

JOINING FORCES: PREPARING TO FIGHT COALITION AIR WAR

BY

MAJOR JOE KRAMER

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## APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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HAROLD R. WINTON (Date)

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THOMAS A. HUGHES (Date)

## DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

## ABOUT THE AUTHOR

Major Joe Kramer is a 1999 graduate of the United States Air Force Academy. After initial assignments at Langley AFB, Virginia, and Shaw AFB, South Carolina, as a communications officer, he graduated from pilot training and was assigned to Dyess AFB, Texas, as a B-1 pilot. Following an operational assignment at the 9th Bomb Squadron, Maj Kramer completed the United States Air Force Weapons School as an outstanding graduate and then served as both a squadron and wing weapons officer at Ellsworth AFB, South Dakota. He deployed three times to support both Operations Enduring Freedom and Iraqi Freedom flying the B-1. In 2011, as the 28th Bomb Wing weapons officer, he led the planning for the 28th's operations in support of Operation Odyssey Dawn. Major Kramer earned a bachelor's degree in operations research from the USAFA; he also holds postgraduate degrees in aeronautical science from Embry Riddle Aeronautical University and military operational art and science from the Air University. Upon completion of the United States Air Force School of Advanced Air and Space Studies, Major Kramer will receive a master's degree in military philosophy and be assigned to the 28th Operations Support Squadron, Ellsworth AFB, SD.

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To my family: thank you for your love and patience.

Any errors are mine alone.

## ABSTRACT

This study analyzes of the extant preparations of the United States Air Force (USAF) to conduct coalition air warfare. It seeks to answer the following question: How should the USAF prepare for coalition air warfare? The simplicity of the question masks the complexity of the answer. To arrive at the optimal answer, it is important to understand the topic's relevance and the basis of the study's argument, along with its limitations. This study is relevant for three reasons. First, the nation's strategy emphasizes the use of coalitions for both security and warfare. Next, the nation faces resource deficiencies that require coalition participation in security and warfare. Finally, recent events suggest that the preference for and reality of coalition air warfare will probably increase. The argument of this thesis unfolds in three steps. Following the introduction that describes the study's evidence and methodology, Chapter 2 examines the literature of coalition war, discovers verities about that form of war, and derives a framework for coalition war. The third chapter refines the analytical framework, as it applies to war in the air. It does so by examining three historical instances of coalition air war and the preparation for each of them: Operation Husky (Jul-Aug 1943), Operation Allied Force (Mar-Jun 1999), and Operation Enduring Freedom (Oct 2001- Mar 2003). Chapter 4 uses the framework from Chapter 3 to survey USAF doctrine and strategy and the initiatives associated with both that focus on preparing for coalition air war. Here, the thesis principally examines two geographical regions: the European-Atlantic region and Asia-Pacific region. The synthesis of chapters 2-4 allows for conclusions and suggestions in the final chapter regarding the Air Force's current preparation for coalition war. This analysis answers three questions relevant to preparing for coalition air war: What should the USAF continue to do? What should the USAF stop doing? What should the USAF start doing? The thesis concludes the USAF must continue engagement, adopt a revised understanding of interoperability, and improve current doctrine.



## CONTENTS

Chapter	Page
DISCLAIMER . . . . .	iii
ABOUT THE AUTHOR . . . . .	iv
ACKNOWLEDGMENTS . . . . .	v
ABSTRACT . . . . .	vi
1 INTRODUCTION: THE CONTEXT OF AND RATIONALE FOR COALITION AIR WAR. . . . .	1
2 THE ESSENTIAL ELEMENTS OF COALITION WARFARE. . . . .	9
3 HISTORICAL EXAMPLES OF COALITION AIR WAR . . . . .	27
4 CONTEMPORARY PREPARATIONS FOR COALITION AIR WAR. . . . .	56
5 CONCLUSIONS: PREPARING THE USAF FOR COALITION AIR WAR. . . . .	81
BIBLIOGRAPHY . . . . .	88

## Illustrations

### Table

1 Initial Framework for Analysis . . . . .	22
2 Scorecard of Air Wars . . . . .	53
3 Amended Framework for Air Domain Analysis . . . . .	55
4 Scorecard of Extant Preparations for Coalition Air War . . . . .	79

### Figure

1 Conceptual Understanding of Building Partnerships . . . . .	62
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2	Strategy to Task of Partnerships . . . . .	63
3	GCC Requirements for Air Advisor Training . . . . .	71

## Chapter 1

### Introduction: The Context Of and Rationale For Coalition Air War

*There is at least one thing worse than fighting with allies –  
and that is to fight without them.*

Winston Churchill

The North Atlantic Treaty Organization (NATO) air operation that assisted anti-Gadhafi rebels in Libya from 23 March to 31 October 2011 was a classic example of coalition air war. The United Nations Security Council Resolutions 1970, 1973, and 2009 mandated establishment of Operation Unified Protector's (OUP) no-fly zone, protection of civilians and civilian-populated areas, and an arms embargo against the Gadhafi regime. Sixteen NATO air forces participated in OUP. The air forces instituted and strengthened the no-fly zone, originally initiated during the precursor to OUP, named Operation Odyssey Dawn. The states participating in OUP also flew sorties to protect civilians and played a vital role in the arms embargo by conducting surveillance and reconnaissance and by providing command facilities and means for the operation. In total, over 260 air assets flew 26,500 sorties and executed 9,700 strike sorties in the accomplishment of OUP's objectives.<sup>1</sup> The UN mandate for a NATO-led coalition may have set a meaningful precedent for coalition air operations.<sup>2</sup> Upon completion of the mission, NATO Secretary General Anders Fogh Rasmussen remarked, "Operation Unified Protector is one of the most successful in NATO history."<sup>3</sup>

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<sup>1</sup> NATO factsheets October 2011, "Operation UNIFIED PROTECTOR Protection of Civilian-Populated Areas & Enforcement of the No-Fly Zone" available at [www.nato.int/nato\\_static/assets/pdf/pdf\\_2011\\_10/20111005\\_111005-factsheet\\_protection\\_civilians.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_2011_10/20111005_111005-factsheet_protection_civilians.pdf) (accessed on 7 Jan 2013) & Operation UNIFIED PROTECTOR NATO-led Arms Embargo against Libya" [www.nato.int/nato\\_static/assets/pdf/pdf\\_2011\\_10/20111005\\_111005-factsheet\\_arms\\_embargo.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_2011_10/20111005_111005-factsheet_arms_embargo.pdf) (accessed on 7 Jan 2013). NATO Factsheet 2 November 2011, "Operation UNIFIED PROTECTOR Final Mission Stats available at [www.nato.int/nato\\_static/assets/pdf/pdf\\_2011\\_10/20111005\\_111005-factsheet\\_up\\_factsfigures\\_en.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_2011_10/20111005_111005-factsheet_up_factsfigures_en.pdf) (accessed on 7 Jan 2013).

<sup>2</sup> Helene Cooper and Steven Lee Myers, "U.S. Tactics in Libya May Be a Model for Other Efforts", *New York Times* (New York, NY: 29 Aug 2011), A9.

<sup>3</sup> Anders Fogh Rasmussen, NATO Secretary General, "NATO Secretary General Statement on end of Libya mission 28 October 2011, available at [www.nato.int/cps/en/natolive/news\\_80052.htm](http://www.nato.int/cps/en/natolive/news_80052.htm), (accessed on 7 January 2013).

Secretary Rasmussen's statement may prove to be prophetic, but it may also represent a fair amount of rhetoric. My interest in the topic of coalition warfare came from the desire to separate rhetoric from reality regarding the airpower operations of the NATO-led coalition during OUP. Given the recentness of the operation, the potential to draw conclusions stemming from insufficient evidence represented a significant obstacle. As Robert Jervis points out, analysis conducted with first-hand information close to events often over-generalizes the outcome.<sup>4</sup> Similarly, Yuen Foong Khong, in his work *Analogies at War*, points out that there is great danger in using analogies to arrive at conclusions with incomplete analysis.<sup>5</sup> These warnings point to the need to delve into more richly sourced examples to develop valid conclusions about the characteristics of coalition warfare.

It is also clear, however, that the Libya operations expose the potential for resurgence in the strategic relevance of coalition air warfare to the United States Air Force (USAF), which, following American-centric successes in the air campaigns of Operation Desert Storm, Operation Enduring Freedom (OEF), and Operation Iraqi Freedom (OIF), is perhaps not a highly usable topic. Experience demonstrates that coalition air warfare demands an approach that is distinct from single-nation combat. Thus, if there is to be resurgence in coalition air warfare, the USAF must prepare in a manner that fosters the potential to fly, fight, and win, *as part of a coalition*.

This thesis examines the extant preparation of the United States Air Force (USAF) to conduct coalition air warfare. It seeks to answer the following question: How should the USAF prepare for coalition air warfare? The simplicity of the question masks the complexity of the answer. To arrive at the optimal answer, it is important to understand the topic's relevance and the basis of the study's argument, along with its limitations.

This study is relevant for three reasons. First, the nation's strategy emphasizes the use of coalitions for both security and warfare. Next, the nation faces a resource shortfall that requires coalition participation in security and

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<sup>4</sup> Robert Jervis, *Perception and Misperception in International Politics*. Princeton, N.J.: Princeton University Press, 1976), 240.

<sup>5</sup> Yuen Foong Khong, *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965*, (Princeton, N.J.: Princeton University Press, 1992), 13.

warfare. Finally, recent events suggest the preference for and reality of coalition air warfare will probably increase.

The nation's strategy emphasizes the use of coalitions in both peacetime security and in war. The National Security Strategy (NSS) of 2010 clearly states that preparation for participating and leading coalitions is fundamental to American interests. "The starting point for that collective action will be our engagement with other countries. The cornerstone of this engagement is the relationship between the United States and our close friends and allies in Europe, Asia, the Americas, and the Middle East—ties which are rooted in shared interests and shared values, and which serve our mutual security and the broader security and prosperity of the world."<sup>6</sup> The NSS also says that the ability to build and sustain these coalitions of common interest depends on the capabilities of America's armed forces.<sup>7</sup> The National Military Strategy (NMS) also emphasizes coalitions. The NMS sees the world as being American led but containing a shifting power base characterized by "interest-driven coalitions based on diplomatic, military, and economic power, [more] than by rigid security competition between opposing blocs."<sup>8</sup> In fact, the NMS mentions coalitions as being important to current operations, such as the prevention of al-Qaeda's reconstitution, and future operations, such as enhancing space capabilities and infrastructure. It is thus clear that the NSS calls for the use of coalitions in security and war, while the NMS calls for operating as part of a coalition where doing so enhances the accomplishment of American objectives. Thus, compliance with strategic guidance requires the USAF to prepare effectively for coalition warfare.

America also faces resource deficiencies. The US still maintains the advantage of being the global leader in many aspects of power. However, the hand it holds today is not as strong as the hand it held in earlier times.<sup>9</sup> This thesis does not address how this position has come about, but it does assume

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<sup>6</sup> National Security Strategy, (Office of the President of the United States, May 2010), 3.

<sup>7</sup> National Security Strategy, 41.

<sup>8</sup> National Military Strategy, (Office of the Chairman of the Joint Chiefs of Staff, 8 Feb 2011), 4.

<sup>9</sup> Andrew Krepinevich, Simon Chin, and Todd Harrison, "Strategy in Austerity," (Washington, DC: Center for Strategic and Budgetary Assessments), available at <http://www.csbaonline.org/publications/2012/06/strategy-in-austerity/> (accessed 11 November 2011), 3.

the reality of the deficiencies themselves. The deficiencies may require a reduction in global commitments, which might increase security risks; or they could require a greater reliance on coalition partners.

Military strategy for the last twelve years has rightly focused on the Middle East. However, the rebalancing of national strategy to focus on the Asia-Pacific region suggests our strategy must expand its vision. Such expansion increases the need for coalition operations. Thus, investigating the historical use of air coalitions should provide insights that will help assess the USAF's current preparations for coalition air war.

