft arrived in theater and began flying missions by 15 April. Their arrival coincided with the establishment of the CAOC Electronic Warfare cell allowing their full integration with daily strike packages. EA-6B aircraft conducted stand-off jamming against known radar sites and F-16CJ aircraft provided a reactive capability against missile systems by firing High Speed Anti-Radiation Missiles (HARM) at the site.¹¹⁴ The majority of strike packages were escorted by either a single EA-6B or two-to-four F-16CJ aircraft. The additional aircraft also provided an ability to shift air superiority effort from a localized effort south of the forty-fourth parallel to general air superiority throughout Serbia when required. The additional aircraft also provided better capability to target the increasingly autonomous air defense systems.

As the Serbian air defense systems were mobile and autonomous, the weight of effort for air superiority operations was oriented toward finding, tracking and targeting the systems. This effort relied heavily on RC-135 aircraft able to collect electronic intelligence (ELINT) and U-2 and RQ-1 reconnaissance aircraft attempting to locate the systems via radar or optical sensors. Similar to Operation PROVIDE COMFORT, the mountainous terrain of Kosovo and southern Serbia, coupled with the RC-135 orbit location outside of Serbia, tended to impede the collection capability based on the intervening terrain.¹¹⁵ If aircraft were successful in locating an air defense system, the CAOC would utilize dynamic targeting procedures and allocate a strike mission to target the system. The dynamic targeting system proved of little value due to CAOC

¹¹⁴ A total of 48 F-16CJ and 30 EA-6B aircraft were part of the ALLIED FORCE force structure. They were augmented by Tornado Electronic Combat version (ECR) from Germany and Italy. 24 additional F-16CJ arrived in Italy on 15 April and six EA-6B arrived on 16 April. This brought the total number of F-16CJ to 48 and EA-6B's to 30. See Kenneth Bacon, DoD Press Conference, 14 April 1999, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=587> (accessed 20 January 2014).

¹¹⁵ The same issue affected the E-8 Joint Surveillance and Target Attack Radar System (JSTARS) aircraft. The JSTARS utilizes a moving target indicator capability to locate potential mobile SAM systems.

processes taking an average of five to six hours to gain the requisite approval to task a strike mission. Unless a strike aircraft was ideally placed to commence an attack, the air defense systems typically moved prior to being engaged.¹¹⁶

The inability to negate the Serbian surface-to-air missile systems had a significant impact on SHINING HOPE assurant actions to the remaining referent population in Kosovo. United States Air Forces, Europe conducted a risk assessment in early April to determine if direct airdrop of supplies within Kosovo was feasible and determined the missions exceeded the risk level established by NATO leadership. Instead, supplies were delivered to the air depot at Tirana-Rinas, Albania and distributed by ground forces within Albania.¹¹⁷ Aside from discussions about Podgorica airfield, there is no existing evidence to support direct coordination between the ALLIED FORCE and SHINING HOPE personnel to increase air superiority assets within Kosovo. Operational reports and the focus of air superiority efforts after the establishment of SHINING HOPE reinforce the limited weight of effort placed on either suppressing or degrading the air defense systems most threatening to SHINING HOPE aircraft. The overall percentage of air superiority sorties within Kosovo actually decreased as F-16CJ and EA-6B aircraft were increasingly tasked to support strike packages in southern Serbia and the vicinity of Belgrade.¹¹⁸ This contributed to

¹¹⁶ Personal experience of author and Kometer, *Command in Air War*, 192-3. Kometer identifies only three instances in which an air defense system was successfully attacked utilizing these targeting methods.

¹¹⁷ During a 2 April DoD Press Conference, the Joint Staff Director of Logistics, Lt Gen John McDuffie, stated "To fly air drop, you normally fly in an airplane that you don't want to go into a high- threat environment. So it's very dangerous. But I will tell you, and more importantly is that you have to measure the effectiveness of what the air drop would be. One, I would look at it like we would be resupplying the Serb military more than we would be feeding Kosovars. And secondly, because of the situation in Kosovo -- and secondly, you would be establishing almost a magnet for Kosovars to put them in harm's way, that they could be rounded up by the Serbs even more. So we don't see air drops during this non-permissive environment as an option." "Lt Gen McDuffie, Joint Staff, briefs on Humanitarian Efforts in the Balkans," DoD press briefing, 2 Apr 1999, [http:// www.defense.gov/transcripts/transcript.aspx?transcriptid=565](http://www.defense.gov/transcripts/transcript.aspx?transcriptid=565) (accessed 13 Jan 14).

¹¹⁸ For an excellent primary source on daily NATO operations see the NATO morning brief and operational updates archives at <http://www.nato.int/kosovo/all-frce.htm> (accessed 25 Jan 14).

constraining SHINING HOPE effectiveness to the portion of the referent population in Albania and Macedonia and not to the remaining referent population in Kosovo.

Over the course of seventy-eight days and thirty-eight thousand missions, the Serbian air defense only destroyed two U.S. aircraft.¹¹⁹ Although air superiority appeared successful, it only partially satisfies the two propositions presented in Chapter Four. The first proposition is fully satisfied because the air strategy countered not just the Serbian air and missile threats but also the anti-aircraft artillery and short range missile threat. ALLIED FORCE strategists developed an air superiority plan along three interrelated components, each designed to mitigate the threat posed by the Serbian air defense system. The airborne threat was the first component and was countered by localized air superiority and aerial surveillance missions. Surface missile threats were the second component and they were countered by dedicated suppression of air defense aircraft. Anti-aircraft artillery and short range missile threat were the third component. ALLIED FORCE strategists did not rely on specific aircraft to counter this threat, opting instead to institute rules of engagement restricting aircraft to flight above 15,000 feet mean seal level (MSL) for the first sixty days of the air campaign with only authorized deviations allowed for forward air controllers and aircraft delivering weapons. The combination of the rules of engagement and force structure ensured a strategy to counter the full spectrum of Serbian air defense threats at a risk level acceptable to senior military leaders.

The second proposition of this dissertation states an airpower strategy will utilize local air superiority. The airpower strategy initially focused as expected on local air superiority over Kosovo and south of the forty-fourth parallel in Serbia. As the

¹¹⁹ U.S. Air Forces, Europe Commander General John Jumper stated “we make it look too easy. We set the bar fairly high when we fly more than 30,000 combat sorties and we don’t lose one pilot.” James Kitfield, “Another Look at the War That Was,” *Air Force Magazine*, October (1999), 43.

campaign integrated a punishment strategy into the existing denial strategy, air superiority was expanded to include airspace around Belgrade. This expression allowed increased capability to strike targets linked to coercing the Milošević regime. As identified in Chapter Four, if general air superiority is required then airpower strategists should prioritize the areas and duration of air superiority based on the operating environment and available resources.

Coercion of Milošević Regime

Chapter Three identified a coercive strategy as either a form of denial or punishment. A denial strategy raises military costs to a level that coerces an adversary to accede to the coercer's demands whereas a punishment strategy reduces the enemy's will to resist by imposing unacceptable costs. A denial strategy for ALLIED FORCE would target the Serbian military but a punishment strategy would target the infrastructure and civilian populace of the state. This section analyzes the method utilized to coerce Serbia to cease aggression against the Kosovar referent.

During planning and execution of ALLIED FORCE, tension arose between General Clark and Lieutenant General Short on the best way to coerce the Milošević regime to stop ethnic violence towards the Kosovar referent. Clark advocated a denial strategy whereas Short preferred a punishment strategy. Both opinions had merit. Clark's position as Supreme Allied Commander, Europe, provided experience negotiating with the nineteen NATO political leaders that led him to believe a denial strategy would be the most palatable and garner the requisite political support. Clark's personal experiences as an armor officer may have played a part in his decision calculus. As a former commander of the 1st Battalion, 77th Armor, 4th Infantry Division and the National Training Center at Fort Irwin, he was accustomed to

winning battle through decisive force-on-force engagement.¹²⁰ By destroying the Serbian 3rd Army and national police forces in Kosovo, Clark believed Milošević would be denied the primary instruments needed to conduct actions against the referent.

Conversely, Short did not believe the Serbian 3rd Army in Kosovo was a center of gravity requiring persistent attack.¹²¹ He advocated a strategy aimed at national infrastructure and targets that would directly impact Milošević's decision calculus. Like Clark, Short's personal experiences probably played a part in his reasoning. As an F-4 pilot during Vietnam, Short had seen the lack of results of the ROLLING THUNDER campaign and abhorred an incremental use of airpower.¹²² For Short, aerial warfare was quick, decisive and overwhelming. But Short also recognized the political necessity of attacking the fielded forces. During video teleconferences and meetings with Clark, Short would consistently advocate an air campaign similar to DESERT STORM with parallel operations aimed at both the forces in Kosovo and strategic targets in Belgrade.¹²³

Despite Short's concerns, Serb ground forces in Kosovo comprised the primary target set during the first ten days of the campaign. Poor weather and difficulty prosecuting mobile targets caused an average of only two ground force targets in

¹²⁰ Interestingly, Clark was the National Training Center Commander during the Army National Guard's training for deployment for Operation DESERT STORM. The training focused on large scale armor maneuvers to defeat an armored adversary. Clark was also Commander of the 1st Cavalry Division, an armored division which, at the time, contained M-1 Abrams tanks and M-2 Bradley Fighting Vehicles.

¹²¹ General Short quoted in Tirpak, "Short's View of the Air Campaign", 43.

¹²² Short relayed to Congress "I am a child of Vietnam. I served there in 1967 and 1968...Classmates died, classmates in the Hanoi Hilton, because of a philosophy driven by incrementalism [sic], and let us try a little bit of this today and see how he likes it, and try a little bit tomorrow and see how he likes that." Short, *Hearing before the Senate Armed Services Committee*, 400.

¹²³ *Clark Papers*, Box 230, unfiled. The transcripts of the VTC's are undergoing classification review at the time of this writing, however both Clark and Short corroborate this point of disagreement. See Clark, *Waging Modern War* and Tirpak, "Short's View of the Air Campaign." During Congressional testimony, Short stated in addition to targeting the Yugoslav 3rd Army when able, he would "have turned the lights out [in Belgrade]...I'd have dropped the bridges across the Danube. I'd have hit five or six political-military headquarters in downtown Belgrade. Milošević and his cronies would have woken up the first morning asking what the hell was going on." Short, *Hearing before the Senate Armed Services Committee*, 402.

Kosovo attacked during the first ten days. To Short, not only was the target set incorrect, but poor weather and Serbian tactics contributed to the incremental campaign he sought to avoid. Searching for a way to effectively target the Serbian forces given the poor weather and air defenses, air strategists implemented a system based upon Close Air Support procedures to allow aircrew the ability to find and rapidly attack mobile targets. This system was termed the Kosovo Engagement Zone (KEZ) and utilized the A-10, F-14, and F-16CG aircraft as forward air controllers to identify targets and authorize weapons employment of other NATO strike aircraft. Prior to KEZ implementation, NATO reported only 30 total army and police targets hit, thirteen in Kosovo and seventeen in southern Serbia.¹²⁴ After implementation, NATO averaged eight strikes per day on army and police targets and by the end of April over 25 army and police targets were attacked per day.¹²⁵

A 29 April mission is representative of KEZ operations. Two F-16CG aircraft serving as Forward Air Controllers were searching Kosovo for targets when an SA-6 surface-to-air missile site was identified. In addition to determining collateral damage concerns, the F-16CG's requested and received F-16CJ and EA-6B aircraft to suppress the SA-6 via radar jamming and reactive anti-radiation missile capability. The F-16CJ and EA-6B aircraft protected an additional two F-16CG aircraft equipped with sensors and laser guided bombs to identify, target, and destroy the SA-6. In addition, E-3 AWACS and EC-130 aircraft provided command, control, and air surveillance to ensure air superiority was maintained during the engagement.¹²⁶ The EC-130 also

¹²⁴ Jamie Shea and GEN Wesley Clark, "NATO Press Conference," 13 April 1999, slide 32.

¹²⁵ The source of these numbers are the various NATO press briefings from 13 April until 3 June located at <http://www.nato.int/kosovo/all-frec.htm>.

¹²⁶ Secretary of Defense William Cohen and GEN Hugh Shelton, "DoD News Briefing," 29 April 1999, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=608> (accessed 22 January 2014). In addition to the assets listed, the MQ-1 "Predator" remotely piloted vehicle made its combat debut during ALLIED FORCE. As relayed by General John Jumper "For the first time, we used the Predator Unmanned Aerial Vehicle (UAV) in a targeting role. Before Allied Force, the Predator could transmit targeting imagery to its operator on the ground as

served as an airborne command and control element capable of direct communication between the CAOC targeting cell and strike aircraft.

Despite the success of the Kosovo Engagement Zone dynamic targeting process, the initial strategy of targeting military forces in Kosovo did not coerce the Serbian government from conducting operations against the Kosovar referent. One measure of a denial strategy is the number of Serbian Army and special police (VJ/MUP) within Kosovo capable of inflicting harm on the referent population. By NATO's estimate, thirty thousand VJ/MUP personnel were stationed in Kosovo on 24 March. By 21 April, this number had increased to thirty-five thousand and five hundred personnel with an additional eight thousand personnel categorized as irregular forces.¹²⁷ In effect, the air strategy did not deny the Serbs an ability to harm the Kosovars or the ability to reinforce lost personnel. By another measure, the estimated number of referent Kosovars displaced by Serbian forces increased from approximately two hundred thousand at the beginning of the conflict to an estimated eight-hundred-and-twenty thousand by 21 April. Of this number, an estimated one-hundred-and-ninety thousand remained in Kosovo and three-hundred-and-sixty-two thousand fled to Albania.¹²⁸ Over the next two weeks, at least one-hundred-and-twenty thousand of the internally displaced Kosovars would flee to Albania and Macedonia. By both these measures, the denial air strategy prior to 23 April did not coerce Milošević to cease threatening actions against the Kosovar referent.

part of the intelligence collection network. During the air campaign, we reviewed Predator video in real-time and immediately provided pilots with the location of mobile Serb targets. Toward the end of the war, we equipped the Predator with a laser so that it could place a beam on a target—this identified it so a loitering strike aircraft could destroy it. We were able to successfully employ the Predator with laser only once before Allied Force ended, but in doing so, we developed a capability with great potential for rapid targeting.” Jumper, *Testimony before the House Armed Services Committee*.

¹²⁷ Jamie Shea and Wesley Clark, “NATO Press Brief,” 13 April 1999 and Jamie Shea, “NATO Press Brief,” 21 April 1999.

¹²⁸ Ibid.

The restatement of political objectives on 23 April allowed the existing denial air strategy to be complemented with a punishment component. Attacks would continue to degrade and interdict deployed Serbian forces in Kosovo and southern Serbia but a second line of operation, dubbed Strategic Attack by General Clark, was developed to strike targets directly affecting Milošević's decision calculus. On 2 May, the electrical power grid of Serbia was attacked for the first time to include transformer yards at Opranovac, Nis, Bajinabasta, Dermo, and Novi Sad. NATO stated the purpose of the strikes was to significantly degrade the command, control, and communications capability of the 3rd Yugoslav Army in Kosovo, but the strike also affected electricity for five hundred thousand Serbians living north of the forty-fourth parallel.¹²⁹ These attacks were followed up the next day with attacks on the Mount Avala national command bunker, airfields, and radio facilities at Bela Palenka.¹³⁰ The radio facilities were important as they broadcasted pro-Milošević programming and were owned by powerful Serbians within Milošević's inner circle.

Airpower operations four days later, on 7 May, were the most significant representation of the shift in airpower strategy to a combination of denial strategy targeted against the Serb military and a punishment strategy against the Milošević regime. In addition to attacks in Nis and Sjenica airfield to maintain air superiority, NATO attacked the following targets in Belgrade:

- The Dobanovci Command Complex, a residence of Milošević with an underground bunker complex;
- The Hotel Jugoslavia, an alternate MUP Headquarters for forces in Kosovo;
- Belgrade Ministry of Defense North and South;
- Belgrade Army General Staff Building;

¹²⁹ Jamie Shea, "NATO Morning Briefing," 3 May 1999. In the same conference, Shea stated "over the last few days people in Belgrade say that the mood has changed, that if you like, the euphoria of nationalism is subsiding, that people are starting to weigh the consequences of the type of confrontation that Milošević has embarked them on." The strikes occurred shortly after the 28 April dismissal of Serbian Deputy Prime Minister Vuk Draskovic and three government ministers that were critical of Milošević.

¹³⁰ Major General Walter Jertz, "NATO Press Conference," 4 May 1999.

- Belgrade MUP Headquarters;
- Federal Directorate for Supply and Procurement Headquarters; and
- Three electrical power transformer yards in Belgrade and one at Obrenovac.¹³¹

It is doubtful that a continued denial strategy would have coerced the Milošević regime to cease threatening actions towards the Kosovar referent. Conversely, the punishment strategy tended to directly influence Milošević. While Milošević died in prison prior to indicating why he acceded to NATO's demands, several important reasons can be deduced. After 78 days, it appeared that the NATO alliance remained cohesive and was willing to continue military actions for the foreseeable future. Another factor could have been the evolving Russian foreign policy pressuring Milošević to agree to NATO's demands. Yet another option posited was the potential for a ground invasion of Serbia. Although President Clinton previously stated a ground invasion was not an option, he modified his position in April by stating all military options would remain viable. It is also likely Serbia was aware of NATO planning for a ground invasion to occur by early fall, which, by June, meant at least another three months of aerial bombing. A ground force option required unanimous NATO member approval but German Chancellor Gerhard Schroeder on 20 May stated a proposal to invade Serbia would not be approved by NATO heads of government.¹³²

¹³¹ Allied Command Europe, "Press Release 99-05-02," news release, 2 May 1999, <http://www.nato.int/kosovo/ace/990508a.htm> (accessed 1 January 2014).

