

AIR FORCE FELLOW

AIR UNIVERSITY

**HORIZON'S EDGE: THE COERCIVE EFFECTS OF
AEROSPACE POWER IN THE 21ST CENTURY**

by

Michael R. Moeller, Lt. Colonel, USAF

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Maxwell Air Force Base, Alabama

June 2000

20010921 124

DISTRIBUTION A:

Approved for public release; distribution is unlimited.

Air Force Fellows Program
Maxwell AFB, Al 36112

Disclaimer

The views expressed in this academic research paper are those of the author(s) and do not reflect the official policy or position of the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

Contents

	<i>Page</i>
DISCLAIMER	II
ILLUSTRATIONS	V
PREFACE	VI
ABSTRACT	VII
INTRODUCTION	1
CLUES FROM WAR'S PAST	6
An Overview of 18 th Century Warfare	7
The Limitations on War in the 1700s	8
18 th Century Lessons For 21 st Century America	14
THE CHANGING FACE OF AMERICAN MILITARY OPERATIONS	18
U.S. Military Operational Tempo: A Growth Industry	19
Coercive and Punishment Operations.....	22
Airpower in Coercive Campaigns	24
Aerial Enforcement Operations	25
Punishment Campaigns	31
Summary.....	41
AEROSPACE POWER AND COERCIVE WARFARE	44
Threads of Continuity.....	44
Fundamental Differences for Conducting Coercive Campaigns.....	47
Framework to Enhance Success	51
Two Different Coercive Mechanisms.....	53
Denial Strategy	54
Attacks on Political Will.....	54
Summary of Political Will Mechanism	62
ADAPTIVE PLANNING FOR COERCIVE AEROSPACE CAMPAIGNS	67
Lesson Number 1.....	68
Lesson Number 2.....	70
Lesson Number 3.....	73
Lesson Number 4.....	74

BIBLIOGRAPHY.....77

Illustrations

	<i>Page</i>
Figure 1	40
Figure 3	63

Preface

This paper actually started six years ago when I was a student in Lt. Colonel Pete Faber's class at the School for Advanced Airpower Studies (SAAS). While there, I developed my initial academic interest in using airpower to coerce an adversary. Since then, I have continued to develop my ideas about these campaigns especially during my time as an Action Officer in CHECKMATE and while deployed with joint air operational planners in three theaters. This year, I finally had a chance to put these ideas down on paper and hope they will give operational planners some assistance as they conduct their ever more difficult task of determining how and when to apply military force and building a joint campaign plan.

I would especially like to acknowledge the assistance of USAF Lt. Colonel Flash Walsh and the entire Air Operations Division at US Central Command. Without his assistance in opening doors to the senior staff and allowing me the opportunity to spend time with his officers in frank, open discussions, I could not have accomplished my objective. He made my trip to Florida especially worthwhile.

Abstract

Since the end of the Cold War, the United States has moved away from its traditional way of using military force to achieve decisive victory. Instead, the US used limited coercive engagements designed to compel an adversary to bend to our will. In these campaigns, the US did not fight to protect vital national interests but to promote less important or humanitarian goals. The national interest was not at stake in these campaigns and legitimacy replaced military effectiveness as the primary factor for maintaining international and domestic support. These operations usually relied upon airpower as the military option of choice to accomplish the objectives. However, airpower experts chafed over the growing number of restrictions placed upon them while conducting coercive campaigns. This paper addresses these concerns by determining how, in an era of limited war, external constraints and self-imposed restraints affect the ability of aerospace power to coerce or punish an adversary. The paper starts with a historical study of another era of limited war: the 18th century. Examination of this era of limited warfare builds a foundation of knowledge about how leaders in the past overcame the challenges of limited war. Next, the paper explores four recent military operations and provides an in-depth assessment of aerospace power in coercive campaigns to date since the end of the Cold War. Having established the historical background, the paper then analyzes the parallels and disparities between coercive and warfighting campaigns and provides a template for planners to enhance success when conducting future

missions. In the end, the analysis finds that the value of airpower for use in compellence campaigns will increase but we must improve our ability to plan and conduct these emerging types of airpower operations in the next century. Finally, the paper offers operational planners four maxims to enhance airpower's ability to coerce future adversaries.

Chapter 1

Introduction

The Allied Force campaign did not begin the way that America normally would apply airpower—massively striking at strategic centers of gravity that support Milosevic and his oppressive regime.

— General Ryan USAF Chief of Staff

For the first time in history, American airpower in Operation Allied Force was the undisputed decisive factor in forcing an adversary to withdraw from occupied territory. Throughout the course of the campaign, aerospace power demonstrated the immense capabilities it brings to the warfighting theater commander across the full range of combat operations. Yet, even as Americans bask in the glow of airpower's success in ending the Yugoslavian conflict, questions remain over the strategy used to employ aerospace forces especially in the initial phases of the operation. These questions run the gamut from the impact of political limitations, to the incremental application of force, to targeting constraints placed on operational planners.

At the conflict's end, airpower planners protested that these self-imposed restrictions negatively affected the campaign's overall effectiveness. These limitations frustrated airpower traditionalists who believe that the use of "shock and awe" and overwhelming force is the only way to successfully apply aerospace power. After the fact, airpower advocates expressed their belief that we have relearned the lessons that

gradualism and undue constraints are not the “right way to do business” when it comes to air warfare.

At the dawn of a new millennium, air strategists and operational planners face critical challenges to its traditional way of fighting wars and must be prepared to respond in this new strategic environment tightly bounded by political and operational constraints. The purpose of this paper is to address the question, “In an era of limited war, how will constraints and self-imposed restraints affect the ability of aerospace power to coerce or punish an adversary?” **The analysis finds that the value of airpower for use in compellence campaigns will increase but we must improve our ability to plan and conduct these emerging types of airpower operations in the next century.**

Since the end of the Cold War, the nation has seen its military commitments grow exponentially and there is seemingly no end in sight. In the last ten years, as the single remaining superpower, America’s armed forces have been called upon more often to support a wide range of national and international missions around the globe. Despite a decrease in size by 40% since 1990, from combat operations to humanitarian responses, America’s armed forces have led the way for numerous U.N and multinational undertakings.¹ Over and over, America’s military expertise, equipment and manpower were called upon to play critical roles worldwide across the full spectrum of contingencies.

In addition to the increase in operational tempo, the post Cold War period saw changes in how we define success for military operations. Traditionally, Americans have been reluctant to engage militarily, but once committed, expect to win decisively using overwhelming force. The American way of war is to declare victory only after

unconditional surrender and at war's end, the aggressor's territory is occupied or the adversary's leadership changes.² Yet, in the last decade, American military actions have been politically or operationally constrained and no military operation has met the time-honored end-state objectives. This shift away from the traditional mechanisms of conflict termination has led to national debates about the success of our strategy. Statements such as "We should have gone all the way to Baghdad" and "We should have gone in, captured Milosevic and put him on trial for war crimes" are indicative of the traditional national mindset for determining victory.

Chapter two provides a historical analysis of another era of limited war; 18th century Europe. Although the practice of placing restrictive rules on clashing military forces is as old as war itself, 18th century conflicts are usually held as model examples for this type of warfare. This section offers an in-depth study of the constraints and types of warfighting objectives faced by the fighting forces in the seventeen hundreds and draws parallels to the current strategic environment.

Chapter three provides a historical look at the evolution of post-Cold War US national security strategy and its effect on the shape and missions of America's military forces including US airpower. Aerospace operations have not been untouched by changes since the end of the Cold War. Airpower has been the instrument of choice for theater commanders who have increasingly taken advantage of its flexibility to ensure success. As a result, long term aerospace operational commitments over the last decade have grown by 400% with constant calls for new deployments in support of the national strategy of engagement and enlargement.³

With an understanding of these changes, the chapter then uses selected airpower actions during this era to analyze the changing face of US military operations and the growing reliance on coercion and punishment campaigns to achieve national objectives. The case studies provide the mechanism to determine the emerging importance of legitimacy to military operations and define the “new era” limitations of concern to future aerospace planners. Although, aerospace advocates have chafed under the limits placed upon them when conducting operations in the 1990s the trend towards more restraint continues and planners must be prepared to discuss the impacts these restrictions will have on future campaigns.

A fundamental change in U.S. strategy making these constrained/limited military operations the norm will have a major impact on the U.S. Air Force and how the institution plans and employs in the future. Chapter four uses the previously defined limitations as the framework to determine the threads of continuity and the critical differences between traditional warfighting and coercive campaigns. An in-depth understanding of the unique factors that affect a coercive campaign including the requirement to build and maintain legitimacy, limitations on the amount of allowable military force, and the difficult nature of defining victory and measuring progress is critical for future success. This chapter also discusses two different mechanisms to coerce an adversary, one attacks political will while the other focuses on decreasing military capabilities. The discussion includes a potential framework for planners to use when considering coercive or punishment options.

Finally, Chapter five offers aerospace planners four recommendations to enhance airpower’s operational effectiveness in this new era of limited war. These

recommendations identify the complex issues that planners face in an effort to arm them with the in-depth knowledge needed to ask the right questions prior to starting the campaign. The section also discussed the important difference between graduated and gradual campaigns and provides a determination that aerospace planners must be prepared to conduct these types of operations in the future. As General Jumper, former commander of the US Air Forces in Europe said, "If the limits of consensus means gradualism, then we're going to have to find a way to deal with a phased air campaign."⁴ The paper concludes by suggesting that aerospace power can fly to horizon's edge and beyond to effectively conduct coercive campaigns in the next century.

Notes

¹ John Tirpak, "Kosovo Retrospective", *Air Force Magazine*, April 2000, 30.

² Stephen E. Ambrose, *Americans at War*, (Jackson, University Press of Mississippi, 1997), 184.

³ Tirpak, 30.

⁴ General Jumper, former USAF in Europe has discussed his views on the future of gradualism in speeches after Allied Force. These remarks are from "Washington Outlook", *Aviation Week and Space Technology*, 23 August 1999, 27.

Chapter 2

Clues From War's Past

There is no approved solution for uncovering fundamental changes in warfare. However, one commonly used method to increase our understanding is through the study of why and how conflicts have occurred in the past. By using history to compare and contrast previous wars, we may uncover trends that enhance our ability to recognize and steer clear of potential trouble spots in the future. When conflict cannot be avoided, the study of historical events enables a more thorough knowledge of what has been done before and provides a stronger foundation for successfully employing military forces in the future.

In an era of fundamental changes in the international security environment there is merit in reviewing similar periods in history. This chapter examines the practice of warfare in the 18th century to illuminate how nations used their military forces during an era of limited wars. Much like today, Europe in the 1700s was in the midst of a period where nation's applied the measured use of military force to accomplish carefully bounded objectives. This section begins by analyzing the reasons behind the limitations on 18th century armed forces. The conclusion identifies lessons that we can use from 300 years ago for applying military force in today's strategic and operational environments.

An Overview of 18th Century Warfare

The Allies never intended to upset the regime, let alone impose a new form of government or a new ideology. It was significant that when victory appeared to lie within grasp, the winning national leader wrote only about restoring the status quo.

--Noted 18th Century Historian Christopher Duffy

Although this quote could be from today's Washington headlines, it is, in fact, discussing a then-ongoing European conflict in 1761. The victorious national leader described above is Maria Theresa of Austria and she is speaking about her Prussian adversary Frederick the Great. Despite her advantage, Maria Theresa had no intention of continuing the war until Frederick's ability to remain in power was put in jeopardy. Instead, her military forces fought this conflict with limited objectives and goals, a strategy consistently used during this era.

The period from 1690-1800 has been called the "age of battles" because it was marred by numerous recurring conflicts across Europe. These disputes followed a familiar pattern of limited warfare when conducting military operations. Military forces fought violent tactical engagements on the battlefield but leaders constrained the scope and breadth of wars at the strategic level. Monarchs narrowly defined their wartime objectives and fought with limited means for limited ends. These royal leaders weighed any factors that contributed to restricting the scope of these 18th century conflicts. The interrelationships between national leaders, reactions to previous effects of conflict, difficulties with raising and maintaining armies, limitations on available resources, and heavy logistics requirements all contributed to the types of limited wars fought in the 1700s.

The Limitations on War in the 1700s

In the 18th century, confrontations occurred often, victories were transitory and peace elusive. Political rivalries between dynastic rulers dominated the century on the European continent. Many wars began as private feuds based on real or perceived affronts to royal honor. However, the interrelationships between the ruling families in Europe played a role in restraining the goals of war. Blood and marriage tied monarchies together in a patchwork fashion and conflicts during the period were usually family affairs.¹ As such, the affronted party limited the scope of the conflict to punish an offender without going so far as to topple the opposing monarch from power. One Monarch did not want to weaken the other enough that another family felt tempted to step in and steal the crown away from a relative. As a result, dynastic rulers conducted these wars as closely controlled personal duels between the heads of state, each trying to gain the advantage without risking too much.

Unlike previous eras when wars focused almost exclusively on acquiring territory, rulers during the 18th century often resorted to violence to consolidate power or to increase prestige on the world stage. Monarchs during this period recognized that decisive victory on the battlefield rarely led to large territorial gains. Frederick the Great was the primary example of using war to strengthen Prussia internally and enhance its reputation internationally. In fact, "he fought only one war to gain territory by invading Silesia, and stopped at annexing this single province. Throughout the Seven Years War his objective remained to bring Silesia into the safe harbor of a well-guaranteed peace."² Frederick's main focus was always to strengthen Prussian sovereignty and he was willing to accept limited peace to achieve this goal.