Finally, the evolving political environment could accelerate the use of coalitions, particularly in air war. Recent events indicate the use and compositions of coalitions in air wars might expand. Prophecies about the use of coalition airpower in Libya as the exclusive model for future air warfare, much like the Afghan model, are most likely premature.<sup>10</sup> However, *The New York Times* reports senior administration officials see the success of the North Atlantic Treaty Organization's (NATO) operations in Libya as a potential template for future operations.<sup>11</sup> Additionally, unlike the defining conflict for the current paradigm of airpower, the Gulf War, the recent air campaign of Operation Unified Protector was clearly a coalition effort.<sup>12</sup> OUP's success, coupled with a recurring perception that the employment of airpower is a preferred option of foreign policy, could lead to a future increase in coalition air war. As noted by one prominent analyst, "air and space power now offers the promise of being the swing factor in an ever-widening variety of theater war situations."<sup>13</sup>

The USAF must prepare to wage effective coalition warfare. This necessity requires defining precisely what the term coalition means. Joint

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<sup>10</sup> Erica Borghard and Costantino Piscella, "Allies and Airpower in Libya", *Parameters*, Spring 2012, available at [http://www.carlisle.army.mil/USAWC/parameters/Articles/2012spring/Borghard\\_Piscella.pdf](http://www.carlisle.army.mil/USAWC/parameters/Articles/2012spring/Borghard_Piscella.pdf) (accessed 5 Nov 2012), 68-69.

<sup>11</sup> Helene Cooper and Steven Lee Myers, "U.S. Tactics in Libya May Be a Model for Other Efforts".

<sup>12</sup> Christian F. Anrig, *The Quest for Relevant Airpower: Continental European Responses to the Air Power Challenges of the Post-Cold War Era* (Maxwell AFB, AL: Air University Press, 2011), 28.

<sup>13</sup> Benjamin S. Lambeth, *The Transformation of American Air Power* (Ithaca: Cornell Univ. Press, 2000), 320.

Publication 1-02 defines a coalition as “an ad-hoc arrangement between two or more nations for common action.”<sup>14</sup> The publication also defines an alliance as the “relationship that results from a formal agreement between two or more nations for broad, long-term objectives that further the common interests of the members.”<sup>15</sup> Despite the duration of the arrangement, whether ad-hoc in a coalition or long-term in an alliance, experience demonstrates that multi-national success comes from, among other factors, common interests and proper peacetime preparations.<sup>16</sup> It also demonstrates the lack of utility of making too much of the distinction between a coalition and an alliance. For instance, the Austro-Hungarian and German alliance of World War I (WWI) hardly had common long-term objectives; nor did the Allied powers of Great Britain, the Soviet Union, and the United States of World War II (WWII). However, in both cases the *allies* arranged for common action. In the application of air warfare, the warfighting capability the various partners are able to employ often defines the dynamics of their relationship, whether it is an ad-hoc coalition or a formal alliance. Thus, this thesis will use the term *coalition air war* to describe any multi-national air combat without regard to the underlying form of that effort.

The evidence used in this thesis consists of four major sources. The first consists of scholarly texts and reports. These texts are the basis for Chapter 2, “The Essential Elements of Coalition Warfare,” and Chapter 3, “Historical Examples of Coalition Air War.” The second body of evidence is research articles and interviews. These inform Chapter 4, “Contemporary Preparations for Coalition Air War.” This chapter also makes use of government-published reports. The last source consists of databases such as *Jane’s Defense*. This pool provides for several sources with which to explore the capabilities and functions air forces are equipping to accomplish.

The argument of this thesis unfolds in three steps. Chapter 2 examines the literature of coalition war to discover verities about that form of war. The

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<sup>14</sup> Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Office of the Joint Chiefs of Staff, 8 November 2010 Amended 15 November 2012) available at [http://www.dtic.mil/doctrine/new\\_pubs/jp1\\_02.pdf](http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf), 47.

<sup>15</sup> JP 1-02, 14.

<sup>16</sup> Keith Neilson and Roy Prete, *Coalition Warfare an Uneasy Accord* (Waterloo, Ont., Canada: Wilfrid Laurier University Press, 1983), 3 & 15.

chapter explicates the reasons why nations use coalitions and in so doing, furthers the argument as to why this study is necessary. It identifies and explains how nations use coalitions. This enables the development of a framework for coalition warfare. Codifying these elements in Chapter 2 allows for refining the framework following examination of air warfare examples in the next chapter. The second chapter concludes with a discussion of why the air domain is different. This introduces the necessity for the refinement of preliminary framework already culled from the literature to a completed framework within Chapter 3.

The third chapter refines the previously developed analytical framework, as it applies to war in the air. It does so by examining three historical instances of coalition air war and the preparation for each of them: Operation Husky (Jul-Aug 1943), Operation Allied Force (Mar-Jun 1999), and Operation Enduring Freedom (Oct 2001- Mar 2003). The chapter explains the rationale for choosing these historical examples, the preparations for warfare within the coalitions, and the results of the preparation. A synthesis of these elements leads to an analytical framework used to assess the USAF's current preparations for coalition air war.

Chapter 4 uses the framework from Chapter 3 to survey USAF doctrine, USAF strategy, and the existing strategic relationships and readiness for coalition air war. Here, the thesis examines two geographical regions: the Asia-Pacific region and European-Atlantic region. The chapter assesses to what extent USAF doctrine is reflective of the analytical framework. The next step is to analyze the USAF's strategy for coalition air war and explain how this strategy is manifested within the two regions analyzed. In the Pacific region, the thesis assesses USAF preparation for coalition air war with Japan (JP) and Australia (AU). In the Atlantic region, it focuses on USAF preparation for coalition air war with Great Britain (GB) and France (FR). This analysis will answer three questions: Is the doctrine for coalition warfare sufficient? What are the difficulties enacting the USAF's current strategy? Do the characteristics of the strategic relationships and readiness in the two regions align with the USAF's strategy? The answers to the questions will illustrate what the USAF is



already doing effectively for future coalition air war and what improvements it should make in its current efforts.

The conclusion of this thesis seeks to address three straightforward questions about the Air Force's preparation for coalition war: What should the USAF continue to do? What should the USAF stop doing? What should the USAF start doing? After grounding the discussion in the history and principles of coalition air warfare and surveying and assessing current preparations, the answers should be fairly well apparent. However, when making conclusions on matters of this nature, it is worth remembering the prophetic words of Carl von Clausewitz "Everything in war is very simple but the simplest thing is difficult."<sup>17</sup>

This study has one identified limitation. The information used is unclassified. The author is aware that much preparation occurs at higher levels of security, whether restricted or classified. There is, however, sufficient relevant open-source information to allow a fairly high degree of confidence in the validity of the findings.

The renewed interest and strategic relevance of coalition warfare provides the impetus for determining the preparation the USAF should take. Therefore, in the manner similar to when the Corinthians implored the Spartans to vote for war against Athens to block the Athenian goal of maintaining its empire by retaining control over Potidaea, others are seeking the US to lead in common efforts to thwart emerging threats.<sup>18</sup> Coalition air warfare increases the capacity to meet the requirement and challenge those threats. As the NSS noted, American leadership depends on the "sturdy alliances."<sup>19</sup> If the capacity for common effort falters, allies may reassess their alliances and re-weigh other

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<sup>17</sup> Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: N.J.: Princeton University Press, 1976), 119.

<sup>18</sup> This allusion reveals the complexity, yet necessity of coalitions. In this case, Potidaea was rebelling against the Athenian empire and sought support from Corinth because the Corinthians maintained ties with Potidaea. Corinth's support of Potidaea and a separate dispute with Athens over the city-state of Corcyra led it to seek support from a traditional ally. Initially, Sparta was reluctant to support Corinth but was convinced to declare war to prevent Corinth's withdrawal from the Peloponnesian League. Therefore, Sparta's larger clash with Athens was, in part, a result of what the current NSS calls "sturdy alliances" with the smaller states of Potidaea and Corinth. *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, ed. Robert Strassler (New York, NY: Simon & Schuster, 1996), 68.

<sup>19</sup> National Security Strategy, 41.

options, much as Corinth threatened its withdrawal from the Peloponnesian League. This study will help illuminate the necessary preparations for future coalition air warfare, which is important to America's continued strategic leadership.

## Chapter 2

### The Essential Elements of Coalition Warfare

*The past also suggest that the nation's survival may well depends on its political and military leaders establishing a strategic vision that moves beyond the immediate challenges that the present raises...such a vision must rest first and foremost on an understanding of the past.*

Williamson Murray

This chapter examines the literature of coalition war to discover the verities about its form. It defines coalition warfare and derives a framework with which to analyze coalition air war. First, it asks *why* nations use coalitions. It then explains *how* nations use coalitions. The chapter continues by analyzing the difficulties of coalitions, which helps to derive the ingredients of success in coalition war. The difficulties and rewards of coalition war lead to the articulation of a framework for assessing coalition air war.

#### **The Importance of Understanding Coalitions**

There are at least five reasons to study coalitions. This section explicates those reasons and describes why an understanding of coalition warfare is necessary for the contemporary strategist.

First, the study of coalitions demolishes the fantasy that success in coalition warfare is easy. Coalitions face dysfunctions that add to the friction inherent in warfare. Divergent goals, frustrations in assigned roles, and differences in culture and historical dynamics of states have derailed coalitions in the past. The failure of the Austro-Hungarian alliance of 1879-1918 with Germany during World War I (WWI), the difficulties of Canada's relationships in coalition warfare with Great Britain and the United States, during WWI and (World War) WWII, and Russia's participation in the Allied coalition of WWII each illustrate that achieving a productive relationship in a coalition is not easy.<sup>1</sup> The Austro-German alliance prolonged WWI, but it led to eventual failure because of the divergent goals of the partners. The rift that developed

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<sup>1</sup> Paul Kennedy, "Military Coalitions and Coalition Warfare Over the Past Century" in *Coalition Warfare: An Uneasy Accord*, ed. by Keith Neilson and Roy Prete (Waterloo, Ont., Canada: Wilfrid Laurier University Press, 1983), xii.

between Canada and her allies indicates the importance of respecting a junior partner's desires. The struggles that Great Britain and the United States had with the Soviet Union as part of their coalition during WWII illustrate the influence that a nation's history has on the dynamics of a coalition. All three instances provide lessons on how to avoid insufficient preparation for coalition warfare. These difficulties indicate that coalition warfare is not easy, nor is it always successful. The frictions of the coalition make this form of warfare complicated. Although coalitions are difficult to manage, it is important to recognize what Paul Kennedy concludes, "The tremendous impact which coalitions have made upon world history over the past century means that we ignore them at our peril."<sup>2</sup>

Despite the potential for pitfalls, coalitions have advantages that can make overcoming the inevitable frictions they induce worthwhile. Coalitions can pool resources, merge capabilities, and enhance legitimacy, all of which are helpful in ameliorating discrepancies between means and ends. A coalition can be greater than the sum of its parts. The coalition between the Russians and Anglo-Americans during WWII is an example of how nations can overcome frictions and succeed in achieving their war aims, despite pronounced differences in political ends.<sup>3</sup>

Third, extant American policy stresses the importance of coalitions. Both the NSS and the NMS state the desirability of coalitions for national security. The NSS lists two reasons for the importance of alliances and coalitions. First, it says that these relationships are fundamental to our collective security. Second, the NSS asserts that alliances and coalitions can be stronger than the sum of their parts. Therefore, the NSS links the security of our allies and partners to the security of the United States by affirming that the USA will continue to defend allies and partners against both existing and emerging threats. It succinctly notes, "Our ability to sustain these alliances, and to build coalitions of support toward common objectives, depends in part on the capabilities of America's Armed Forces."<sup>4</sup> Similarly, the NMS emphasizes

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<sup>2</sup> Kennedy, "Military Coalitions and Coalition Warfare Over the Past Century," xii.

<sup>3</sup> Steve Weiss, *Allies in Conflict: Anglo-American Strategic Negotiations, 1938-44* (New York: St. Martin's Press, 1996), 22.

<sup>4</sup> NSS, 41.

coalition warfare, as seen in the 2011 document “Redefining America’s Military Leadership.”<sup>5</sup> The NMS asserts that the strategic environment is shifting, “This changing distribution of power indicates evolution to a ‘multi-nodal’ world characterized more by shifting, interest-driven coalitions based on diplomatic, military, and economic power, than by rigid security competition between opposing blocs.”<sup>6</sup> The statement serves as notice that power balances are changing. In this environment, the necessity of forming coalitions will likely increase.