¹³² Schroeder stated "I think it is right to say that the Federal Government [of Germany]...rejects the sending of ground forces, which is the German position, the German position supported unanimously by the members of the German Parliament. Of course this is first and foremost a German position. If I understood NATO strategy correctly, and I try to explain it to you, then that position is also the present position of NATO, that is to say the strategy of an Alliance can only be changed if all of the parties involved agree on it, so I trust that NATO strategy is not going to be changed." Gerhard Schroeder, "NATO press conference with Javier Solana and Gerhard Schroeder," 19 May 1999, <http://www.nato.int/docu/speech/1999/s990519a.htm> (accessed 30 December 2013). For a contemporary overview of NATO political thought regarding a ground invasion, see William Drozdiak, "NATO Leadership Split on Ground Invasion," *The Washington Post*, 1999, A1.

Secretary of Defense William Cohen publically agreed with Schroeder the following week, at a 27 May NATO meeting in Bonn.¹³³

The likely reason for NATO's coercive success is a combination of the preceding explanations. The air campaign created two critical variables in the Serbian decision calculus. First, the cumulative damage to Serbian infrastructure and military forces weighed heavily on Milošević. Second, the ability to continue the air campaign indefinitely caused growing opposition among the Serbian political elite towards Milošević's aim to wait out the NATO alliance. As an example, Deputy Prime Minister Vuk Draskovic and three government ministers critical of Milošević were expelled from the Serbian government on 28 April.¹³⁴ The air campaign, while successful, was not sufficient to coerce Milošević. Coupling the cumulative effects of airpower with the 1 June Russian decision to cease support to Serbia is the most plausible explanation why Milošević succumbed to NATO coercion on 3 June.¹³⁵

The coercive component of airpower strategy utilized for ALLIED FORCE was a combination of denial and punishment with both components required for the Milošević regime to cease threatening actions against the Kosovar referent. The primary reason the denial strategy was not sufficient was an inability to effectively target Serbian forces early in the campaign. The establishment of the Kosovo Engagement Zone concept of operations increased the effectiveness of a denial strategy

¹³³ Cohen felt "it was clear... that a consensus for ground forces was not going to materialize. I argued for intensifying the air war and for streamlining and broadening the target selection process." William Cohen quoted in Dana Priest, "Kosovo Land Threat May Have Won War," *ibid.*, A1. One month prior, Cohen testified before Congress that "there is no intention to use ground troops in a hostile or non-permissive environment" against Serbia. *U.S. Policy and NATO Military Operations in Kosovo.*, 15 April 1999, 107.

¹³⁴ Predrag Simic, e-mail dialog with author, 18 January 2014, Washington, D.C., transcript in personal files. Interestingly, these dismissals were preceded by the removal of Serbian Chief of the Armed Services General Momcilo Perisic, Chief of the Yugoslav Air Force Ljubisas Velickovic and Chief of the Security Service Javica Stanisic in October after the Holbrook meeting.

¹³⁵ Marti Ahtisaari, *Misija U Beogradu (Mission to Belgrade)* (Belgrade, Serbia: Filip Visnjic, 2001). At the time, Ahtisaari was the President of Finland and a special envoy from NATO to Belgrade. He was present with Chernomyrdin at the 1 June meeting. This analysis is based on an unofficial English translation of his book by the U.S. embassy in Helsinki.

by limiting the ability of Serbian forces to conduct large-unit tactics. This allowed the Kosovar referent to flee the Serbian military with relative impunity as Serbian forces were never able to form into military units or use conventional military vehicles for fear of being targeted by NATO airpower.¹³⁶ The next section analyzes NATO ability to provide security assurances to the referent population.

Assurances to Kosovar Population

A central tenet of the NATO political objectives was protection of the Kosovar referent from Serbian aggression, but both the military and airpower strategy were focused on coercing the Milošević regime. Little thought and less action was allocated to protection of the referent until after the start of hostilities.¹³⁷ Whereas General Clark spent hours reviewing desired weapons effects on targets, no such comparable action was observed for the humanitarian portion of NATO objectives. At the outset of ALLIED FORCE over two hundred thousand Kosovars were displaced either internally in Kosovo or externally in neighboring states. Despite political rhetoric in the months prior to the commencement of military operations, NATO was unprepared for the magnitude and scope of humanitarian aid required to the referent population.

The United Nations High Commission of Refugees (UNHCR), chaired by Sadako Ogata, stepped into this void and convened a Humanitarian Issues Working Group on 1 April at the behest of the Albanian government. Attended by fifty-six states and several non-governmental organizations, the meeting established UNHCR as the lead

¹³⁶ Goran Zekic interview with author.

¹³⁷ The primary reason for a lack of preparation was limited humanitarian considerations during senior policy deliberations. Department of State, "Interagency Review of U.S. Government Civilian Humanitarian and Transition Programs," (Washington, DC: Government Printing Office, 2000), 30. This document utilizes primary source interviews with senior Clinton officials involved with the National Security Council decision making process during ALLIED FORCE. Another valuable resource is the National Security Council Deputies Committee meeting minutes for the period 1 February to 1 April available at <http://www.clintonlibrary.gov/assets/storage/Research%20-%20Digital%20Library/Declassified/2009-0983-M.pdf> (accessed 16 January 2014).

organization to assist the Kosovar referent and develop a plan to return the refugees to Kosovo.¹³⁸ Despite chairing the meeting, UNHCR lacked the capability to organize and conduct assistance on such a large scale and requested NATO assistance with project leadership, security, and infrastructure improvement.¹³⁹ NATO's North Atlantic Council agreed to the proposal in early April and directed General Clark to develop a strategy to aid UNHCR. Clark delegated the authority for planning and execution to United States Air Forces, Europe, because the expected operational concept relied heavily on Air Force airlift. The initial air strategy would provide referent assurances in conjunction with UNHCR efforts and emphasizing project leadership and infrastructure improvement. The strategy would have to account for a massive amount of humanitarian aid delivered to a referent still being threatened by Serbian military forces.

Initial air strategy development can best be described as crisis action planning. There were two main options for conducting operations based upon either doctrine or current command relations. The doctrinal option would place the strategy development, command, and execution authority under the war fighting commander, Lt Gen Short, and 16th Air Force. This option benefitted by providing a single commander responsible for all air operations. Short would be responsible for airspace control, air tasking order development, and capability to allocate resources according to an overall airpower campaign. The drawbacks to this option was an overall lack of

¹³⁸ Sadako Ogato quoted in "United Nations High Commission for Refugees Crisis Update, 6 April 1999," (Tirana, Albania: United Nations, 1999).

¹³⁹ Department of State, "Interagency Review of U.S. Government Civilian Humanitarian and Transition Programs," 30.

manpower within Short's headquarters and the organizational construct of the CAOC, which lacked an Air Mobility Division.¹⁴⁰

The second option vested planning and command authority with U.S. Air Forces, Europe. This option benefitted from a central location with the RAMCC and Air Mobility Operations Control Center, established communications infrastructure, and resident expertise with the mobility mission. The primary drawback would be a lack of centralized planning and operations for both ALLIED FORCE and the humanitarian aid. Clark, General John Jumper, and Short agreed U.S. Air Forces, Europe would serve as the lead command for humanitarian aid, establishing Joint Task Force SHINING HOPE, because of the resident mobility expertise and existing infrastructure. In retrospect this was the correct decision to place the responsibility with the expertise, but it was based on the crisis action planning necessitated by a failure to properly integrate assurant actions into ALLIED FORCE planning.

Planners developed a strategy hinging on two discrete lines of operation that were indirectly complemented by ongoing ALLIED FORCE efforts. The first line of effort established an aerial port capability to receive humanitarian supplies at the two regional airfields possessing the best infrastructure: Tirana-Rinas, Albania, and Skopje, Macedonia. These airfields would serve as the hubs of a "hub-and-spoke" operation to provide assistance in much the same way as Operation PROVIDE COMFORT. The spokes, however, were not defined forward operating locations. Instead, helicopters from sixty-one organizations would deliver supplies to over three-hundred refugee sites and outlying villages hosting the displaced Kosovars. Because

¹⁴⁰ Begert, "Kosovo and Theater Air Mobility," 17. Begert notes "ultimately the CAOC never subscribed to an Air Mobility Division (AMD) being part of the CAOC." See also Joint Unified Lessons Learned Report 82541-23492, Brigadier General Rod Bishop, "RAMCC, Chief/Deputy DIRMBOFOR Position Issues," 24 November 1999, Air Force Historical Studies Office, K323.01V.19. Bishop states, "During ALLIED FORCE, CAOC leadership requested AMD keep [their] footprint to the minimum size possible."

of the disparate nature of humanitarian organizations, two operational actions were identified to enable humanitarian assistance to the referent.

The first operational action consisted of organizing the fifty-seven country teams and the four major non-governmental organizations providing relief. Colonel Clifton Bray, the Air Force Forces commander in Albania, served as the senior NATO military representative to the Albanian led Emergency Management Group. In this capacity, Bray was able to coordinate air movements and operating procedures at Tirana-Rinas airfield and also synchronize military operations to the Albanian politics.¹⁴¹ In addition to bedding down almost six thousand personnel, Bray's command upgraded the Tirana-Rinas facilities from accepting ten flights per day to over four-hundred flights including helicopter operations. Bray's leadership provided the critical coordination of relief efforts that UNHCR lacked.

The four-hundred-fold increase in flight operations overwhelmed Albanian airspace control capabilities and, as a consequence, the Albanian parliament passed a resolution ceding airspace control to SHINING HOPE authorities.¹⁴² While the resolution was a result of concerns from the Albanian aviation administration, it also simplified the airspace restructuring the CAOC was simultaneously considering and would subsequently implement on 1 May. Primary airspace for both ALLIED FORCE and SHINING HOPE would now be controlled by NATO forces. Although the actual airspace controllers in Albania were assigned to SHINING HOPE and not the CAOC, exchange of liaison officers and direct communications links simplified command and control procedures for combat aircraft. The risk of mid-air collision between SHINING

¹⁴¹ Colonel Clifton Bray, "Interview by Larry Morrison and Al Moyers," 18 February 2000, Air Force Historical Studies Office, K323.01 v.19, transcript, 10. This interview is hereafter referred to as "Interview with Bray." In addition, Colonel Bray chaired the Military Working Group meetings designed to coordinate and standardize the military support to the Emergency Management Group. This committee comprised members from nineteen NATO countries, Austria, Switzerland, Russia and Albania.

¹⁴² Begert, "Kosovo Lessons Learned: Air Force and Air Mobility Briefing," slide 17.

HOPE and non-governmental aircraft operating in Albania, however, remained high and led to the immediate requirement for standard flight procedures.

The second operational action involved coordination between SHINING HOPE and the CAOC to ensure helicopters flying into Kosovo and along the Albanian border were identified as friendly forces and not engaged by NATO air superiority aircraft.¹⁴³ As an example, Switzerland and Austria were not NATO members and did not participate in ALLIED FORCE but flew the preponderance of helicopter missions during the first four days of SHINING HOPE. Because they were not NATO members, their airborne identification, friend or foe (IFF) transponder hardware was not compliant with ALLIED FORCE rules of engagement. This resulted in SHINING HOPE personnel contacting the CAOC daily to pass Swiss and Austrian flight information and transponder codes. The aircraft were then placed on the air tasking order. Additionally, the information was utilized by search and rescue forces to maintain awareness of helicopter flight profiles in the event of a shoot down by Serbian air defense assets.¹⁴⁴ This procedure was standardized for all SHINING HOPE helicopter flights. The airspace control measures and aviation procedures provided the organization and flight standards necessary for unified humanitarian operations and to transport humanitarian aid. The second component of the strategy would ensure the referent population received assurances.

The second line of effort established operational procedures to provide airlift of humanitarian supplies from multiple countries to the Tirana-Rinas aerial port. To fly

¹⁴³ Non-NATO aircraft would occasionally fly into Kosovo. All NATO SHINING HOPE aircraft remained within Albania. Interview with Bray by the author, 6 April 2014, Washington, D.C., transcript in personal files of author.

¹⁴⁴ "Interview with Bray, 6. The coordination included passing unclassified radio frequencies utilized to contact ALLIED FORCE command and control aircraft. Although this procedure could not be enforced, compliance was almost universally agreed to with only a few exceptions by non-governmental organizations. Of the nineteen organizations operating helicopters at Tirana-Rinas, fourteen were military and five were non-governmental organizations such as the Red Cross, Office of the United Nations High Commissioner for Refugees, and the World Food Organization. In addition to Austria and Switzerland, the United Arab Emirates and Russia both participated in JTF-SH but not ALLIED FORCE.

into Albania, the majority of airlift aircraft would fly within close proximity of Podgorica airfield, a main airfield housing Serbian aircraft and air defense equipment. Serbian aircraft could attack Tirana-Rinas within five minutes of takeoff and Serbian ground forces could drive to the airfield within thirty minutes.¹⁴⁵ As previously discussed, the air and ground threat from Podgorica did not correspond to increased air superiority efforts or air defense suppression for the first three weeks of SHINING HOPE operations.¹⁴⁶ It was not until 26 April, twenty-two days after the initial force presence arrived in Albania, that NATO attacked the air defense and aircraft facilities at Podgorica.

On 16 April, NATO Operations Plan 10414 for humanitarian operations went into effect.¹⁴⁷ This plan stated the mission as “on order, [Commander in Chief of NATO Forces, South] / Joint Force Commander is to deploy a NATO-led force to Albania in order to provide humanitarian assistance in support of, and in close coordination with, the UNHCR and Albanian civil and military authorities.”¹⁴⁸ NATO assumed command of SHINING HOPE the same day from U.S. Air Forces, Europe. By this point, the refugee population in Albania had increased from one-hundred-and-seventy thousand on 4 April to three-hundred-and-fifty-nine thousand on 16 April and in Macedonia from one-hundred-and-fifteen thousand to one-hundred-and-twenty-seven

¹⁴⁵ Ibid., 6. Bray summarized the threat as “we were only five minutes away by fighter [from Podgorica Airbase] and 30 minutes away by attack helicopter [from Pristina airfield]...so you could go to bed and wake up with the Serb army sitting right there at your doorstep.”

¹⁴⁶ Based on NATO operations reports from 1 April until 26 April 1999. The proximity of Podgorica is one of the primary reasons the Army’s Task Force HAWK deployed with air defense assets and the Army Tactical Missile System (ATACMS).

¹⁴⁷ It is instructive to note the NATO force that became AFOR was the ACE Mobile Force (Land) that was equipped and trained to deploy within 72 hours anywhere in Europe. However, in this case it would take the unit over one week to deploy to Albania after receiving a warning order on 5 April. See <http://www.jfcnaples.nato.int/page71975039.aspx> (accessed 4 January 2014).

¹⁴⁸ North Atlantic Treaty Organization Allied Joint Force Command Naples Headquarters, “Operation Allied Harbor Extended Information Sheet,” <http://www.jfcnaples.nato.int/page91012443.aspx> (accessed 13 Jan 2014).

thousand.¹⁴⁹ By 27 April, SHINING HOPE operations encompassed four countries and over one-thousand-and-five-hundred personnel designed to provide humanitarian relief to an estimated three-hundred-and-sixty-five thousand Kosovars in Albania and one-hundred-and-thirty-nine thousand in Macedonia.¹⁵⁰ The operations entailed a Headquarters element in Germany containing the command structure, a psychological operations battalion and a civil affairs brigade. At Tirana-Rinas over six hundred personnel coordinated the reception, storage, and distribution of relief supplies to the displaced Kosovars. The personnel were organized into an Air Expeditionary Group with elements of air traffic control, civil engineering, medical, security forces, and communications.¹⁵¹ By 21 May, SHINING HOPE possessed the capability to provide food for over six-hundred-thousand people per month and shelter for seven-hundred-and-thirty thousand people per month.¹⁵² In total, over thirteen-thousand tons of food, shelter, medical, and bedding supplies from fifty-nine countries flowed through Tirana-Rinas (including 1.1 million rations and six-thousand tents from the U.S.).¹⁵³

The efforts were complemented by continued operations of NATO strike aircraft over Kosovo. Independent of the SHINING HOPE strategy, a continual airpower presence over Kosovo did not allow Serbian forces to mass into large formations.

¹⁴⁹ At the peak of assistance, the United Nations High Commission on refugees estimated that 848,100 Kosovars were displaced from the province with 446,400 to Albania, 244,500 to Macedonia, and 69,900 to Montenegro. Of this number, 91,057 were airlifted from Macedonia to other countries. One explanation for the Serbian actions were to permanently remove the Kosovars to repopulate Kosovo with displaced Serbs from Bosnia and Croatia to ensure a Serb ethnic majority in Kosovo. See Judah, *Kosovo: War and Revenge*, 250-253.

¹⁵⁰ Kenneth Bacon, "Department of Defense News Briefing, Tuesday 28 April 1999," <http://www.defense.gov/DODCMSShare/briefingslide/279/990428-J-0000K-003.jpg> (accessed 18 December 2013). By 29 April, 473 missions had been flown comprising 16 C-5 and 20 C-141 missions primarily flying inter-theater lift from Dover AFB and Travis AFB in the U.S. to Ramstein airbase. Fifty-four C-17 missions were flown into Tirana-Rinas and Thessaloniki while 319 C-130 aircraft provided intra-theater airlift to both Tirana-Rinas and Skopje.