Other monarchs were just as anxious to end wars quickly while protecting their standing on the European stage. During this period wars usually ended in a compromise peace, increased prestige for one monarch and royal honor intact for all involved. The peace treaties of 1762 and 1763, “essentially restored the status quo ante bellum, and for Prussia included retention of Silesia and acceptance as one of the great powers.”³

Heads of state went to war not to conquer the continent but to merely tip the balance of influence in their favor. Monarchs, threatened by an aggressor, built impromptu alliances to ensure that no single ruler gained enough of a military advantage to become the dominant power on the European stage. Any monarch attempting to gain a clear-cut advantage risked retribution from the other royal leaders fighting to return to the status quo. Frederick wrote, “The ambitious should consider alliances as a rule producing an equality of force between belligerent parties. All that princes can expect is to acquire, by accumulation of successes, some territory which will not pay interest on the expenses of the war.”⁴

If one army appeared to gain an overwhelming edge, Allies and support shifted to the weaker side in an effort to achieve a victory that restored the status quo. This was the case in the Great Northern War that began in 1700 where Denmark, Poland and Russia fought against Sweden who at the time was the major power in the Baltic Sea region. Once the battles ceased, peace treaties often required the victor to trade away conquered territory or assets to maintain the balance of power. “Accounts could be settled by trading one conquest for another such as the deal whereby the Prussians evacuated Saxony in return for recovering Glatz at the end of the Seven Years War.”⁵

Lessons from recent history also played a major role in limiting the objectives of 18th century wars. European countries were determined to avoid the no-holds-barred conflicts in the past that had bankrupted their national treasure of money and manpower. During the 17th century, citizens of Europe endured a devastating series of wars that resulted in, “havoc and desolation and have not been quenched but with the blood of millions.”⁶ The Thirty Years War was “terrible and inhumane virtually beyond comprehension.”⁷ This conflict devastated most of Europe and nearly brought whole cultures to utter destruction. As a result, Monarch’s rejected the concept of absolute war and during the Age of Reason “the irrationalities of war were at least strenuously and strictly confined.”⁸

Rulers did not wish to see a return to fighting the types of unrestrained wars that threatened in the recent past to destroy the very fabric of their kingdoms. As a result, Monarchs felt compelled to minimize the effect of conflict on the civilian populace. Although atrocities still occurred, they were the exception rather than the rule. Still, dynastic leaders protected the well being of civilians on both sides for pragmatic reasons rather than due to benign love for their subjects. They wanted to avoid disruption to local economies since royal taxes on goods were the keys to raising and maintaining armies. As Frederick wrote, “Society and government would perish if the labour of the peasants did not render the arid heart of our countryside.”⁹

Kings and Queens also wanted to make sure that they would have food and support, or at least no active interference, should they have to return in the next campaigning season. Thus, even though armies often had to live off the land, they avoided plundering civilians whenever possible. Turpin De Crisse writes in 1754, “we must be careful to leave the peasants with enough grain not only to live but to sow their ground for another

harvest, particularly if we have reason to think the next campaign will be waged in the same area.”¹⁰ It was also militarily advantageous to protect civilians because they were useful in gathering intelligence and offering assistance in an emergency. Whether on the offense or defense, attacks and brutality were self-defeating because it turned the civilian populace “into spies for the enemy and if they were provoked too far they might attack convoys and become a considerable embarrassment to the communications of the emperor.”¹¹

These military and economic restraints against using and abusing a large portion of the civilian populace limited the amount of available manpower to serve in dynastic armies. In this age, farmers and merchants were the keys to feeding loyal subjects and economic growth so royal leaders could not afford to use their most productive members of society as soldiers. To avoid stripping the kingdom of its working class, monarchs selected their officers from the aristocracy and filled the rest of army by recruiting foreign soldiers or conscripting men from the lower rungs of society. The consensus of the day was, “useful hardworking people should be guarded as the apple of one’s eye. Recruits should be levied in one’s own country only when the bitterest necessity compels.”¹²

Protecting a core segment of the populace and recruiting soldiers from outside the country made raising an army a costly proposition. Determined Monarch’s doled out large sums of money as “hundreds of officers and agents ranged over Europe in search of suitable soldiers.”¹³ Once recruited, they had to be clothed and fed which drained additional wealth from the royal treasury. Next, these raw recruits had to learn how to shoot and drill to successfully accomplish the intricate maneuvers required on the

battlefield. In armies across Europe, “the most expensive, and hence the most important, military resource was the soldier.”¹⁴

After the expense and time involved in raising and training armies, royal leaders wanted to avoid losing their valuable soldiers. Kings and queens did not actively seek battles in an effort to protect their national treasure and conserve their armies. In this age, these “enlightened, reasonable” monarchs attempted to limit the destructiveness of wars by maneuvering armies to put the enemy in a position of disadvantage without actually engaging in combat. These maneuvers were designed to force an adversary to choose capitulation rather than fight a losing battle. The strategy of the day called for commanders to, “conduct a siege, make a march, threaten a flank but avoid the enemy army.”¹⁵

Once a sovereign decided to actually employ his army, he faced physical constraints on logistical support that limited the conduct of wars. In the 1700’s, providing support for armies in the field was a daunting task. The troops and their horses needed to eat, they required bivouac support when resting or in camp and resupply of fighting materiel after a battle had taken place. Monarchs had to overcome rudimentary roads and undeveloped countryside conditions to keep their armies combat ready. Resupply was a slow process since armies of the day relied on horse-drawn supply carts or river transportation to provide provisions and fodder. Forces on the offensive consumed huge amount of supplies and “since hay and oats are especially bulky items, a supply train could usually meets the army’s needs for only a five day march.”¹⁶ Commanders were often forced to live off the land, but due to the restrictions against plundering, had to

contract for the required goods and these agreements took additional time and money, further slowing the pace of movement.

Monarchs also had to combat the effects of adverse weather. Rain and muddy conditions limited the amount of time armies could engage in combat because it made logistics support and maneuvering large numbers of people nearly impossible. Bad weather meant forces could not move their carts and wagons over the primitive roads and exposing the men to rain and snowstorms made them tired and sick. As a result, war was a seasonal activity and 18th century armies did not normally fight during the winter months. These long periods of inactivity decreased the warfighting skills of the soldiers and stressed the lines of logistics since soldiers and horses still needed food and supplies to survive. Frederick the Great writes, “winter campaigns ruin troops, and prevents them from being well clothed or recruited. The same inconvenience attends the carriage of ammunition and provisions.”¹⁷

During this era military leaders were also challenged by slow and cumbersome command and control systems for armies on the march. Field commander’s passed information verbally and visually using signal flags. Lacking modern electronic connectivity, command and control of troops beyond the line of sight was limited to riders and foot soldiers acting as runners. It was a very difficult task for commanders to simply maneuver forces and once armies were actually engaged in battle, “command could exercise little control over the progress of the combat.”¹⁸ To avoid confusion, it was common for commanders to provide elaborate, detailed plans prior to marching. Once committed to battle, since information flowed slowly and sequentially, leaders avoided changes to the plan as much as possible to prevent confusion. In combat, these

command and control limitations restricted flexibility and forced commanders into set piece battles that made producing decisive results nearly impossible. Noted historian Russell Weigley writes, “The grave difficulties of command, control and communication did much to reduce still further the potential for battle to achieve its strategic purposes.”¹⁹

18th Century Lessons For 21st Century America

The reasons for going to war remain the same today as they did almost three hundred years ago and there are other strands of continuity as well. Operational planners can learn three key lessons that are applicable for conducting coercive campaigns in the 21st century.

Lesson 1. Rulers could not go to war without allies but fighting within an alliance brought compromise and increased complexity.

Monarchs found it a difficult task to build consensus and maintain support for conflict and they were often forced to compromise their individual goals or risk fracturing alliance unity. In times of peace, leaders spent much of their time cultivating allies and convincing unwilling partners to go to war on their side. Loyalty was fleeting, so coalition maintenance remained a full-time task even after the war had started. Allies often switched sides to “even the playing field” and protect against domination by any single leader or country.

Lesson 2. The synergistic effect of constraints and restraints denied the ability to achieve decisive victory.

In this era, it was difficult to fight wars because economic, physical and logistic constraints limited an army's warfighting effectiveness. Kingdoms had limited budgets and armies were small because of the expense to raise and maintain armies. Putting an army in the field was a difficult decision and these forces avoided battle when possible to avoid losing valuable professional soldiers. Terrain and weather forced long periods of inactivity and decreased combat effectiveness. Logistic support and resupply was extremely difficult so operations were of short duration. Command and control beyond the next tree line was slow and unresponsive and led to incremental operations that were often uncoordinated and unable to apply decisive force.

Self-imposed restraints made it even more difficult to win decisively. Monarchs sought to minimize casualties and collateral damage while in friendly or enemy territory. Within the kingdom, leaders wanted to protect their own economy and loyal subjects from harm. In enemy territory, royal troops avoided excessive destruction while improving relationships outside their kingdom to enhance their legitimacy and gain safe passage should they have to return next season. In combination, these constraints and restraints resulted in long operational lulls and sanctuaries that denied any one side the chance to achieve long-term gains.

Lesson 3. Limited conflicts brought limited peace.

The goals of 18th century wars were usually limited to consolidating power or punishing a wrongdoer. Monarchs did fight to gain territory as a method to increase

national prestige or in response to a perceived slight to royal honor. In every case, leaders limited the scope of war to the restoration of the status quo and avoided humiliating victories that could topple the other ruler from power.

However, these limited victories led only to a transitory peace. Monarchs, unwilling to press their advantage through to overwhelming success, stopped short of victory and enabled an adversary to recover and fight another day. Thus, wars were prolonged and separated by short periods of respite while both sides gathered strength to fight again. As a result, “rather than steadfastly following on a clear path to victory, members of an alliance were prone to relax once enemy pressure was eased and react only when danger was imminent. Successful endeavors in the field, therefore, tended not to rapid victory, but ironically, to prolong the war.”²⁰

Notes

¹ The Internet is a rich resource for historical data. Many universities have placed their history class notes on the web and there are numerous sites that discuss the intermixing of royal families and lineage pedigrees. For example, see the University of Virginia site at <http://www.people.virginia.edu/~rjh9u/scot/html> or use the *Information Please* reference site at <http://cbs.infoplease.com/>.

² Frederick the Great, *On the Art of War*, edited and translated by Jay Luvaas, (New York The Free Press, 1966), 24.

³ Noted military historian Russell F Weigley has written several seminal books about various methods for conducting war including *The American Way of War*. His book *The Age of Battles*, (Bloomington: Indiana University Press, 1991) is an excellent analysis on the failures, successes, and overall planning that became an essential part of post-medieval warfare. His discussion about limited victory is especially pertinent to this paper. See Chapter Eight on Frederick the Great. The specific reference is found on page 171.

⁴ *Makers of Modern Strategy*, edited by Peter Paret, (Princeton: Princeton University Press, 1986), 105.

⁵ Christopher Duffy, *Military Experience in the Age of Reason*, (New York: Macmillan Publishing Company, 1987), 12.

⁶ Geoffrey Parker, *The Laws of War*, (New Haven: Yale University Press, 1994), 54. This book offers a historical view of how constraints framed the arguments concerning “just” and “unjust” wars in the past and how it affects combat operations today.

Notes

⁷ As one might expect, the United States Military Academy's History Department is an excellent resource when studying lessons of warfare in the past. I found an outdated but concise text on 17th and 18th century warfare to be especially helpful. See LTC Dave Palmer and Maj Albert Britt, *The Art of War in the 17th and 18th Centuries*, (West Point: Department of History, 1972) for West 13.

⁸ Weigley, 195.

⁹ Christopher Duffy, *Frederick the Great*, (London: Routledge, 1985), 295.

¹⁰ Duffy, *Military Experience in the Age of Reason*, 13.

¹¹ *Ibid*, 305.

¹² *Makers of Modern Strategy*, 98.

¹³ Duffy, *Frederick the Great*, 11.

¹⁴ Palmer and Britt, 100.

¹⁵ *Ibid*, 60.

¹⁶ Larry H. Addington, *The Patterns of War Since the Eighteenth Century*, (Bloomington: Indiana University Press, 1984), 5.

¹⁷ See Internet site <http://tetrad.stanford.edu/Frederick.html/> 49. Updated by Ed Allen from Stanford University. He provides the version of the *King of Prussia's Military Instruction to his Generals* that I used. Lt. Colonel T. Foster translated the text at the end of the 18th century. The quote is found on page 49.

¹⁸ Duffy, *Military Experience in the Age of Reason*, 315.

¹⁹ Weigley, XV.

²⁰ Palmer and Britt, 85.

Chapter 3

The Changing Face of American Military Operations

The fall of the Berlin Wall ushered in the beginning of a new era for the United States. Since its birth as a nation, America had never existed in a world where it acted as the unrivalled economic and military superpower. The collapse of the Soviet Union meant that the United States assumed the role of undisputed world leader. Unfortunately, this was an especially difficult period to assume the mantle of global power as the US faced a rapidly evolving, complex international environment. The stability of a bipolar world quickly faded and devolved into one filled with greater uncertainty, accelerating rates of change and increased potential for conflict. Regional actors, with their sponsorship from the two superpowers gone, found themselves grappling with numerous internal and external problems. Outbreaks of violence occurred more frequently throughout the decade caused by dramatic political and economic changes, reawakening cultural, ethnic and religious differences, increased proliferation of weapons, and a growing worldwide shortage of resources

With the Soviet Union no longer an immediate threat, the US' fifty-year old focus on containing communism became obsolete. In response, policymakers reassessed the US approach to national security and its strategic priorities. This reexamination began during the Bush administration and focused on the question of how best to meet America's

global responsibilities while continuing to protect its vital national interests. Upon taking office in 1992, President Clinton's national security experts finished the review and articulated a new strategy designed to "engage allies and potential adversaries in active and peaceful efforts while enlarging the number of free and democratic nation's around the globe."¹ The evolving strategy put America into an activist role with the goal of shaping the international environment to ensure national prosperity and building a more peaceful world.

U.S. Military Operational Tempo: A Growth Industry

The demise of the Soviet Union led to fundamental changes in the shape and disposition of the Armed Forces. As the threat of nuclear war receded, a debate brewed over national priorities and post-Cold War defense requirements. To assist in shaping the debate, policymakers conducted three separate examinations of military strength and force structure within the first half of the decade.² As a result of these reviews, the diminished threat and a reemphasis on domestic issues, the military found itself with fewer people and less money. From 1991 through 1999, the "peace dividend" cut total end strength by over 40% and saw the defense portion of the federal budget fall to its lowest percentage since 1939.³ The forces on active duty to begin the 21st century are smaller than they were in 1950, before the start of the Korean War: 1.39 million vs. 1.46 million.

As the military shrunk in size, it also moved from a forward-deployed force permanently stationed overseas to a power projection force located mostly in the continental US. When the wall came down, the US no longer required as many forces on the forward lines constantly ready to repel an immediate Soviet attack. As a result, the

monolithic focus on the USSR shifted towards a more worldwide perspective. To meet these new global responsibilities, America's military transformed into an expeditionary force ready to respond to crises with personnel and equipment temporarily deployed from their bases in the continental United States (CONUS). Over the next decade military members permanently stationed abroad declined precipitously as hundreds of thousands of US troops returned to their homes.⁴ Wholesale units returned from overseas assignments or disbanded with members distributed to other CONUS-based forces.

A more uncertain world, new activist strategy and freedom from fear of Soviet retaliation contributed to an increased willingness to use the military in a wider variety of roles than in the past. Military operations increased exponentially as the US shifted from the Cold War's bipolar containment policy to a strategy of engagement designed to shape the international environment, respond to crises, encourage emerging democracies and protect human rights. No longer exclusively reserved for combat operations, the US military took on new or unfamiliar missions including humanitarian, peacekeeping, peace enforcement and punishment campaigns.