Past conflicts also illustrate the importance of coalitions in international politics. Williamson Murray asserts, “In a dangerous and uncertain international environment in which states attempt to maintain a modicum of security from external threats to their positions, alliances have proven to be of decisive importance.”<sup>7</sup> He goes on to categorize ways in which nations combine their power to overthrow an existing world order or to resist conquest by other nations.<sup>8</sup> Either course of action makes cooperation important to a nation’s grand strategy, but its influence is perhaps most meaningful in the latter case. The relevance of coalition warfare is also illuminated by adding an adjective to Leon Trotsky’s famous dictum, “You might not be interested in [coalition] war, but [coalition] war is interested in you.”<sup>9</sup> Cooperation is not without friction, but Murray lists the ingredients required to overcome such friction: compromise; sacrifice of cherished assumptions; and a deep understanding of allied concerns, aims, and fears.<sup>10</sup> Thus, whether one is a partner in a coalition or not, coalition war’s role in international politics requires attention.

Finally, military theory suggests the utility of understanding the dynamics of coalitions. Sun Tzu and Clausewitz both present ideas about coalitions. Sun Tzu’s instruction that the “next best [action in war] is to disrupt

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<sup>5</sup> NMS, cover.

<sup>6</sup> NMS, 2.

<sup>7</sup> Williamson Murray, “Thoughts on Grand Strategy,” in *The Shaping of Grand Strategy: Policy, Diplomacy, and War*, ed. by Williamson Murray, Richard Hart Sinnreich, and James Lacey (New York, NY: Cambridge University Press, 2011), 25.

<sup>8</sup> Murray, *Thoughts on Grand Strategy*, 25.

<sup>9</sup> Daniel S Larsen, “U.S.-China Relations: No Need to Fight,” *Joint Force Quarterly*: (Washington DC: National Defense University Press, 2011) available at <http://www.ndu.edu/press/us-china-relations.html> (accessed on 30 Jan 2013), 63.

<sup>10</sup> Murray, *Thoughts on Grand Strategy*, 28.

his alliances” demonstrates the potentialities of fighting against coalitions.<sup>11</sup> Sun Tzu’s principle applies to the global security environment today, just as much as 4<sup>th</sup> Century BC China. Clausewitz also extols the utility of disrupting alliances. His statement, “Delivery of an effective blow against his principal ally if that ally is more powerful than he” is a useful defeat mechanism and retains its validity.<sup>12</sup> Thus, military theory explains to the strategist that coalition dynamics require maintenance and the matching of partnership aims to means.

### **The Use of Coalitions**

This section describes how nations use coalitions. It first examines the reasons for coalitions coming into being. It then studies three difficulties that plague coalitions. The analysis of difficulties informs a portion of the sought-after framework to analyze coalition warfare. It next identifies ingredients of success in coalition war. The lessons drawn from needs, difficulties and success inform the framework of coalition warfare.

#### **Reasons for Being**

One reason states use coalitions is to ameliorate the discrepancies between ends and means. The literature on coalition war indicates that such discrepancies arise from inadequacies in resources, capabilities, or legitimacy.

First, insufficient resources can make coalition warfare desirable. Broadly categorized, resources for war include warfighting equipment, materials for production, and people. These categories directly influence mobilization plans, which funnel resources to programs that support war plans. The Nazi four-year mobilization plan, implemented to prepare for general war on the European continent, is an example of economic planning for mobilization.<sup>13</sup> Given Sun Tzu’s maxim, “With many calculations one can win, with few one cannot,” it behooves those planning for mobilization to identify resource deficiencies.<sup>14</sup> If war is necessary, a state with a need may seek a coalition partner to remedy that need. Great Britain and France’s desire for American

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<sup>11</sup> Sun Tzu, *The Art of War*, trans. and ed. Samuel Griffith (Oxford: Oxford University Press, 1963), 115–16.

<sup>12</sup> Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret, rev. ed. (Princeton: Princeton University Press, 1984), 596.

<sup>13</sup> J. Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (New York: Penguin USA, 2008), 222.

<sup>14</sup> Sun Tzu, *The Art of War*, 103.

participation in World Wars I and II validate this proposition. Great Britain and France needed the resources, in the form of equipment, material, and personnel for achievement of their war aims in WWI and successfully petitioned America to enter the war. Despite Woodrow Wilson's attempts to restrain American involvement, in 1917-1918 the US Selective Service drafted 2.8 million men and 10,000 US soldiers were transiting the Atlantic each day to support the war effort.<sup>15</sup> During WWII, Great Britain's insufficient resources and France's capitulation meant President Roosevelt's vision of America as the "Arsenal of Democracy" was not enough to secure the free world.<sup>16</sup> Great Britain required full American partnership to achieve its aims.

The second reason nations form coalitions is to mitigate specific capability gaps. Capability lies at the nexus of strategy and operational art. Resources are the physical manifestation of a state's means to pursue ends; capabilities represent the ways with which a state obtains its objective. A recent example of this was the partnership of the Royal Netherland Air Force (RNAF) with the USAF during the Persian Gulf War in 1991.<sup>17</sup> Although a small force, the RNAF provided a highly capable strike force that could participate in power projection. The fact that the RNAF placed a high priority on interoperability with other NATO forces allowed the air component commander, General Charles Horner, to assign it a broad range of very difficult missions, which gave him the freedom to employ American assets in more specialized roles.<sup>18</sup> The USAF partnership with the RNAF gave both members a boost in combined capability at the operational level, which facilitated the achievement of strategic aims.

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<sup>15</sup> US Selective Service Records, "Induction Statistics," available at <http://www.sss.gov/induct.htm> (accessed on 8 Feb 2013) and Colonel Leonard P. Ayres, *The War With Germany: A Statistical Study* (Washington DC, Statistics Branch of the General Staff, 1919), Chapter III, available at <http://net.lib.byu.edu/estu/wwi/memior/docs/statistics.htm> (accessed on 8 Feb 2013).

<sup>16</sup> Franklin Delano Roosevelt, "The Great Arsenal of Democracy" (Washington DC, December 29, 1940) available at <http://www.americanrhetoric.com/speeches/fdrarsenalofdemocracy.html> (accessed on 29 Jan 2013).

<sup>17</sup> Christian F. Anrig, *The Quest for Relevant Air Power: Continental European Responses to the Air Power Challenges of the Post-Cold War Era* (Maxwell Air Force Base, AL: Air University Press, 2011), 221.

<sup>18</sup> Anrig, *The Quest for Relevant Air Power*, 234.

Finally, states use coalitions to enhance the legitimacy of their actions. Legitimacy has two meanings in international relations. One meaning is the legitimacy of a given political entity to rule. The international community conveys this legitimacy by recognizing the group's ability to govern. The second meaning comes from the approval of action by one nation or a group in the international community.<sup>19</sup> Legitimacy is used here in the latter sense. Perhaps the most illustrative example of the connection between legitimacy and war that developed during the Vietnam War, during which the US supported a government in South Vietnam that had questionable legitimacy, leading only a few states to partner with America. South Korea, Australia, and New Zealand sent forces to fight the counterinsurgency in South Vietnam.<sup>20</sup> The Philippines supported civilian works projects in South Vietnam.<sup>21</sup> Thailand's forces provided its largest efforts in support of and the Central Intelligence Agency's (CIA) missions in Laos.<sup>22</sup> The lack of broader international support, particularly from the Europeans, led many actors in the international community to question the legitimacy of America's actions, which undercut the policies of both the Johnson and Nixon administrations. During the war America welcomed assistance but did not make extraordinary efforts to seek international legitimacy.<sup>23</sup> The lack of inclination among international community, particularly NATO countries, such as Canada and the United Kingdom, to support the war effort undermined the legitimacy of the American-led counterinsurgency campaign. "Because experts largely agree that a government seen as legitimate by 85 to 90 percent of the population is the *sine qua non* of success against an insurgency...if you don't have it, you lose."<sup>24</sup>

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<sup>19</sup> G. John Ikenberry, *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars* (Princeton: Princeton University Press, 2001), 217.

<sup>20</sup> Lieutenant General Stanley Robert Larsen and Brigadier General James Lawton Collins, Jr., *Allied Participation in Vietnam* (Washington DC: Department of the Army, 1985), 88 & 120 available at <http://www.history.army.mil/books/Vietnam/allied/> (accessed on 8 Feb 2013).

<sup>21</sup> Larsen and Collins, Jr., *Allied Participation in Vietnam*, 76.

<sup>22</sup> Larsen and Collins, Jr., *Allied Participation in Vietnam*, 45.

<sup>23</sup> Stephen P. Randolph, *Powerful and Brutal Weapons: Nixon Kissinger, and the Easter Offensive* (Cambridge: Harvard University Press, 2007), 26

<sup>24</sup> Thomas H. Johnson and M. Chris Mason, "Refighting the Last War: Afghanistan and the Vietnam Template," *Military Review* (November-December 2009), 4, available at [http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview\\_20091231\\_art004.pdf](http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20091231_art004.pdf) (accessed on 1 Feb 2013).



After the failure of Johnson's policies, Nixon adopted a policy of Vietnamization. Continued lack of international support forced Nixon to play a "China and Russia game" to dissuade both from supporting North Vietnam. Nixon was successful in arranging détente with the Soviet Union and rapprochement with China. The decrease in support from the USSR and People's Republic of China (PRC) to North Vietnam inhibited Ho Chi Minh's effort to reunite the peninsula.<sup>25</sup> Thus, a settlement was achieved in part because Nixon limited the international support of North Vietnam and hampered its legitimacy.<sup>26</sup> A more effective coalition in Southeast Asia could have increased legitimacy to America's actions in support of South Vietnam earlier, which might have changed the characteristics of the war and decreased the need to rely upon a deal with Russia and China.

It sum, deficiencies in resources, capability, and legitimacy precipitate the need for coalitions. Having established the factors leading to the need for coalitions, we must now consider both the difficulties of coalition war and ways of overcoming those difficulties.

### **Difficulties of Coalition War**

Many lessons can be drawn from the study of failed relationships in coalition war. This section studies the failings of the Austro-Hungarian and German alliance in WWI, Canada's frustrations with its senior partners during the interwar years, and the Soviet Union's historical and ideological influences that restricted integration of the Anti-Axis coalition during WWII. All three examples illustrate that dysfunctional relationships can undermine coalition war.

The Austro-German alliance, formed in 1879, prolonged WWI, but it failed for two reasons.<sup>27</sup> First, the coalition members lacked a common goal. At the outset of the war, Germany envisioned Austria-Hungary as being a shield for protection from Russia, while it secured territory to its west. The Austro-Hungarians, however, sought hegemony in the Balkans. As the Great War went on and success became less likely, the two partners continued to diverge.

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<sup>25</sup> Randolph, *Powerful and Brutal Weapons*, 155.

<sup>26</sup> Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln: University of Nebraska Press, 2006), 205.

<sup>27</sup> Kennedy, *Military Coalitions and Coalition Warfare over the Past Century*, ix.

Germany still sought control of Europe and maintained agreement on this with Turkey. The Austro-Hungarian Empire, however, changed its aims and sought the *status quo ante*.<sup>28</sup> Then, in 1917, when neither the pre-war aim of hegemony nor the revised lesser aim of status quo ante was determined likely, the diplomats in Vienna pursued a revolution fueled by a desire for a separate peace with the Western Allies.<sup>29</sup> The rash of mutinies and defections in the armies of the Austro-German coalition, coupled with social upheaval within Austria, severely weakened the Alliance.<sup>30</sup>

Second, the Germans were frequently overbearing. Such hubris caused resentment among the Austro-Hungarians, which further degraded the conduct of operations. Germany, as the senior partner, dismissed Austria's expectations for command positions commensurate with its participation. A poignant example occurred when the senior partner made the godson of the Austrian emperor, Archduke Josef Ferdinand, a subordinate to a German army group commander.<sup>31</sup> In a series of petty exchanges, the Germans refused to provide the Archduke a position he felt he deserved. The result was distraction from the mission and poor cooperation, which the Russians exploited when they destroyed two Austro-Hungarian armies in the summer of 1916.<sup>32</sup> German feelings of superiority toward its junior partner did much to undermine the effectiveness of the military alliance by creating both personal and operational friction.