¹⁵¹ Kenneth Bacon, "Department of Defense News Briefing, Tuesday 27 April 1999," <http://www.defense.gov/news/briefingslide.aspx?briefingslideid=278> (accessed 18 December 2013).

¹⁵² Kenneth Bacon, "Department of Defense News Briefing, Tuesday 21 May 1999," <http://www.defense.gov/DODCMSShare/briefingslide/269/990521-J-0000K-009.jpg> (accessed 18 December 2013).

¹⁵³ By 12 May the total increased to 17,000 tons of supplies. On average, 1600 tons of supplies were being delivered daily to Skopje and Tirana-Rinas based on aggregate reporting in DoD press briefings.

Instead, Serbian forces utilized small unit tactics to threaten the referent population. The relative inefficiency of these tactics allowed a significant proportion of the referent population to safely escape to neighboring Albania and Macedonia and those that remained were able to better defend themselves from Serbian threats. Described as the “second front,” SHINING HOPE served the strategic purpose of reassuring the Kosovar referent population in Albania and Macedonia through the provision of basic food and shelter. Referent assurances were provided reactively with direct supply of assistance by international organizations facilitated and enabled by the ability of air forces to establish aerial ports and enforce standard air operating procedures. From the perspective of military strategy, however, the operation was largely an adjunct to established ALLIED FORCE operations that were able to force the Serb forces to disperse in small units that the referent population, over time, was increasingly able to counter.¹⁵⁴

Conclusion

Milošević accepted NATO demands and ceased threatening actions against the Kosovar referent for several postulated reasons. The cumulative effects of the air campaign, the destruction of the Serbian military in Kosovo, internal pressure from Serbian elites, lack of Russian diplomatic support, a possible ground force invasion, and increased strength of the Kosovo Liberation Army by late May are possible reasons for Milošević’s capitulation.¹⁵⁵ To date, there is not an official Serbian account and Milošević did not explain the decision calculus prior to his 2006 death. Three factors

¹⁵⁴ Kenneth Bacon and Major General Chuck Wald, “Department of Defense News Briefing, 7 May 1999,” Slide 7.

¹⁵⁵ For a cross-sectional representation see Ivo Daalder and Michael O’Hanlon, *Winning Ugly*, (Washington, D.C.: Brookings, 2000); Clark, *Waging Modern War*; Tim Judah, *Kosovo: War and Revenge*; Department of Defense, “Report to Congress: Kosovo/ Operation Allied Force after-Action Report” and David Johnson, *Learning Large Lessons: The Evolving Roles of Ground Power and Air Power in the Post-Cold War Era*, (Santa Monica, CA: RAND, 2007); Stephen Hosmer, *The Conflict Over Kosovo: Why Milosevic Decided to Settle When He Did*, (Santa Monica, CA: RAND, 2001).

likely swayed Milošević's decision calculus. First, the destructive effects of the air campaign against Serbian military forces and infrastructure weighed heavily on Milošević. Second, NATO cohesion to continue the air campaign caused growing opposition among the Serbian political elite towards Milošević's wartime aim to wait out the NATO alliance.¹⁵⁶ The effects of opposition were apparent on 28 April, one week after the increased focus on strategic attack, when four government ministers critical of Milošević were expelled from the Serbian government, including Deputy Prime Minister Vuk Draskovic.¹⁵⁷ Third, Russian Premier Boris Yeltsin's message to Milošević, delivered by Viktor Chernomyrdin on 1 June, stated Russia would not continue to support Serbia. Taken in total, these three reasons present a plausible explanation for Milošević's actions. Milošević ultimately believed he was isolated and increasingly susceptible to crippling air attacks with his only option being capitulation to NATO demands.¹⁵⁸

The proceeding explanation leads to several findings within the framework of this study. The first finding is lack of a human security component to the initial airpower strategy. This occurred for several reasons. First, the NATO policymakers assumed a three-day campaign would coerce Milošević to cease threatening actions against the Kosovar referent. Admiral James Ellis, the Commander of Allied Forces-South, was highly critical of this assumption and his reasons are particularly relevant. Ellis noted the assumption drove the lack of a coherent campaign plan, lack of

¹⁵⁶ Julian Tolbert, (2006), *Crony Attack Strategic Attack's Silver Bullet?* MAAS Thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL, especially pp. 15-26.

¹⁵⁷ Simic, interview by author.

¹⁵⁸ The airpower campaign and Yeltsin's decision to not support Serbia are also the most important determinants of Milošević's decisions as postulated by Finnish President Marti Ahtisaari, the European Union special envoy tasked to negotiate with Milošević in early June. See Martti Ahtisaari, *Tehtava Belgradissa [Mission in Belgrade]* (Helsinki, Finland: WSOY, 2008). This book has not been officially translated to English, however the researcher obtained a copy of an English translation created by the U.S. embassy in Helsinki for Dr. James Goldgeier, *Power and Purpose: U.S. Policy toward Russia after the Cold War*. (Brookings Institution, 2003). All references are to this unofficial translation maintained in the personal files of the researcher.

adequate component planning, and most importantly, an operations plan focused almost exclusively on airpower.¹⁵⁹ As a result, a perception arose among NATO planners that humanitarian efforts would not be required. Of the forty-four revisions to the air campaign plan, none of the plans incorporated a human security assurant component, despite the political objective. At the operational level, the assumption of a short campaign manifested itself in an undermanned and improperly organized air operations center. A lack of a strategy cell at the beginning of the conflict, limited air mobility planning experience, and less than ideal manning contributed to an airpower strategy that was not suitable, feasible, or acceptable for the political objectives.

The lesson to learn from this issue is a need to develop airpower strategy that addresses the complete political objective. A 15 April exchange before the Senate Armed Services Committee emphasizes the disconnect between the political and military objectives. Senator John McCain, when questioning Secretary of Defense Cohen and Chairman of the Joint Chiefs General Hugh Shelton, stated:

It seems to me that there continues to be a mismatch in what you describe as a military objective, which is degrade the capability of the Serbian military and Mr. Milošević and the *political mission which is to remove the Serbs from Kosovo, return the refugees, and install a peacekeeping force*. I understand the nuances as described by Secretary Cohen. I still think there is a significant mismatch there. I would be glad to hear your response to that [italics added].

General Shelton responded: "I would just say, Senator McCain, that we have a very clearly defined military objective right now with the air campaign. The air campaign is proceeding."¹⁶⁰ Only after the establishment of SHINING HOPE and the combined assurant actions between both air operations was an air

¹⁵⁹ Briefing, Allied Air Forces Southern Europe, "A View from the Top," Air Force Historical Studies Office, Washington, D.C. K323.01 v.19.

¹⁶⁰ General Hugh Shelton testimony, Senate Armed Services Committee, *U.S. Policy Regarding Kosovo and a Revised Strategic Concept for NATO*, 106th Congress, 1st Sess., 15 April 1999, 124.

strategy aligned to the political objectives. This was reinforced on 23 April with a NATO statement that not only aligned the NATO political objectives with the U.S. political objectives but also provided greater latitude for air commanders to execute air operations.

This leads to the second finding that, much like Operation PROVIDE COMFORT, the ability to revise the assumptions and unknowns throughout the campaign eventually allowed for a suitable and desirable airpower strategy. The air strategy after the 23 April NATO summit contained the air superiority, coercion of the Milošević regime, and assurant requirements identified in Chapter Four, albeit with a bifurcated command structure. A result of apprehension on the part of senior commanders about humanitarian efforts meant they were not part of a planning effort until formal request from Albania and the stand-up of Joint Task Force SHINING HOPE on 4 April. Once SHINING HOPE began operations it was assigned to U.S. Air Forces, Europe, and commanded by Major General William Hinton. The resulting chain of command paralleled that of ALLIED FORCE and created friction between the commands over allocation of mobility airlift and air refueling assets. Only the continued coordination between the CAOC and SHINING HOPE personnel at all levels prevented a misallocation of mobility resources.¹⁶¹

The third lesson learned is contemporary airpower doctrine did not provide strategists with a conceptual framework for developing an airpower strategy to achieve the human security portion of the political objective. At the outset of ALLIED FORCE planning and through execution, military doctrine was heavily biased to operations to achieve air superiority and coerce Milošević. Doctrine provided much less guidance

¹⁶¹ Tom Hobbins interview with author, 31 January 2014, Washington, D.C., transcript in personal files of author.

for other types of military missions. As late as two weeks into the air campaign, Senator Charles Robb critiqued the conduct of operations as focusing too much on the air defense mission and not enough on protection of the Kosovar referent.¹⁶² This observation is not surprising based on the preponderant focus of contemporary doctrine.

By developing an airpower strategy based initially on air superiority and coercion of the Serbian regime, the NATO alliance was unable to stop the threatening actions of the Serb forces against the Kosovar referent. However, the initial airpower strategy did accomplish a significant success in forcing Serbian forces to operate in small formations and denying the usage of conventional armor and artillery support. As a result, the Kosovar referent was capable of a greater level of resistance.

By the end of May, the Kosovo Liberation Army (KLA) was strong enough to conduct an offensive operation against the remaining Serb forces in Kosovo. Although this operation resulted in tactical defeat of the KLA, it demonstrated the Serb military was unable to effectively organize a counterattack. The effects of SHINING HOPE, combined with the ALLIED FORCE air campaign utilizing a strategy of both punishment and denial, contributed to a decreased threat from the Serb forces against the Kosovar referent. As a result, Kosovar Albanians were able to eventually return to their homes three months after being driven out by Serb forces.

Some of these lessons, such as the preponderant focus on the kinetic aspects of combat and the reactive character of the human security component, were repeated from previous human security operations. Others, such as the bifurcated command structure were unique to ALLIED FORCE. Air superiority and threat coercion were

¹⁶² Robb stated, "we've spent so much time preparing to take down their air defenses, and what have you, that we have not been concentrating on our initially announced objective, and that's to protect the Kosovars." Charles Robb quoted in Rowan Scarborough, "Military Experts See Bombing Mistakes," *Washington Times* April 7 1999, A1.

central tenets of the airpower strategy and, only later, was a referent assurance component added. While ALLIED FORCE did successfully coerce the Serbs to cease threatening actions against the Kosovars, the length of campaign and hardships endured by the referent population were unexpected at the outset. The next chapter synthesizes these findings with the findings from Operation PROVIDE COMFORT and concludes with air strategy recommendations and areas for future study.



Chapter Eight

Findings and Summary

In one moment in time, our service members will be feeding and clothing displaced refugees, providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart – conducting peacekeeping operations – and finally they will be fighting a highly lethal mid-intensity battle – all on the same day...It will be what we call the 'three block war.' In this environment, conventional doctrine and organizations may mean very little. It is an environment born of change.

- "The Three Block War: Fighting in Urban Areas," General Charles Krulak

Since the Wright Brothers first flight in 1903 airpower theorists and scholars tend to focus upon the coercive aspect of airpower. This is not surprising. Early airpower theorists such as Giulio Douhet, Hugh Trenchard, and Billy Mitchell explicitly linked airpower effects to the erosion of an enemy's national will or destruction of war-making economic capacity. Their views of airpower were developed against a backdrop of experience in World War I and appeared validated with the outcome of strategic bombing in World War II. Desires of these same airmen for an air service separate from the Army or Navy contributed to espousal of the unique coercive effects of airpower. Scholars have also used this period of airpower use for the analysis of such topics as the rhetoric and reality of operations, the rise of American airpower, and the contribution of airpower to victory in World War II.¹⁶³ Much less discussed are operations designed not to coerce but to either reassure a referent population or to deter threatening actions of a state against an indigenous population. British air policing operations in Ireland and Transjordan and U.S. operations in the Caribbean during this period have not received the same level of attention from

¹⁶³ Tami Davis Biddle, *Rhetoric and Reality in Air Warfare* (Princeton, NJ: Princeton University Press, 2002); Michael Sherry, *The Rise of American Airpower: The Creation of Armageddon* (New Haven, CT: Yale University Press, 1987); Richard Overy, *The Air War, 1939-1945* (London, UK: Penguin Books, 2009).

scholars and even less attention from contemporary airpower theorists. This is to be expected as the operations generally involved ground forces and were conducted with a much smaller air force structure than traditional warfare. For U.S. theorists such experience was not a recipe that supported desired organizational independence. For U.K. theorists, these operations were necessary to secure a continued share of the Defence budget but not sufficient for continued institutional autonomy. The pattern of focusing on coercion in war at the expense of assurances would continue in the post-World War II era.

After World War II, airpower theorists and scholars would return to coercion as the central theme of airpower. Airpower, combined with nuclear weapons, seemingly provided the ultimate coercive instrument. Airpower doctrine reflected this view and air strategies utilized during the Vietnam conflict reinforced the coercive character of airpower. Fifteen years later, “AirLand Battle” and John Warden’s systems theory of airpower would also begin with coercion as their departure point. Not surprisingly, the post-World War II period also witnessed numerous airpower missions to simultaneously deter states from conducting threatening activities while providing assurances to intra-state referent populations. The Berlin Airlift, airpower in U.N. peace enforcement actions, and operations in Iraq, the Balkans, and Libya are examples of these operations. No corresponding theory of airpower operations emerged as a result of these airpower missions. Scholars took a broader look at airpower during this period, presenting strong cases of an institutional overemphasis on coercive strategic bombing to the detriment of other missions.¹⁶⁴

¹⁶⁴ Conrad Crane, *American Airpower Strategy in Korea, 1950-1953* (Lawrence, KS: University of Kansas Press, 2000); Mark Clodfelter, *The Limits of Airpower: The American Bombing of North Vietnam* (New York, NY: The Free Press, 1989); John Andreas Olsen, *John Warden and the Renaissance of American Air Power* (Virginia: Potomac Books, Inc., 2007); Robert A. Pape, *Bombing to Win Air Power and Coercion in War* (New York: Cornell University Press., 1996).

Airpower theorists have also viewed operations other than conventional or nuclear warfare, described as small wars, military operations other than war, and low-intensity conflict, largely as aberrations to be forgotten.¹⁶⁵ These theorists failed to understand that it was not the scope or magnitude of airpower effects but rather the political objectives, and the limitations they imposed, that made these operations different. The political objectives for these types of operations emphasized protection of a sub-state referent instead of coercion of state leadership or degradation of enemy military capacity through strategic bombing or force attrition. These types of objectives are closely aligned with the concept of human security. Chapter One opened with the assertion that airpower's record through history is at best mixed in these operations. One reason for limited success is a lack of scholarship and theory addressing this type of conflict in a systemic and rigorous manner. Therefore, this study answered the research question: *How effective is airpower as an instrument to achieve human security objectives?*

With this question came several assumptions. First, human security can be defined in a manner allowing for study. As covered in Chapter Two, human security concepts permeate scholarly discussion from at least the writings of Locke and Hume. Two strands of literature evolved over time to define human security in either broad or narrow terms. The broad definition seemed so expansive as to include virtually any threat to any person. This definition allowed for broad based applicability but lacked the clarity required for research and study. The narrow definition focused on specific

¹⁶⁵ Retired Air Force Colonel and former Professor at the Air Force School of Advanced Air and Space Studies noted: "After the United States withdrew from Vietnam, bitter memories, confusion about the impact of strategic bombing on the war's end, disagreement over the very nature of the conflict, and the continuing Soviet threat made it all too easy for US airmen to push the unsettled enigma of protracted warfare into the background. Retreating to the familiar problems of strategic nuclear warfare and conventional warfare in Europe seemed much more comfortable." Dennis Drew, "Air Theory, Air Force, and Low Intensity Conflict: A Short Journey to Confusion," in *The Paths of Heaven: The Evolution of Airpower Theory*, ed. Philip Meilinger, (Maxwell AFB, AL: Air University Press, 1997), 347.

threats to an identified referent population and conceptually bounded human security but at the expense of limiting explanatory power to a subset of threats. This study is based on narrowly defining human security as deterring or coercing state controlled military forces from threatening a sub-state referent.

When a state or coalition responds to a human security threat with military forces, the narrow definition serves as a starting point for understanding political objectives. This relationship leads to the second assumption that political objectives can be defined by a human security paradigm. The underlying logic of this assumption tends to run counter to historical military thought and doctrine. Military thought tends to emphasize decisive action, battlefield victory over an adversary, and an identifiable endstate. The nineteenth century writings of Clausewitz and Mahan form the foundation for this type of thought and a direct line can be traced between their theoretical constructs and present day military doctrine and theories.¹⁶⁶ The Cold War-era “Weinberger doctrine” reinforced the relationship between clearly defined objectives, decisive victory, and the use of military force.¹⁶⁷ Defining human security narrowly in terms of a military threat to a referent population bounds the political objective to specific actions and a defined endstate, generally security from the

¹⁶⁶ Clausewitz states “we should at once distinguish between these three things, three broad objectives, which between them cover everything: the armed forces, the country, and the enemy’s will. The fighting forces must be destroyed: that is, they must be put in such a condition that they can no longer carry on the fight. Whenever we use the phrase “destruction of the enemy’s forces” this alone is what we mean. The country must be occupied; otherwise the enemy could raise fresh military forces. Yet both these things may be done and the war...cannot be considered to have ended so long as the enemy’s will has not been broken” in Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 90. Mahan’s contribution was an emphasis in decisive naval battle throughout history. See A.T. Mahan, *The Influence of Seapower Upon History* (Boston, MA: Little, Brown and Company, 1890). Colin Gray, *Defining and Achieving Decisive Victory* (Carlisle, PA: Strategic Studies Institute, 2002) provides a contemporary interpretation of decisive victory.