This new national security strategy or the "Clinton Doctrine" as it became known specifically encouraged military support in operations other than war. President Clinton clearly articulated his belief in using military forces in nontraditional ways when he talked to NATO troops in June 1999. "Whether you live in Africa or Central Europe or any other place, if somebody comes after civilians and tries to kill them en masse because of their race, their ethnic background or their religion, and it is within our power to stop it we will stop it."⁵ Numerous opportunities around the globe tested the president's doctrine, and meant a booming business for the US Armed Forces. Operational tempo

during the 1990s reached unprecedented levels, as the military remained nearly continuously deployed conducting the full range of military missions. According to some estimates, “the U.S. military has been used for unexpected contingency operations about once every nine weeks since the end of the Cold War.”⁶

Policymakers found the US military an especially attractive tool for engagement and enlargement because it possessed unique capabilities required to implement the Clinton doctrine. Only America’s Armed Forces maintained a responsive deployable force that could be tailored to meet specific contingencies. For example, in one case the Department of Defense dispatched a battalion of combat support engineers and health care providers to assist a third world nation after a natural disaster. In another, the military built an air bridge lifting supplies to feed starving nomads during a famine or sent troops in a peace enforcement role to separate warring factions. Simultaneously, the US military could provide self-protection should violence occur and owns the exclusive capability to expand this force protection umbrella over other international organizations or noncombatants already situated in the area of interest.

Additionally, the US Armed Forces owned the knowledge and information capabilities to integrate and orchestrate different multinational and nongovernmental organizations on short notice into large-scale contingency operations. Success during a humanitarian crisis or contingency response depended on the US military’s command, control, communication, computer and intelligence (C4I) capabilities to effectively coordinate multiple independent actions. General Shelton, Chairman of the JCS made this point succinctly in a speech at Harvard University, “if the scale of the catastrophe

dwarfs the ability of international relief agencies to respond, such as Rwanda, then the military can be used in a most efficient and effective factor.”⁷

Coercive and Punishment Operations

As we have seen, absent the stability of the Cold War, conflict around the globe increased and the US responded with military forces more often than in the past. In addition to humanitarian and peace operations, the president called on the US military to conduct punishment and coercive campaigns against rogue actors who engaged in internationally recognized misconduct.

For the purpose of this paper coercion or compulsion is defined as the “flexible, controlled, and proportionate use of force to achieve political objectives.” The use of military force to coerce an adversary is almost as old as warfare itself. Sun Tzu, Frederick the Great, and countless great powers have used coercive strategies in an effort to accomplish their objectives. Coercive operations, designed to apply pressure on aggressors to meet international obligations or force an end to genocidal and ethnic conflicts, grew into a key component of the Clinton doctrine.⁸ The frequency of these types of operations further accelerated operational tempo growth and diluted the military’s focus away from their core mission to “fight and win our nation’s wars.”⁹

Although closer to traditional combat missions than humanitarian or peacekeeping operations, these punishment or coercive campaigns lie in a gray area outside the traditional American concept of war. These actions raise tough issues of legitimacy, risk and cost for policymakers. Since the campaign’s objectives are restricted to changing behavior or modifying the actions of an adversary, there is strong public debate about whether there is a moral or legal imperative for intervention or violating another nation’s

sovereignty. Policymakers also debate whether the potential for success outweighs the risks for the mission.

These operations are not designed to demolish a foe, they are limited in scope with narrowly defined objectives that use the application of measured violence to bend an adversary to our will. Coercive campaigns include actions to enforce agreed upon sanctions or punish a violator as an inducement to meet internationally imposed obligations. National survival is not at stake when contemplating a coercive action, so debates about the wisdom of conducting these operations often rest upon the ability to gain and maintain legitimacy both at home and abroad. Legitimacy defined here as “the perception by a specific audience of the legality, morality, or rightness of a set of actions” has many dimensions and raises critical issues for policymakers.¹⁰ An operation’s legality depends upon domestic and international law, morality rests on striking legitimate targets with appropriate levels of force and rightness is measured by whether the risks are acceptable and the ends just. Thus, to preserve legitimacy, coercive operations must be perceived as a just cause using minimal amount of force with discriminate attacks that focus exclusively on the intended target.

Additional factors also play in maintaining legitimacy, especially when viewed through the different filters used by various actors. One key measure of legitimacy for every audience is determining the appropriate level of force to use while avoiding casualties for friendly military forces and civilians on both sides. Casualty avoidance is important because, although these operations are conducted short of actual war, they are still performed in a very complex war-like environment and there is no guarantee they will be bloodless for either side. There is always the risk of civilian losses since the

application of force is always a dangerous undertaking and human error, targeting mistakes or accidents can lead to unintended casualties. On the flip side, there is always risk to US forces when conducting these campaigns because servicemen and women must still put their lives on the line performing their combat duties. Forces observe very strict rules of engagement during these operations to reduce risk, enhance legitimacy, prevent escalation and minimize casualties.

Airpower in Coercive Campaigns

Over the last decade, American airpower took center stage, as it became the “approved solution” for conducting coercive or punishment campaigns. There are numerous reasons for this reliance on airpower. First, airpower is flexible and responsive, with the ability to rapidly deploy from anywhere in the world and produce a variety of effects including lift, presence or precision strike. The precise application of firepower enables the ability to measurably “turn up the heat” and send a clear message to an adversary.

This precision capability also protects legitimacy by decreasing the potential for collateral damage and inadvertent civilian casualties. Since air operations require a relatively small operational footprint with forces normally based a safe distance from the forward area, fewer Americans are placed directly into harms way. America’s technological advantages in delivery platforms, stealth, self protection and weaponry combined with innovative employment tactics reduce the direct risk to aircrews. Finally, aerospace forces can pack up for redeployment and disengage quickly once operations are complete.

Since Desert Storm, policymakers have frequently called upon airpower to accomplish the full gamut of options from traditional strike operations to less-familiar aerial enforcement missions designed to ensure compliance with international sanctions. The regularity of these campaigns has raised the operational tempo for the US military to new heights. As Secretary of the Air Force Peters discussed in a February 2000 speech, “Since 1989, we are now 33% smaller and 400% busier. There are families who are separated over 200 days every year. We feel lucky if we can get that down to 120 days a year, one day in every three.”¹¹

The requirement for these types of coercive airpower operations continues to grow and a systematic analysis will enable insight into the advantages and drawbacks of these types of campaigns. This examination focuses on recent aerial enforcement operations over Iraq and Bosnia and the Desert Fox and Allied Force punishment campaigns and analyzes the objectives, externally imposed constraints, self-imposed restraints and desired endstate for each operation. The goal is to identify commonalities across these different types of operations and discern key differences from traditional wartime air campaigns to improve the potential for success in the future.

Aerial Enforcement Operations

Iraq: Operations Northern and Southern Watch. At the end of Operation Desert Storm the United Nations Security Council (UNSC) imposed sanctions on Iraq until it ended systematic repression of the Iraqi civilian population and met all UN disarmament and inspection mandates.¹² Saddam Hussein’s initial refusal to comply with these resolutions led the UN to place no-fly restrictions in both northern and southern Iraq.

These no-fly zones were designed to identify and respond with decisive force against violators flying in the designated areas. Initially, the coalition limited retaliatory strikes to attacks against the specific threatening aircraft or air defense site. The rules of engagement broadened as Saddam Hussein continued to challenge aircraft flying in these no-fly zones. In 1996, Iraqi intransigence worsened after UNSR 687 required Iraq to dispose of its weapons of mass destruction production facilities, equipment and missiles with a range over 150 kilometers. As a result of Hussein's noncompliance and increased belligerence, coalition aircraft expanded the no fly zones into an aerial enforcement campaign that allowed strikes against the entire air defense system, associated command and control facilities and suspected weapons of mass destruction production and storage facilities.

- **Objectives:** Initially, the UN used coalition airpower to meet three objectives: Enforce the UN resolutions, protect civilians while conducting humanitarian operations and provide surveillance over the area of concern.¹³ In 1996, UNSC added an additional objective to enforce the requirement for unconditional destruction, removal, or rendering harmless, under international supervision, of weapons of mass destruction.
- **Constraints:** Regional allies wanted US forces to assume a low profile to avoid unwanted visibility and protect coalition viability so they limited the number of personnel, bases and equipment in the region. To ensure continuing host nation support, the US restricted the number of permanently stationed personnel and bases in the Middle East. This constraint led to a heavy rotation schedule for short-term temporary deployments into and out of the region.

- **Restraints:** The major restraints for these operations included numerous targeting restrictions and limited response options. The strict rules of engagement allowed coalition forces to attack aircraft that flew into the no-fly zone and they could not follow or shoot the violating aircraft once it returned to Iraqi airspace. Airstrikes were limited to attacks against air defense sites actually targeting coalition forces. Attacks against Iraqi targets became less restrictive over time and eventually included air defense systems, command and control and suspected WMD sites.

However, to enhance the moral and rightness of the operation, coalition forces used extraordinary measures to protect against collateral damage and accidental attacks on civilians. These measures include precise targeting requirements and narrow release parameters as well as less orthodox methods such as using concrete bombs that can still destroy a target but “minimizes the risk that explosive bomb fragments will kill or wound innocent Iraqis who might be nearby.”¹⁴

- **Endstate:** Both ONW and OSW operations are ongoing while Hussein continues to refuse to comply with UNSR mandates and challenges coalition aircraft. Although every coalition airpower strike contributes to the systematic destruction of the Iraqi air defense system, maintaining the status quo offers many advantages for Saddam Hussein. First, it gives Hussein the initiative and provides opportunities to attack the moral and legal legitimacy of coalition operations. Saddam understands the longer the operation continues, the harder it becomes for the US and its allies to support the rightness of staying the course.

Hussein also uses every coalition attack to undermine legitimacy with claims about civilian casualties. Saddam’s goal was to strain coalition integrity and gain

international sympathy. In many cases, he deliberately put the civilian population at risk by placing mobile air defense systems in heavily populated areas and challenging the coalition to attack.¹⁵ As the operation drags on, the coalition must morally justify the effect these attacks have on Iraqi civilians to the rest of the world. For US policymakers, an open-ended mission makes it more and more difficult to defend the cost of continuing the operation (estimated to be in the billions of dollars) to the American public.

Saddam also gains militarily by dragging out the campaign. The longer the operation continues, the greater the risk for coalition aircrews because predictability of routes, timing of sorties and a familiarity of US tactics increase the chance for a mistake that could enable Hussein's forces to shoot down a coalition aircraft.¹⁶ Operational planners are increasingly concerned that any "event" that causes an aircraft loss, whether through a hostile act or by accident, could break US will to continue or at the very least, force a redefinition of the strategy against Iraq that ends the enforcement operation.¹⁷

Bosnia: Operation Deny Flight. In the early 1990s, the Federal Republic of Yugoslavia began to splinter into ethnic factions of Muslims, Croats and Serbs. The United Nations stepped in when the fighting worsened and devolved into genocidal campaigns of "ethnic cleansing." In 1993, the UN Security Council imposed an arms embargo throughout the region and passed Resolution 816 that extended a ban over all flights by fixed wing or rotary aircraft except those authorized by the UN over Bosnia-Herzegovina. The UNSC also authorized member states to take the necessary measures required to ensure compliance. NATO responded to the UN resolution by establishing

Operation Deny Flight to enforce the no-fly zone against violators. The atrocities continued and a new UN resolution expanded the no-fly-zone operation to authorize selective aerial strikes to protect UN ground forces working to ease the humanitarian crisis on the ground.

- **Objectives:** The original UNSC resolution focused on using airpower to monitor and enforce the no-fly zone. However, the purpose for the operation expanded as the humanitarian crisis deepened and UN forces on the ground increasingly came under attack. As a result, the UN added new objectives to “provide close air support in and around safe areas to support UN forces in the performance of the mandate, deter attacks against safe areas and use selective force to ensure freedom of movement for UN or humanitarian convoys.”¹⁸
- **Constraints:** The major constraints facing NATO forces included a challenging physical environment, complicated command and control set-up and limited availability of key aerospace assets. Bosnia’s rugged mountainous terrain and bad weather combined to make it an extremely challenging area for airpower to effectively monitor the ground situation and detect low flying aircraft. The convoluted “double-key” command and control system shared between NATO and the UN combined with the geographical constraints to drastically increase response times. This cumbersome dual-key system was not responsive enough to respond to rapidly moving events or emerging targets even when monitors identified a violation. For example, approval for a time sensitive strike had to move up and back through two completely separate chains of command and required four levels of simultaneous coordination on the NATO side and four on the UN side.¹⁹ Finally, although over

100 aircraft were involved in Deny Flight operations, limitations on the number of surveillance assets and electronic combat aircraft did impact the overall effectiveness for air operations and aircraft flying strike missions into hostile areas. Throughout the campaign, a lack of these “low density, high value” assets made it more difficult for NATO to find and engage rotary wing aircraft violating the no-fly zone. In some cases, AWACS coverage limitations created gaps in surveillance areas that were exploited by Serb helicopters. At other times, a shortage of surface enemy air defense (SEAD) suppression aircraft forced planners to reroute strike aircraft around suspected mobile air defense systems to reduce the risk of attack to acceptable levels.

- **Restraints:** NATO and the UN imposed strict targeting and engagement rules for Deny Flight operations to protect civilians and prevent fratricide against friendly forces both in the air and on the ground. These restraints led NATO into a reactive strategy that required unambiguous identification prior to shooting at the violator and a lengthy unresponsive approval process before engaging a potential violation. The arduous procedure included, “first a verbal warning over international frequencies, then coordination through multiple layers and permission to fire from the NATO commander.”²⁰

A reactive engagement strategy also raised tactical challenges for aircrews concerning self-defense since the ROE allowed strikes against air defenses only when an aircraft was under attack. Aircrews faced a potentially deadly dilemma over when “hostile intent” occurred in order to respond with lethal force. The Serbian attack on Captain O’Grady’s F-16 is a good example of this dilemma. Prior to the shoot down, F-16s consistently flew sorties inside the engagement ring of a SA-6 but could not

attack the site since the SAM operators routinely tracked them without actually shooting at the aircraft. The Serbs understood their adversary's reliance on a reactive strategy and bided their time until NATO had been lulled into a daily routine. Then, with little additional warning, the Serbs successfully shot at and destroyed O'Grady's aircraft.

- **Endstate:** Deny Flight ended in December 1995 when the Implementation Force (IFOR) deployed into Bosnia and took over operations in support of the Dayton Peace Accords. Although not a complete success, Deny Flight did put an end to violations of the no-fly zone by fixed wing aircraft. In 1994, NATO attacks on four Serb aircraft violating the no-fly zone and a strike on the airfield where other Serb aircraft launched from also sent a clear message of NATO resolve. The operation enhanced the protection of UN forces but was less successful stopping Serbs ground attacks on military and civilians.

Punishment Campaigns

Iraq: Operation Desert Fox. Coalition forces conducted Operation Desert Fox as a punishment air campaign in December of 1998 to convince Iraq to comply with UN resolutions and allow inspectors to renew their supervision over the dismantling of Iraq's weapons of mass destruction (WMD) production capability. Since the end of the Gulf War, Saddam Hussein used a two tiered strategy to hide what remained of his WMD program from inspectors. On the one hand he played a shell game with his high value assets, camouflaging or continuously moving components to avoid detection. On the other, he denied UN personnel entry in Iraq, harassed and threatened inspectors at every opportunity and finally denied UNSCOM access to suspected sites. As a result of Iraqi

stonewalling, coalition forces began a four-day air operation, designed to inflict substantial damage on the Iraqi air defense and command and control system, known or suspected missile and WMD production and storage facilities, and Republican Guard forces loyal to Saddam Hussein.