Canada's frustrations in coalition war also provide a lesson in managing relationships within Allies.<sup>33</sup> The aggravations, which culminated during WWII, led to a guideline for Canadian foreign policy called the functional principle. This dictum stated, "that representation on international bodies should be

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<sup>28</sup> Wayne A. Silkett, "Alliance and Coalition Warfare," *Parameters*, (Summer 1993) available at <http://www.carlisle.army.mil/USAWC/parameters/Articles/1993/silkett.htm> (accessed on 29 Jan 2013).

<sup>29</sup> Norman Stone, "The Austro-German Alliance, 1914-18" in *Coalition Warfare: An Uneasy Accord*, ed. by Keith Neilson and Roy Prete (Waterloo, Ont., Canada: Wilfrid Laurier University Press, 1983), 24.

<sup>30</sup> Stone, *The Austro-German Alliance, 1914-18*, 26.

<sup>31</sup> Stone, *The Austro-German Alliance, 1914-18*, 23.

<sup>32</sup> Stone, *The Austro-German Alliance, 1914-18*, 23.

<sup>33</sup> J.L. Granatstein, "Hume Wrong's Road to the Functional Principle," in *Coalition Warfare: An Uneasy Accord*, ed. by Keith Neilson and Roy Prete, (Waterloo, Ont., Canada: Wilfrid Laurier University Press, 1983), x.

determined on a functional basis as to permit the participation of those countries which have the greatest stake in the particular subject under examination.”<sup>34</sup> The principle, adopted in July 1943, originated from the perceived divergence between Canada’s expenditure of resources and its influence over Allied decisions in WWI.<sup>35</sup> Britain thrust her dominion Canada into the Great War without consultation; and prior to 1919, the mother country monitored all of Canada’s diplomatic agreements. Canada was not included in the strategic decisions during the war, despite Canadian participation at Ypres, the Somme, and Vimy Ridge.<sup>36</sup> This lack of voice in external affairs contributed to Canadian nationalism after WWI. Desire for a larger role in world affairs grew during the inter-war years and resulted in a changed relationship between Canada and Great Britain. After signing the Paris Peace Accords and entering the League of Nations, Canada became significantly more independent in world affairs; however, its military capability lagged behind its diplomatic standing.<sup>37</sup> Nevertheless, Canada did not return to a blind loyalty to the British crown. It demanded the right to control its forces’ participation in war, as became evident in the 1943 Sicily invasion.<sup>38</sup> This example illustrates that both personalities and roles matter in coalition warfare. The junior partner, as in the case of Canada in WWII, knew it was junior but still had a stake in the outcome. The insight one gleans from this example is that coalition members seek respect and roles commensurate with their capabilities to aid the alliance.

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<sup>34</sup> Granatstein, *Hume Wrong's Road to the Functional Principle*, 77.

<sup>35</sup> Granatstein, *Hume Wrong's Road to the Functional Principle*, 76.

<sup>36</sup> Jean, Martin, “Vimy, April 1917: The Birth of Which Nation?,” *Canadian Military Journal* Vol. 11, No. 2, (Spring 2011), 34, available at <http://www.journal.forces.gc.ca/vol11/no2/doc/06-martin-eng.pdf> (accessed 2 Feb 2013).

<sup>37</sup> W.S. Wallace, “The Growth of Canadian National Feeling,” (Toronto, Ont, Canada: The University of Toronto Press, 1920) reprinted from *The Canadian Historical Review*, (June 1920), 139, available at <http://archive.org/details/growthofcanadian00walluoft> (accessed on 3 Feb 2013).

<sup>38</sup> Canada demanded a role in the invasion of Sicily by the Allies, instead of its forces utilized as an army in being in Great Britain, awaiting a cross-Chanel invasion. The Canadian Prime Minister Mackenzie King made this statement to Winston Churchill. The 1<sup>st</sup> Canadian Army was incorporated within the 8<sup>th</sup> Army of British Field Marshal Montgomery but the Canadian army leaders had operational and tactical control of its forces during the invasion. Mark Zuehlke, *Operation Husky* (Vancouver, B.C., Canada: Douglas & McIntyre Copyright, 2008), 21.

Russia's history with coalition partners also demonstrates an essential element of coalition war. Rooted in its military geography and ideology, Russia's history gave it a different perspective of aims in war than its allies, particularly the Americans.<sup>39</sup> While the US tended to favor a strategy of annihilation, "the military elimination of a protuberant evil," the Soviet Union (USSR) defined its position in the world by historical location and landmass along with its revolutionary ideology.<sup>40</sup> This outlook's origins reflected the historical character of Imperial Russia whose geographical features prioritized land, leading to a strategy of survival and avoiding defeat by defense in depth. This strategy was successful during the Russian-Napoleonic Wars and WWI. When threatened, Russia absorbed the initial blow then retreated, endured, gathered its strength, and counterattacked to achieve eventual victory. Ideology also drove the strategic calculus of Stalin's agreements at the Teheran and Yalta conferences, after Russia had gained a strategic advantage over Germany. By not demobilizing after the war, Stalin took advantage of Roosevelt's assurance at Tehran, in 1943, "that American troops would return home within two years of ending the war."<sup>41</sup> The Soviet Union also breached agreements reached in 1945 at Yalta to permit elections in former Nazi occupied Eastern European countries.<sup>42</sup> The communist ideals, combined with an emphasis on territorial acquisition, shaped the USSR's interest as a coalition member, bringing it into conflict with both Great Britain and the United States. Thus, one should always expect one's coalition partners to act in accordance with their interests, as determined by factors such as history, geography, and ideology.

### **Ingredients of Success**

Analysis of the Allies from WWII provides a useful standard to measure success in coalition war. The literature is extensive, accessible, and relevant. Coalition warfare is not new. The *Book of Judges* recounts a clash of coalitions

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<sup>39</sup> John Erickson, "Koalitsionnaya Voina" in *Coalition Warfare: An Uneasy Accord*, ed. by Keith Neilson and Roy Prete, (Waterloo, Ont., Canada: Wilfrid Laurier University Press, 1983), 82.

<sup>40</sup> Erickson, *Koalitsionnaya Voina*, 83.

<sup>41</sup> John Lewis Gaddis, *The Cold War: A New History* (New York: Penguin Books, 2005), 9.

<sup>42</sup> Gaddis, *The Cold War: A New History*, 22.

in 1100 BC.<sup>43</sup> Documentation about WWII, however, is much more extensive than that of other wars, which provides context as well as explication of the events from both sides of the conflict. The literature is also accessible. It is useful to study the success of the Allied coalition during WWII through three levels of war: grand-strategic, military-strategic, and operational.

At the grand-strategic level, strong leaders and important causes were vital to the achievement of the coalition's aims. Herbert Feis concluded the leaders were the foundation of the coalition.<sup>44</sup> Feis argues that although the leaders had different long-term aims, they were able to focus on one common one, defeat of the Axis powers. "The only clear solution was to bring Germany down, and Italy too if it joined Germany. All that had been asked of any available ally was that it should share faithfully this one major purpose."<sup>45</sup>

Critics of the coalition point to the differences regarding post-war goals as the primary source of friction among them. Michael Howard, however, qualifies this argument.<sup>46</sup> He argues that while the relationship between the Americans and the British was at times troubled, the cause of friction was more a reflection of dickerings about the strategic conceptions of campaigns rather than it was dissension about the war's goals.<sup>47</sup> Howard's argument substantiates Feis' assessment that the strong leaders refrained from focusing on differences and ultimately chose to cooperate on common aims.<sup>48</sup>

The military strategy of the Allied coalition of WWII also succeeded because of common objectives. Following the success of Operation Torch in 1942, Britain and America had different visions. Churchill wanted Allied forces to conduct follow-up operations in the Mediterranean.<sup>49</sup> This preference aligned with an indirect grand strategy, initiated at the Arcadia Conference in 1941, which sought to "tighten the ring" and weaken the Nazi's periphery, prior to a

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<sup>43</sup> As quoted in Silkett, "Alliance and Coalition Warfare," 76.

<sup>44</sup> Herbert Feiss, *Churchill, Roosevelt, Stalin: The War They Waged and the Peace They Sought* (Princeton: Princeton University Press, 1957), 3.

<sup>45</sup> Feiss, *Churchill, Roosevelt, Stalin*, 3.

<sup>46</sup> Michael Howard, *The Mediterranean Strategy in the Second World War* (London: Greenhill Books, 1993).

<sup>47</sup> Howard, *The Mediterranean Strategy in the Second World War*, 69–70.

<sup>48</sup> Feiss, *Churchill, Roosevelt, Stalin*, 4.

<sup>49</sup> Carlo D'Este, *Bitter Victory: The Battle for Sicily, 1943* (New York: E.P. Dutton, 1988), 32.

direct invasion of Western Europe.<sup>50</sup> Conversely, the Americans desired a more direct military strategy and relentlessly pursued the development of a cross-Channel invasion. General George C. Marshall and others thought that further operations in the Mediterranean represented an inefficient use of Allied resources that distracted from the main goal of the destroying Hitler's forces.<sup>51</sup> American planners also suspected that Britain's desire for Mediterranean operations had imperial motives.<sup>52</sup> The coalition resolved the differences by agreeing at Casablanca in 1943 to plan for the invasion of Sicily that year, while continuing to prepare for a cross-Channel invasion.<sup>53</sup> Success of the planning in support of the coalition's military strategy was achievable because of cooperation.

The Allies in WWII were successful at the operational level of war because of complementary capabilities. Each partner of the coalition had particular capabilities developed from different historical backgrounds. America had large numbers of troops that sought decisive battle and advantage by mass-produced, technologically advanced weapons. Britain continued its tradition of economically based warfare by using its naval forces augmented by its other services to weaken the Axis powers prior to direct confrontation. As noted earlier, the Soviet Union was willing to concede early tactical and operational losses to gain a larger strategic advantage. The Allies differences in historical backgrounds fostered different means for war, which produced complementary capabilities at the operational level of war.

Allied air operations during WWII constitute another useful example of complementary capabilities. The rationale for employment of airpower reflected the nations' capability, experiences, and desires.<sup>54</sup> America preferred a daylight approach because it viewed itself as having an advantage over the enemy in both size and technological means, the Norden bombsight being the most

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<sup>50</sup> D'Este, *Bitter Victory*, 1943, 33.

<sup>51</sup> D'Este, *Bitter Victory*, 1943, 33.

<sup>52</sup> Weiss, *Allies in Conflict: Anglo-American Strategic Negotiations, 1938-44*, 22.

<sup>53</sup> D'Este, *Bitter Victory*, 1943, 50.

<sup>54</sup> Anthony W. Faughn, *Interoperability: Is It Achievable?*, Harvard University (Cambridge, MA: Center for Information Policy Research, 2001), 51.

significant example of the latter.<sup>55</sup> Britain sought to conduct night-time operations in order to preserve its forces and compensate for its relative lack of accuracy. Russia did not conduct strategic bombing operations, but airpower was important on the Eastern Front. Russia's use of airpower reflected its experience and desire, already noted as being linked to land warfare, in support of grand strategy.<sup>56</sup> The Combined Bomber Offensive (CBO), which was the tangible manifestation of Anglo-American strategic bombing in Western Europe illustrates the complementary air operations of WWII.<sup>57</sup> This level of capability was sufficient to achieve advantage over the Luftwaffe by 1944.

The success of the Western allies in WWII was the result of the coalition's ability to function effectively at all three levels of war. The coalition prevailed because its strong leaders worked through differences to arrive at a common goal. The military strategists also cooperated toward the achievement of common objectives as a part of the overall grand strategy. The complementary means employed by each partner gained a comparative advantage over those of the enemy at the operational level of war.

Having examined the rationales for forming coalitions, the types of friction that almost always resides within them, and the ingredients of success in coalition war, we may now construct a framework for assessing coalition war that flows from this analysis.

### **A Framework for Coalition War**

The verities discovered in this review of coalition war suggest the elements of a framework with which to analyze such wars. These ingredients fall into two categories, the preparation for war and the conduct of war. The

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<sup>55</sup> Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas About Strategic Bombing, 1914-1945* (Princeton, NJ: Princeton University Press, 2004), 161.