¹⁶⁷ Casper Weinberger, “The Uses of Military Power” (Remarks delivered by Casper Weinberger to the National Press Club, 28 November 1984). <http://www.pbs.org/wgbh/pages/frontline/shows/military/force/weinberger.html> (accessed 15 July 2013). The Weinberger doctrine listed six requirements to be met prior to the use of military force. These tests were 1) forces should be used for vital national interests; 2) with clearly defined military and political objectives but; 3) only as a last resort. The other three tests are: 1) the support of the American people; 2) continual reassessment of force size and dispositions; and 3) with the clear intention of winning.

military threat. As the case studies show, initial political objectives were open-ended, flexible, and qualitative. The resultant military actions had limited success. Once a narrow definition of human security was used, however, political objectives become clearly defined and contain the necessary guidance in terms of actions and endstates for military operations.

To answer the question of airpower's effectiveness to achieve human security objectives, this study employed a mixed-methodological approach discussed in Chapter Three. This methodology combines the benefits of a large-n universe for analysis with the small-n benefit of detail. It is particularly well-suited to provide broad analysis and nuanced detail but is an atypical approach to airpower studies.¹⁶⁸ The literature on military strategy is convincing on the uniqueness of each military operation. Clausewitz emphasizes that while the nature of war is unchanging, the character of war, or how military force is used, is unique for each case.¹⁶⁹ In *On War*, the relationship between politics and military actions accounts for this unique aspect. A more recent example is Emile Simpson's framework for operations when the line between policy and military strategy becomes blurred.¹⁷⁰ As such, small-n analysis provides a nuanced approach to determine causal linkages by delving deeply into specific cases. From a historical perspective, this nuanced approach may seem authoritative but transferring findings to other cases often falls victim to the exact reason small-n studies appear attractive—uniqueness. Douhet, Mitchell, and

¹⁶⁸ Pape, *Bombing to Win Air Power and Coercion in War*; James Corum and Wray Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University of Kansas Press, 2003) are both examples of large-n studies.

¹⁶⁹ This is one of the underlying tendrils of disagreement between Clausewitz and his contemporary Antoine Jomini.

¹⁷⁰ Emile Simpson, *War from the Ground Up: Twenty-first Century Combat as Politics* (New York, NY: Columbia University Press, 2012), especially pp. 67-90. Simpson also writes about a battlefield influenced by "politically kaleidoscopic conflict environments (p.203)" that forces the character of war "towards becoming a direct extension of political activity. (p.232)"

Trenchard fell into this trap partially by viewing airpower theory from a singular case study and not accounting for a broader universe of analysis.

To develop trends and determine factors applicable to a broad range of cases, researchers can either trade nuance for generality or develop a methodology utilizing large-n analysis to complement small-n detail. This study chose the latter option, utilizing plausibility probes for broad applicability and case studies for detail. By utilizing structured focused comparison and seven propositions for plausibility probes and case studies, this study was able to garner the benefits of both large-n and small-n methodologies while avoiding common pitfalls.

Contribution to the field of airpower strategy

This study makes three contributions to the airpower strategy field. First, this study analyzed airpower through the lens of human security and, as such, makes an explicit linkage between political objectives and airpower operations. The epigraph at the beginning of this chapter, and the analysis of the literature review in Chapter Two, identify that airpower strategists tend to focus more on coercive lethality than on airpower's effectiveness as a political instrument. This study offers one perspective in which coercion or deterrence is just one component of a larger airpower strategy to also reassure a referent population, a key component to human security. This greater perspective requires a clear linkage between airpower means and political ends. That linkage is strategy. It is especially important for human security operations in which the political objective may constrain the usage of airpower assets or require restrictive rules of engagement. This study provides a foundational approach for analyzing airpower strategy through a human security lens.

Second, this study identifies the three broad components of an airpower strategy to achieve human security objectives. Air superiority and threat deterrence/coercion have a long history within airpower strategic studies. The inclusion of referent assurance activities provides a unique and nuanced approach that has least British Royal Air Force operations in Ireland from 1919-1921 provide a basis for study and analysis. By identifying these components, the study provides a fundamental approach for further research into an important component of airpower operations.

Third, this study introduces the structured focused comparison methodology to airpower strategic studies. Whereas the field is dominated by small-n case studies, the methodology utilized in this study combines large-n and small-n analysis to glean general concepts without sacrificing detailed conceptual understanding. Because of the small-n character, study of airpower operations generally fail to identify timeless principles spanning across technological advances. Carl Builder asserted the Air Force's continued worship at the altar of technology causes airmen to wander from the path of truly understanding airpower history and its importance on developing airpower theory.¹⁷¹ The methodology utilized in this study intentionally negates technological advances to isolate strategic principles. While the character of airpower operations has surely changed over the past century, the nature of the relationship between airpower and political objectives has not. It is up to the airpower strategist to determine the components of a strategy best able to meet

¹⁷¹ Builder writes "The Air Force could be said to worship at the altar of technology. The airplane was the instrument that gave birth to independent air forces; and the airplane has, from its inception, been an expression of the miracles of technology" in Carl H. Builder, *The Army in the Strategic Planning Process: Who Shall Bell the Cat?* (Santa Monica, Calif.: RAND, 1987), 26. See also Carl Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, (Santa Monica, CA: RAND, 1994).

the political objectives. In this vein, the structured focused comparison methodology allows for comparative analysis of airpower campaigns over the past century without regard to technological developments or resorting to a focus on a small sample of airpower operations.

Critiques of this study

Before discussing findings it is important to address aspects of this study that may generate debate and critique. Defining human security in terms of a military threat to a sub-state referent is a very narrow definition not entirely consistent with the intent of human security. Rarely is there a singular threat to an individual or meso-level referent. Other variables, such as environmental security, may also plague the referent population. This is an appropriate critique that extends beyond airpower studies into the larger field of security studies. Human security will remain an elusive concept from both an academic and practical perspective. What is important from the perspective of an airpower strategist is to first understand the operational environment and the political objective airpower will achieve. Utilizing a narrow definition based on a military threat to a sub-state referent provides a promising basis for air power strategists. The definition allows the use of military means to counter a military threat while bringing to bear significant organizational capacity to reassure the referent. The definition also implicitly limits expectations placed on airpower. It is beyond the scope to expect airpower to counter a multitude of security concerns, such as food or resource insecurity, that could be better countered with a concerted government approach across departments and agencies.

The second critique is two of the three cases studies analyze an Iraqi threat against a Kurdish referent population over the course of eight years. The same U.N. Security Council resolution provided the basis for political objectives in both cases.

This critique is valid but countered by two main lines of reasoning. First, the operating environment was markedly different between the cases. For PROVIDE COMFORT, airpower was coupled with ground forces to provide time sensitive referent assurances over a relatively short ninety-day timeframe. For NORTHERN WATCH, ground power was not a part of the overall military strategy and referent assurances would last for an indefinite period. The differences translated to two very different airpower strategies and, in the case of NORTHERN WATCH, a direct linkage between the political objective and airpower strategy without an intervening military strategy. For PROVIDE COMFORT an intervening military strategy influenced the resultant airpower strategy.

Second, selecting two case studies closely spaced in time mitigates the effect of technology on strategy. As mentioned in Chapter Three and as the epigraph to this chapter states, technology tends to strongly influence airpower strategy. In both cases, similar airpower capabilities were utilized against a largely similar threat array. The same threat against the same referent population and countered by the same technology provides greater clarity to identify the causal factors affecting the development of two different airpower strategies.

A third critique is each case study contains a preponderance of U.S. airpower personnel and assets. This preponderance could cause strategy skewed towards U.S. historical practices and doctrinal procedures but is answered in two ways. First, the political objectives were developed from guidance by supra-national organizations, albeit one that also contained a significant U.S. influence. For PROVIDE COMFORT, the political objectives derived from U.N. Security Council Resolution 688, and for ALLIED FORCE, the political objectives were developed by NATO's North Atlantic Council. By utilizing the objectives developed by the supra-national organizations, the

influence of any one state is minimized. The second mitigating measure is use of plausibility probes. Because the plausibility probes represent an additional twenty-nine cases reflecting airpower from France, Britain, and the United Nations, the results, when taken as a whole, represent varied perspectives on airpower employment.

Findings

Specific analysis and findings are contained in each case study chapter. This section contains a general summary of each proposition presented in Chapter Four. This chapter then concludes with recommendations for further research. Two propositions governed the analysis of air superiority. The first proposition stated threats to air superiority are not constrained to air and missile systems but would include anti-aircraft artillery and small arms fire. This is not a minor consideration. Both Iraq and Serbia possessed advanced fighter aircraft and surface-to-air missiles and airpower strategists rightly concluded the systems posed a credible threat to airpower operations. In terms of effectively engaging coalition aircraft, however, small arms and anti-aircraft artillery were more effective than the advanced air and missile threats. At least four aircraft were hit by small arms fire during PROVIDE COMFORT and, during ALLIED FORCE, in addition to the two aircraft shot down by surface to air missiles, at least two additional aircraft were hit by anti-aircraft artillery. This diverse range of threats is not isolated to the two case studies. A Canadian aircraft was shot down by three surface-to-air missiles while participating in the 1974 United Nations Emergency Force in Syria and helicopters are routinely shot at with small arms fire during United Nations operations in Africa.

Airpower strategists developing a strategy for human security operations should remain mindful of the complete range of threats. This is especially important

given the airpower force structure traditionally used for human security operations. Transport aircraft delivering supplies and humanitarian aid, slow-moving manned and unmanned aircraft performing surveillance and reconnaissance, and helicopters are all susceptible to the full range of threats. With the exception of the two fighter aircraft shot down by missiles in ALLIED FORCE, the majority of engagements are against non-fighter aircraft operating at altitudes below ten thousand feet. Contrary to airpower doctrine, strategists must take into consideration the range of threats both capable and numerous at this operating regime.

The second air superiority proposition stated localized air superiority, measured in terms of geography or time, is a necessary condition for human security operations. This proposition was validated for both cases, albeit with a markedly different strategy. During PROVIDE COMFORT, the force structure was fairly small in part to minimize perception of violating Iraqi sovereignty and to counter possible increases to the original mandate. This small force structure drove a strategy of localized air superiority centered first on refugee camps along the Turkish-Iraqi border. With the arrival of coalition ground forces, air superiority centered on the safe areas inside Iraq and coalition forces operating outside the confines of the safe areas. Because Iraqi aircraft historically did not fly at night, air superiority was actively maintained only during the day. Air superiority aircraft remained on alert at night in the event Iraq did fly either aircraft or helicopters into the designated no-fly zones.

During ALLIED FORCE, the initial strategy was developed to gain and maintain local air superiority over Kosovo and south of the forty-fourth parallel in Serbia. This strategy was appropriate given both the referent population and the location of the primary Serbian threat. Contrary to the force structure for PROVIDE COMFORT, the one for ALLIED FORCE was much greater and could have achieved general air

superiority throughout Serbia. Air strategists, however, remained focused on local air superiority for two reasons. First, the referent population remained either in Kosovo or migrated to Albania. The majority of air operations were conducted over Kosovo, either to assist the Kosovars or to directly engage the Serbian military. Aside from attacking strategic targets in the vicinity of Belgrade, there was not a compelling need for airpower operations outside Kosovo. The Serbian air threat was centralized at three main bases: Podgorica, Pristina, and Batajanica. The first two bases were south of the forty-fourth parallel (with Pristina in Kosovo) and the third was on the outskirts of Belgrade. Air superiority missions only needed to negate the threat from these three bases. Second, the Serbian missile, anti-aircraft artillery, and small arms threat to air operations remained mobile and robust. Airpower strategists postured forces capable of suppressing Serbian air defenses in Kosovo to protect the preponderant location of airpower operations. This strategy was appropriate to maximize coalition capability and also to mitigate the Serbian threat.

The third and fourth propositions addressed the ability of airpower to influence an adversary, either through a punishment or denial strategy. Twenty-two of the twenty-eight cases contained an influence component to the airpower strategy. Of the six cases that did not contain an influence component, two did not achieve the political objectives. Operation Turquoise in Rwanda was limited by the political objectives to observe and monitor missions that did not inhibit genocide.¹⁷² Operation DENY FLIGHT over Bosnia did not achieve the political objectives of stopping Serbian backed forces from utilizing airpower to threaten ethnic Bosnians. Due to a failure of

¹⁷² See Romeo Dalliere, *Shake Hands with the Devil: The Failure of Humanity in Rwanda*, (Ottawa, Canada: Random House, 2003). Dalliere was the Military Commander for United Nations Assistance Mission for Rwanda in 1993-94.

DENY FLIGHT, Operation DELIBERATE FORCE was required in 1995 to influence Serbian backed forces to cease violence against the Bosnian referent.

The third proposition stated an airpower strategy seeking to influence a threat will utilize a denial strategy of deterrence or coercion. This proposition was validated in all three case studies. PROVIDE COMFORT and NORTHERN WATCH both utilized a strategy focused on deterring the Iraqi military from threatening the referent Kurdish population. Airpower actions were conducted to both deter Iraqi use of airpower to threaten the Kurds and deter Iraqi ground forces from attacking coalition forces. The rules of engagement precluded attacks unless the target was identified as Iraqi military and attacks were prohibited in all cases of possible civilian collateral damage. Conversely, the ALLIED FORCE strategy began as a coercive strategy to force the Serbian leadership to cease ethnic atrocities against the Kosovar referent. Strategists utilized a denial strategy to target Serbian military forces in Kosovo and in Serbia south of the forty-fourth parallel. By focusing airpower against Serbian airpower and fielded forces, strategists were seeking to impose excessive military costs on the Serb leadership. Poor weather and adroit Serb tactics effectively negated coalition airpower during the first three weeks of the campaign causing airpower strategists to augment the denial strategy with a modest punishment strategy aimed at Milošević and Serbian elites. It is important to note, in terms of force allocation, the strategy remained heavily weighted towards denial with fewer forces allocated to the punishment strategy.

Despite the dominant focus on denial, a supporting punishment strategy was still required. This does not invalidate the proposed theory but it does call into question why a denial strategy failed to achieve political objectives. As noted in Chapter Seven, the effects of the denial strategy were not significant enough to coerce

Milošević to cease threatening actions against the Kosovar referent. In addition, Milošević viewed Kosovo as a vital Serbian interest. This case, unlike any of the twenty-seven other cases analyzed, uniquely shows that a human security objective to one side may be viewed as one of national interest to the other. Airpower strategists should remain mindful of adversary motivations and realize that although a denial strategy is the preferred method of influence, a supporting punishment strategy focused on policymakers may be appropriate to achieve political objectives.

The fourth proposition stated an airpower strategy will put in place mechanisms to mitigate the possibility of conflict escalation. This proposition was validated in twenty-six of the twenty-eight cases. The two cases without identifiable mechanisms were British air policing operations in Palestine (1920) and Transjordan (1922). In both cases, airpower operated with a mandate to coerce the threats by a variety of means but typically ended with bombing missions. Several researchers note that the resultant means utilized by the British during these operations, although achieving the stated political objectives, contributed to continued long-term unrest within the territories.¹⁷³ Despite these two cases, the predominant means for managing conflict escalation were either obtaining an international mandate, operating with strict rules of engagement or close oversight of airpower operations by policymakers and senior military officers.

Of the twenty-eight cases, three occurred prior to World War II and none possessed an international mandate. After World War II, however, nineteen of the twenty-five cases possessed an international mandate. This is best explained by the advent of supra-national organizations such as the United Nations (U.N.) and the

¹⁷³ See for example James Corum and Wray Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists*, (Lawrence, KS: University of Kansas Press, 2003), pp. 51-93 and David Omissi, *Air Power and Colonial Control*, (Manchester, UK: Manchester University Press, 1990), 162-176.

North Atlantic Treaty Organization (NATO). An additional explanation is increased state willingness to authorize military action under Chapter VII of the U.N. charter or one of the Articles in the NATO treaty. As discussed in Chapter Two, there is a clear linkage between United Nations mandates and human security. Resolutions passed under either Chapter VI or Chapter VII that authorize military force typically contain verbiage providing for the security and protection of a referent population.¹⁷⁴ Because NATO is a military alliance, the linkage between an international mandate and managing conflict escalation is based on a different rationale. For Operation DELIBERATE FORCE and ALLIED FORCE, policymakers and senior military officers exercised close oversight of the target approval process. Although ALLIED FORCE predominantly utilized a denial strategy, it was one of two cases that also contained elements of a punishment strategy for influence. The Berlin Airlift utilized B-29s stationed in England, potentially armed with atomic weapons, and the threat of nuclear war to influence the Soviet Union to allow the airlift to continue. Policymakers limited the conflict by only deploying conventional weapon capable B-29s and also closely monitoring daily air missions.¹⁷⁵

The fifth and sixth propositions addressed the ability of airpower to assure a referent population. Twenty-three of the twenty-eight cases contained an assurant

¹⁷⁴ For example, Security Council Resolution 1545 authorizing operations in Burundi stated “to contribute to the creation of the necessary security conditions for the provision of humanitarian assistance, and facilitate the voluntary return of refugees and internally displaced persons.” Security Council Resolution 1270 authorizing operations in Sierra Leone stated “Acting under Chapter VII of the Charter of the United Nations, decides that in the discharge of its mandate UNAMSIL may take the necessary action to ensure the security and freedom of movement of its personnel and, within its capabilities and areas of deployment, to afford protection to civilians under imminent threat of physical violence.” Security Council Resolution 1973 authorized operations in Libya. This resolution stated “Authorizes Member States that have notified the Secretary-General, acting nationally or through regional organizations or arrangements, and acting in cooperation with the Secretary-General, to take all necessary measures, notwithstanding paragraph 9 of resolution 1970 (2011), to protect civilians and civilian populated areas under threat of attack in the Libyan Arab Jamahiriya.” All resolutions retrieved from “United Nations Security Council Resolutions Archive,” http://www.un.org/docs/sc/unsc_resolutions (accessed 24 April 2014).