- **Objectives:** President Clinton publicly described two objectives: 1) Compel Iraqi compliance with UN resolutions and UN Special Commission (UNSCOM) inspection regime requirements. 2) Diminish Iraqi ability to threaten or intimidate its neighbors. One additional unstated objective was to use the airstrikes to increase the pressure on Iraq to remove Saddam Hussein from power. As a Washington Post article observed, “Desert Fox is an attempt to either fatally weaken the underpinnings of Saddam Hussein’s regime or kill him outright.”²¹
- **Constraints:** Operational constraints for Desert Fox centered on the availability of assets to conduct the campaign and host nation support for basing rights in the region. After Desert Storm, the coalition kept a relatively small aerospace force behind to support UN operations. The in-theater forces required augmentation to conduct a punishment campaign the size of Desert Fox so the US Navy and USAF deployed additional forces for the campaign. Simultaneously, the US continued to support other air operations in global hotspots on the Korea peninsula and Europe. Consequently, there were “just enough” forces in theater to accomplish all the missions while minimizing the risk to coalition aircraft.

Many Middle Eastern allies, especially the Saudis, were wary of allowing additional coalition forces to bed down in their countries. Past assistance to the US and UN for these types of operations had put the Arab nations on the horns of a

dilemma: any action against Iraq created internal dissension among regional Muslims, yet a tepid response was too weak to topple the Hussein regime. Based on lessons learned and to protect their own legitimacy, these Arab allies were determined to control the campaign's intensity and decrease the potential for escalation. As a result, GCC partners limited the numbers of aircraft allowed to bed down in-theater and restricted the types of missions that these aircraft could fly from their soil. In fact, Saudi Arabian concerns were so great they did not allow strike operations to launch from their bases.²²

- **Restraints:** The coalition conducted Desert Fox under the auspice of international mandates with restraints on targets and campaign length to enhance the legal, moral and rightness aspects of the operation. Previous sanctions and UNSC mandates provided the coalition with a legal umbrella and international legitimacy. Yet, despite strong external support, internal coalition integrity was quite fragile with dissenting opinions over future courses of action from key allies including the French and Russians.²³ To enhance the moral aspect of the bombing campaign attacks focused exclusively on punishing the Iraqi leadership while portraying the Iraqi civilians as victims of Saddam Hussein. British Prime Minister Tony Blair made this distinction in his statement that “our quarrel is not with the Iraqi people. Our quarrel is with Hussein alone and the evil regime he represents.”²⁴

The coalition also went to great lengths to maintain the moral high ground by avoiding civilian casualties. Planners took precautions to minimize the potential for collateral damage through selective targeting and heavy use of precision attacks with restrictive rules for weapons release. Despite the capability to hold any military

target at risk, the coalition declared particular types of target sets or targets in specific locations off-limits in an effort to lower the risk to nearby civilians. Many targets on the exclusion list were located in heavily populated areas and the potential for collateral damage was deemed too high even though the coalition planned to use precision weapons. This strategy served as a double-edged sword for the coalition because while these restraints strengthened the campaign's legitimacy, it also created sanctuaries for Saddam Hussein to use to his advantage. Iraqi exploitation of dual-use industrial and chemical facilities is a good example of sanctuaries created by allied restraint. These buildings housed legitimate civilian functions but were also used by the Iraqis to manufacture or store weapons of mass destruction. No commander wanted another Desert Storm-like "baby milk factory" incident so many dual-use targets, despite their military potential, were taken off the Desert Fox list.²⁵

Finally the approach of the Muslim high holy days of Ramadan limited the overall length of the campaign. The beginning of the operation had been moved back once already and if the coalition delayed again, they would have to wait until Ramadan ended. A lengthy wait meant the coalition would lose the trip wire effect and moral impact provided by the recently released UNSCOM report criticizing Iraqi intransigence for inspections. The coalition decided to end the attacks before Ramadan began to avoid losing international support and enhance the moral and rightness effects of the crusade against Hussein. The strikes ended after four days to avoid offending Arabs around the world despite viable targets that had not yet been attacked and an ongoing assessment of whether the airstrikes had accomplished the military objectives.²⁶

- **Endstate:** Desert Fox was successful in degrading Saddam Hussein's ability to manufacture, store, maintain and deliver weapons of mass destruction. In the words of Secretary of Defense Cohen, "We estimate that Saddam's missile program has been set back by at least one year."²⁷ Airstrikes against Iraq's military infrastructure and air defenses also diminished Saddam's ability to threaten his neighbors or coalition personnel serving in the region to enforce UN sanctions. However, Desert Fox failed to compel Iraq to comply with UN resolutions and provided Saddam Hussein with another opportunity to thumb his nose at the US and bar UN inspectors from ever returning. The limited nature of the campaign had the unintended effect of strengthened Saddam's hold on power while further fracturing the solidarity of the coalition. At the end of the day, Hussein withstood the airstrikes and claimed victory while improving his stature among some Arabs in the region.

Kosovo: Operation Allied Force. The crisis in Kosovo began brewing in the mid-1990s when racial and ethnic hatred flared and fighting broke out between Serbian and ethnic Albanians. As the conflict grew, a humanitarian crisis erupted with the displacement of over 300,000 refugees. A fragile truce remains in place until 1998 when Serbian and the Kosovo Liberation Army renewed their attacks on each other. The violence continued to escalate in December 1998 through January 1999 while NATO and the UN worked to put a peace accord into effect. Talks ended when the Serbian leader, Slobodan Milosevic rejected NATO demands for a peaceful settlement in Kosovo. In March 1999 NATO began Operation Allied Force, an air campaign to curb Serbian atrocities and punish them for their refusal to abide by the NATO brokered peace accords.

- **Objectives:** There were five stated objectives for the NATO-led airstrikes.
 1. Ensure a verifiable halt to all military action and the immediate ending of violence and repression in Kosovo
 2. Withdrawal from Kosovo of Serbian, military, police and para-military forces
 3. Agreement to the stationing of an international military presence in Kosovo
 4. Agreement to the unconditional and safe return of all refugees and displaced persons and unhindered access to them by humanitarian aid organizations
 5. Provide credible assurance of Serbian willingness to work on the basis of the Rambouillet accords in the establishment of a political framework agreement for Kosovo in conformity with international law and the charter of the United Nations

- **Constraints:** The US, by working in concert with NATO, ensured international support for the operation and this positive backing strengthened the legitimacy of action. However, just as in earlier campaigns, the number of different viewpoints within a multinational organization made protecting legitimacy more complicated. Allied differences of opinion over the scope of the campaign led to a decision tree made up of a system of compromises for determining the objectives, planning the strategy and conducting the airstrikes. Early in the operation, decision making by committee and political constraints made it extremely difficult to build and execute a coherent campaign since each coalition member could veto targets scheduled to be attacked. This veto-power forced NATO into a reactive, incremental approach reworking the strategy on a daily basis and forced planners to cancel sorties (in some cases that were already airborne) slated against the newly declared “off-limits”

targets. In some cases, NATO operations were politically hamstrung as, “European heads of state warned that their governments would fall if attacks on certain targets were carried out.”²⁸

NATO also coped with limited numbers of aircraft available at the beginning of the campaign. One reason for the shortage was the original assumption that Allied Force would be a two to four day air war. Initially NATO had enough assets in-place to surge and meet the requirements for a short war. As the campaign continued well beyond the original estimates, more aircraft deployed and the numbers built up over time. The initial lack of aircraft and in-place forces contributed to the incremental nature of the campaign and diluted the ability of the airstrikes to land a haymaker blow to Serbian military forces. One planner commented, “NATO was not prepared for round-the-clock operations until early May, six weeks into the war.”²⁹ Limited assets and the incremental approach allowed Yugoslav forces enough freedom of movement on the ground to “murder, rob, rape and expel the ethnic Albanian population of Kosovo.”³⁰

In addition to the constraints posed by working within the alliance, the Balkan weather also limited NATO action, contributing to the slow start and complicating the air war for the allies over Kosovo. Although NATO plans called for continuous operations from the start of the campaign, bad weather clearly hampered the initial pace of Allied Force. Anthony Cordesman, a scholar at the Center for Strategic and International Studies writes, “Weather was particularly important during the first month of the war. There were only seven favorable days of weather in the first 21 of

the air campaign and ten days in which at least 50% of the strike sorties had to be canceled.”³¹

Poor weather remained a challenge that constrained air operations throughout the conflict. The Commander of Allied Forces Southern Europe, Vice Admiral Ellis discussed the extent of the weather concerns: “We experienced greater than 50% cloud cover more than 70% of the time.”³² After action reports nearly unanimously agreed that poor weather hampered the air war and caused operational lulls that enabled Yugoslav ground forces operating under the cloud cover time to regroup, disperse or regain the initiative.

- **Restraints:** For the first time in its history, NATO conducted military operations in a country that did not belong to the alliance. The alliance placed numerous restraints on the operation to maintain its fragile cohesion while using just enough force to meet the objectives and avoid military failure that would signal the end of NATO. Operational plans called for using the minimal amount of force to protect its legitimacy and credibility while conducting the operation with restraints to maintain alliance cohesion, and avoid casualties.

To maintain alliance cohesion, NATO members planned for a short war and restricted the scope and intensity of the campaign. General Clark belief that, “there was a 40% chance that the war would end within three days.” This assumption led planners to cut the number of options down to a one that included a three-phase incremental air campaign.³³ The first two phases were designed to destroy the Yugoslav air defenses and infrastructure below the 44th parallel. In the final phase, NATO would strike targets in and around the capital city of Belgrade. If Milosevic

continue to defy international demands after these attacks, NATO had no additional contingency plans because, “the Clinton administration and General Clark feared that if the alliance’s 19 member states were asked to contemplate such a possibility, they would not agree to begin the war at all.”³⁴

To further bolster allied unity and build legitimacy to begin combat operations, NATO eliminated the option to use ground forces before the start of the campaign. The “air-only” option avoided fracturing the alliance since many of the allied nations would not commit to a ground invasion plan. The US took the lead in ruling out ground troops since America’s Armed Forces would have to provide the majority of the personnel and could not afford to deploy additional troops already supporting contingencies elsewhere. Policymakers were also concerned that the American public would not support US troop involvement in another ground invasion with greater risks and long-term requirements than Bosnia.³⁵

Alliance members protected the moral and legal aspects of Allied Force by making a major effort to avoid casualties as well as limit collateral damage. This restraint affected operational effectiveness because it put many targets off-limits and added extremely restrictive release requirements on the aircrews including visual identification and verification of targets attacked using “dumb bombs.” These extensive target engagement prerequisites negated NATO’s ability to use radar for weapons delivery in bad weather despite its proven accuracy for target aiming. The fear of collateral damage made precision weapons NATO’s best option, even when attacking previously approved targets. As a result of heavier than planned use of precision guided munitions (PGMs), worldwide stockpiles dwindled and shortages

occurred. By campaign's end, over 34% of the weapons dropped in Allied Force were PGMs.³⁶

- **Endstate:** The debate continues over the success or failure of Allied Force but the NATO campaign did accomplish at least two of the five stated objectives. Milosevic has withdrawn his forces from the disputed area and there is currently an international peacekeeping military presence in Kosovo. However, ethnic violence continues and tensions remain high throughout the region with no end in sight.

Operation	Mechanism	Objectives	Constraints	Restrains	Endstate
Northern & Southern Watch	Aerial Enforcement	<ul style="list-style-type: none"> • Enforce UN resolutions • Protect civilians conducting humanitarian ops • Provide surveillance in AOR • Enforce unconditional destruction, removal, or render harmless of WMD 	<ul style="list-style-type: none"> • Basing • Footprint 	<ul style="list-style-type: none"> • Targeting restrictions • Coalition integrity • Collateral Damage 	<ul style="list-style-type: none"> • On-going
Deny Flight	Aerial Enforcement	<ul style="list-style-type: none"> • Enforce the no-fly zone • Provide close air support for UN forces • Use selective force to ensure freedom of movement for UN or humanitarian convoys 	<ul style="list-style-type: none"> • Physical environment • Command and control • Limited numbers of key assets 	<ul style="list-style-type: none"> • Rules of engagement • Coalition integrity • Collateral Damage 	<ul style="list-style-type: none"> • Partial success: Stopped fixed wing aircraft violations
Desert Fox	Punishment	<ul style="list-style-type: none"> • Compel compliance with UN resolutions and inspections • Diminish Iraqi ability to threaten or intimidate its neighbors 	<ul style="list-style-type: none"> • Host nation support • Basing • Limited numbers of key assets 	<ul style="list-style-type: none"> • Targeting • Campaign length • Coalition integrity • Collateral Damage • Casualty avoidance 	<ul style="list-style-type: none"> • Partial success: Diminished capability to threaten neighbors but enabled Saddam to cancel future inspections
Allied Force	Punishment	<ul style="list-style-type: none"> • Halt to all military action and end violence and repression • Serbian, military, police and para-military withdrawal • Agreement for international military presence in Kosovo • Safe return of all refugees and displaced persons • Establishment of a political agreement for Kosovo 	<ul style="list-style-type: none"> • Physical environment • Limited numbers of key assets 	<ul style="list-style-type: none"> • Targeting • NATO integrity • Collateral Damage • Casualty avoidance 	<ul style="list-style-type: none"> • Partial success as military fighting ended but peace enforcement ops and negotiations continue

Figure 1

Summary

The figure above provides an overview of the four aerospace operations described in this section. The caption identifies common trends for these types of coercive operations that offers aerospace planners a historical insight into challenges that they may face when planning and conducting future compellence campaigns.

Notes

¹ See the preface for the National Security Strategy's published annually by the Clinton administration from 1992 through 1999 to gain a perspective of how this concept has grown over time.

² There were three major reviews: the Bottom Up Review led by then Secretary of Defense Les Aspin, the Quadrennial Defense Review required by Congress, and the Commission on Roles and Missions (CORM). Each of these reviews included numerous smaller scale studies done by the individual services or the Department of Defense.

³ Center for Strategic and International Studies, *American Military Culture in the Twenty-First Century*, (Washington DC: CSIS Press, 2000), 2.

⁴ Daniel Goure & Jeffrey Lewis, "The Strained US Military", *National Security Studies Quarterly*, Winter 2000, Volume VI, Issue 1, 23.

⁵ Lawrence J. Korb, "Force is the Issue", *Government Executive Magazine*, January 2000, 31.

⁶ *Ibid*, 31.

⁷ General Henry H. Shelton, Chairman of the Joint Chiefs of Staff Speech at ARCO Forum, Kennedy School of Government/Harvard University, January 19, 2000, 6. The speech is available off the Internet at <http://www.dtic.mil/jcs/>. This speech is General Shelton's version of a "Weinberger Doctrine" that articulates his beliefs about why and when to use force.

⁸ Pat Towell, "The Limits of Intervention," *Congressional Quarterly Magazine*, 22 January 2000.