<sup>56</sup> Stalin's war of attrition against the *Oberkommando des Heeres* at Stalingrad and subsequent victories at Kuban and Kursk indicated the importance of airpower for air superiority, but the Luftwaffe was not the center of gravity nor was it eradicated prior to Russian strategic victory in the east. Von Hardesty and Ilya Grinberg, *Red Phoenix Rising: The Soviet Air Force in World War II* (Lawrence: University Press of Kansas, 2012), 104, 244, & 273.

<sup>57</sup> The Americans sought to strike six priority targets using daytime bombing to gain superiority. "RAF bombing at night was regarded as complementary to the precision attacks on vital targets, if rather generously so." R. J. Overy, *The Air War, 1939-1945*, 1st ed (Washington, D.C: Potomac Books, 2005), 73 & 75.

framework detailed below focuses upon the preparation for warfare, as required by the thrust of this thesis.

The framework for preparing for coalition warfare consists of two vital elements: relationships among allies and the functions of organizing, training, and equipping (OT&E) the force. Successful relationships in coalition warfare depend on the following criteria: historical understanding, flexibility in communication, and common strategic objectives. The criteria derived from analysis of the literature regarding the OT&E functions specific of effective coalition were complementary capabilities and roles commensurate with capabilities. Table 1, depicts these criteria.

**Table1: Initial Framework for Analysis**

<b>Relationships</b>	<b>Organize, Train and Equip (OT&amp;E) Functions</b>
Historical Understanding	Complementary Capabilities
Flexibility in Communication	Roles Commensurate to Participation
Common Strategic Objectives	

*Source: Author's Original Work*

In order to overcome coalition war's inevitable frictions, developing successful relationships requires meeting all the criteria listed above. The tension between the Allies during WWI and the eventual achievement of common strategic objectives provides an example of a relationship that overcame friction. The Allies did so because they incorporated historical understanding and flexibility in communication to attain common strategic objectives. The process demonstrated that strategy in coalition war is more complex than "making war on the map."<sup>58</sup>

Complementary OT&E functions determine an alliance's readiness for war, but a coalition also faces friction in action. Successful OT&E functions result from the merge of policy with military leadership to overcome the friction.

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<sup>58</sup> Antoine Henri Jomini, *The Art of War* (Mineola, N.Y: Dover Publications, 2007), 62.



Policy at the grand-strategic level allows leaders to mitigate the friction at the strategic and operational levels. Norway's grand-strategic decisions, implemented by the RNAF, provided the operational commander the opportunity to employ the Netherlands' assets in roles commensurate with its capabilities. In coalition war, success in OT&E functions results from policy concluded through strategic and operational leadership.<sup>59</sup>

Having discovered the essential elements of waging coalition warfare in general, we must now address the particular requirements of coalition air war.

### **The Particular Requirements of Coalition Air War**

Coalition air war is distinct from coalition war writ large. This distinction is evident from the particular requirements of air war, which nest within coalition war. These requirements demand particular preparations for air war. This section defines the particular requirements of coalition air war to allow comparative analysis of the coalitions' preparation for and conduct of war during the three historical examples to be analyzed in the next chapter.

The immediacy of connection between military effect and political objective makes coalition air war distinct from war writ large. The ability of air forces to fly over surface forces provides this immediacy.<sup>60</sup> This reality can have both positive and negative consequences. Positive consequences include the potential for operational effects such as the degradation of leadership or fielded forces early in campaigns, which may eliminate the necessity for a longer war. These positive consequences, however, sometimes make airpower seem as though it can achieve political goals economically. This leads to the second reason that air war is different from war in the other domains. The potential for swift extraction of air forces enables politicians to minimize national commitment in the accomplishment of strategic objectives. As Eliot Cohen elegantly notes, "Air power is an unusually seductive form of military strength, in part because, like modern courtship, it appears to offer gratification without

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<sup>59</sup> To understanding the relationship between policy and operational action, as presented, one must appreciate Clausewitz's dictum of war, to include coalition war, as the continuation of politics by other means. Clausewitz, *On War*, 87.

<sup>60</sup> Benjamin S. Lambeth, *The Transformation of American Air Power* (Ithaca [u.a.]: Cornell Univ. Press, 2000), 56.

commitment.”<sup>61</sup> Airpower thus gives politicians two desirable qualities: immediacy of impact and the ability to disengage.

The immediacy of political influences affects the conduct of coalition air war. Air war provides states a great ability to control the employment of forces. For example, a state within a coalition could refuse to strike targets with its own assets on one day or on one mission. In more extreme cases, a state might prevent others from striking targets by using the threat of defection from the coalition. So, unlike a ground campaign in which objectives are typically agreed to in advance and the campaign is fought with periodic adjustments over weeks and months, an air war is open to daily, if not hourly, adjustment from politicians acting through their military leaders. The process of national review during OAF is an example of significant political influence on air war.<sup>62</sup> Coalition members each possessed approval authority on their daily taskings and could refuse to participate in those missions that did not meet their political criteria.

The necessity for a higher degree of compatibility also differentiates air war from other forms of coalition war. Building an air force, however, is dependent upon technology and resources. This dependence requires a certain level of “air nation” status, much like that of emerging naval powers in the early 1900’s.<sup>63</sup> This barrier is evident in *Flightglobal*’s worldwide inventory of “fleet share” and “fleet type” of aircraft, which validates the difficulties encountered in possessing a large air force.<sup>64</sup> Of the 160 nations included, the top ten possess 66% of the world’s total aircraft fleet, 67% of the world’s combat aircraft, and 70% of the world’s special-mission and transport aircraft.<sup>65</sup> The data indicate that there is a sharp distinction between “haves and have-nots” in the air

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<sup>61</sup> Eliot A. Cohen, “The Mystique of US Air Power,” *Foreign Affairs*: 73 no. 1 (Jan/Feb 1994), 11.

<sup>62</sup> John E. Peters, et al. *European Contributions to Operation Allied Force*, (Santa Monica: RAND, 2001), 29.

<sup>63</sup> A. T. Mahan, *Mahan on Naval Strategy: Selections from the Writings of Rear Admiral Alfred Thayer Mahan*, Classics of Sea Power (Annapolis, MD: Naval Institute Press, 1991), 92.

<sup>64</sup> Flightglobal separates the data into two categories. “Fleet share” is the overall percentage of aircraft in a state’s inventory. “Fleet type” is the aircraft variants mission orientation within its fleet share. Flightglobal, *World Air Forces 2013* (Emmen, Switzerland: Flight International, 2012) available at <http://www.ruag.com/aviation> (accessed 6 Jan 2013).

<sup>65</sup> Flightglobal, *World Air Forces 2013*.

domain. In short, every state faces significant technological and resource barriers to achieving interoperability.

“Interoperability,” defined as “the ability to operate in synergy in the execution of assigned tasks,” is a very high standard.<sup>66</sup> The NMS states the Joint Chiefs of Staff’s vector clearly, “We will make our alliance a model for interoperability, transparency, and meaningful combined full spectrum activities.”<sup>67</sup> A 2001 study from Harvard University, however, examined attempts to achieve interoperability from recent air wars of Kosovo and the Persian Gulf and determined that interoperability was still beyond the grasp of most coalition air forces, “Operation Allied Force illuminated the capability gaps between the U.S. military and our NATO allies. For example, not all NATO nations possess adequate ... secure communications...These gaps impeded interoperability among Allied forces during the campaign...Ultimately, NATO nations need to upgrade their militaries to ensure they remain compatible with U.S. Forces.”<sup>68</sup>

States can take certain actions to enhance interoperability, including policy development, acquisition, and tactics and training. However, when preparation ends and conflict starts, “We must make war as we must; not as we would like.”<sup>69</sup> The literature indicates that in coalition war, complementary forces are necessary. But conflict in the air domain, in which advanced technology permits forces to merge within areas of operation with regularity, may require a higher standard of interface than complementary capabilities. This higher standard, referred to as synergy, comes from habitual interactions.<sup>70</sup> Thus, synergy in doctrine, communications, and execution

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<sup>66</sup> Joint Publication 1-02, “Department of Defense Dictionary of Military and Associated Terms” (Washington DC: Joints Chiefs of Staff, 15 Dec 2012), 149, available at [http://www.dtic.mil/doctrine/new\\_pubs/jp1\\_02.pdf](http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf) (accessed on 8 Feb 2013).

<sup>67</sup> NMS, 13.

<sup>68</sup> Faughn, *Interoperability*, 13 as quoted in “Joint Statement to Senate Armed Services Hearing on Kosovo: Lessons Learned,” The U.S. Mission to NATO Security Issues Digest, No. 203, (October 21, 1999) available at [http://pirp.harvard.edu/pubs\\_pdf/faughn/faughn-p02-6.pdf](http://pirp.harvard.edu/pubs_pdf/faughn/faughn-p02-6.pdf) (accessed on 29 Jan 2013).

<sup>69</sup> Randall T. Wakelam, *The Science of Bombing: Operational Research in RAF Comber Command*, (Toronto, Canada: University of Toronto Press, 2009), 7.

<sup>70</sup> Synergy: Merriam-Webster Online Dictionary available at [www.merriam-webster.com/dictionary/synergy](http://www.merriam-webster.com/dictionary/synergy) (accessed on 28 Feb 2013).

gained from working together are indicators of future success in coalition air war.<sup>71</sup>

This chapter has examined the literature of coalition and determined a framework for its analysis. The examination answered five questions. Why do nations use coalitions? What are the difficulties of coalition war? What are the ingredients of successful coalition war? What is a useful framework for assessing coalition warfare? What are the particular requirements for preparing for coalition air war? The insights gained from answering these questions can now be applied to assessing relevant examples of coalition air war.

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<sup>71</sup> Myron Hura, *et al.*, *Interoperability: A Continuing Challenge* (Santa Monica: RAND, 2000), 3, available at [https://www.rand.org/content/dam/rand/pubs/monograph\\_reports/MR1235.chap1.pdf](https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1235.chap1.pdf) (accessed on 9 Feb 2013).

## Chapter 3

### Historical Examples of Coalition Air War

*Armed with a better understanding for the difficulty of the task, it is clear that hopes that the plan would succeed at Tora Bora were overly optimistic.*

Andres, Wills, and Griffith

This chapter examines three historical examples of coalition air war: Operation Husky (Jul-Aug 1943), Operation Allied Force (OAF) (Mar-Jun 1999), and Operation Enduring Freedom (OEF) (Oct 2001-Oct 2002). The chapter begins by explaining the rationale for choosing these examples. It then details the strategy of each coalition air war and how the preparations of the coalition partners influenced the conduct of the air war. The final portion uses the insights gained from the three historical examples to refine this study's framework for coalition air war.

#### **Rationale**

Operation Husky, the invasion of Sicily in 1943, was the first instance of relatively mature coalition air warfare. Preceding operations had been limited in either the capability or the conception of airpower. WWI and other operations prior to Husky demonstrated the potential and value of airpower; however, until Husky, full-spectrum air operations, i.e., those that seek simultaneous influence in multiple domains had yet to take place.<sup>1</sup> Husky exhibited many of the USAF's modern functions: domain control; intelligence, surveillance, and reconnaissance; air mobility; and strategic attack.<sup>2</sup> Furthermore, up until the campaign for Sicily, leaders in the European theater

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<sup>1</sup> Joint Publication 1, Doctrine for the Armed Forces of the United States (Office of the Joint Chiefs of Staff, 2 May 2007 Amended 20 March 2009), I-6 available at [http://www.dtic.mil/doctrine/new\\_pubs/jp1.pdf](http://www.dtic.mil/doctrine/new_pubs/jp1.pdf) (accessed on 13 Mar 2013).