¹⁷⁵ Roger Miller, *To Save a City: The Berlin Airlift, 1948-1949*, (Washington DC: Government Printing Office, 1998), 23-25.

component to the airpower strategy. Of the five cases that did not contain an assurant component, two did not achieve the political objectives. Similar to the discussion on influence, the two cases were Operation DENY FLIGHT and Operation TURQUOISE in Rwanda. The airpower strategy for DENY FLIGHT was based on Security Council Resolutions 781 and 816 but almost exclusively involved NATO aircraft. At the same time, the United Nations Protection Force was conducting operations within Bosnia but with limited airpower integration. In effect, NATO provided for and commanded the air strategy while the ground forces were placed under a United Nations command. This bifurcation of command would cause a large wall to be developed between the air component, which viewed its mission and strategy as no-fly zone enforcement, and the ground component, which viewed its mission as focused almost exclusively on monitoring security.¹⁷⁶ This bifurcation of command would be repeated during the opening stages of ALLIED FORCE and UNIFIED PROTECTOR, but remedied quickly enough to allow airpower to provide assurant actions.

The lack of assurances during Rwanda operations arose for much the same reason. Operation Turquoise was hampered with conflicting political mandates and a bifurcated command structure divided between the authorizations of United Nations Assistance Mission in Rwanda (UNAMIR) I and UNAMIR II. The conflicting mandates led to confusion of how best to assure the referent population and to the command structure amongst various units. As a result of the complex command relations and conflicting political mandate, the airpower strategy was unable to assure the referent

¹⁷⁶ On the bifurcated command structure and the resultant impact on air strategy, see Mark Bucknam, *Responsibility of Command: How UN and NATO Commanders Influenced Airpower over Bosnia*, (Maxwell AFB, AL: Air University Press, 2003), especially pp. 47-50.

population in a timely manner. Despite these two cases of failure, the remaining twenty-six cases validated the fifth and sixth propositions.

The fifth proposition stated an airpower strategy seeking to assure a referent population will demonstrate credible commitment by conducting actions tailored to the security requirements of the referent population. This proposition was validated in twenty-six cases but with varying effect based on the different needs of the referent. For PROVIDE COMFORT and NORTHERN WATCH airpower assurances needed to counter the referent population's historical concern with Iraqi airpower. Helicopters and ground attack aircraft provided an asymmetric advantage the Kurdish referent could not counter. Conversely, the airpower strategy for ALLIED FORCE needed to assure the Kosovar referent that the Serbian army would no longer pose a threat. In these cases, the airpower strategy was just one component of a broader assurance effort. Diplomatic messaging stated resolve and commitment. For PROVIDE COMFORT, the messaging originated with the United Nations, France, Great Britain, and the U.S. NORTHERN WATCH continued similar diplomatic messaging themes until the political objective shifted from providing security to the referent to coercing the Hussein regime to adhere to the U.N. inspection regime. For ALLIED FORCE, the messaging was predominantly from NATO and the U.S. In all three cases, diplomatic messaging was focused to the referent population but of little consolation unless actions backed up words.

The airpower strategies augmented diplomatic messaging by providing a visible and consistent presence to the referent population. During PROVIDE COMFORT, the airpower strategy explicitly ensured airpower's effects were credible by airdropping humanitarian aid and providing a visible presence. During ALLIED FORCE, the airpower strategy initially focused on providing assurances by maintaining a visible

presence and attacking the source of threat. Only later in the campaign did assurances include direct delivery of humanitarian aid. While the strategy to assure was different in each case, both strategies complemented and supported diplomatic messaging.

Another component of assurance was psychological operations conducted through a variety of means. Although the majority of documents related to these operations remains classified, the use of radio broadcasts and air-dropped leaflets mitigated language barriers and provided a greater reach to the referent populations. In both cases leaflets were delivered by aerial means. As the complete scope of psychological operations becomes unclassified, further research is warranted to fully understand the assurant effect on the referent population.

The sixth proposition stated an airpower strategy will identify, utilize, and coordinate airpower resources to demonstrate resolve to the referent population. This proposition was validated in twenty-three of twenty-eight case studies. The single most important factor in identifying airpower resources to demonstrate resolve was the early and focused use of surveillance and reconnaissance aircraft. Developing effective intelligence collection programs allowed airpower strategists to efficiently allocate airpower resources. Operation PROVIDE COMFORT demonstrated the difference in airpower utilization with and without intelligence resources. Similar lessons were learned during United Nations operations in the Congo, Burundi, and Sierra Leone.

Effective coordination of airpower resources generally required a unified command and control structure. Bifurcated command structures negatively impacted Operations DENY FLIGHT, ALLIED FORCE, and TURQUOISE. Conversely, the unified command structures evident in cases such as PROVIDE COMFORT, SOUTHERN WATCH and British air policing operations provided effective guidance for allocation of

airpower resources. The British air policing operations and PROVIDE COMFORT are instructive because the unified command structure over both air and ground units allowed unity of effort and a military strategy able to effectively demonstrate resolve to the referent population.

The seventh proposition stated an airpower strategy will be refined based on consistent review of the threat, referent population, and operating environment. This proposition was validated in twenty-six of twenty-eight cases. The two cases in which the strategy was not refined was Operation NORTHERN WATCH and Operation DELIBERATE FORCE. As discussed in Chapter Six, the strategy of NORTHERN WATCH was a continuation of PROVIDE COMFORT II. The operating environment had changed based on internecine fighting between the two dominant Iraqi Kurdish groups, Turkish military activities towards a third Kurdish group, and increased Iraqi threats to coalition aircraft. Nevertheless, the airpower strategy served as a continuation of PROVIDE COMFORT II by focusing on air superiority and deterrence of Iraqi threats by conducting no-fly zone enforcement with limited assurances to the referent population. Conversely, the strategy for DELIBERATE FORCE was not significantly refined as it is an example of successfully developing an airpower strategy to achieve human security objectives over a short timeframe.¹⁷⁷

PROVIDE COMFORT provides an example of airpower strategy refinement as a result of evolving requirements for the referent population. Initially utilizing a strategy of airdropping supplies to a referent population ensconced in mountainous terrain, the strategy did not contain air superiority or deterrent components. With an increased understanding of the referent population and revised political objectives, the air strategy was modified to provide appropriate supplies to the referent population while

¹⁷⁷ See Christopher Campbell, "The Deliberate Force Air Campaign Plan," in *Deliberate Force: A Case Study in Effective Air Campaigning*, ed. Robert Owen, (Maxwell AFB, AL: Air University Press, 2000), 87-130.

also incorporating air superiority and deterrent components to the strategy. The revised airpower strategy led to achievement of the political objective.

ALLIED FORCE in 1999 and operations in the Congo from 1960-1964 also provide examples of effectively modifying the airpower strategy. ALLIED FORCE was initially plagued by optimistic assessments of Serbian response to airpower, poor weather, and a Serbian offensive to drive the referent population out of Kosovo. The combination of these factors led to a rapid reevaluation of the airpower strategy. The initial strategy utilized a denial strategy of influence and did not contain an assurant component. Based on the threat state actions and the poor weather, the air strategy was modified to include assurant actions as part of Joint Task Force SHINING HOPE and a punishment component augmented the denial strategy. Similarly, operations in the Congo were reevaluated after several cargo aircraft received battle damage from anti-aircraft artillery. The initial airpower strategy did not contain an air superiority component but, after the cargo planes were damaged fighter escort and armed overwatch missions were incorporated into the airpower strategy.

A Predictive Human Security Airpower Strategy

Sometime in the near future, policymakers will utilize airpower for human security political objectives. Operations in the Balkans, Iraq, Libya, and the Caribbean are testament to the possibility of policymakers viewing airpower as the preferred military means to achieve a political objective. Based on the findings of this study, the airpower strategy will be composed of three interrelated missions: air superiority, deterrence or coercion of an adversary, and assurances to a referent population. The adversary will be a rogue state utilizing military forces, primarily ground forces and rotary-wing aircraft, to threaten a sub-state referent population. The military threat to airpower will comprise ground based air defense missiles, anti-

aircraft artillery, and small arms. It is possible fixed-wing aircraft may also threaten airpower. The airpower strategy will first seek to achieve local air superiority over the referent population and any ground forces supporting airpower. To achieve air superiority, the force structure will include suppression of enemy air defense assets. Single mission air superiority aircraft, such as the F-15C or Eurofighter, will only be required if fixed-wing aircraft are part of the adversary threat. Rules of engagement will limit aircraft to operating at altitudes reducing the threat from anti-aircraft artillery and small arms.

The strategy will also seek to assure the referent population. Surveillance and reconnaissance aircraft will first determine the location of the referent as well as any possible threats. Once referent requirements are determined, the airpower strategy will be tailored to provide assurances. Possible assurant activities include delivering humanitarian aid and supplies, as in the Berlin Airlift and operations in Congo, conducting psychological operations, such as in Operation URGENT FURY and PROVIDE COMFORT, or conducting low altitude shows of presence. If friendly ground forces are part of the military strategy, the most effective assurant action may be transporting ground forces to referent population locations. If possible, the force structure should include rotary-wing aircraft to provide direct assurances to the referent. In this case, airpower command and control will require close coordination of fixed- and rotary-wing aircraft actions and deconfliction of routes of flight, timing of operations and areas of operation. As evidenced by Operation PROVIDE COMFORT II, command and control integration between fixed- and rotary-wing aircraft must be thoroughly developed and responsive to mission requirements.

The third component will be a denial strategy of deterrence or coercion. Rules of engagement will authorize weapons employment on military targets and only if

civilian collateral damage is mitigated. If the airpower strategy is part of a multi-national operation or receives the political mandate from a supra-national organization, a denial strategy may be the only approved strategy. A punishment strategy may be utilized but it will be in reaction to the adversary's level of resistance. In general, the airpower strategist should be prepared to gradually shift as necessary from a denial to a punishment strategy only as a contingency and only after a shift in political objectives. Any influence strategy, either denial or punishment, will be closely scrutinized by policymakers and senior military officers, similar to Operations DELIBERATE FORCE and ALLIED force.

The final component of the airpower strategy will be the ability to reevaluate and refine the airpower strategy as the operating environment and adversary tactics change. An inability to optimize the airpower strategy can result in the inability to achieve political objectives. Operation DENY FLIGHT in Bosnia and Operation TURQUISE in Rwanda demonstrate the requirement to review and refine the strategy as events unfold. Typically, the air superiority component of strategy will remain relatively consistent, but referent assurances can rapidly change depending on factors such as weather, adversary actions, and political objectives. The influence component of strategy may change during the course of an air campaign, but changes to the air strategy will generally result only from a change in political objectives authorizing a shift from a denial to a punishment strategy. Of the twenty-eight cases, only the Berlin Airlift was based upon a punishment strategy but it is debatable whether the threat of punishment was credible.¹⁷⁸

¹⁷⁸ As discussed earlier in the chapter, the B-29s stationed in Europe were not nuclear capable. It is not clear whether Soviet leadership were deterred by the nuclear threat or if they knew the B-29s were not nuclear capable. See Miller, *To Save a City: The Berlin Airlift, 1948-1949*, 25.

Further Research

Chapter Two identified threats could originate from either a state or non-state actor and this study focused exclusively on state military threats. A significant body of literature exists on deterring or coercing a non-state actor, predominantly related to terrorism.¹⁷⁹ The body of literature analyzing airpower strategy against non-state actors is considerably smaller and tends to focus on supporting ground operations.¹⁸⁰ This study provides a research design and methodology that could be used to analyze how airpower can deter or coerce a non-state actor. With the increased use of remotely piloted vehicles for counter-terrorism and intelligence gathering, this type of analysis would provide useful for future operations as well as providing an academic foundation for policy recommendations.

A second area for further research is the effect of coalition operations on developing airpower strategy for human security. The plausibility probes and case studies identify that one nation, usually the United States, United Kingdom, or France, provides a majority of airpower assets. As a result, that country could dominate the development of airpower strategy. These operations, however, also contained coalition partners. NATO operations in Libya and the Balkans, as well as tsunami relief operations in Indonesia and Japan illustrate the diverse nature of multi-national air operations. Additionally, United Nations Chapter VI and VII operations tend to contain a diverse force structure based on member nation contributions. The research design from this study could be useful in analyzing the

¹⁷⁹ See for example, "Deterring Terrorism: Theory and Practice," ed. Andreas Wenger and Alex Wilner, (Palo Alto, CA: Stanford University Press, 2012); *Understanding the Role of Deterrence in Counterterrorism Security*, Andrew Morral and Brian Jackson, (Santa Monica, CA: RAND, 2009); Jeffrey Knopf, "The Fourth Wave in Deterrence Research," *Contemporary Security Policy*, 31:1 (2010), 1-33.

¹⁸⁰ This body of literature is composed primarily of thesis and monologues from Air University and the School of Advanced Air and Space Studies. A forthcoming book helps to advance the literature base on airpower in peacekeeping operations. See Walter Dorn, *Airpower in U.N. Operations: Wings for Peace*, (Burlington, VT: Ashgate, 2014)

use of coalition airpower in diverse operations and also United Nations Chapter VI and VII operations.

This study focused on strategy development and execution in terms of air superiority, threat deterrence/coercion, and referent assurance. An additional finding is the importance of developing a flexible airspace management system and well-defined command and control relationships between the air component commander and other military and civilian authorities. These relations are well-researched and codified in doctrine based on wartime experience.¹⁸¹ Further study is warranted based on the unique characteristics of airspace control between fixed-wing and rotary-wing aircraft as well as integration with non-governmental organizations. Because of the paucity of studies in this field, a threat need not be present to effectively analyze either airspace management or command and control. Representative case studies could include the 2005 Hurricane Katrina relief effort and 2011 Japanese tsunami relief effort.¹⁸²

Conclusion

Since the 1783 Treaty of Paris ended the Revolutionary War, U.S. policymakers have committed military means to protect state sovereignty and vital interests. While the first priority of any military should be to win wars and protect the nation, today's policymakers are increasingly viewing the military as not only the state's warfighters but also its problem solvers. This perception is due to the military's ability to organize, train, equip, and employ significant resources. Since 1990, policymakers

¹⁸¹ See Michael Kometer, *Command in Air War: Centralized versus Decentralized Control of Combat Airpower*, (Maxwell Air Force Base, AL: Air University Press, 2007). Kometer analyzes command and control during Operations DESERT STORM, ALLIED FORCE, ENDURING FREEDOM and IRAQI FREEDOM.

¹⁸² To date, First Air Force has not provided an unclassified after action review of command and control lessons learned from Hurricane Katrina. The best source for Air Force actions during Katrina is Daniel Haulman, "The U.S. Air Force Response to Hurricane Katrina," 17 Nov 2006. <http://www.afhra.af.mil/shared/media/document/AFD-070912-046.pdf> (accessed 20 March 2014). This report focuses on search and rescue and medical operations.

have utilized the military for missions as diverse as humanitarian assistance in Central America, disaster relief in Asia, and human rights protection in Africa and the Middle East. Despite a general reluctance by senior military advisors to utilize finite resources for operations other than state defense, the current security environment portends a future requiring increased use of military forces for a wide range of operations.

Perhaps the most important finding of this study is winning battles does not always define military victory nor do military operations end after the last battlefield victory. This conclusion may seem obvious in the wake of current operations in Iraq and Afghanistan, but the U.S. military keeps relearning this same lesson after war in places as diverse as Mexico City, Manila, and Saigon, as well as after Grant's victory at Appomattox and the Union Army's subsequent role in reconstructing the southern states. Because the military is rightly subordinated to political masters, it is imperative for military leaders and commanders to look beyond the longstanding paradigm of military action defined in terms of battlefield operations. In each case study, military leadership did not recommend utilizing military forces to achieve political objectives. According to senior military leaders, ALLIED FORCE would detract from readiness for two major regional wars while PROVIDE COMFORT lacked well-defined political objectives. As long as the military is asked to accomplish political objectives defined in a human security paradigm, military strategists must understand that the desired political end state may not equate to battlefield victory.

An underlying principle of this study is the dissolution of the Soviet Union presaged U.S. policymakers viewing the use of military force to achieve political objectives as increasingly attractive. Political objectives will rarely be as synonymous with military action as President George H.W. Bush's direction to General H. Norman

Schwarzkopf after the Iraqi invasion of Kuwait.¹⁸³ Removing an adversary's military from contested territory is the type of political objective military forces train to and are very capable of performing. Since the successful expulsion of Iraq from Kuwait, however, policy makers increasingly utilize airpower to achieve human security objectives. One month after evicting Iraq from Kuwait, President Bush authorized Operation PROVIDE COMFORT. President Clinton authorized airpower for human security operations in Somalia, Bosnia, and Kosovo and President Obama authorized airpower operations for human security in Libya. If these cases serve as an example of the future of military force employment, then it is incumbent for airpower strategists to develop strategy with an eye towards the human security context of political objectives.