⁹ See the latest version of the National Military Strategy, *Shape, Respond, Prepare Now, A Military Strategy for a New Era*, 1997.

¹⁰ Joint Pub 3-07, *Joint Doctrine for Military Operations Other Than War*, 1995, II-5.

¹¹ F. Whitten Peters, Secretary of the Air Force speech to Defense Executives, 16 February, 2000.

¹² Copy of United Security Council Resolution 688 provided by US Central Command (USCENTCOM) planners to me during interviews 7 December 1999.

¹³ I am greatly indebted to General Dave Deptula, former Joint/Combined Task Force Commander for Operation Northern Watch for proving me with his comprehensive

Notes

briefing on ONW history and current operations. Additionally, I appreciate the time that MG Dodson, CENTCOM DCINC, and the entire CENTCOM staff took to discuss coercive operations in general and CENTCOM operations in particular. USAF Lt. Col Flash Walsh, Chief of Air Operations and the members of his division were especially helpful.

¹⁴ Steven Lee Myers, "Something New in the Iraqi Conflict: Concrete Bombs," *New York Times*, October 7, 1999, 1.

¹⁵ USCENTCOM staff interviews with the author, 7-9 December 1999.

¹⁶ Information based on discussions with USCENTCOM J-3 Air Operations staff over Iraq's long-range strategy. Also, see Steven Myers, "Something New in the Iraqi Conflict: Concrete Bombs," *New York Times*, 7 October 1999, 1.

¹⁷ This event could occur by accident, miscalculation or by Iraqi attack. In every case, Saddam Hussein would take the credit and use the event to bolster morale internally while trying to lower international support for the coalition and break US resolve. These observations are from USCENTCOM staff, interview with the author, 7-9 December 1999.

¹⁸ Michael O Beale. *Bombs over Bosnia: The Role of Airpower in Bosnia-Herzegovina*, (Maxwell AFB: Air University Press, 1997, 20.

¹⁹ Beale, 21.

²⁰ See Major Michael McKelvey, "Airpower in MOOTW," (Maxwell AFB: Air Command and Staff College Research Paper, March 1997), 18.

²¹ Rick Atkinson and Vernon Loeb, "A Limited Operation Could Limit Success," *The Washington Post*, 18 December 1998, A59.

²² Douglas Jehl, "US Fighters in Saudi Arabia Grounded," *The New York Times*, 19 Dec 1998, A9.

²³ William Drozdiak, "Opposition to Airstrikes Voiced in Key Capitals," December 17, 1998, A29.

²⁴ Ibid, A29.

²⁵ The attack on the "Baby-milk" factory was a defining event during Desert Storm that caused a reevaluation of targeting strategy. For a discussion of legal ramifications that affect today's operations see 27 August 1999 Air Force news article, "Lawyers Provide Guidance in Air Campaigns," at <http://www.af.mil/news>.

²⁶ Lennox, "Fox: The Results," *Jane's Defence Weekly*, 13 Jan 1999, 25.

²⁷ Secretary of Defense William Cohen Press Briefing, Dec 19, 1998.

²⁸ Bruce D. Nordwell, "Washington Outlook," *Aviation Week and Space Technology*, 23 August 1999, 27.

²⁹ Richard Newman, "The Bombs that Failed in Kosovo," *US News and World Report*, 20 September 1999.

³⁰ Dana Priest, "Tension Grew with Divide Over Strategy," *Washington Post*, 21 September 99, 1.

³¹ Anthony Cordesman, "Lessons and Nonlessons of the Air War Over Kosovo", CSIS report on the web at <http://www.csis.org/kosovo/LessonsExec.pdf>, 5.

³² Admiral James O. Ellis, "A View From the Top," public briefing. Information is from the War of Weather slide. Admiral Ellis' briefing is an open and honest personal

Notes

perspective of Allied Force and provides an outstanding picture from the military viewpoint. His briefing offers some sobering views of challenges the US military must face when conducting future operations.

³³ Priest, 1.

³⁴ Ibid, 1.

³⁵ For a senior ground leader's perspective see Colonel (USA, Ret) Joseph Collins May 23, 1999 *Boston Globe* article, "Ten Reasons to Avoid a Land War." The article builds a coherent framework to define when and where the US should commit ground forces in future conflicts.

³⁶ Bryan Bender, US Weapons Shortages Risked Success in Kosovo, *Jane's Defence Weekly*, 6 Oct 1999. Numerous reports discuss shortages of precision guided munitions. The US Air Force has addressed the issue and has stated officially that it plans to buy and build more of these weapons in the future. See Sheila Foote, "Services Reviewing Requirements for Preferred Munitions," *Defense Daily*, 20 October 1999, 1.

Chapter 4

Aerospace Power and Coercive Warfare

You need to know the rules for the contest before you start because if you plan for a knife fight and the bad guy brings a gun you're gonna lose...

—USCENTCOM Planners

In the decade of the nineties, the United States conducted multiple coercive campaigns with aerospace power often playing the lead role in these operations. Although these campaigns share the complexity and dangers of combat, they are also uniquely different in many ways from traditional methods of warfighting. The success or failure of future coercive attempts will depend on the ability to understand the enduring threads of continuity as well as the dramatic differences between traditional warfighting and these new age compellence operations. This chapter analyzes the parallels and disparities between coercive and warfighting campaigns and then provides a template for planners to enhance success when conducting future missions.

Threads of Continuity

In both coercive and warfighting campaigns, air supremacy remains the number one priority for military commanders. Just as in Allied Force, future political leaders will be increasingly reluctant to employ forces without air supremacy to guarantee operational freedom and protection from aerial attack. Before beginning the Balkan campaign,

General Clark added an unstated objective for the operation to “avoid losses of allied aircraft.”¹ This additional objective forged unity within the alliance and solidified allied leader support to start the campaign.

Gaining and maintaining air supremacy also provides commanders with the operational freedom needed to apply the pressure needed at the critical time and place to successfully compel an adversary. The importance of this freedom of movement is visible today in ongoing enforcement operations over Iraq.² The ability to conduct flights free from enemy attack allows aerospace forces to operate with impunity and strike critical targets or patrol the skies whenever and wherever required while enforcing the UN resolutions.

Aerospace power’s ability to deliver a wide array of discriminating effects is another enduring characteristic required for any type of military operation. Airpower’s capability to deliver a disabling, destructive or enabling effect remains key to responding across the full spectrum of military operations. When intervention is required, the flexibility to respond with a range of aerospace capabilities provides policymakers with deterrent and humanitarian options, buys time when required for informed decisionmaking, and enables a rapid, appropriate reaction that enhances success and protects US legitimacy.

The capability for precision engagement also remains a core requirement for conducting both warfighting and compellence operations. Future military success will continue to depend upon airpower’s ability to precisely deliver a variety of effects while minimizing collateral damage and civilian casualties. This precision engagement, as defined by Joint Vision 2010, is much more than just accurately striking targets.³ It includes an entire network of information, command and control and aircraft delivery

means from airdrops to disabling applications to accurate attacks on an adversary. Precision engagement does not replace the need for unguided weapons. However, the ability to deliver the desired effect with pinpoint accuracy may become the preferred method of operation for coercive operations such as in Desert Fox and Allied Force.⁴

Planners will continue to address the timeless constraints caused by geographical and weather challenges as well as limited numbers of assets and bases. The fog of war remains despite technological advances and US forces must still contend with the enduring complexity and unpredictability of the battlespace environment for any operation. Aircraft and weapons shortages will continue to restrict operations in the long-term since “future budget levels are inadequate to repurchase current capabilities, let alone modernize the force.”⁵ Operation Allied Force used the “equivalent of an MRC worth of air assets and other theaters released assets to support the highest priority operation.”⁶ Additionally, there will never be enough “high value, low density” resources and allocation of these assets to regional hotspots while supporting a global strategy will remain a contentious issue between geographical CINCs.

Even when employing limited numbers of assets, access to regional bases remains a continuing concern. America’s long-range airpower can conduct operations from the continental US but flying from forward-deployed bases offers the advantages of continuous presence and enhanced responsiveness. Unimpeded access to bases around the globe relies on the nation’s ability to nurture alliances and regional coalition partners. Once forces are deployed, planners must also grapple with additional tactical and operational constraints levied by the host nation. For example, early in Operation Northern Watch, the Joint Task Force commander was forced to cancel sorties at host-

nation request, causing operational pauses in the sanctions enforcement campaign. Eventually, the JTF commander and his Turkish hosts hammered out agreements to deconflict their operations but negotiations took time and planners required flexibility to deal with the effects of these constraints on the campaign.⁷

The US preference to conduct military operations under UN auspices or within a coalition will continue as well.⁸ Although these international operations enhance US legitimacy and public support, they also require compromise and consensus that can affect the mission's success. There will be times when military effectiveness is sacrificed to avoid fracturing the alliance's cohesion or diminishing the legitimacy of individual members.

Fundamental Differences for Conducting Coercive Campaigns

Despite some overlapping requirements, conducting a coercive air campaign is fundamentally different from performing a theater-wide warfighting air operation. Coercive operations are unique because of the overwhelming requirement to build and maintain legitimacy, limitations on the amount of allowable military force, and the difficult nature of defining victory and measuring progress. When building a coercive operation, planners must understand how these differences affect strategy development and the operational execution of the campaign.

1. Legitimacy, not national interest, is the driving factor for conducting coercive operations and protecting legitimacy may take precedence over military effectiveness. Before the Cold War, America went to war when an actor or actors threatened its vital national interests. The country, with legitimacy of the war never in doubt, fought to a final victory usually defined as unconditional surrender and occupation

of the enemy's territory.⁹ In contrast, over the last ten years, America has conducted coercive campaigns against an adversary with no definite linkage to vital interests and an endstate defined only by our unwillingness to send Americans into the area for long-term occupations. As defined earlier, legitimacy encompasses the legality, morality and rightness of the cause and often serves as the primary mechanism for sustaining the US commitment for these intervention missions.

In their seminal article on US –style coercion, Daniel Byman and Matthew Waxman identify five common features that infuse legitimacy into the action without any regard for military effectiveness.¹⁰ Although all five factors need not always be present, these generalizations serve as the foundation for the operation's legitimacy in the eyes of Americans and the international audience. These factors are:

- A preference for multilateralism
- An intolerance for US casualties
- An aversion to enemy civilian suffering
- A reliance on high-technology options
- A commitment to international norms

When planning these operations, commanders must understand that maintaining legitimacy will often take precedence over military effectiveness and planners must find a way to strengthen legitimacy while achieving the military goals. Building this parallel strategy is a difficult task and has led to harsh disagreements between military leaders in the past. During Allied Force, General Clark and his Air Component Commander, Lt. General Short fundamentally disagreed about the strategy for conducting the war. General Clark believed the campaign's intensity was subordinate to the top priority of

protecting allied unity and articulated his concerns when he said, “There was no single target that was more important, if struck, than the principle of alliance consensus and cohesion.”¹¹ Thus, the intensity of the campaign was limited to what the alliance could endure rather than the amount of force required to coerce the Serbs. General Clark’s focus remained on protecting alliance unity and limiting casualties by attacking a narrow group of targets.

Lt. General Short, the Joint Air Component Commander (JFACC) wanted to conduct a comprehensive air campaign with maximum military effect without regard to legitimacy issues and international public opinion. Frustrated in his efforts to orchestrate a classic air campaign that puts simultaneous pressure at the strategic, operational and tactical levels, Lt. General Short wanted to deliver a “knockout punch on the first night of the war to Belgrade’s power station and government ministries. His strategy was consistent with airpower theory and doctrine that advocates heavy blows to targets of high military, economic or psychological value as a way to collapse the enemy’s will.”¹² This disconnect between General Clark and Lt. General Short was never resolved and led to increased tension among commanders, allies and policymakers.

2. Unlike warfighting operations that rely on an overwhelming amount of firepower, coercive operations use the minimum amount of force that is militarily and politically acceptable. Commanders preparing to fight traditional wars strive to gain an overpowering advantage prior to conducting military operations. Historically, the United States fought its wars using an overwhelming superiority of military force and forces arms to win decisively. The Weinberger and Powell Doctrines reiterated the need for using an excess of means to create the conditions for success when committing US

troops to action.¹³ The build-up for Desert Storm was consistent with an overwhelming force philosophy that ensured the US military was not operating in the margin or using “just enough” capability that could prolong the campaign and increase the potential for casualties. In contrast, coercive operations often take the minimalist approach to avoid turning public opinion against US bullying tactics while enhancing force protection by putting the fewest possible Americans at risk. Since 1990, whenever the US conducted a coercive operation, policymakers or alliance members demanded commanders define their requirements based on the minimum acceptable forces required to accomplish the task.

3. It is difficult to define victory and measure progress for coercive campaigns but essential for building legitimacy and ending the operation. Coercive campaigns are inherently incremental operations with built-in thresholds to appraise the enemy reaction and then reapply greater pressure to the next threshold until the adversary bends to our will. This “hit, assess, hit harder” concept means that the definition of victory must be changed every time the campaign reaches a threshold and the adversary does not concede. Since it is impossible to tell which threshold will actually make an adversary quit, planners can only measure progress towards achieving a specific threshold. This incomplete and incremental picture makes it very difficult for planners to articulate the total length and breadth of the overall campaign. Thus, it is critical to build a coherent “worst case” campaign that defines the highest threshold while simultaneously building public support for the campaign’s goals before it starts. If the audience will only support the lower thresholds then increasing the pressure to higher levels will fracture legitimacy and led to limited coercive effects.

In the 18th century, Monarchs discovered that limited wars designed to disable rather than destroy an adversary led to an uneasy peace. The “loser” of the last war often used the pause in conflict as a time to rebuild forces and prepare to fight again. As the world enters the 21st century these 250 year-old lessons ring true again. Coercive campaigns do not “end” but rather, transition to new forms of engagement such as peacekeeping, peace enforcement or nation-building operations.

From Iraq to Europe to Korea, coercive campaign’s led to a long-term commitment for American participation in operations designed to sustain an apprehensive lull. In Iraq, Central Commander senior leaders refer to the current US strategy as a “don’t win but can’t lose” campaign.¹⁴ As General Short stated, “The Air Force was directed to start bombing Serbia to show “NATO resolve” but the officers in charge never were told what end state was desired for Kosovo. To this day we don’t know and I’ve never seen one articulated. It will be a long time before the United States can claim complete victory. We won’t be there for a long time.”¹⁵

Framework to Enhance Success

Despite the simplistic concept, compelling an adversary to do your will is a difficult and complex task. Because of the risks associated with a coercive strategy, planners need some general guidelines to increase the chance of success. The use of military force in order to coerce an adversary is based on the classic "carrot and stick" approach where one side communicates a reasonable and credible threat in an attempt to persuade the other side that compliance with the request is the less painful choice. If the threat alone is not enough, then military force is used as a further inducement to comply. Although easily explained, it is much harder to accomplish since compliance requires a concession from

one side and a brinksmen-type strategy involving the potential use of U.S. military forces on the other.