<sup>2</sup> The precursor to strategic attack, long-range bombing for strategic effect, was arguably demonstrated by Ninth Air Force, commanded by Major General Lewis H. Brereton. Carlo D'Este, *Bitter Victory: The Battle for Sicily, 1943* (New York: E.P. Dutton, 1988), 593. The possible exception to this *first* was the airpower employed during the Solomons air campaign from Aug-Dec 1942 centered on Guadalcanal. James B. Wellons, "Genral Roy S. Geiger, USMC: Marine Aviator, Joint Force Commander (Maxwell AFB, AL: School of Advanced Air and Space Studies, June 2007) available at [http://dtlweb.au.af.mil//exlibris/dtl/d3\\_1/apache\\_media/L2V4bGlicmlzL2R0bC9kM18xL2FwYWNoZV9tZWRpYS8yODc0NQ==.pdf](http://dtlweb.au.af.mil//exlibris/dtl/d3_1/apache_media/L2V4bGlicmlzL2R0bC9kM18xL2FwYWNoZV9tZWRpYS8yODc0NQ==.pdf) (accessed on 30 Mar 2013).

had a muddled conception regarding the control of tactical airpower that allocated air assets to relatively small ground formations. The disaster at Kasserine Pass, Tunisia, during Operation Torch in 1942, gave support to those who advocated the centralization of air forces, which modified the command and control of tactical airpower.<sup>3</sup> Husky was the first major operation planned and executed to avoid using “penny-packets” of airpower.<sup>4</sup> As Mediterranean Air Commander, Air Chief Marshal Sir Arthur W. Tedder’s centralized control of the coalition’s airpower during Operation Husky promised a significant amount of flexibility. Thus, both the missions performed and the force’s organization make Operation Husky a useful instance for analysis.

Operation Allied Force also provides a meaningful example of coalition air war. Both the broad coalition and the limited political aims of OAF make it useful for historical analysis. The forces for OAF were broad and balanced, which was new to coalition air war since WWII. The air war over Kosovo was a NATO operation consisting of 19 countries, unlike the Persian Gulf War in 1991, which incorporated only ten nations participating in an air war in which the Americans flew 85% of the sorties.<sup>5</sup> Conversely, during OAF the USAF provided only 54% of the sorties.<sup>6</sup>

In addition to being a more balanced coalition than previous air wars, OAF illustrates complex coalition dynamics. OAF was a NATO-led operation with considerable American participation; thus, as in all coalition war, consensus was required regarding both strategy and operations. The broad coalition provided challenges in planning, communication, and execution, all further complicated by OAF’s particular political context. Perhaps the greatest challenge was the requirement to reconcile the various political constraints governing the coercive air campaign. The objectives and constraints of OAF required precise strikes against carefully selected targets to avoid collateral

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<sup>3</sup> D’Este, *Bitter Victory*, 1943, 162.

<sup>4</sup> Sir Arthur W. Tedder, “Air, Land, and Sea Warfare.” as quoted by Clint Hinote, *Centralized Control and Decentralized Execution; A Catchphrase in Crisis?* Air Force Research Institute Papers 2009-1, 9.

<sup>5</sup> Eliot A. Cohen, et al., *Gulf War Air Power Survey*, *Gulf War Air Power Survey* (Washington, D.C: Office of the Secretary of the Air Force, 1993), 184.

<sup>6</sup> Benjamin S. Lambeth, *NATO’s Air War for Kosovo: A Strategic and Operational Assessment*, Project Air Force Series on Operation Allied Force (Santa Monica: RAND, 2001), 33.

damage. Dubbed the first “smart-war,” OAF relied on the planning for and careful employment of precision munitions. Thus, the existence of diverging political considerations, operational constraints, and technological advances of airpower make OAF an instructive example.

The portion of OEF that took place from October 2001 to October 2002 is the final historical example examined in this study. The initial stage of OEF provides two particular factors for analysis: the limitations imposed by Afghanistan’s distinct, land-locked geography, which made airpower an essential part of any military strategy; and the distinct evolution in strategy made manifest by combining air attacks with special operations forces. Such integration was not new. It had occurred before, most notably in anti-Scud operations during Operation Desert Storm in 1991. But as the main component of the strategy, the scale of this form of combined-arms warfare was much more significant in OEF than it had been previously.

This study has limited the analysis of OEF to Oct 2001-Oct 2002 because it represents a distinct period from which valid conclusions may be drawn. OEF is divisible into three phases: an airpower and unconventional warfare campaign (Oct 2001-Oct 2002), a policing and counterinsurgency effort (Oct 2002-2012), and a strategic retrenchment (2012-present). As such, the characteristics of the operation have changed several times.<sup>7</sup> This thesis examines the air war during the first period because reaching conclusions about the use of airpower during the other two phases may be premature.

The examples of Husky, OAF, and the initial year of OEF provide the opportunity to arrive at useful conclusions. The study’s consideration of Husky will examine the contemporary conception of centralized control and

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<sup>7</sup> In October 2002, the fighting season in Afghanistan largely ended and the intensity of coalition operations diminished. In March of 2003, America led a distinct coalition during the execution of Operation Iraqi Freedom, which became the primary the focus of United States Central Command (CENTCOM). Also in 2003, operations in Afghanistan transitioned to control through the International Security Assistance Force (ISAF), which was NATO-led. Veronica M. Kitchen, *The Globalization of NATO: Intervention, Security and Identity* (New York: Routledge, 2010), 97. Then in 2012, NATO officially endorsed an exit strategy for OEF. Helene Cooper and Matthew Rosenberg, “NATO Agrees on Afghan Security Transition in 2013” *New York Times* (New York: 21 May 2012) available at [http://www.nytimes.com/2012/05/22/world/nato-formally-agrees-to-transition-on-afghan-security.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2012/05/22/world/nato-formally-agrees-to-transition-on-afghan-security.html?pagewanted=all&_r=0) (accessed on 17 Feb 2013).

decentralized execution of airpower in a coalition environment. Examination of OAF considers airpower in a complex set of political aims and constraints. OEF represents an evolution in coalition air warfare characterized by broad integration of ground-based SOF with conventional air forces, which required a high standard of interoperability during the ground-air action. What follows is a detailed examination of each of the operations' strategic settings, air plan preparations, and implementation. Analysis following the examination of the historical examples will allow the framework derived in chapter 2 to be refined.

### **Operation HUSKY**

In January 1943, with Operation Torch, the Allied campaign in North Africa near completion, the US and the UK leaders met at Casablanca, Morocco, to determine the Western Allies' next actions. Although not in attendance, Josef Stalin had implored action from his allies to create a western front against the Axis.<sup>8</sup> Great Britain needed the Soviet Union to stay in the war and not reach a separate peace agreement with Germany, as Britain struggled to maintain as much of its empire as possible.<sup>9</sup> The United States desired the most direct route to Berlin and proposed a cross-Channel invasion. Because of competing interests, the allies compromised upon a Mediterranean operation.<sup>10</sup> The British proposed invading either Sardinia or Sicily, and the Americans preferred Sicily. Admiral King, the Chief of Naval Operations and commander of the US Fleet, articulated the American consensus that an invasion of Sardinia was "merely doing something just for the sake of doing something."<sup>11</sup> Having settled on Husky, the Allies' strategic objectives of the Mediterranean operations became three-fold: secure the Mediterranean shipping lanes, invade and capture Sicily, and then use Sicily to enable the invasion of the Italian mainland.

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<sup>8</sup> "He had forcefully demanded an early offensive by America and Britain that would relieve the critical situation on the Russian Front." S. W. C. Pack, *Operation HUSKY: The Allied Invasion of Sicily* (New York: Hippocrene Books, 1977), 18.

<sup>9</sup> Churchill refused to accept the American position in which "the allies [would sit] idly by for more than a year until sufficient forces were assembled for a cross-Channel invasion" from Britain into France. Ian Blackwell, *The Battle for Sicily: Stepping Stone to Victory* (Barnsley: Pen & Sword Military, 2008), 194.

<sup>10</sup> America's generals only agreed to Husky, however, provided the British would renew planning for the "inevitable cross-Channel operation." D'Este, *Bitter Victory, 1943*, 19.

<sup>11</sup> D'Este, *Bitter Victory, 1943*, 48.



Operation Husky began 9 July 1943 and ended 17 August. Prior to 9 July, the air and sea forces supporting Husky conducted domain control and strike missions to enable heavier bombardment and paratrooper insertion on the night of the 9 July. The invasion force of over 180,000 troops, split into two large commands, began landings on 10 July.<sup>12</sup> The Eighth Army, commanded by British General Bernard Montgomery, landed on the south and southeastern portions of Sicily and quickly captured Syracuse and Augusta before encountering resistance on the coast, which delayed their efforts to reach Messina.<sup>13</sup> At the same time, the American Seventh Army landed on the south and southwest portion of Sicily and eventually drove north-northwest to Palermo, capturing it 22 Jul.<sup>14</sup> The Italians began to surrender in mass, and Germans started to evacuate. The British, strengthened by the Canadian 1st Division on their left flank, raced to Messina; and on 17 Aug 1943 the Allies began shelling Messina. The Italians on Sicily surrendered to the Allies on 8 Sep 1943.<sup>15</sup>

From a strategic perspective, the invasion was a success. The Western Allies achieved all three objectives; and they diverted some resources from Germany's Eastern Front, which was important for Russia. The success of Husky, combined with the Russian victory during the Battle of Kursk (Jul-Aug 1943), cracked the foundation of Axis power. The execution of the invasion of Sicily was not, however, perfect from either a strategic or an operational perspective. The difficulties of the partners during the execution are attributable to frictions within the coalition, which started as soon as planning began during the Casablanca conference.

As articulated by Tedder, the air plan for Husky evolved in three phases. The first phase was systematic bombing of Italian industry and Axis airfields. These bombings targeted dispersed locations throughout Italy and Sicily to avoid compromising the exact location of the upcoming amphibious assaults. Then, a week before D-Day, the bombing targeted enemy communications and fighter defenses but still refrained from striking the beachhead locations in

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<sup>12</sup> D'Este, *Bitter Victory*, 303.

<sup>13</sup> Blackwell, *The Battle for Sicily*, 196.

<sup>14</sup> Albert N. Garland and Howard McGaw Smyth, *Sicily and the Surrender of Italy* (Washington DC: Center of Military History United States Army, 1993), 250.

<sup>15</sup> Garland and Smyth, *Sicily and the Surrender of Italy*, 499.

order to maintain operations security. Finally, the air campaign included an all-out attack on Sicilian airfields coordinated with the land invasion.<sup>16</sup> The last portion of the plan caused the most disagreement among planners before the invasion and ultimately fell short of expectations during the invasion. This was because the inadequate integration and coordination between the air and invasion plans.

The execution of Operation Husky demonstrated the air plan was deficient in three areas. First, it was out of phase with the invasion plan. The overall invasion plan had five phases: preparatory strikes, airborne assault, securing the beachheads, capture of ports Augusta and Catania and the airfields at Gerbini, and the reduction of Sicily.<sup>17</sup> The air plan, however, did not account for the air assault; and it placed greater emphasis on gaining and securing airfields for follow-on operations than was required for success of the invasion. The disparity between the air plan and the invasion plan led to unneeded friendly losses.

One example of the failure to integrate and coordinate the plans was the loss of 23 aircraft and the severe damaging of 37 others due to friendly fire from offshore ships during paratrooper drops on the eve of Husky.<sup>18</sup> The lack of identification, communication, or coordination among the Army Air Forces, the Army Ground Forces, and the Navy led to 147 killed in action and 148 wounded or missing.<sup>19</sup> The difference in the planning processes between Army Air Force and Navy leaders was partly to blame for the incident, which degraded American support of the attack on Gela. Tedder's refusal to decentralize the air planning caused a lack of synchronization with naval and land plans drafted at lower echelons because commanders within other domains conducted decentralized planning.<sup>20</sup> As a result, the overly complicated planning structure resulted in paratroopers commanded by Major General Matthew B. Ridgway flying at night over Navy ships with inadequate measures in place to prevent friendly fire. The only measure the US Navy had for differentiating the planes

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<sup>16</sup> Pack, *Operation HUSKY*, 63.

<sup>17</sup> D'Este, *Bitter Victory*, 1943, 145.

<sup>18</sup> Clay Blair, *Ridgway's Paratroopers: The American Airborne in World War II* (Garden City, NY: Garden City, 1985), 101.

<sup>19</sup> D'Este, *Bitter Victory*, 1943, 308.