With the rise of the U.S. as a global superpower after World War II, Bernard Brodie penned the following advice for all strategists:

The strategist of the American armed forces has often in the past stressed the difficulty of his problems as compared with his opposite number of European military establishments. The latter has always been much less in doubt concerning the identity of the probable adversary and the probable theater of operations... *It is all the more necessary, therefore, that we develop a conceptual framework adequate not only as a base of departure for specific strategic plans, but also as a means of weighing one plan against another* [Italics added].¹⁸⁴

The theory developed and tested in this study is not a panacea for airpower strategists. It does, however, provide greater explanatory power than previous theories over a greater range of airpower operations. Douhet, Trenchard, Mitchell, and Warden developed airpower theories of airpower operations for large-scale state on state warfare but lack explanatory power for

¹⁸³ See George Bush and Brent Scowcroft, *A World Transformed* (New York, NY: Alfred Knopf, 1998) and Norman Schwarzkopf, *It Doesn't Take a Hero* (New York, NY: Bantam Books, 1992).

¹⁸⁴ Bernard Brodie, "Strategy as Science," *World Politics* 1 no. 4 (1949), 474.

other types of airpower operations. As a result, a void exists in the current body of airpower theory. By focusing on air superiority, deterrence or coercion against a threat, and providing referent assurances, the airpower theory in this study fills the void and provides a promising framework for developing airpower strategy for human security political objectives.



APPENDIX A- PLAUSIBILITY PROBES

	Case	Air Superiority		Influence		Assurances	
		General	Local	Punishment	Denial	Yes	No
1	Air Policing in Ireland		X		X	X	
2	Air Policing in Transjordan		X	**	**		X
3	Air Policing in Palestine		X		X	X	
4	Zaire Operations, 1978	**	**		X	X	
5	Mauritania Operations		X		X		X
6	Operation Turquoise in Rwanda	**	**	**	**		X
7	Operation Artemis in Congo		X		X	X	
8	UNITAF in Somalia		X		X	X	
9	UNAMSIL in Sierra Leone	**	**	**	**	X	
10	ONUB in Burundi	**	**		X	X	
11	MONUC in Congo		X		X	X	
12	Berlin Airlift		X	X		X	
13	Crisis in the Congo		X	**	**	X	
14	Dominican Crisis	X			X	X	
15	Vietnam Evacuation		X	**	**	X	
16	Mayaguez Incident		X		X	X	
17	Operation URGENT FURY	X			X	X	
18	Operation ALLIED FORCE		X	X	X	X	
19	Operation PROVIDE COMFORT		X		X	X	
20	Operation PROVIDE COMFORT II		X		X	X	
21	Operation SOUTHERN WATCH		X		X	X	
22	Operation PROVIDE PROMISE		X	**	**	X	
23	Operation DENY FLIGHT	**	**	**	**		X
24	Operation DELIBERATE FORCE		X		X		X
25	Operation DELIBERATE GUARD	X			X	X	
26	Operation UNIFIED PROTECTOR		X		X	X	
27	Operation NORTHERN WATCH	X			X	X	
28	Operation JOINT GUARD/FORGE	X			X	X	
	Total Instances	5	18	2	20	23	5
		Five cases with no air superiority component.		Seven cases with no Influence component. One case with both punishment and denial.		All cases contained an assurant component	
** Denotes the component was not part of the airpower strategy.							

Table A-1: Plausibility Probe Summary

Source: Developed by author

Air Policing in Ireland, 1919-21

Airpower State:	United Kingdom	Air Superiority:	Yes	Local
Threat State:	Irish Republic	Deterrence/Coercion:	Yes	Denial
Referent:	British Citizens	Assurances:	Yes	
Air defense Threats: Small Arms, Pistols				

The aftermath of World War I gave rise to several counter-government organizations in the United Kingdom, to include the Irish Republican Army (IRA). The Irish Republic was unilaterally declared via armed insurrection during the Easter Rising of 1916. The stated intent of the insurrection was to end British rule in Ireland and establish an independent Irish Republic. The IRA conducted a guerilla warfare campaign during the 1919-21 Irish War of Independence. The British strategy utilized the Royal Air Force (RAF), British Army, and the Royal Irish Constabulary in a combined arms counterinsurgent campaign focused in the urban areas of Dublin. The RAF stationed two squadrons in Ireland and implemented a strategy focused on deterring the IRA from large scale massing while providing a visible presence to the British referent living in Ireland. Because the IRA did not possess aircraft, traditional air superiority was not part of the strategy, however pilots flew above the range of pistol and rifle fire. The strategy also identified a need to protect ground forces. Tactically, assurances were provided by maintaining a secure mode of communication between dispersed units, accomplishing overwatch of armed convoys, and conducting surveillance and reconnaissance of known and suspected guerilla encampments. Assurances towards the referent were accomplished through leaflet drops to provide information on known insurgents. Aircraft also delivered mail, newspapers, and other communication for British citizens. Deterrent actions comprised maintaining a visible presence, conducting area surveillance and collecting/ disseminating intelligence against the IRA.

The initial commander of the British forces, Lord French, asked to arm aircraft with bombs and projectiles; however the requests were repeatedly denied by political authorities. French's successor, General Neville Macready, also asked for authority to use aircraft in an attack role was rebuffed by Air Marshal Trenchard. Trenchard believed bombing the IRA would prove counterproductive to the political objectives. In total, airpower provided a limited deterrent capability, through ISR, but the primary benefit was in assurance to the referent population.

Air policing in Palestine, 1920-21

Airpower State:	Great Britain	Air Superiority:	Yes	Local
Threat State:	Bedouin Tribes	Deterrence/Coercion:	Yes	Denial
Referent:	Jewish Settlers	Assurances:	Yes	
Air defense Threats: Small arms				

After World War I, Great Britain's Occupied Enemy Territories Administration assumed supervision for military operations in Palestine. Continued Jewish immigration inflamed tensions between Bedouin nomads and the settlers. The political objective was limited to protecting the Jewish immigrants at minimum risk and cost. Operating in conjunction with three battalions of Royal Army personnel and a local gendarmie, the air contribution consisted of from one to three squadrons of D.H. 9 aircraft. Despite the lack of an air threat, the air strategy focused on maintaining local air superiority and deterrence in the vicinity of Jerusalem and Jaffa, particularly after the 1921 Jaffa riots. The airpower strategy consisted of three lines of effort altogether different than contemporary operations in Iraq, the Northwest Frontier, and Transjordan. The first line was deterrence of Bedouin attacks by presence and mobility of military and gendarmie units. Aside from the 1921 Jaffa riots, Bedouin tribes ceased large scale threatening actions against the Jewish

immigrants until the 1929. Several bombing missions were accomplished at Pitah Tiqva, Kfar Saba, and Rehovot but were preceded by leaflets providing advance warning to the tribes. The second line of effort was reassurance accomplished by visible presence missions, convoy escort, and reconnaissance and surveillance of Bedouin tribal movements. The third line of effort was transport of Army personnel from the Palestine area of operations to Iraq, Egypt, and Transjordan. The air strategy can be considered effective at deterring the Bedouin tribes and reassuring Jewish immigrants. By 1929, budgetary constraints forced the U.K. to allocate airpower away from Palestine and to Iraq and Afghanistan/India.

Air policing in Transjordan, 1922-24

Airpower State:	Great Britain	Air Superiority:	Yes	Local
Threat State:	Arab Bedouins	Deterrence/Coercion:	Yes	
Referent:	Jewish settlers	Assurances:	No	
Air defense Threats: Small Arms				

After World War I, Great Britain was given the mandate to Transjordan by the League of Nations. Viewed as a tertiary theater to Egypt and Iraq, Transjordan did not receive the same level of forces as the other theaters nor the air policing actions in Palestine in the preceding years. The political objective was to protect Jewish immigrants from the semi-organized Bedouin tribes. The air strategy was constrained by limited forces and political divisiveness within the Royal Air Force on the efficacy of air policing. Since the Bedouin tribes did not possess a credible air threat, air superiority consisted of flying beyond the range of small arms. Deterrence of Bedouin attacks was conducted by periodic bombing raids and conducting leaflet drops on suspected tribal enclaves. Although assuring the Jewish referent was not a part of the air strategy, reconnaissance and surveillance missions against Bedouin tribes in

conjunction with overflight of Jewish settlements provided a necessary assurant function to continue Jewish immigration to Transjordan.

Zaire Operations, 1978

Airpower State:	France/ Belgium/U.S.	Air Superiority:	No	
Threat State:	Cuban trained and Zambia supported FNLC	Deterrence/Coercion:	Yes	
Referent:	2,500 European expatriates in Kolwezi	Assurances:	Yes	
Air defense Threats: Small arms, shoulder launched missiles.				

Operating from neighboring Zambia, the Front for the Liberation of the Congo (FNLC) invaded Zaire on 13 May with an objective to capture the mining town of Kolwezi. A proximate objective was control of the Kolwezi airfield and destruction of the aircraft on the field. A total of five to seven Macchi ground attack aircraft, two to four Cessna 310s and two helicopters were destroyed. The capture and destruction of the airfield would significantly affect the subsequent airpower strategy. Zaire armed forces twice attempted a paradrop of forces on 16 May but were quickly defeated by the FNLC. The Federal Air Force of Zaire possessed Mirage aircraft that were unable to effectively counter the rebels, however did make a symbolic attack in the vicinity of the airfield.

The airpower strategy relied primarily on surveillance and reconnaissance to determine the FNLC personnel disposition and location. The French would utilize four Zaire C-130s and four French C-160s to transport commandos while the Belgians would use eight C-130s. Although Mirage Close Air Support was requested, it was unavailable due to ammunition shortages. A French C-160 provided airborne command and control for the French forces while the Dutch forces received command

and control from an Alouette helicopter. Belgians would execute an assault landing using C-130s. Because the FNLC did not possess credible air threats, air superiority was not part of either the Belgian or French air strategy. Aircraft did fly above the range of small arms fire. Assurances were conducted by evacuating approximately five thousand expatriates while sixty were massacred prior to evacuation. In total, the Belgians flew 32 C-130 missions from Belgium to Zaire and 426 local missions. In addition to the five Zaire C-130s and five French C-160s, France required twenty C-141s and a C-5 to transport and sustain the paratroopers. The U.S. Air Force transported nine hundred thirty-one tons of cargo and one hundred twenty-four personnel. The political objectives were achieved on 20 May.

Mauritania Operations, 1978-79 (Operation Lamentin)

Airpower State:	France	Air Superiority:	Yes	Local
Threat State:	Algerian and Libyan backed Polisario	Deterrence/Coercion:	Yes	Denial
Referent:	French citizens	Assurances:	No	
Air defense Threats: Man-portable air defense missiles, small arms.				

In 1978 the Moroccan government requested French assistance against Algerian and Libyan backed forces threatening Moroccan citizens and French expatriates. The French government agreed to assist and established a two political objectives. The first was protection of French citizens in Mauritania from the Algerian and Libyan backed Polisario movement, to include French miners at the Zourete iron mines. The second objective was to significantly degrade the Polisario ability to conduct operations against Mauritanian economic centers. Ten French Air Force Jaguars were deployed to Mauritania and French Navy "Atlantic" maritime patrol aircraft acted as a command and control element. France's commitment limited

Algerian and Libyan air involvement however the air strategy focused primarily on air superiority and coercion of the Polisario with a lesser weight of effort to assuring the French referent. Air Superiority was conducted by Jaguars to counter possible Algerian and Libyan MiG air superiority fighters. Coercion initially comprised reconnaissance and surveillance mission with kinetic operations against the Polisario. Major strikes on 13 and 18 December 1977 and 3 May 1978 left the Polisario military largely ineffective and led to negotiations between the Polisario and Mauritanian government. Assurances were not a significant part of the airpower strategy, left instead to ground forces. Although French expatriates were secured, the political objectives were not achieved prior to a military coup against the Mauritanian government.

Operation Turquoise in Rwanda, 1994

Airpower State:	France	Air Superiority:	No	
Threat State:	Rwanda	Deterrence/Coercion:	No	
Referent:	Tutsi	Assurances:	No	
Air defense Threats: Small Arms				

The political objective of Operation Turquoise was to contribute to the security and protection of displaced persons and civilians in Rwanda. The Operation received legitimacy from U.N. Security Council Resolution 929 which authorized the operation with Chapter Seven authorities. The airpower contingent comprised Eight Mirage fighters, four Jaguar fighter-bombers, ten helicopters, and reconnaissance aircraft. As the Rwandan government did not possess air defense assets, air superiority was not a part of the airpower strategy, however helicopter pilots avoided the small arms of Hutu rebels based on visual acquisition. Operation Turquoise was hampered with conflicting political mandates and a bifurcated command structure divided between

the authorizations of United Nations Assistance Mission in Rwanda (UNAMIR) I and UNAMIR II. The conflicting mandates led to confusion of how best to assure the referent population. As a result of the delayed response, complex command relations, and conflicting political mandate, the airpower strategy was unable to either coerce cessation of genocide or to assure the referent. The major contributions of airpower was helicopter delivery of food and medicine to rural areas and limited intelligence and reconnaissance operations.

Operation Artemis in Congo, 2003

Airpower State:	France	Air Superiority:	Yes	Local
Threat State:	Congolese and Rwandan backed forces	Deterrence/Coercion:	Yes	Denial
Referent:	Bunia Population	Assurances:	Yes	
Air defense Threats: Small arms and man-portable air defense missiles.				

Operation Artemis was a European Union led intervention in the Democratic Republic of Congo authorized by U.N. Security Council Resolution 1484. Acting under Chapter VII authorities, the political objective was to provide security in Bunia, Congo and protect the civilian population from various forces backed by governments of the Congo and Rwanda. France provided the preponderance of military forces and airpower assets in conjunction with the ground-based International Emergency Multinational Force (IEMF). French Air Force units deployed to air bases at Ndjamena, Chad and Entebbe, Uganda. Air superiority was not a major effort due to the lack of an air threat, however French Mirage aircraft were equipped with air-air ordinance and rules of engagement were in place in the event Congolese or Rwandan aircraft threatened the referent population in Bunia. The French Air Force also provided limited airspace command and control to monitor aircraft within the region.

Instead, the airpower strategy focused on integration with IEMF to deter the threat posed by Congolese and Rwandan backed forces. Deterrence was accomplished by visible presence of aircraft and Close Air Support missions in conjunction with French and Swedish Special Forces. Rules of engagement limited targets to military forces demonstrating hostile intent to the referent population within a ten kilometer weapons-free zone around Bunia. In addition, reconnaissance missions gathered data on trans-border weapons shipments that were interdicted by IEMF ground forces. Assurances of the referent population were accomplished primarily by humanitarian aid. German aircraft transported three hundred tons of aid to the Bunia referent and other European Union aircraft transported an additional two thousand seven hundred tons of aid. At the conclusion of the operations, sixty thousand refugees returned to the Bunia region and the Rwanda and Congolese backed security threats were deterred from conducting further actions against the referent population.

United Nations Unified Task Force (UNITAF), Somalia. 1992-93

Airpower State:	U.S.	Air Superiority:	X	Local
Threat State:	Somalia, United Somali Congress	Deterrence/Coercion:	X	Denial
Referent:	Somalia populace	Assurances:	Yes	
Air defense Threats: Small arms, man portable air defense missiles.				

UNITAF was established on 5 December 1992 based on a mandate from U.N. Security Council Resolutions 794 and 837. Passed with Chapter VII authority, the political objective was to secure major air and sea ports, key food distribution points, and free passage of relief supplies. Although a U.N. operation, the U.S. provided a preponderance of the airpower. Due to the limited air threat posed by Somalia, the air strategy emphasized assurances to the referent population and a denial strategy of deterrence. The air superiority component was dependent on attack helicopters

providing armed over watch and convoy escort to U.N. forces. Airspace monitoring was conducted E-2C command and control.

A denial strategy of deterrence utilized F-14 and AH-1 aircraft that would conduct shows of force during meetings with opposing warlords. F-18s conducted Close Air Support missions and periodic engagement by the fighters and attack helicopters destroyed military equipment utilized by the Somalis. Assurances focused on delivering humanitarian aid and transporting ground forces to areas inaccessible by ground transportation. In addition, helicopters and fighter aircraft maintained a continuous presence over Mogadishu and the southern port city of Kismayo. F-14s also conducted reconnaissance and surveillance missions. UNITAF was completed on 25 March 1993 and replaced by United Nations Operations in Somalia II with a state security mandate to develop the security and state infrastructure of Somalia.

United Nations Mission in Sierra Leone (UNAMSIL), 1999-2005

Airpower State:	United Nations	Air Superiority:	No	
Threat State:	Sierra Leone	Deterrence/Coercion:	No	
Referent:	Various Sierra Leone non-combatants	Assurances:	Yes	
Air defense Threats: Small arms				

The period from 1991 to 1999 witnessed weak governance and multiple coup attempts in Sierra Leone. By 1998 the ruling military junta had collapsed and rebels controlled approximately fifty percent of the country. Initial mandate U.N. SCR 1270 revised by U.N. SCR 1289 (2000) and Resolution 1346. Resolution 1289 provided a Chapter VII mandate. The political objective laid out by the Security Council resolutions was to provide security at key locations, facilitate the free flow of people

and humanitarian assistance, and provide security at all sites of the demobilization and reintegration program.