Successful coercion involves two-way communication so there must be a clear and unambiguous signal of the action required from the adversary. One method for ensuring clarity is the use of a clearly identified "threshold."¹⁶ The most visible threshold is the decision to cross over from exclusively diplomatic means to the military-diplomatic instrument of national power. The message is "once started, the destruction of your political strength and military capabilities will end when you comply." The initial use of force as a clear threshold decreases the chances for misperception or mixed signals and places the onus on the adversary to comply or begin general hostilities.

Closely related to the first point, the second requirement is the decision to use military force for coercion must be the last step before warfighting and *both sides must clearly understand that it is the final escalatory step*. If the U.S. must resort to military force, all other potential coercive actions should have already been taken. This means that should our attempt at coercion fail, we must be prepared to go to war or walk away from our objective.

This commitment and deep resolve enhance our chance for success in three ways: First, it increases the credibility of our threat to destroy what the leadership values most, since we will have made all the preparations to go to war if coercion fails. This action also means there is "no way out" or as Schelling calls it, "We've burned our bridges" since we put ourselves in a position where we must react as we have said we would unless the enemy complies.¹⁷ Second, a commitment to warfighting decreases the chance for confusing and conflicting signals to interfere with our message. If the debate ends

prior to the decision to go to war, coercive actions send a high quality message of the seriousness of our intent. An example of this is near the end of Desert Shield. Saddam Hussein may have been confused by the debates in the press and Congress prior to the final votes for war. Yet, once the U.S. reached a consensus, a coercive effort prior to the start of Desert Storm could have had profound effect. The final advantage for war preparation prior to using military coercion is that it puts the U.S. in a better position to fight a war should coercion fail.

Critics could argue that this leaves the leadership in a "do or die" position where the U.S. will use military force for coercion only as a last resort. This may very well be true, but because of the high-stake risks involved that may not be bad. If we are not prepared to see the planned course of action through to the end, then the threat is not as credible and military force may not be the appropriate answer. But if we consistently use military coercion as a last step, it will effectively demonstrate our resolve and increase the credibility of future coercive actions especially should we follow through with our threat.¹⁸ Even as a last step, the utility of military action remains because it still allows the political leadership to buy time for diplomacy to work and continues to provide a low cost option for achieving our goals should coercion be successful.

Two Different Coercive Mechanisms

Successful coercion depends upon the ability to inflict enough pain so an adversary loses the will to continue or denies an adversary's ability to achieve the desired goals by destroying his military capability. American coercive efforts in the past have focused on attacking either political will or the enemy's military capability. Although this section

discusses each mechanism separately, there may be merit in the future to exploit the positive effects of parallel attacks on both to achieve a greater coercive effect.

Denial Strategy

There are many advantages for using a denial strategy that attacks an adversary's military forces. These operations are easily quantifiable by measuring success based upon the amount of military capability destroyed, making it less difficult to determine progress towards the desired goal. Aerospace power is particularly well suited to a denial strategy that negates an opponent's ability to reach its strategic goals. Airpower can discriminately attack an adversary's military capability without threatening the operation's legitimacy while minimizing the chance for unintended consequences to civilians. The NATO airstrikes against the Serbs in 1995 is a good example of a successful denial strategy.

On the negative side, an adversary may accept the loss of military capability without acquiescing to our demands. Saddam Hussein's forces have been devastated after a decade of pounding from coalition airpower but he remains in power and continues to defy UN sanctions. There may also be situations where attacking an enemy's forces is not possible due to the constraints and restraints discussed earlier in the paper.

Attacks on Political Will

Attacks on political will are much more difficult but can have positive results as long as strategists understand that airpower can be the most capable tool for coercion by threatening an adversary's power base. The proposed theory of "political survival" that follows is designed to "even the odds" and increase the chance for successful coercion.

Within the general framework, coercive potential for attacking political survival can specifically be broken into separate parts.

The theory targets what every leader fears most; vulnerability to internal security threats due to the loss of political strength.¹⁹ The outcome does not require a coup or revolution, but only the ability to threaten, and if required, systematically destroy some or the entire power base. Successful coercion requires high-fidelity intelligence that should become available as new information architectures are redirected towards a more regional focus. Also, since the source of each leader's power is unique, the targeting process will always be different. This theory focuses on the coercive effects of attacking two different categories of leadership; those primarily concerned with remaining in power, and those concerned with remaining in power and the welfare of their population.

A. The Power-Only Category

The leadership of any country whose sole focus is to retain power usually does not have a high regard for the status of the country's population. This is true because public support does not affect the leadership's ability to stay in power. Thus, attacks on the population probably will have little effect. In most cases, however, the leadership relies on an internal security organization tasked to protect the leaders power-base and it may be a suitable target for coercion. For the purpose of discussion, the power-only category is broken into two distinct sub-sets; the unitary leader and the ruling elite.

A1. Unitary Leader

A Unitary Leader is one who has consolidated all, he is the sole decision-maker and the focal point for all government actions. Authoritarian or totalitarian-type dictatorships fit into this category. The Unitary Leader usually relies on an internal security

organization for power-base protection. This security organization provides protection by controlling information, monitoring potential opponents and suppressing dissent.²⁰ There are numerous examples of internal security organizations used to protect a leader's power; Hitler's SS and the Gestapo, the Soviet Union's KGB, and the Shah of Iran's elite Palace Guard.

If the Unitary Leader is deeply dependent on the internal security organization, an external threat to its existence could be a powerful coercive tool. In 1979, when the revolution in Iran began, the Ayatollah immediately targeted the Shah's personal protection unit, the Palace Guard, and key leaders of the officer corps. Essentially decapitated, the elite Guard "the core of the Shah's armed power and support base collapsed in days."²¹ The Palace Guard destroyed, the Shah fled. Conversely, when the Ayatollah consolidated his power, he established the Revolutionary Guards to protect his regime from internal threats. "It was a loyal, fanatical fighting force, which owed its very existence to him and was committed to his protection."²²

The more a Unitary Leader relies on an internal organization, the higher its potential as a coercive target. In 1990, Saddam Hussein depended heavily on the Republican Guard as a whole, but especially on certain regiments that he held in Baghdad during the Gulf War as a protector organization. Lawrence Freedman writes, "In the summer of 1990 there was absolute certainty in Saddam's mind of what could not be sacrificed--his political survival. He held key units back from the start for protection because he was most concerned with saving his regime rather than a gallant last stand in Kuwait."²³ A threat to destroy those critical regiments could have had a powerful coercive effect since it would leave him more vulnerable to internal adversaries.

However, there may be times when the internal security organization is so entrenched or pervasive that only a massive attack could be effective. During Hitler's rise to power, attacking the Brownshirts may have had some coercive effect, but once established, his Gestapo and SS organizations were simply too massive to effectively target. The KGB in the former Soviet Union is another example of an internal organization so deeply interwoven into a society that it would have been extremely hard to target.

Thus, the level of coercive effect on a Unitary Leader's survival is most effective against one that relies on a small, coherent group to protect his power-base. Coercion becomes less effective against a more pervasive and dispersed internal security organization.

A2. Utility of Airpower against A Unitary Leader

The ability of airpower to use stealth to attack undetected and methodically destroy only certain units or people make it an especially useful tool for accomplishing the theory's objective. Airpower can have a devastating effect on a small, coherent power-base. The 1986 attack on the Libyan leader, Muammar Qadhafi, demonstrates the airpower potential for application of the theory. The Air Force and Navy attack on the El Azzizaya barracks struck the garrison of his elite personal guard, directly responsible for his protection.²⁴ The attack demonstrated a potential threat to his power-base and seems to have slowed Qadhafi efforts in support of terrorism.

In 1991, then Air Force Chief of Staff General Dugan, advocated the use of airpower in support of the political survival theory as a Desert Storm strategy. "I've been advised, by the Israelis and others, that the best way to hurt Saddam is to target his family and his personal guard. Only airpower can accomplish this task."²⁵

A3. Ruling Elite

In at least one way, any nation governed by more than a single person is a harder target to coerce, because the more actors involved in the decision-making process, the greater the potential for miscommunication. However, if the leadership is dependent on a single organization for its power, the concepts for coercion discussed earlier for a unitary leader remains the same. In contrast, if each faction depends on a separate organization for its power, use of the political survival model to coerce becomes more complex. Now in order to increase the chances for successful coercion, factions that favor compliance must be identified and supported so as to increase their power relative to the other factions in the decision-making process.

The establishment of sanctions or a blockade is one possible way to increase factionalization in order to identify more easily "potential allies" who are sympathetic to compliance. Although the effects may take a considerable amount of time, it can help break Ruling Elite governments into identifiable factions. Japan at the end of World War II and World War I Germany are two examples of how a blockade contributed to breaking a unified government into exploitable factions. In late 1944, the allied blockade had effectively cut off resources and deployed troops critical to Japan's homeland defense against the coming invasion. Eventually, disagreements over shortages due the blockade fractured what had been a unified front into three power groups; the peace advocates, the army, and the emperor.²⁶ In the second case, by late 1918 the allied blockade had left Imperial Germany in desperate straits and had helped break the German unified front into two camps. Internally spent, the Kaiser, Prince Max's government, and the two military

heroes (Ludendorff and Hindenburg) no longer agreed on whether to continue or end the war.²⁷

Once identified, one can target those factions that are resistant to our demands either by physical destruction or by discrediting them with an effective strategic psychological campaign. Even a "near-miss" on rival factions or their power-bases could serve as an effective prod towards changing their minds and joining the compliance faction.

A unified Ruling Elite with a broad power base is the hardest target to coerce. If attempts to factionalize the leadership do not work, it may be impossible to apply the theory. An example of this broad power base is the mid-1960s North Vietnamese government. United in its goal of Vietnamese unification, with two decades of lives and treasure invested in that task, it would have been extremely hard to factionalize or coerce the North Vietnamese leadership. Wallace Thies writes, "In 1964, the Politburo in Hanoi was dominated by a group of leaders who attached the highest priority to completing the revolution in the south."²⁸

Just as with a Unitary Leader, when the theory is applied to Ruling Elites, it suggests that the greatest potential for success lies with attacking a leadership with a small targetable power-base. If not, the U.S. must identify and support a faction that favors compliance. A blockade or sanctions may aid identification by increasing the differences between factions. Finally, attacking a unified Ruling Elite, with a broad power-base, has the lowest potential for success.

A4. The Utility Of Airpower Against A Ruling Elite

The flexibility, precision, and discrimination of airpower offer a broad spectrum of possibilities for supporting a specific faction. It can target factions adverse to

compliance or enhance the credibility of the faction supporting U.S. objectives. One airpower example of the efficacy of the theory is the Philippine revolt of 1989. In this case, U.S. airpower was instrumental in increasing the power base of a friendly Ruling Elite faction. Corazon Aquino's government was under outright attack from rebel leaders and portions of the Filipino army. Although some army units actively supported Aquino, most units took a "wait and see" attitude. Rebel airpower was critical to the coups' success and in gaining army support. The destruction of the rebel air threat by American airpower enhanced Aquino's credibility and the rest of the army then joined her side. "The American help was crucial to the Aquino cause. By clearing the skies of rebel craft, it allowed army loyalists to consolidate support for the government forces."²⁹ The army on her side, Aquino defeated the rebellious faction.

Airpower also has the potential to prosecute a strategic psychological campaign against foes or to increase the credibility of allies. This campaign, in combination with humanitarian actions, can also help build support for friendly factions.

B. Leadership Also Concerned with the People's Welfare

The leadership of any nation concerned with the welfare of its people must derive at least some of its power from public opinion. A democracy is the best example of this type of government. The potential for a U.S. attack on another democracy seems small, but understanding one's own vulnerability to coercion is critical in a battle of brinkmanship. If public opinion is crucial to a leader, it may be a viable target for a coercive attack.

Historically, public opinion in a democracy is usually adverse to actions that involve a large risk to life unless a vital interest is at stake.³⁰ The onus is on the leadership to

demonstrate that the action is worth the risk to lives. Thus, one method for negatively affecting public opinion may be to target public safety or deployed forces. Aidid in Somalia successfully used this strategy by attacking and holding at risk U.S. peacekeeping forces.³¹

An opponent who demonstrates that he is willing to adopt and successfully use an attrition strategy can negatively influence public opinion.³² There is some evidence that Saddam Hussein deliberately dug in his forces in Kuwait and prepared to wage an attrition war in an attempt to coerce the U.S. into an agreement.³³ Saddam's strategy most probably failed because the coalition was able to avoid an actual war of attrition and the associated high casualties.

One other coercive strategy can be effective. In the past, the longer the time required for a democracy to accomplish its goal, the more vulnerable a government becomes to negative public support. One problem is that democracies often initiate an action without the commitment or public support to follow through. In *Force Without War*, the authors found evidence that, "U.S. military action is seen as symbolic of U.S. interest but not of a commitment, and often policymakers have not even contemplated the need for larger forces."³⁴ The struggle against Vietnam is an example of how a seemingly endless commitment can affect public opinion. In coordination with the other strategies, a well-planned psychological warfare campaign has the potential to increase the negative effect on public opinion. North Vietnam successfully used all of the above strategies to influence public opinion and weaken the U.S. leadership position.

One exception to the previous discussion is the concept of a "committed democracy." In this case, an adversary attacks national sovereignty or a perceived vital

interest and public support swells in support of the leadership. Two good examples of this are Britain's staying power in Ireland and the U.S. response to Japanese coercion at Pearl Harbor. The "committed democracy" concept ties directly into the earlier discussion about requiring consensus prior to resorting to military coercion.

The theory suggests a democracy's leadership may be susceptible to coercion when the potential costs to lives are high, the struggle long, and the threats to national interests are low. Conversely, a committed democracy will be more difficult to coerce.

B1. The Utility of Airpower against a Concerned Leadership

The Scud threat to Israel during Desert Storm is an excellent example of how airpower can affect a government concerned with its people's welfare. Saddam's strategy to break the coalition by forcing Israel to "do something" to protect its people, very nearly worked.³⁵ Airpower can threaten targets in some cases or protect them against attack through air superiority or interdiction attacks. Once again, a PSYOPS campaign, emphasizing the open media can reinforce lives lost or magnify militarily insignificant events.