<sup>20</sup> D'Este, *Bitter Victory*, 1943, 170.

carrying the paratroopers from the Luftwaffe's aircraft was a friendly forces "safe corridor" that was "transmitted to the US Navy's Western Task Force, Vice Admiral H. Kent Hewitt, who was already under radio silence and could not reply."<sup>21</sup>

The air plan also did not include specifics for close air support. Admiral King, the chief of naval operations later commented, "No control over fighter patrol was delegated to the CENT [Center] Attack Force. No bombers were on call. No fighter protection to spotting planes was provided. At no time was the Force informed concerning the degree of air control exercised by our forces and as to what enemy attack might be expected. The battle was separate and foreign, apparently unconcerned about the situation in the CENT area."<sup>22</sup>

While Tedder initially claimed satisfaction with all aspects of the air campaign, any argument concluding that close-air support was sufficient during Husky lacks rigor.<sup>23</sup> The planning and execution practices commanders from North Africa were accustomed to during Operation Torch had broken apart under Tedder's organization. This led to the criticism that, "The air commanders were justifiably more concerned with the necessity of taking local airfields and establishing air bases as quickly possible than with the difficult and uncertain task of providing support for troops and equipment landing over the beaches."<sup>24</sup> There was clearly dissonance between the perceptions of the air and ground leaders because of failures in planning.

Third, the air plan's aims were not in consonance with the invasion plan's aims. The air plan sought to destroy the Luftwaffe, Axis airfields, and industry to gain and maintain air superiority and project power into Italy, all the while seeking to collapse the Italian government.<sup>25</sup> The invasion plan's objectives, however, focused on capturing territory and destroying enemy forces on the island of Sicily, not the Italian mainland. The combination of different

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<sup>21</sup> Blair, *Ridgway's Paratroopers*, 83.

<sup>22</sup> Three Naval attack forces were used: CENT, DIME and JOSS. CENT force consisted of the 45th National Guard forces. Pack, *Operation HUSKY*, 66; D'Este, *Bitter Victory*, 1943, 153.

<sup>23</sup> D'Este, *Bitter Victory*, 1943, 178.

<sup>24</sup> Pack, *Operation HUSKY*, 31.

<sup>25</sup> Conningham's tactics were to block road with rubble to prevent German escape which laws more harmful that helpful according to Army commanders. D'Este, *Bitter Victory*, 1943, 560.

aims coordinated at different echelons of command helped produce the failure to interdict the German evacuation from Sicily at the Straits of Messina. Despite surveillance from air assets identifying the evacuation of the German forces, insufficient air assets were allocated to interdict the evacuation. Insufficient means and distractions during execution limited airpower's responsiveness at Messina.<sup>26</sup> Aviators made heroic efforts; but incomplete planning, coupled with distractions beyond Sicily, led to a failure to prevent German forces from evacuating Sicily.<sup>27</sup> According to one well-known historian, "Brave attempts to fly through the flak barrage in the last week of the evacuation succeeded in damaging only five Siebel ferries and a few barges."<sup>28</sup>

Insufficient air planning contributed to Allied inability to cut off the Germans at Messina. As Carlo D'Este observed, "The truth is that the air forces, despite what appear to have been good intentions, never made anything resembling an all-out effort to interfere with or block the Axis evacuation of Sicily."<sup>29</sup> After gaining air superiority, instead of concentrating on destruction of the German forces on Sicily, the focus of the allied air forces was on planning for invasion of the Italian mainland and parallel execution of the combined bomber offensive, which sought to destroy the Rumanian oil fields.<sup>30</sup> These additional missions taxed Tedder's planning staffs and led to costly delays in allocating forces to interdict the German evacuation from Messina.

Three criteria from the initial coalition war framework can help to explain the frictions within the coalition air war during Husky. First, *flexibility in communications* was deficient. Despite centralized command under Tedder, a central headquarters for the planning and execution of the air war did not exist during Husky. As a result, the services had insufficient communications through which to consolidate planning. Tedder had authority to command but lacked the means with which to do so. The lack of a central headquarters degraded efforts for coordinating close air support, especially in support of the

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<sup>26</sup> D'Este, *Bitter Victory*, 1943, 533.

<sup>27</sup> Douglas Porch, *The Path to Victory: The Mediterranean Theater in World War II* (New York: Farrar, Straus, and Giroux, 2004), 87.

<sup>28</sup> Porch, *The Path to Victory*, 87.

<sup>29</sup> D'Este, *Bitter Victory*, 1943, 535.

<sup>30</sup> Tedder argued that strategic targets on the Italian mainland were more profitable [than Sicily]. Porch, *The Path to Victory*, 87.

Seventh Army's landings, and further hampered efforts to stop the Germans evacuation at Messina. A central headquarters could have also synchronized and adapted the planning process with the land and naval forces. Thus, instead of three plans coordinated at different levels of command, the combined operation needed one clear plan that all forces understood and executed.

Second, *common strategic objectives* among the allies existed, but they were not translated to the operational planning and employment of forces during Husky. By not reaching a consensus over the relative priorities of airfields in Sicily, the extent of continued operations in North Africa, and the necessity for future operations such as the Combined Bomber Offensive or the invasion of Italy, allied leaders failed to achieve unity of effort.

Frictions in the relationships between the leaders also contributed to the failure to prioritize operational planning. General Alan F. Brooke, Chief of the British Imperial Staff, criticized Eisenhower for leading by committee.<sup>31</sup> Tedder, who also served as Eisenhower's deputy, opined that Montgomery thought he was Napoleon.<sup>32</sup> Montgomery implied Tedder was anti-authority because of Tedder's objections to those interested in constraining Mediterranean air operations to Sicily.<sup>33</sup> General Omar Bradley, the American II Corps Commander, criticized Patton for simply obeying orders and not questioning Montgomery's authority when he should have.<sup>34</sup> These examples of personal friction suggest that although strategic objectives can be determined at the outset of planning, those in command of coalition operations must adapt the conduct of operations to achieve these objectives. Such adaptation requires reconciliation of divergent points of view. During Husky, while the common strategic objectives were pursued, operational modifications to the air plan were difficult because the allies did not have a common headquarters and because divergent interests and personality conflicts impeded cooperation.

Friction during Husky also occurred because the coalition did not possess *complementary capabilities*. Two examples illustrate the point. First, as demonstrated by the fratricide of the paratroopers, commanders were unable

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<sup>31</sup> D'Este, *Bitter Victory*, 1943, 110.

<sup>32</sup> Porch, *The Path to Victory*, 14.

<sup>33</sup> D'Este, *Bitter Victory*, 1943, 116.

<sup>34</sup> Blackwell, *The Battle for Sicily*, 47.

to achieve cross-domain integration. This lack of integration was caused by insufficient communication means between air and sea forces. Thus, the Navy commanders would not give assurances of the ability to protect the approach of friendly forces outside of the safe corridors because they could not guarantee communications with their fleet or with friendly aircraft.<sup>35</sup> Second, there was no effective system to facilitate close air support. The allied air forces had a resource advantage over the Luftwaffe, but “the system for requesting prompt air support was virtually useless and left the airmen with a final decision whether or not a requested mission was flown.”<sup>36</sup> The detachment of the control elements for close air support to Malta and Tunis, instead of placing them closer to Sicily, meant a timely response was nearly impossible.<sup>37</sup> These two examples demonstrate the coalition’s inability to integrate its component forces because it lacked complementary capabilities.

The compromise reached at the Casablanca Conference in 1943 led to the strategy for Operation Husky. The air plan for Husky was a three-phased concept articulated by Tedder, but the execution of Operation Husky demonstrated the air plan was deficient in three areas. It was out of phase with the invasion plan. The air plan also did not include specifics for close air support. The air plan’s aims were not in consonance with the invasion plan’s aims. *Flexibility in communications* was deficient during planning and operations. *Common strategic objectives* among the allies existed, but they failed to translate to the operational planning and employment of forces during Husky. Friction during Husky among forces also occurred because coalition forces did not possess *complementary capabilities*. The lessons of Husky suggest future coalitions pay heed to *communications flexibility*, *common strategic objectives*, and *complementary capabilities*.

### **Operation Allied Force**

In 1998, the international community began to focus on the Balkans, in particular on the escalation of violence in Kosovo.<sup>38</sup> From an outgrowth of Serbian nationalism, the Federal Republic of Yugoslavia (FRY) leader, Slobodan

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<sup>35</sup> Clay Blair, *Ridgway’s Paratroopers*, 82.

<sup>36</sup> D’Este, *Bitter Victory*, 1943, 305.

<sup>37</sup> D’Este, *Bitter Victory*, 1943, 302.

<sup>38</sup> Dag Henriksen, *NATO’s Gamble: Combining Diplomacy and Airpower in the Kosovo Crisis, 1998-1999* (Annapolis: Naval Institute Press, 2007), 130.

Milosevic, had defied the Dayton Accords, which ended the 1995 Bosnia and Herzegovina air war. His forces committed atrocities against the people of Kosovo in an attempt to maintain control of Serbian-designated holy lands.<sup>39</sup> The Kosovo Liberation Army (KLA) resisted these Serbian acts, but the situation in the Balkans, instigated by Milosevic, became worse until NATO intervened. A 19-nation alliance demanded the atrocities in Kosovo stop and Milosevic return his forces to Serbia.<sup>40</sup> Following a failure to secure peace through diplomatic means, NATO's objectives for the subsequent military operation became four-fold: Serbian forces withdraw from Kosovo, both sides agree to an international peacekeeping force in Kosovo, unconditional return of refugees and unhindered access by humanitarian organizations, and agreement to the Rambouillet Accords as the basis for the future of Kosovo.<sup>41</sup> Milosevic's rejection of the terms of agreement at the Rambouillet Conference in March 1999 set the stage for NATO intervention.

The air campaign against Serbia began on 24 March 1999 and continued until 9 June, when Milosevic agreed to the coalition's terms.<sup>42</sup> Phase I of the campaign commenced with the attacks on Serbian troops on 24 March and lasted for four days until the North Atlantic Council (NAC) approved Phase II.<sup>43</sup> Although restrictions on targets gradually lifted during the first week, coalition leadership would not approve attacking targets in Belgrade, the Serbian capital, until later in the campaign. On Day 9, coalition leaders approved attacks against Serbian infrastructure south of Belgrade. By the third week, the air campaign bogged down and few new targets remained because of NATO-imposed restrictions intended to mitigate collateral damage. These restrictions

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<sup>39</sup> John E. Peters, *European Contributions to Operation Allied Force: Implications for Transatlantic Cooperation*(Santa Monica: RAND, 2001), 5.

<sup>40</sup> Lake, "The Limits of Coercive Airpower," 83.

<sup>41</sup> "The demands made at Rambouillet effectively required the complete surrender of control over Kosovo, as well as a significant surrender of Yugoslav sovereignty. They included the transfer of Kosovo to NATO administration, an occupying force of 28,000 troops, the free movement of NATO troops throughout the FRY, and a provision for final settlement of the Kosovo issue within three years through a referendum on the status of Kosovo within Yugoslavia. That last provision effectively guaranteed Kosovo's secession, because the Albanian population was expected to vote for independence if given the chance." Lake, "The Limits of Coercive Airpower," 83 & 105.

<sup>42</sup> Peters, *European Contributions to Operation Allied Force*, xiii.

<sup>43</sup> Lambeth, *NATO's Air War for Kosovo*, 31.

limited the coercive potential of air strikes.<sup>44</sup> In late April and early May, NATO escalated the air war and authorized some strikes against Belgrade. Then in May, civilian leaders escalated the air war one last time by authorizing the attack of targets intended to affect the Serbian people, such as the electrical grid and remaining communication networks.<sup>45</sup>

The NATO campaign ultimately achieved its objectives. Milosevic accepted NATO terms, and his forces withdrew from Kosovo. After the cessation of hostilities, peacekeepers administered Kosovo and humanitarian operations began. Following OAF, there was disagreement among the participants as to why the coercion worked. A Congressional Research Report titled “Kosovo: Lessons Learned from Operation *Allied Force*” makes perhaps the most objective assessment: Milosevic most likely capitulated for a variety of reasons including the coercive effects of airpower, Russia’s diplomatic abandonment of Serbia, and internal discord among Serbian elites.<sup>46</sup> NATO ended OAF by achieving its strategic objectives, but the course of the campaign was turbulent.

By March 1999, the intervention by NATO had seemed inevitable, but the coalition still did not agree on a strategy for intervention. Prior to OAF, the coalition deliberated over three possible strategies. One proposal was to use ground troops supported by airpower as the main effort to stop the atrocities. A second concept envisioned airpower backed by the threat of ground forces. A third strategy favored airpower alone and offered a guarantee restricting the use of ground forces. These three strategies represented generalizations of proposals by France, Britain, and the USA respectively.<sup>47</sup> The debate frustrated some NATO members. The coalition heavily relied upon America, and NATO realized nothing would happen without American participation. Therefore, “the cruise missile diplomacy” era of US foreign policy was to continue.<sup>48</sup> It is clear from the above analysis that although NATO leaders agreed on their objectives,

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<sup>44</sup> Lambeth, *NATO’s Air War for Kosovo*, 38.