Deterrence was not part of the airpower strategy and the force structure did not provide adequate forces to deter the Revolutionary United Front from conducting actions against the referent. In May 2000 the Revolutionary United Front kidnapped several hundred U.N. peacekeepers. Assurances were the central component of the airpower strategy and focused on providing humanitarian aid and aeromedical evacuation of the referent. At the conclusion of the mission, over five hundred thousand refugees had returned to their residence and the government of Sierra Leone was able to provide basic human security to the entire population.

United Nations Operations in Burundi (ONUB), 2004-2007

Airpower State:	U.N.	Air Superiority:	No	
Threat State:	Congo backed forces	Deterrence/Coercion:	Yes	Denial
Referent:	Burundi internally displaced persons	Assurances:	Yes	
Air defense Threats: Small arms				

ONUB was established in May 2004 based on U.N. Security Council Resolutions 1545 and 1692. Passed under Chapter VII authorities, the political objective was to disarm and demobilize combatants, provide secure conditions for humanitarian aid, and protect the Burundian referent against imminent threats. At the beginning of the operation, the U.N. estimated two hundred eighty-one thousand internally displaced personnel located at two hundred thirty locations throughout Burundi. Due to limited infrastructure and the lack of a significant threat to airpower, the airpower force structure relied primarily on rotary-wing assets for direct interaction with the referent population and fixed-wing aircraft for delivery of humanitarian aid to central operating

locations. In addition, airpower assets were periodically shared between the ONUB and United Nations Mission in the Congo (MONUC) commands. The airpower strategy and concept of operations was very similar to the Operation NORTHERN WATCH airpower strategy without the air superiority component. The airpower strategy was largely assurant, providing social services that were not available due to limited road infrastructure within Burundi. Unique to an assurant strategy, ONUB helicopters delivered ballot boxes to polling stations and airlifted staff and military forces to polling stations where voting risked disruption. Assurances were also provided by reconnaissance and surveillance of Burundi's borders. Aircraft monitored the illegal flow of weapons and conducted deterrence by aerial presence and shows of force. Although periodic aerial strikes were conducted by the Burundi National Defence Force, ONUB air forces did not employ weapons against the Congo backed forces. The mission ended on 1 January 2007 when the political authority transitioned to the United Nations Integrated Office in Burundi.

United Nations Mission in the Congo (MONUC), 1999-2010

Airpower State:	U.N.	Air Superiority:	Yes	Local
Threat State:	Kivu, Ituri and Lord's Resistance Army	Deterrence/Coercion:	Yes	Denial
Referent:	Congolese	Assurances:	Yes	
Air defense Threats: Small arms, man portable air defense missiles.				

United Nations Security Council Resolutions 1279 and 1291 provided the legitimacy for the United Nations Mission in the Congo. The political objective was to provide a stable and secure environment for the Congolese citizens threatened by the Lord's Resistance Army and elements of the Congo Army. The Indian Air Force provided the preponderance of airpower assets, especially attack helicopters and

ensured aviation was well integrated into U.N. operations based on previous Indian Air Force experience. The U.N. forces did not face an airborne threat but countering the ground based missile and small arms threat was a part of the airpower strategy. Air superiority was centered where ground forces were operating or planned to operate, typically around urban areas and along roads. Deterrence was a central component of the airpower strategy and focused against the military capacity of the Kivu and Ituri. Presence missions predominated but periodic attack operations were conducted by Mi-25 and Mi-35 helicopters to suppress the ground based threats. Rules of engagement were influenced by human security by ensuring positive identification of targets and avoiding weapons employment that could result in unintended damage to civilian infrastructure or harm the referent population. Assurances for U.N. forces were accomplished by convoy escort, reconnaissance and surveillance, and Close Air Support. Assurances for the referent population consisted of casualty evacuation and logistics supply to remote areas.

Berlin Airlift, 1948

Airpower State:	U.S.	Air Superiority:	Y	Local
Threat State:	Soviet Union	Deterrence/Coercion:	Y	Punishment
Referent:	West Berlin citizens	Assurances:	Yes	
Air defense Threats: Air superiority fighters, anti-aircraft artillery, balloons.				

The Berlin Airlift (Operation VITTLES). Use C-47s and C-54s to deliver coal, food, and humanitarian supplies. An important component of the air strategy was the establishment of twenty-mile wide air corridors, standard adherence to instrument flight rules, and placing radio beacons in West Germany to allow precise navigation. The British contribution to the airlift was named Operation PLAINFARE. Between August 1948 and 1949, Soviet fighters would intercept the cargo planes, and anti-

aircraft artillery fired in the vicinity of the air corridors. Balloons were also flown by the Soviets near the air corridors. Unique to the human security cases, the Berlin Airlift utilized a punishment form of deterrence against the Soviet threat. The U.S. deployed ninety B-29 bombers to bases in Germany and England during the crisis.

Crisis in the Congo, 1960-64

Airpower State:	U.S.	Air Superiority:	Y	Local
Threat State:	Congo	Deterrence/Coercion:	N	
Referent:	Congolese citizens	Assurances:	Yes	
Air defense Threats: Small arms.				

The political objective was to provide humanitarian assistance to Congolese citizens while preventing Soviet-backed elements of the Congo government to control the nation. The primary component of the air strategy was delivering humanitarian aid and assistance to Congolese citizens while transporting U.N. peacekeepers and observers. Over the course of four years, over sixty-five thousand passengers and forty thousand tons of supplies were delivered. A small component of the air strategy focused on deterrence of the threat from small arms-fire during takeoff and landing operations at Congo airports. Operations were briefly halted in December 1961 when several transports were hit by small arms fire. For the next several months, fighter aircraft escorted the cargo planes into the Congo and performed armed reconnaissance in the vicinity of the airports at Stanleyville, Brazzaville and Leopoldville (Kinshasa). The fighter escort and armed reconnaissance achieved local air superiority over the airfields. The humanitarian assistance and security provided in the vicinity of airports comprised the assurances to the referent population.

Dominican Crisis, 1965-66 (Operation POWER PACK)

Airpower State:	U.S.	Air Superiority:	Y	General
Threat State:	Cuban backed military government of Dominican Republic	Deterrence/Coercion:	Y	Denial
Referent:	U.S. personnel and Dominican Republican forces	Assurances:	Yes	
Air defense Threats: Cuban Air Force MiG-15 and MiG-17 aircraft, small arms fire.				

Operation POWER PACK was established after a military overthrow of the Dominican government. Fearing the spread of Cuban communism throughout the Caribbean, the political objectives contained both human and state security objectives. The human security objective was protection and evacuation of the U.S. personnel remaining within the Dominican Republic. The military strategy involved transporting the entire Eighty-second Airborne Division to provide security and stability and airpower to transport personnel and deter Cuban intervention. The threats consisted of MiG-15 and MiG-17 air defense fighters of the Cuban Air Force and small arms fire from Dominican military forces. The small arms fire required rules of engagement prohibiting flight below 1,500 feet. The airpower strategy contained actions to achieve air superiority, deter conflict escalation, and assure the referent population. An EC-135 remained airborne continuously for airborne command and control. General air superiority was achieved by two fighter squadrons manning continuous combat air patrols over the entirety of the Dominican Republic. An important component of air superiority was airspace control to vector aircraft away from known areas of small arms fire.

Deterrence was achieved by aircraft flying Close Air Support for U.S. ground forces, shows of force over Dominican military forces, and periodic bomber aircraft

with routes of flight near Cuba. Assurances were provided by C-97 aircraft providing communication relays for U.S. forces and Dominican partners and leaflets and message broadcasts aimed at the Dominican forces sympathetic to U.S. objectives. In addition, aircraft conducted aeromedical evacuation of over 1,500 personnel to the U.S. POWER PACK successfully accomplished the human security political objective and on 21 September mission responsibility was transferred to the Organization of American States' Inter-American Peace Force.

Vietnam Evacuation, 1975 (Operation FREQUENT WIND)

Airpower State:	U.S.	Air Superiority:	Y	Local
Threat State:	North Vietnam	Deterrence/Coercion:	No	
Referent:	U.S. citizens and South Vietnamese refugees	Assurances:	Yes	
Air defense Threats: Small arms, mortars, A-37 attack aircraft.				

Operation FREQUENT WIND occurred at the end of the U.S. involvement in Vietnam. The political objective was to protect U.S. and select South Vietnamese citizens from North Vietnam hostile actions until the referent could be either airlifted or sealifted to safety. The threat to airpower consisted of small arms fire against aircraft, mortar attacks on airbases and a rogue A-37 attack by a North Vietnamese pilot. The military objective was to use air and seapower to transport the referent population to safety out of South Vietnam. Seapower assets operated from the port of Vung Tau and the airpower strategy first focused on Da Nang but, after capture of Da Nang by Vietnamese forces, focused exclusively on Saigon. The primary emphasis of airpower was to provide assurances to the referent population via airlift, ultimately airlifting over fifty thousand personnel to safety. Assurances were also accomplished by reconnaissance aircraft and fighter aircraft conducting surveillance missions

against North Vietnamese military units. Local air superiority was maintained over Saigon with F-4 attacks on artillery sites and fighter escort of Air Force and Marine helicopters out of South Vietnamese airspace. Deterrence was not a part of the airpower strategy based on the overwhelming numerical and positional superiority of North Vietnamese forces. The airpower strategy was hampered by the lack of unified command and control and the absence of a Joint Force Air Component Commander. The operation achieved the political objective and ended on 16 September 1975.

Mayaguez Incident, 1975

Airpower State:	U.S.	Air Superiority:	Y	Local
Threat State:	Cambodia	Deterrence/Coercion:	Y	Denial
Referent:	Crew of SS Mayaguez	Assurances:	Yes	
Air defense Threats: Small arms, anti-aircraft artillery, T-28 aircraft				

The Mayaguez incident occurred off the coast of Cambodia from 12-15 May 1975. Cambodian militia under orders from the Khmer Rouge boarded and captured the crew of the United States flagged SS Mayaguez. The U.S. political objective was to rescue the referent population prior to movement to the Cambodian mainland. Due to residual airpower remaining in Thailand from the end of the Vietnam conflict, the operation relied heavily on airpower. The military strategy utilize air and ground power to assault the Cambodians in the vicinity of the Mayaguez and on the island of Koh Tang. The air superiority component of the airpower strategy utilized F-4s to ensure aircraft from mainland Cambodia did not threaten the ground force or command and control aircraft. Due to the unknown location of the Mayaguez crew, the small arms fire could not be countered and eight helicopters were damaged while disembarking the ground assault force. Coercion of the Cambodian threat was the main component of the airpower strategy. Close Air Support missions by F-4, A-7,

and AC-130 aircraft attacked Cambodian military targets on Koh Tang while F-111 aircraft conducted shows of force to deter shipping in the area. A total of seven Cambodian gunboats were sunk by F-4 and F-111 aircraft. Additionally, F-4 aircraft bombed military installations on the Cambodian mainland to deter further strengthening of the Cambodian Koh Tang garrison. Assurant actions were the final component of the strategy and integrated with naval assurant actions. Airpower maintained constant patrols with periodic shows of force overhead known referent locations while naval assets utilized loudspeakers to transmit messages to the referent. Despite damaged helicopters and forty-one U.S. casualties, the operation achieved political objectives on 15 May 1975 with the recovery of forty Mayaguez crew members.

Operation ALLIED FORCE, 1999

Airpower State:	NATO	Air Superiority:	Y	Local
Threat State:	Serbia	Deterrence/Coercion:	Y	Denial/Punishment
Referent:	Non-Serb Kosovars	Assurances:	Yes	
Air defense Threats: MiG-29, MiG-21 air superiority aircraft, Surface to Air Missiles, Anti-aircraft artillery, man portable air defense missiles systems, small arms.				

Operation ALLIED FORCE began on 24 March 1999 in response to prolonged Serbian aggression and threatening actions against non-Serb Kosovars. The stated NATO political objectives were to ensure a verifiable stop to the violence and repression in Kosovo, Serbian withdrawal from Kosovo, and the safe return of all refugees. The resultant military objectives were to enable unhindered air operations, isolate Serb military and security forces in Kosovo, and degrade the combat capability of the Serb military. The air strategy focused initially on local air superiority over Kosovo and in Serbia south of the forty-fourth parallel. Air superiority was achieved by F-15C combat air patrols and suppression of enemy air defenses by F-16CJ and EA-

6B aircraft. Local air superiority was expanded to the vicinity of Belgrade later in the campaign. The initial airpower strategy utilized a denial form of coercion targeting the Serbian military in Kosovo. Poor weather and enemy tactics limited the impact of the denial strategy. The strategy was modified to include punishment components against the Serbian electrical system and manufacturing sites. Improving weather allowed a preponderance of forces to be allocated to the denial strategy but Serbian tactics continued to marginalize effects on military targets in Kosovo. The air strategy eventually included assurant actions primarily through surveillance of Serbian forces, humanitarian assistance, and infrastructure development at regional airfields. The political objectives were achieved on 3 June 1999. A complete discussion of ALLIED FORCE is contained in Chapter Six.

Crisis in Grenada, 1983 (Operation URGENT FURY)

Airpower State:	U.S.	Air Superiority:	Y	General
Threat State:	Cuban backed Grenada	Deterrence/Coercion:	Y	Denial
Referent:	U.S. personnel	Assurances:	Yes	
Air defense Threats: Anti-aircraft artillery, small arms,				

Operation URGENT FURY began on 24 October 1983 in response to a military coup on the Caribbean island of Grenada. The stated political objective was to protect and rescue hundreds of medical students, but other objectives included restoration of a stable pro-Western government and containment of Cuba. One of the major issues affecting airpower strategy was a bifurcated chain of command with Twelfth Air Force commanding strategic and tactical missions and Twenty-first Air Force commanding airlift forces. The military strategy focused on airdrop of ground personnel onto Grenada and a corresponding naval blockade and assault. The airpower strategy contained components of air superiority and coercion with limited assurances.

Achieving air superiority was unique based on the Grenada threats. F-15C aircraft flew combat air patrol missions but were not challenged by Grenada's small air force or the Cuban Air Force. Instead, AC-130s, coupled with Army Rangers, successfully destroyed anti-aircraft artillery sites around the major airfields to allow transport aircraft to operate. Due to military operations occurring throughout Grenada, a general air superiority strategy over the entire island and maritime environment was utilized. Coercion was accomplished with a denial strategy. AC-130 and A-10 aircraft conducted Close Air Support operations against anti-aircraft artillery, enemy forces, and armored personnel carriers. Operations focused exclusively on military targets. This was partly due to rules of engagement but also due to limited intelligence on the location of the referent population.

Assurances were implemented after air superiority had been achieved. Evacuation of non-combatants, partly successful reconnaissance to determine location of medical students were the primary forms of assurances. In addition, EC-130s provided strategic radio communications to the referent. The political objectives were achieved on 3 November

Operation PROVIDE COMFORT, 1991

Airpower State:	U.S.	Air Superiority:	Yes	Local
Threat State:	Iraq	Deterrence/Coercion:	Yes	Denial
Referent:	Kurds	Assurances:	Yes	
Air defense Threats: Surface to Air Missiles, Air Superiority Aircraft, Anti-aircraft artillery, small arms.				

Operation PROVIDE COMFORT was established on 6 April 1991 based on U.N. Security Council Resolution 688. The U.S.-led operation was in response to the Iraqi government repression and attacks on the Kurdish referent in northern Iraq. The political objective directed military forces to initially provide humanitarian aid to the

Kurdish refugees and deter Iraq from continuing threatening actions. The political objectives expanded on 16 April to include a no-fly zone north of the thirty-sixth parallel and establishment of safe havens to allow the Kurdish referent to return to northern Iraq. The airpower strategy effectively incorporated local air superiority over ground forces and a denial strategy of deterrence. The assurant component of airpower strategy consisted of a hub and spoke delivery system of humanitarian aid incorporating both fixed-wing and rotary-wing aircraft. A complete discussion of PROVIDE COMFORT is contained in Chapter Five.

Operation PROVIDE COMFORT II, 1991-96

Airpower State:	U.S., U.K., Turkey, France	Air Superiority:	Yes	Local
Threat State:	Iraq	Deterrence/Coercion:	Yes	Denial
Referent:	Kurds	Assurances:	Yes	
Air defense Threats: Surface to Air Missiles, Air Superiority Aircraft, Anti-aircraft artillery, small arms.				

Operation PROVIDE COMFORT II was established on 24 July 1991, the day after the official completion of PROVIDE COMFORT and also utilized U.N. Security Council Resolution 688 as the basis for political objectives. The primary difference between PROVIDE COMFORT and PROVIDE COMFORT II was the lack of coalition ground forces or non-governmental organizations within Iraq. The air strategy focused primarily on local air superiority north of the thirty-sixth parallel and a denial strategy of deterrence. Of note, PROVIDE COMFORT II aircraft did not maintain a continuous presence over Iraq, opting instead for staggered periods of flight typically involving one three to six hour period per daily air tasking order. After 1993, Iraqi air defenses periodically fired on coalition aircraft and MiG-23 and MiG-25 aircraft would fly north of the thirty-sixth parallel but did not threaten the Kurdish referent. Although air superiority was challenged, the coalition was able to effectively counter the Iraqi threat

with suppression of enemy air defense aircraft. On 14 April 1994 two American helicopters were shot down by American F-15C aircraft. The resultant investigation identified incorrect command and control procedures and improper rules of engagement that would affect PROVIDE COMFORT II for the remainder of the operation. The deterrent strategy focused on attacking Iraqi military installations and air defense sites. The coalition provided assurant actions primarily by periodic low altitude shows of presence and coupling airpower missions with political statements. In August 1996, Iraqi forces attacked the Iranian-backed Patriotic Union of Kurdistan (PUK) forces north of the thirty-sixth parallel at the request of the Kurdistan Democratic Party. Wary of siding with either an Iraqi incursion or Iranian backed Kurds, the coalition responded with Operation DESERT STRIKE against military targets in southern Iraq. PROVIDE COMFORT II transitioned to Operation NORTHERN WATCH on 1 January 1997 at the request of the Turkish government.