Summary of Political Will Mechanism

Liddell Hart wrote, "To strike with strong effect, one must strike at weakness." The theory of political survival attempts to provide policymakers with some potential "attack on weakness" options. First however, one must decide if the leadership is concerned with maintaining its power-base. Then, one must determine whether the use of force will threaten the leadership enough to choose between a decreased ability to remain in power or compliance. If so, the theory suggests a hierarchy of coercive success:

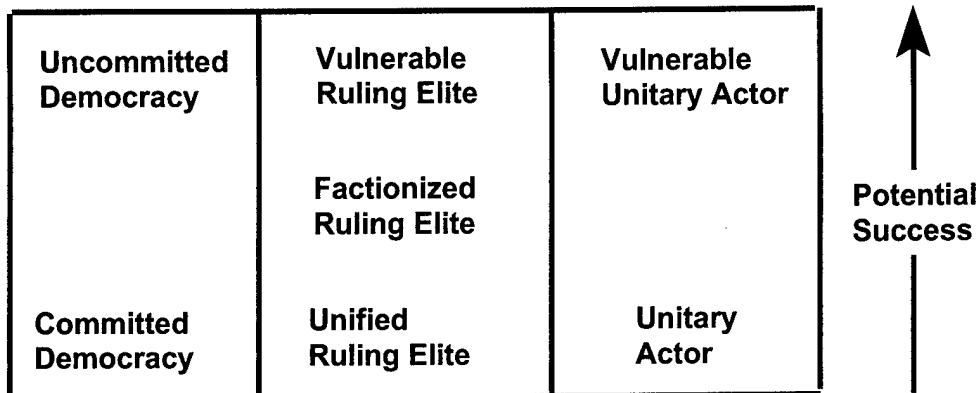


Figure 2

Notes

¹ General Clark gave a presentation at the Atlantic Council on 18 November 1999, where he discussed a broad range of issues concerning Allied Force. During his remarks he was emphatic about NATO's low tolerance for aircrew losses. His four measures of merit for the campaign were 1) Avoid aircraft losses 2) Maximize impact on Serb forces 3) Avoid collateral damage 4) Allied cohesion. Of the four, there is only one positive goal—attack Serb forces—the others are negative goals that lower military effectiveness.

² Based on Gen Deptula's OSW briefing and author interviews with USCENTCOM planners.

³ Based on personal notes while writing Joint Vision 2010. The original name of the concept was Precision Strike but that was much too narrow. Based on discussions with then-Air Force Chief of Staff General Fogelman and then-Chairman, JCS General Shalikashvili, I provided a new expanded version that met the Chairman's intent. See author's notes December 1995-February 1996.

⁴ For discussions on the importance of precision see "Aerospace Power Essential in Urban Warfare," *Aviation Week and Space Technology*, 6 September 1999 and "USAF Expects to Use All Precision Weapons in Next War," *Aerospace Daily*, 7 September 1999.

⁵ Daniel Goure' and Jeffrey Ranney, *Averting the Defense Train Wreck in the New Millennium*, (Washington DC: CSIS Press, 1999), 10-12. Although the experts disagree on the amount of the shortfall, there is a consensus that future budgets shortfalls will barely keep the current force viable, much less enable the military to grow or modernize.

⁶ David Abel, "Fighting two wars simultaneously or nearly simultaneously", *Defense Week*, 3 May 99, 3.

Notes

⁷ See General Deptula briefing for specifics and the innovative methods he used to overcome constraints early in the campaign.

⁸ David Byman and Matthew Waxman, "Defeating US Coercion," *INSS Survival Magazine*, Volume 41, no 2, Summer 1999, 108.

⁹ Stephen Ambrose, *Americans at War*, (Jackson: University Press of Mississippi, 1997), 184.

¹⁰ Byman & Waxman, 108.

¹¹ Dana Priest, "Tension Grew with Divide Over Strategy," *Washington Post*, 21 Sept 99, 1.

¹² *Ibid.*, 1. I believe USAF Lt Colonel Pete Faber is the world's expert on the history and development of airpower theory. His seminal article, "Competing Theories of Airpower, A Language for Analysis" is required reading for anyone who wants to understand airpower application theory and strategy from a historical perspective. The paper is located at <http://www.airpower.maxwell.af.mil/airchronicles/presentation/faber.html>.

¹³ Caspar Weinberger, "The uses of Military Power," DOD News Release 609-84, November 28, 1984 and Colin Powell, "US Forces: Challenges Ahead," *Foreign Affairs*, Vol 72, No 5 (Winter 1992-93,) 32-45.

¹⁴ During my interviews at USCENTCOM, there was considerable dissent about the operational objectives for OSW, where the linkages are to an overall strategic picture and the vision for the desired endstate. There was unanimous agreement, however, that the strategic endstate is "not to win" or "maintain status quo" and the operation has developed into a "Service the target list mentality" at the day to day operational and tactical levels.

¹⁵ Sandra Erwin, "Airmen Ponder Do's and Don'ts", *National Defense Magazine*, April 2000, 4.

¹⁶ Thomas Schelling provides an extensive discussion of thresholds in his book, *Arms and Influence* (New Haven, CT: Yale University Press, 1986) 154-166. However, he emphasizes the threshold between the use of nuclear and conventional weapons. His argument that the clearest thresholds are ones that have, "a conspicuousness and simplicity, quantitative and not a matter of degree, that provide recognizable boundaries" supports the idea of a clear break between diplomatic means and military force.

¹⁷ *Ibid.*, 42.

¹⁸ Wallace J. Thies, *When Governments Collide* (Berkeley, Ca: University of California Press, 1980), 416. Thies argues that a failed coercion attempt starts a spiral of diminished credibility that may encourage potential adversaries to take greater risks in the future.

¹⁹ Personal safety is always the first concern, but threatening to "kill" the leadership may be counterproductive in at least three ways. First, one cannot always predict who will replace the deposed leader or whether the new leadership will be compelled by the threat. Second, directly targeting the leadership may personalize the war, and a failed attempt may actually increase the enemy leader's prestige while decreasing U.S. credibility. A good example of this is the attempt to capture Noreiga in Panama or Aidid in Somalia. Finally, although not technically illegal, U.S. political leadership has been historically wary of "assassinating" foreign leaders.

Notes

²⁰ Edward Luttwak, *Coup D'état*, (Cambridge, MA: Harvard University press, 1979), 99-104. This has an excellent discussion of internal security organizations and effectively targeting them. Although Luttwak emphasizes a coup environment, the internal security organization responsibilities apply here.

²¹ William H. Forbis, *Fall of the Peacock Throne*, (New York, NY: Harper & Row Publishers Incorporated, 1980), 282.

²² James A. Bill, *The Eagle and the Lion*, (Binghamton, NY: Vail-Ballou Press, 1988), 273. Bill offers a complete look at the highly effective attacks on the Shah's internal security units but focuses on Khomeini's consolidation of power. The discussion of how Khomeini molded the rabble into a ruthless unit that became the cornerstone of his power consolidation is relevant to the theory.

²³ Lawrence Freedman and Efraim Karsh, "How Kuwait was Won: Strategy in the Gulf War," *International Security*, Vol 16, No. 2 (Fall 1991) 16. Freedman suggests that Saddam subordinated military strategy to the ultimate goal of political survival to the point where he no longer cared about Kuwait but only about postwar survival. He refused to commit the Republican Guards because he needed them after the war ended to suppress internal unrest. The Political Survival theory suggests that attacking those critical units first had the potential to force Hussein to choose either to leave Kuwait or face increased risk at home prior to a ground war (or even prior to the completion of the air campaign). I have not found any explanation why the Coalition did not directly target these elite units.

²⁴ Lawrence A. Grannis, *Center of Gravity-Libya 1989*, Unpublished Research Report, Air War College 1989. 56. Interestingly, Grannis argues that oil is Libya's power-base center of gravity. He believes a threat to the oil pipelines is the key to coercing Qadhafi. Despite the difference in targeting, Grannis implicitly supports the theory of Political Survival with his analysis.

²⁵ Freedman and Karsh, 13.

²⁶ There are numerous theories that attempt to explain why the Japanese surrendered prior to a land invasion. One consistent thread within each of the theories is the belief that the allied blockade had a major, if not decisive, effect.

²⁷ Harold Kurtz, *The Second Reich*, (New York, NY: American Heritage Press, 1970), 117-118.

²⁸ Thies, 418.

²⁹ Howard Chua-Eoan, "Soldier Power," *Time*, December 11, 1989: 52.

³⁰ In the 20th century, the U.S. has especially been very adverse to the deployment of ground forces unless attacked or convinced of an attack on a vital interest. The debates prior to World War I and II, the extensive debates prior to the large deployments of forces in Vietnam, the close Senate vote in support of Desert Storm and the decision not to use ground forces in Allied Force all demonstrate this pattern. Both Blechman and Kaplan and Phillip Zelikow ("Force Without War, 1975-82", *The Journal Of Strategic Studies*, March 1984, Vol 7) suggest that it is very difficult for the U.S. to decide to use anything larger than a battalion without extensive public debate.

³¹ The destruction of the Marine Barracks in Beirut is another example of this strategy

Notes

³² This may be the key reason for the reluctance of the U.S. to deploy ground forces in Bosnia.

³³ Then Secretary of Defense, Dick Cheney in particular, was convinced Saddam had misread U.S. resolve in a vain attempt to destroy U.S. public support by digging his forces in and threatening to use a World War I trench-style strategy. See Rick Atkinson, *Crusade*, (New York, NY: Houghton Mifflin Company, 1993), 95.

³⁴ Barry Blechman and Stephen Kaplan, *Force Without War*, (Washington D.C.: The Brookings Institute, 1978), 532.

³⁵ Rick Atkinson, 90-93 and 278-279,

Chapter 5

Adaptive Planning For Coercive Aerospace Campaigns

The only purpose of war is to force the enemy to consent to an advantageous peace as soon as possible and you must never lose sight of this idea.

— Frederick the Great
On the Art of War

Since the end of the Cold War, the US has fought 18th century styled limited wars with one clear difference: self-imposed restraints now outnumber the constraints on military operations. These restrictions have become engrained in the American culture of how we fight wars and will clearly affect the use of aerospace power in the future. In this new environment, policymakers will continue to find aerospace power with its inherent advantages of speed, range, responsiveness and precision an attractive option for coercive operations.

However, joint air operational planners face many challenges as they develop methods to effectively conduct these types of campaigns in the 21st century. Most importantly, strategists need an in-depth understanding about the complexity involved in planning a compellence campaign including the knowledge to “ask the right questions” prior to starting the operation. To assist planners in their difficult task, this paper concludes with four maxims to enhance the operational effectiveness of airpower in compellence campaigns.

Lesson Number 1.

Aerospace planners must recognize when the synergistic effects of restraints and constraints may limit our ability to coerce an adversary.

As the number of coercive operations have grown so have the amount of restraints and constraints affecting the campaign. There is no single set of rules for using force and every case is unique so one cannot resort to using mechanical formulas such as “this constraint plus this restraint always equals failure.” Nevertheless, planners must rely upon their judgement and experience to examine each individual restraint and constraint and assess how each restriction affects the coercive campaign. After the discrete assessment is complete, planners must then determine whether the combined effects of these limitations will destroy campaign coherency or devolve it into a “do something” strategy of simply servicing targets.

Many aerospace experts believe these challenges will continue to expand and planners must realize, “The political and tactical constraints imposed on airpower are extensive and persuasive--and that trend seems more rather than less likely.”¹ Advocates for using airpower in future compellence operations must carefully consider the impact of constraints and politico-military restraints on the success of the campaign. There may be times when the synergistic effect of these limitations inhibits the operation from raising the intensity level high enough to coerce. In other instances, these restrictions may increase the length and the cost of the campaign to erode public support enough to force an end to the operation before meeting the stated objectives.

There will be cases where the constraints and restraints create a cycle that limits the coercive strength of the campaign. In Allied Force, the combination of weather

constraints and targeting restraints limited the campaign's intensity by causing operational lulls and bombing pauses. NATO plans called for strike sorties at regular intervals to keep constant pressure on the Serbs. Once launched, the aircrews found cloud cover often obscured the target area. Normally undercast ceilings did not present a problem since the aircrews can use radar to aim and hit their assigned targets. However, under the self-imposed NATO rules of engagement, aircrews were restricted from striking targets that they could not visually identify. As a result, the alliance restrained themselves from radar-only attacks even though they had systems designed for weapons delivery in poor weather conditions. Thus, despite the operational capability to release, many times aircrews did not strike the assigned targets and returned to base without releasing weapons.

The synergistic effects of these restrictions can also create a sanctuary area that is free from attack from the air. An adaptive adversary such as Saddam Hussein or Slobodan Milosevic will exploit these sanctuaries to their benefit against the US and its allies. General Ralston discussed the negative aspects of sanctuary in a speech to the Air Force Association, "The sanctuary of time actually strengthened Milosevic's cat and mouse strategy, just as it had Ho Chi Minh's. In both cases, the gradualist approach enabled our opponent to shift resources and consolidate power."² As discussed earlier, Iraq uses sanctuary coalition reluctance to strike "dual use" facilities as sanctuary to protect air defense sites and hide forbidden weapons. Serbian forces also took advantage of the sanctuaries created by NATO's targeting restraints to protect themselves from airstrikes. NATO's gradual campaign created a sanctuary that allowed Milosevic the time to execute a counter strategy designed to destroy NATO's legitimacy, break the

alliance and finish his desired task of ethnic cleansing in Kosovo. Acting quickly while NATO built up the air campaign and free from fear of a ground invasion, the Serbs moved with impunity under the weather, massing forces and accelerating their acts of violence across Kosovo. When NATO flew sorties, the Serbs hunkered down in dispersed locations or deliberately mingled with refugees, increasing the chance for an incident for civilian casualties that would break coalition resolve.

Lesson Number 2.

To be effective, coercive campaigns may be graduated but are not gradual in nature.

Allied Force re-ignited long dead discussions over the merits of using gradual escalation as a coercive mechanism. Critics argue that gradual escalation is anti-doctrinal and that the massive application of airpower is the most effective method for conducting a campaign. However, these detractors do not understand the significant differences between conducting a graduated campaign of steadily increasing pressure and one that resorts to the gradual application of force.

Gradual campaigns start with a small number of strikes that slowly build in intensity and size over time. Operation Rolling Thunder in Vietnam and Allied Force more recently are examples of gradual campaigns designed to steadily increase the pressure on the leadership while signaling what targets we would and would not attack. In both cases, the gradualist approach enabled our opponent to shift resources and consolidate power. The gradual use of force in both these operations gave the impression that the US had no intention of winning and that tenuous public support limited the US military from setting and achieving an attainable goal.

There are severe military disadvantages for gradual force coercive campaigns. First, these operations are reactive and create operational lulls that enable an adversary to recover and regain the initiative. Gradual campaigns lack coherency and clearly articulated thresholds and they start slowly with frequent unplanned starts and stops that made it difficult to send a consistent message to friend and foe alike. From the beginning the “pinprick” approach erodes confidence about the depth of US commitment and public support continues to decrease as the campaign lengthens.

In contrast, graduated campaigns do not rely upon a gradual application of force in each incremental phase but apply a preponderance of decisive power until reaching the threshold limit. These operations use overwhelming force to meet the defined thresholds and force an adversary to bend to our will or lose what the leadership treasures most. Just as in traditional warfighting, an effective coercive operation includes objectives that are clearly defined and attainable, uses a decisive amount of force and is consistent with US military doctrine.