Operation SOUTHERN WATCH, 1992-2003

Airpower State:	U.S., U.K., France	Air Superiority:	Yes	Local
Threat State:	Iraq	Deterrence/Coercion:	Yes	Denial
Referent:	Iraqi Shiite	Assurances:	Yes	
Air defense Threats: Small arms, third generation air superiority aircraft, surface-air missiles, anti-aircraft artillery.				

Operation SOUTHERN WATCH was established on 27 August 1992 based on U.N. Security Council Resolution 688. The coalition operation consisted of U.S., U.K., French, and Saudi Arabian aircraft stationed in Saudi Arabia, Kuwait, and Qatar. SOUTHERN WATCH was in response to Iraqi government repression of the Iraqi Shi'ite population in southern Iraq. The airpower strategy focused on air superiority south of the thirty-second parallel utilizing F-15C, F-16CJ and Mirage aircraft. A denial strategy of deterrence was utilized with periodic attacks on Iraqi military equipment

and installations south of the thirty-third parallel. Assurances were provided by armed reconnaissance missions and visible shows of presence over the referent population. By 1998, the mandate for SOUTHERN WATCH changed from protecting the Shia referent to include coercing the Hussein regime to accede to U.N. mandated weapons inspections. By early 2003, the air strategy shifted to targeting key Iraqi air defense sites and command nodes in preparation for the IRAQI FREEDOM invasion.

Operation PROVIDE PROMISE, 1992-96

Airpower State:	NATO	Air Superiority:	Y	Local
Threat State:	Bosnian Serbs	Deterrence/Coercion:	N	
Referent:	Citizens of Sarajevo	Assurances:	Yes	
Air defense Threats: Surface-air missiles, antiaircraft artillery, small arms				

Operation PROVIDE PROMISE was established on 2 July 1992. PROVIDE PROMISE was conducted at the same time as Operations DENY FLIGHT, DELIBERATE FORCE, and DELIBERATE GUARD. The political objective was to provide humanitarian relief to the besieged citizens of Sarajevo. The air strategy of PROVIDE PROMISE focused primarily on airdrop of relief supplies, but required combat support sorties to mitigate the threat posed by Bosnian Serb forces. U-2, remotely piloted vehicles, and E-3 Airborne Warning and Control System aircraft provided command, control, and intelligence collection while NATO suppression of enemy air defense aircraft were tasked with negating the surface-air missile threat. Air superiority was only maintained continuously in the Sarajevo area. The Sarajevo airport was frequently closed based on anti-aircraft artillery firing at relief aircraft attempting to land. As a result, the air strategy focused on airdrops of humanitarian aid from altitudes as high as ten thousand feet above ground level. The mission

concluded on 9 January 1996 having flown over twelve thousand missions and delivering one hundred fifty-nine thousand tons of food, medicine and supplies.

Operation DENY FLIGHT, 1993-95

Airpower State:	NATO	Air Superiority:	No	
Threat State:	Bosnian Serbs	Deterrence/Coercion:	No	
Referent:	Ethnic Bosnians	Assurances:	No	
Air defense Threats: Surface to Air Missiles, Third generation aircraft, anti-aircraft artillery, small arms				

Operation DENY FLIGHT was established on 12 April 1993 as a follow-on to Operation SKY MONITOR enforcing the U.N. sanctioned no-fly zone over Bosnia-Herzegovina. U.N. Security Council Resolutions 781 and 816 provided the basis for the political objective. Passed under authority of Chapter VII, Resolution 816 extended the ban on flights established by U.N.SCR 781 to include all fixed-wing and rotary-wing aircraft over Bosnia Herzegovina. Resolution 958 expanded the mandates of previous U.N resolutions to include no-fly zones over Croatia. The initial political objective was to conduct aerial reconnaissance to support the United Nations Protection Force, enforce no-fly zones, and assist in protection of the Bosnian minority from Bosnian Serb persecution.

Air superiority strategy focused on enforcing a no-fly zone over the entirety of Bosnia Herzegovina. While air superiority was a central part of the strategy, an inability to counter rotary-wing aircraft contributed to a total of 5,711 unauthorized flights over Bosnia Herzegovina primarily by rotary-wing aircraft. The shootdown of two Army helicopters by F-15C aircraft over Iraq occurred at the same time as DENY FLIGHT and constrained the rules of engagement for engaging rotary-wing aircraft. The air strategy also did not effectively counter the ground-based air defense threat.

On 15 April 1994 a French Etendard was damaged by anti-aircraft artillery and on 16 April a U.K. Harrier was shot down by a man portable air defense missile system.

Deterrence or assurances were not part of the original airpower strategy. With the passage of U.N. Security Council Resolution 836 in June 1993, NATO air forces were authorized to conduct Close Air Support missions. The threat of airstrikes after the February 1994 Sarajevo Marketplace Bombing successfully persuaded Serb forces to remove artillery and armor forces from the vicinity of Sarajevo. However, the Bosnian Serbs continued persecuting ethnic Bosnians and detained approximately three hundred U.N. Protection Force personnel near Bihac. On 2 December, NATO stopped flight operations due to the surface-air missile and antiaircraft artillery threat. The airpower strategy for DENY FLIGHT did not achieve air superiority nor did it deter Bosnian Serb aggression or assure the referent Bosnians. The dual NATO and U.N. command structure constrained airpower operations but the force structure and airpower strategy were inadequate for the stated political objectives. As a result, NATO would reassess strategy in early 1995 and conduct Operation DELIBERATE FORCE.

Operation DELIBERATE FORCE, 1995

Airpower State:	NATO	Air Superiority:	Yes	Local
Threat State:	Bosnian Serbs	Deterrence/Coercion:	Yes	Denial
Referent:	Non-Serb Bosnians	Assurances:	No	
Air defense Threats: Surface to Air Missiles, Air Superiority Aircraft, Anti-aircraft artillery, small arms.				

Operation DELIBERATE FORCE was a NATO operation with a political objective to coerce Bosnian Serbs to cease ethnic atrocities against civilians in United Nations designated safe areas. It was preceded by Operation DENY FLIGHT and precipitated by the Srebrenica massacre and Bosnian Serb shelling of Sarajevo. The air strategy

emphasized air superiority and coercion with minimal assurances. Local air superiority was conducted in the vicinity of U.N. defined safe areas. Multi-role fighter aircraft conducted combat air patrols with E-3 and E-2 aircraft providing aerial surveillance and command and control. Tornado ECR and F-16CJ aircraft suppressed the Serb surface-air missile systems. Despite the effort, a French Mirage was shot down by a man portable air defense (MANPAD) missile on the first day of conflict. After that incident, rules of engagement kept aircraft above fifteen thousand feet to avoid the small arms and MANPAD threat.

A denial strategy of coercion was utilized against the Bosnian Serbs. The target list was divided into three categories. Category One targets consisted of Serb combat systems directly able to attack the U.N. safe areas. Category Two targets consisted of munitions storage sites and air defense systems. Category Three targets comprised munitions and fuel depots and anti-aircraft systems. With the exception of several Category Three bridge targets that were not hit, all targets were exclusively military.

Assurances were not an explicit part of the air strategy but were important during planning. Near real-time intelligence provided air commanders data needed to determine collateral damage concerns or possible civilian casualties. DELIBERATE FORCE is noteworthy due to the personal involvement of the Joint Forces Air Component Commander, Lieutenant General Mike Ryan. Ryan imposed strict rule of engagement and ensured operations procedures minimized the potential for collateral damage. NATO forces flew three thousand five hundred missions and attacked three hundred thirty-eight targets. The political objectives were achieved on 20 September and led to the Dayton Peace Accords and lifting of the siege of Sarajevo.

Operation DELIBERATE GUARD, 1995-98

Airpower State:	NATO	Air Superiority:	Yes	General
Threat State:	Serbia	Deterrence/Coercion:	Yes	Denial
Referent:	Ethnic Bosnians	Assurances:	Yes	
Air defense Threats: MiG-29, MiG-21 aircraft, surface-air missiles, anti-aircraft artillery, small arms.				

Operation DELIBERATE GUARD was an interim operation between DELIBERATE FORCE/DENY FLIGHT and JOINT FORGE with a political objective to ensure Bosnian Serb compliance with the Dayton Peace Agreement. As such, the airpower strategy was a continuation of the DENY FLIGHT construct with less emphasis on air superiority and greater emphasis on assurant actions. The airpower strategy relied on general air superiority throughout the airspace over Bosnia-Herzegovina. NATO dual-role fighter aircraft and E-3 Airborne Warning and Control System aircraft conducted air superiority patrols. A denial strategy of deterrence was developed with aircraft conducting Close Air Support with NATO ground forces (Stabilization Force or SFOR). Assurant actions were conducted concurrently with deterrent actions by aircraft conducting shows of presence when controlled by joint terminal air controllers. Another component of the assurant strategy was the use of manned and unmanned aircraft to conduct surveillance and reconnaissance of Bosnian Serb compliance with the Dayton Peace Accords. Due to the mountainous terrain and poor infrastructure, helicopters were able to provide humanitarian aid and basic medical services to the referent that could not be reached by ground based units.

Operation UNIFIED PROTECTOR, 2011

Airpower State:	NATO	Air Superiority:	Yes	Local
Threat State:	Libya	Deterrence/Coercion:	Yes	Denial
Referent:	Libyan Civilians	Assurances:	Yes	
Air defense Threats: Surface to Air Missiles, Air Superiority Aircraft, Anti-aircraft artillery, small arms.				

Operation UNIFIED PROTECTOR was established on 23 March 2011 based on U.N. Security Council Resolutions 1970 and 1973 authorizing NATO to implement a no-fly zone over Libya. Passed with Chapter VII authority, the resolutions authorized all means necessary, short of occupation, to protect Libyan civilians from threatening actions taken by the Libyan government. The air strategy focused initially on local air superiority, utilizing U.S. F-15C and French Mirage aircraft to conduct combat air patrols over the populated areas along the Gulf of Sidra, Tripoli and Benghazi. A denial strategy of coercion was developed against Libyan military targets. By September 2011, over five thousand nine hundred military targets had been struck, including six hundred tanks and four hundred artillery pieces. Additional targets included command and control bunkers and ammunition storage sites. Because over seven hundred targets were located in urban areas, strict rules of engagement were developed to mitigate the potential of civilian casualties. The assurant portion of the strategy was limited to shows of presence by fighter aircraft and radio communications by EC-130 aircraft targeted towards the Libyan military as well as the referent population. UNIFIED PROTECTOR achieved the political objective and officially ended on 31 October 2011.

Operation NORTHERN WATCH, 1997-2003

Airpower State:	NATO	Air Superiority:	Yes	General
Threat State:	Iraq	Deterrence/Coercion:	Yes	Denial
Referent:	Kurds	Assurances:	Yes	
Air defense Threats: Surface to Air Missiles, Air Superiority Aircraft, Anti-aircraft artillery, small arms.				

Operation NORTHERN WATCH was established on 1 January 1997 based on U.N. Security Council Resolution 688. The resolution was passed in 1991 and previously served as the basis for Operations PROVIDE COMFORT and PROVIDE COMFORT II. Operation PROVIDE COMFORT II transitioned to NORTHERN WATCH due to closure of the Military Coordination Center and the French decision to no longer conduct operations over northern Iraq (the French continued supporting Operation SOUTHERN WATCH). The political objective was to continue protection of the Kurds from Iraqi attack. From 1 January 1997 until 14 September 1997, the 7440th Composite Wing at Incirlik Airbase, Turkey served as the primary airpower component. The 7440th was deactivated on 15 September 1997 and replaced by the 39th Air and Space Expeditionary Wing. NORTHERN WATCH utilized a similar airspace construct and strategy as PROVIDE COMFORT II. General air superiority was maintained north of the thirty-sixth parallel. However, operations were not continuous, instead a single three to five hour period was patrolled each air tasking order cycle. A denial strategy of deterrence was in-place however, no weapons were expended from 1 January 1997 until 29 December 1998. The assurant component of strategy was limited to presence missions and surveillance and reconnaissance by U-2 and aircraft equipped with infrared and electro-optical sensors to monitor Iraqi air defense and ground force activities north of the thirty-sixth parallel. Although NORTHERN WATCH continued until 17 March 2003, by February 1998 the political

objectives stated by President Clinton had changed from protecting Kurds to enforcing U.N. directed weapons inspections of suspected Iraqi weapons of mass destruction programs.

Operation JOINT GUARD/FORGE, 1996-98

Airpower State:	NATO	Air Superiority:	Yes	General
Threat State:	Former Yugoslavia	Deterrence/Coercion:	Yes	Denial
Referent:	Bosnians	Assurances:	Yes	
Threats: Surface-air missiles, anti-aircraft artillery, small arms.				

Operation JOINT GUARD was established on 12 December 1996 based on U.N. Security Council Resolution 1088 and the Dayton Peace Accords. The resolution was passed under Chapter VII authorities and authorized all necessary measures to ensure compliance with procedures governing command and control of air space over Bosnia and Herzegovina. The political objective directed military forces to deter hostilities, primarily from Serbian backed military forces, and contribute to a secure environment in Bosnia-Herzegovina for indigenous Bosnians. Operating in conjunction with the NATO-led Stabilization Force, the Sixteenth Air Expeditionary Wing at Aviano Airbase, Italy served as the primary airpower component of JOINT GUARD. The airpower strategy relied on general air superiority over the entirety of Bosnia-Herzegovina with local air superiority only when required for ground operations. A denial strategy for deterrence against the Bosnian Serb military utilized F-16, A-10 and F-15E aircraft to conduct presence missions and shows of force. U-2 and other reconnaissance aircraft conducted surveillance and intelligence collection missions to monitor compliance with U.N. SCR 1088 and the Dayton Peace Agreement. The short-term assurant component of strategy consisted of providing humanitarian assistance to displaced refugees as well as coordination with ground forces to ensure an unimpeded return to

homes. The long-term assurant component of strategy was based controlling the military and civilian airspace over Bosnia-Herzegovina, training airspace controllers, and conducting infrastructure improvements at Tuzla Airbase.



APPENDIX B

RESOLUTION 688 (1991)

Adopted by the Security Council at its 2982nd meeting on 5 April 1991

The Security Council,

Mindful of its duties and its responsibilities under the Charter of the United Nations for the maintenance of international peace and security,

Recalling of Article 2, paragraph 7, of the Charter of the United Nations,

Gravely concerned by the repression of the Iraqi civilian population in many parts of Iraq, including most recently in Kurdish populated areas, which led to a massive flow of refugees towards and across international frontiers and to cross-border incursions, which threaten international peace and security in the region,

Deeply disturbed by the magnitude of the human suffering involved, Taking note of the letters sent by the representatives of Turkey and France to the United Nations dated 2 April 1991 and 4 April 1991, respectively (S/22435 and S/22442),

Taking note also of the letters sent by the Permanent Representative of the Islamic Republic of Iran to the United Nations dated 3 and 4 April 1991, respectively (S/22436 and S/22447),

Reaffirming the commitment of all Member States to the sovereignty, territorial integrity and political independence of Iraq and of all States in the area,

Bearing in mind the Secretary-General's report of 20 March 1991 (S/22366),

1. Condemns the repression of the Iraqi civilian population in many parts of Iraq, including most recently in Kurdish populated areas, the consequences of which threaten international peace and security in the region;

2. Demands that Iraq, as a contribution to remove the threat to international peace and security in the region, immediately end this repression and express the hope in the same context that an open dialogue will take place to ensure that the human and political rights of all Iraqi citizens are respected;

3. Insists that Iraq allow immediate access by international humanitarian organizations to all those in need of assistance in all parts of Iraq and to make available all necessary facilities for their operations;

4. Requests the Secretary-General to pursue his humanitarian efforts in Iraq and to report forthwith, if appropriate on the basis of a further mission to the region, on the plight of the Iraqi civilian population, and in particular the Kurdish population, suffering from the repression in all its forms inflicted by the Iraqi authorities;

5. Requests further the Secretary-General to use all the resources at his disposal, including those of the relevant United Nations agencies, to address urgently the critical needs of the refugees and displaced Iraqi population;
6. Appeals to all Member States and to all humanitarian organizations to contribute to these humanitarian relief efforts;
7. Demands that Iraq cooperate with the Secretary-General to these ends;
8. Decides to remain seized of the matter.

- Adopted by vote of 10 to 3 with 2 abstentions. France, Russia, United Kingdom, United States, Austria, Belgium, Ivory Coast, Ecuador, Romania, and Zaire voted for the resolution. Cuba, Yemen, and Zimbabwe voted against the resolution while China and India abstained.

Source: United Nations Security Council, "Resolution 688 (1991) of 5 April 1991," <http://daccessdds.un.org/doc/RESOLUTION/GEN/NR0/596/24/IMG/NR059624.pdf?OpenElement>. (accessed 17 August 2013).



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