These operations can be likened to a 15 round prizefight where the stronger fighter can only use one fist. With this limitation, the boxer cannot afford to start slowly and jab randomly in early rounds, limiting the force of his punches until he can find a way to land a haymaker. Instead, he must come out strong with a strategy designed to overcome his opponent with body blows in the first round then with powerful head blows in the next. In every round, the boxer pounds his opponent in the most vulnerable spots with as much force as he can muster. He does this in each subsequent round until the other boxer is so stunned and immobilized he is either unable or unwilling to continue.

In graduated coercive campaigns, planners can take full advantage of aerospace power's ability to conduct parallel warfare with massed effects at the strategic, operational and tactical levels. When planning a coercive campaign, one method to maintain consistency with the traditional requirement for overwhelming strength is to ensure that, prior to starting the operation, there is sufficient military force available to attain the highest threshold's goals. By ensuring enough force is available to handle the most stressful threshold, commanders have enough capability to create the conditions they need for success at the lower levels. This "highest threshold force" also avoids the potential for a gradual response with operational lulls, demonstrates a greater commitment to the campaign and creates a more realistic personnel and equipment requirement from the outset to enhance public support.

Desert Fox is a good example of a graduated campaign that avoided the gradual application of force by using the full capability of airpower to provide "shock and awe" within limits to meet the threshold requirements. The commander used airpower in parallel attacks to achieve decisive results within each increment before turning to the next phase of the campaign. The operation's first interim goal was to eliminate Iraq's ability to defend itself from aerospace attack. The joint commander did not use a campaign that built intensity over time but rapidly conducted simultaneous attacks to disable the entire system from individual air defense sites through critical command and control nodes. The operation then turned to a system-wide attack on the next threshold designed to disrupt all known Weapons of Mass Destruction sites.

Lesson Number 3.

Coercive military operations must not be an end in itself but part of a coherent campaign using all instruments of national power.

There may be times when military intervention is a very effective coercive tool. However, force alone can only create the conditions for success and should not be the exclusive alternative for policymakers. As we have seen, over the last decade, limited wars often ended in limited victory and these uneasy “endstates” require the US to use all the instruments of national power to ensure lasting peace and enduring stability. Military intervention can be decisive only in combination with the other instruments of national power since it is the political and diplomatic means that secure the peace or shape the environment. US efforts towards Iraq demonstrate how the instruments of national power, when used together, form a powerful coercive mechanism to protect American interests. The combination of political pressure and policy guidelines towards Saddam Hussein, together with diplomatic sanctions and the military enforcement operation continue to pressure Iraq into complying with its international responsibilities.

When the decision is made to use a military option, aerospace power is a very capable tool for coercive campaigns, and in some cases may be the best alternative. Nevertheless, when the use of force is required, leaders must understand that they can create a much greater coercive effect when an adversary is compelled to respond against the simultaneous application of aerospace, land and sea forces. In combination, these forces create multi-dimensional pressure that multiplies the coercive effect while making it more difficult for an adversary to react or resist. These joint operations increase operational flexibility and enable the application of controlled and proportionate use of

force to achieve the political objectives. Often an adversary responding to pressure from one dimension will become more vulnerable to strikes from a different component. In Desert Storm for example, coalition ground attacks forced the Iraqis to abandon their dug-in defenses, leaving them exposed to devastating attacks from the sky.

In contrast, planners face a tough challenge when restricted to conducting a single dimensional coercive campaign. For example, the choice to deny use of land forces before Allied Force began may have been a political imperative but it was a strategic mistake. This decision meant NATO lost the synergistic benefits “boots on the ground” brings to an air campaign and took a powerful compellence arrow out of its quiver. The threat of a ground invasion may have deterred the Serbs and actual deployment would have kept the pressure on and filled in the void when operational lulls occurred in the air campaign. A ground invasion would have created a higher operating tempo for Serbian forces, creating massed targets that increased the effectiveness of airpower. USAF Chief of Staff General Ryan made this point succinctly; “The use of force as an instrument of national power requires our ability to threaten across the spectrum.”³

Lesson Number 4.

Finally, after 2500 years, Sun Tzu is still right

Know your enemy and know yourself and in one hundred battles you will never be in peril.

--Sun Tzu

In modern verse, Sun Tzu translates into an excellent rule of thumb for advocates of a coercive campaign: If you can't stand the heat as much as an opponent, stay away from the fire. As pithy as this may sound, it rings especially true for compellence campaigns because success hinges on a clear understanding of one's own and the adversary's level

of resolve. Once the strategic decision is made to use the US military, commanders must have the operational and tactical flexibility to apply decisive force to achieve the desired threshold of pain against an adversary. Both political and military leaders must articulate the highest level of effort to the American people and back the effort up with a credible and sufficient military force to ensure strong enough domestic and international support to carry through to the end.

In addition to this introspective understanding, one must “know your enemy” and avoid underestimating an adversary’s resolve or resourcefulness. Commanders will face adversaries such as Saddam Hussein who believe, “Yours is a society that cannot accept 10,000 dead in one battle.”⁴ Planners must also take into account the full range of enemy responses and the effect on US coercion efforts. Strategists must be prepared to counter an adaptive reactive foe that uses unpredictable or asymmetric attacks against potential US weaknesses. The act of coercion is a dynamic test of wills and a militarily inferior enemy will attempt to damage US legitimacy by using strategies that generate casualties, fracture the coalition or drag out the length of the campaign.

In the final analysis, the effectiveness of future aerospace coercive operations will depend upon how well we understand the complex nature of these emerging types of airpower campaigns in the future. As noted airpower expert Colonel Phil Meilinger states, “The measured and steadily increasing use of airpower against an enemy, which gives him ample opportunity to assess his situation and come to terms... may be the future of airpower.”⁵ Preparing for these “new age” operations now ensures American aerospace power can soar to horizon’s edge as a coercive force in waiting or fly beyond when needed to compel or defeat an adversary in the 21st century.

Notes

¹ Colonel Phillip Meilinger, USAF, is an aerospace expert who has served as the Dean of the School of Advanced Airpower Studies and has written extensively about airpower including the widely respected *10 Propositions Regarding Airpower*. Recently, he has become an advocate of gradual escalation. In his 3 December 1999 interview with Lt Colonel Jeff Beene, USAF Fellow at the Atlantic Council (in support of Lt Col Beene's research paper) Colonel Meilinger expressed his belief that we need to relook at the viability for using a strategy of gradualism. He also discussed the issue in his article on page 18 in the October 1999 *Armed Force Journal International (AFJI)*. However, after reviewing the details of his interview I found his comments focused on the potential for using graduated campaigns that provide the "shock and awe" effects traditionally accepted by aerospace power experts. His interview also includes a critical analysis of the pros and cons of conducting coercive operations and the value of airpower. In contrast, in his AFJI article Meilinger discusses the potential for success using a strategy of gradualism.

² Elaine Grossman, "Ralston Sees Potential for More Wars of Gradual Escalation," *Inside the Pentagon*, 16 September 1999, 1. General Ralston has discussed gradual escalation in numerous speeches including the Air Force Association's annual convention in September 1999. For details see *Air Force Magazine*, December 1999, 37-40.

³ See Dave Moniz coverage of General Ryan's remarks in, "General Hopes to End Pilot Shortage", *Columbia State*, 14 March, 2000. Available at http://ca.dtic.mil/cgi-bin/ebird?doc_url=/Mar2000/.

⁴ Lawrence Freedman and Efraim Karsh, *The Gulf Conflict, 1990-1991*, (Princeton, NJ: Princeton University Press, 1973), 276.

⁵ Meilinger, 18.

Bibliography

- Abel, David. "Fighting Two Wars Simultaneously or Nearly Simultaneously." *Defense Week*, 3 May 99, 3.
- Addington, Larry H. *The Patterns of War Since the Eighteenth Century*. Bloomington: Indiana University Press, 1984.
- Air Force News. Available from <http://www.af.mil/news>.
- Allen, Ed. Available from <http://tetrad.stanford.edu/Frederick.html>/ 49.
- Ambrose, Stephen E. *Americans at War*. Jackson, University Press of Mississippi, 1997.
- "Aerospace Power Essential in Urban Warfare." *Aviation Week and Space Technology*, 6 September 1999
- Atkinson, Rick. *Crusade*. New York, NY: Houghton Mifflin Company, 1993.
- Atkinson, Rick and Loeb, Vernon. "A Limited Operation Could Limit Success." *The Washington Post*, 18 December 1998, A59.
- Beale Michael O. *Bombs over Bosnia: The Role of Airpower in Bosnia-Herzegovina*. Maxwell AFB: Air University Press, 1997.
- Bender, Bryan. "US Weapons Shortages Risked Success in Kosovo." *Jane's Defence Weekly*, 6 Oct 1999.
- Bill, James A. *The Eagle and the Lion*. Binghamton, NY: Vail-Ballou Press, 1988.
- Blechnan Barry and Kaplan, Stephen. *Force Without War*. Washington D.C.: The Brookings Institute, 1978.
- Britt, Albert and Palmer Dave. *The Art of War in the 17th and 18th Centuries*. West Point: Department of History, 1972.
- Byman, David and Waxman, Matthew. "Defeating US Coercion." *INSS Survival Magazine*, Volume 41, no 2, Summer 1999.
- Center for Strategic and International Studies, *American Military Culture in the Twenty-First Century*. Washington DC: CSIS Press, 2000.
- Clark, Wesley K. General. Speech on Allied Force at the Atlantic Council, 18 November 1999
- Chua-Eoan, Howard. "Soldier Power." *Time*, December 11, 1989: 52.
- Cohen, William. Secretary of Defense Press Briefing, Dec 19, 1998.
- Collins Joseph. "Ten Reasons to Avoid a Land War." *Boston Globe*, 23 May 1999.
- Cordesman, Anthony. "Lessons and Nonlessons of the Air War Over Kosovo", CSIS report on the web at <http://www.csis.org/kosovo/LessonsExec.pdf>.
- Deptula, David. Brigadier General, USAF. Joint/Combined Task Force Commander for Operation Northern Watch End of Tour Briefing, 1999.
- Dodson, MG, USA. Deputy Commander-In-Chief, US Central Command. Interview with the author, 7-9 December 1999.
- Drozdiak, William. "Opposition to Airstrikes Voiced in Key Capitals." December 17, 1998, A29.

- Duffy, Christopher. *Frederick the Great*. London: Routledge, 1985.
- Duffy, Christopher. *Military Experience in the Age of Reason*. New York: Macmillan Publishing Company, 1987.
- Ellis, James O. Admiral. "A View From the Top." Command briefing.
- Erwin, Sandra. "Airmen Ponder Do's and Don'ts", *National Defense Magazine*, April 2000, 4.
- Faber, Pete. Lt Colonel, USAF. *Competing Theories of Airpower*. Available at <http://www.airpower.maxwell.af.mil/airchronicles/presentation/faber.html>.
- Forbis, William H. *Fall of the Peacock Throne*. New York, NY: Harper & Row Publishers Incorporated, 1980.
- Foote, Sheila. "Services Reviewing Requirements for Preferred Munitions." *Defense Daily*, 20 October 1999, 1.
- Frederick the Great. *On the Art of War*. Edited and translated by Jay Luvaas. New York: The Free Press, 1966.
- Freedman, Lawrence and Karsh, Efraim. "How Kuwait was Won: Strategy in the Gulf War." *International Security*, Vol 16, No. 2, Fall 1991.
- Goure', Daniel and Ranney, Jeffrey. *Averting the Defense Train Wreck in the New Millennium*. Washington DC: CSIS Press, 1999.
- Goure Daniel, and Lewis, Jeffrey. "The Strained US Military." *National Security Studies Quarterly*, (Winter 2000, Volume VI, Issue 1) 21-41.
- Grannis, Lawrence A. *Center of Gravity-Libya 1989*. Unpublished Research Report, Air War College 1989.
- Jehl, Douglas. "US Fighters in Saudi Arabia Grounded." *The New York Times*, 19 Dec 1998, A9.
- Johnson BG, USAF. DJ-5, US Central Command. Interview with the author, 7-9 December 1999.
- Joint Pub 3-07, *Joint Doctrine for Military Operations Other Than War*. 1995.
- Joint Vision 2010*. June 1996.
- Korb, Lawrence J. "Force is the Issue." *Government Executive Magazine*, January 2000, 31.
- Kurtz, Harold. *The Second Reich*. New York, NY: American Heritage Press, 1970.
- Lennox. "Fox: The Results." *Jane's Defence Weekly*, 13 Jan 1999, 25.
- Luttwak, Edward. *Coup D'état*. Cambridge, MA: Harvard University press, 1979.
- Makers of Modern Strategy*. Edited by Peter Paret. Princeton: Princeton University Press, 1986.
- McKelvey, Michael. Major, USAF. *Airpower in MOOTW*. Maxwell AFB: Air Command and Staff College Research Paper, March 1997.
- Myers, Steven Lee. "Something New in the Iraqi Conflict: Concrete Bombs." *New York Times*, October 7, 1999.
- National Military Strategy, Shape, Respond, Prepare Now, A Military Strategy for a New Era*, 1997.
- National Security Strategy of the United States of America*, 1992.
- Newman, Richard. "The Bombs that Failed in Kosovo." *US News and World Report*, 20 September 1999.
- Nichols, RADM, USN. DJ-3, US Central Command. Interview with the author, 7-9 December 1999.

- Nordwell, Bruce D. "Washington Outlook." *Aviation Week and Space Technology*, 23 August 1999, 27.
- Parker Geoffrey. *The Laws of War*. New Haven: Yale University Press, 1994.
- Peters, F. Whitten. Secretary of the Air Force speech to Defense Executives. 16 February, 2000.
- Powell, Colin. "US Forces: Challenges Ahead." *Foreign Affairs*, Vol 72, No 5 (Winter 1992-93) 32-45.
- Priest, Dana. "Tension Grew with Divide Over Strategy." *Washington Post*, 21 September 1999, 1.
- Schelling, Thomas. *Arms and Influence*. New Haven, CT: Yale University Press, 1986.
- Shelton, Henry H. Chairman of the Joint Chiefs of Staff Speech at ARCO Forum, Kennedy School of Government/Harvard University, January 19, 2000, 6. Available at <http://www.dtic.mil/jcs/>.
- Thies, Wallace J *When Governments Collide*. Berkeley, Ca: University of California Press, 1980.
- Tirpak John. "Kosovo Retrospective." *Air Force Magazine*, (April 2000): 30.
- Towell, Pat. "The Limits of Intervention." *Congressional Quarterly Magazine*, 22 January 2000.
- University of Virginia Internet Site. December 1999. Available from <http://www.people.virginia.edu/~rjh9u/scot/html>.
- USAF Expects to Use All Precision Weapons in Next War." *Aerospace Daily*, 7 September 1999.
- Walsh, Guy. Lt Col, USAF. Interview with the author, 7-9 December 1999.
- "Washington Outlook." *Aviation Week and Space Technology*. (23 August 1999): 27.
- Weigley, Russell F. *Age of Battles*. Bloomington: Indiana University Press, 1991.
- Weinberger, Caspar. "The Uses of Military Power." DOD News Release 609-84, November 28, 1984.