<sup>45</sup> Lambeth, *NATO’s Air War for Kosovo*, 48.

<sup>46</sup> Paul E. Gallis, “Kosovo: Lessons Learned from Operation *Allied Force*” (Washington DC: Congressional Research Service-Library of Congress, 19 Nov 1999), 3 available at <http://www.au.af.mil/au/awc/awcgate/crs/rl30374.pdf> (accessed on 14 Feb 2013)

<sup>47</sup> Peters, *European Contributions to Operation *Allied Force** 16-19.

<sup>48</sup> Henriksen, *NATO’s Gamble*, 160.



they had clear disagreements over both the ways and means with which these objectives were to be achieved.

In the end, NATO's intervention took the form of a coercive air campaign, characterized by significant discord during both planning and execution. The intervention had the mission to "degrade Serbian capability to conduct repressive actions against ethnic Albanians in Kosovo."<sup>49</sup> After 40 revisions, the air campaign planned from the mission statement contained three distinct phases.<sup>50</sup> First, the coalition sought to establish air superiority over Serbia and air supremacy over Kosovo. Air superiority would allow the coalition follow-on operations free from prohibitive interference by the enemy, while air supremacy would mean the enemy would be incapable of conducting any effective interference during follow-on operations.<sup>51</sup> To do this, the coalition had to degrade the Serbian air defenses and command and control capabilities. Phase II included the attack of military targets in Kosovo and Serbian forces in Yugoslavia south of the 44th parallel. Phase III expanded air operations to strike military targets in the entire Yugoslav territory.<sup>41</sup>

On the surface, the US-backed NATO plan appeared likely to achieve the aims set forth by coalition leaders with relative ease. This conjecture proved inaccurate, as it took 78-days, 38,000 sorties, and 12,000 tons of munitions to achieve the coalition's aims in the slowly escalating air campaign. The Supreme Allied Commander Europe, General Wesley Clark's, assessment of the campaign supports this conclusion: "One of the most obvious features of the conflict was the West's lack of preparedness when the conflict actually began."<sup>52</sup> In retrospect, the coalition only achieved success by overcoming the frictions that existed within its preparation and execution of the air war. The employment of airpower in OAF was deficient in three areas, each of which hampered coalition success.

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<sup>49</sup> Peters, *European Contributions to Operation Allied Force*, 16.

<sup>50</sup> Some US State department officials assumed Phase II and Phase II would be unlikely because "Milosevic would capitulate after two or three days of airstrikes." Peters, *European Contributions to Operation Allied Force*, 16.

<sup>51</sup> Air Force Doctrine Document 3-0, *Operations and Planning* (Secretary of the United States Air Force, 9 November 2012), 21, available at [http://static.e-publishing.af.mil/production/1/af\\_cv/publication/afdd3-0/afdd3-0.pdf](http://static.e-publishing.af.mil/production/1/af_cv/publication/afdd3-0/afdd3-0.pdf) (accessed on 3 Apr 2013).

<sup>52</sup> Henriksen, *NATO's Gamble*, 3.

The essence of the plan did not reflect the assumptions about the use of airpower by military leaders. The USAF had proposed using overwhelming firepower to cause physical and psychological dislocation to the both enemy leadership and fielded forces from the beginning of the air war.<sup>53</sup> This strategy for the use of airpower came into being because of the perceived disadvantages of gradual escalation during the Vietnam War.<sup>54</sup> Conversely, civilian leaders, in particular European leaders, desired an incremental approach. According to one analyst, “The need for consensus has left an unmistakable imprint on the Alliance’s military strategy, causing it [the coalition including the USAF] to take a gradualist approach to the bombing campaign.”<sup>55</sup> This chasm in the thinking between political and military leaders produced friction and inhibited initiative. As noted by Lt Gen Michael C. Short, USAF, the coalition air commander, “We were prepared to fly a few sorties and bomb them for a couple of nights. Here are your targets; don’t think, just execute.”<sup>56</sup> The use of gradualism instead of overwhelming force during OAF led to partial paralysis of the civil-military planning process. The eventual achievement of OAF’s stated objectives, however, disproved the naïve notion that the Gulf War of 1990-91 had ushered in a universal theory of airpower.

Second, friction arose from capacity and diversity inadequacies in some of the coalition air forces. US aircraft flew 80% of the total sorties, including 90% of the air refueling, 85% of the suppression of enemy air defenses, and 65% of the strike sorties, delivering 83% of all munitions.<sup>57</sup> While sufficient for Kosovo, the performance illustrated NATO was “in danger of becoming a two-tiered alliance.”<sup>58</sup> Deficiencies within the coalition included lack of precision weapons, secure communications, high-fidelity identification-friend-or-foe (IFF) systems, heavy airlift, and night-vision capability.<sup>59</sup> Thus, the USAF was the

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<sup>53</sup> Henriksen, *NATO’s Gamble*, 10.

<sup>54</sup> After Vietnam, the USAF resolved to organize, train, and equip forces to execute strategies predicated on the use of overwhelming force, as seen in the Persian Gulf War. Benjamin S Lambeth, *The Transformation of American Air Power* (Ithaca: Cornell Univ. Press, 2000).

<sup>55</sup> Henriksen, *NATO’s Gamble*, 11

<sup>56</sup> Henriksen, *NATO’s Gamble*, 17.

<sup>57</sup> Lambeth, *NATO’s Air War for Kosovo*, 66; Peters, *European Contributions to Operation Allied Force*, 29-31.

<sup>58</sup> Gallis, “Kosovo,” 15.

<sup>59</sup> Gallis, “Kosovo,” 15.

only nation capable of employing night, all-weather, precision weapons, which were required to mitigate collateral damage.<sup>60</sup> The German and Italian air chiefs acknowledged this operational problem, which had strategic consequences, by noting, “Given their current military capabilities, the European members of NATO could not have undertaken the Kosovo mission without US participation.”<sup>61</sup> The causes of the operational difficulties were strategic choices nations had made long before the conflict. The 19 air forces had each optimized its capabilities for different necessities.<sup>62</sup> Thus, the incompatible preparation for air war among NATO members meant a disparity in capability and capacity at the start of OAF, which strained the coalition.

Third, the coalition lacked the control processes needed for a modern air war, and it labored to develop new process when faced with an unexpected challenge. The humanitarian intervention in Kosovo, rather than the previously exercised defense of a NATO member, increased friction in the coalition processes illustrated by the difficulties in both sharing operational information and using the media to strategic advantage. Predominantly US forces executed a separate, and initially secret, air tasking order (ATO) under Joint Task Force Noble Anvil, an embedded air operation within OAF that took place from Jan-Jul 1999.<sup>63</sup> The US stated this operation required separation from the rest of the coalition in order to “ensure strict control over those US-only assets and to maintain a firewall against leaks from any allies who might compromise those operations.”<sup>64</sup> The gap in coordination produced the separate ATO indicated the coalition’s inability to share necessary information. This deficiency risked fracturing the coalition. Gen Jean-Pierre Kelche, the chief of defense for France, OAF’s second largest contributor of forces, noted, “It was just incredible. It was quite foolish, because the whole of NATO shared a political

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<sup>60</sup> See discussion of global positioning system and Laser designation with weather. Gallis, “Kosovo,” 15.

<sup>61</sup> Gallis, “Kosovo,” 15.

<sup>62</sup> The USAF was “designed to generate overwhelming force against the enemy’s centers of gravity,” while the European air forces were “generally designed as part of an air-ground team.” Peters, *European Contributions to Operation Allied Force*, 71.

<sup>63</sup> US strategic resources such as the B-1, B-2, B-52, F-117, E-3, and U-2 aircraft and cruise missiles, along with British intelligence supported Anvil. Henriksen, *NATO’s Gamble*, 15

<sup>64</sup> Lambeth, *NATO’s Air War for Kosovo*, 185.

responsibility.”<sup>65</sup> The inability to share information, in this case because of security measures, weakened the coalition.

As both Generals Clark and Kelche noted after the fact, the coalition also had difficulty creating an information operations advantage at the operational and strategic levels of war. General Clark clearly thought the coalition was unprepared for information operations, “We hoped to buy a few days by minimizing the initial public releases while we refined the system.”<sup>66</sup> General Kelche identified the problem as the NATO headquarters not having a “solid information cell” before the start of the air war.<sup>67</sup> The British after-action report advocated “changes in NATO headquarters procedures [including] the recognition of the need for reinforcement of media operations section during a crisis, to help meet the demand for rapid information flow.”<sup>68</sup>

Weak messaging at the strategic level compounded the shortfalls at the operational level. The Clinton Administration’s public statement that ground troops would not fight in OAF caused friction in the coalition.<sup>69</sup> Milosevic was also able to use the inadvertent bombing of the Chinese Embassy in Belgrade as propaganda against NATO because of a slow operational and strategic response in information operations after the mistake.<sup>70</sup> Furthermore, statements by senior civilian leaders about coalition leadership illustrated the coalition’s fragility, while possibly giving Milosevic hope that time and perseverance could sever the coalition.<sup>71</sup> The coalition worked to correct the problem, but the deficiency in information operations decreased the efficacy of the coercive air campaign. Because coercion requires altering the subject’s calculation of costs and benefits, success for NATO required President Milosevic

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<sup>65</sup> Henriksen, *NATO’s Gamble*, 15.

<sup>66</sup> Henriksen, *NATO’s Gamble*, 6.

<sup>67</sup> Henriksen, *NATO’s Gamble*, 6.

<sup>68</sup> Geoffrey Hoon, *Kosovo: Lessons from the Crisis*, (London: Crown, 2000), 5.10 available at [http://94.236.30.88/NR/rdonlyres/31AA374E-C3CB-40CC-BFC6-C8D6A73330F5/0/kosovo\\_lessons.pdf](http://94.236.30.88/NR/rdonlyres/31AA374E-C3CB-40CC-BFC6-C8D6A73330F5/0/kosovo_lessons.pdf) (accessed on 14 Feb 2013).

<sup>69</sup> Tony Mason, “Operation Allied Force” in *A History of Air Warfare* ed. by John Andreas Olson (Dulles, VA: Potomac Books, 2010), 46.

<sup>70</sup> David A. Harris, Major, USAF, “Information Operations as a Counter to US Air Dominance: A Rival’s Perspective” (Ft Leavenworth, KS: School of Advanced Military Studies, 2007), 10 available at [www.dtic.mil/dtic/tr/fulltext/u2/a470650.pdf](http://www.dtic.mil/dtic/tr/fulltext/u2/a470650.pdf) (accessed 15 Mar 2013).

<sup>71</sup> French President Chirac stated, “The position of leader of the Free World is vacant.” Henriksen, *NATO’s Gamble*, 103.

and his supporters to conclude that the FRY had no hope of obtaining its ends and that its best course of action was to accept the agreement offered by NATO. Thus, the initial failures of information operations at both the operational and strategic levels decreased the coercive effect of NATO airpower on the FRY.

Analysis of OAF's air campaign indicates the importance of mitigating frictions associated with three of the criteria provided in the initial framework of coalition air war. First, a coalition fighting an air war requires timely agreement on the ways and means for achieving *common strategic objectives*. The delay in agreeing to these ways and means delayed the pursuit of the objectives and threatened the coalition's legitimacy before the operation commenced. Paralysis of the coalition's civil-military leadership was eventually reconciled, but the friction produced during planning illustrates a caution for future large coalitions. "Due to lack of consensus authorizing detailed contingency planning in NATO, the US did almost all the planning for the two NATO air campaigns...in the fall of 1998."<sup>72</sup> OAF suggests future coordination within large coalitions may continue to be unwieldy because of airpower's rapid deployment and employment capacities. These capacities provide a perception of increased time regarding the implementation of policy. Coalition war requires agreement and concessions; but the meandering approach in the application of airpower that occurred at the start of OAF, undermined coercing of Milosevic, which was the *common strategic objective*.

In addition, *flexibility in communications* had significant relevance. NATO's lack of preparedness in information operations was a critical vulnerability. In air war, especially in a coercive campaign, it is necessary to use media to illustrate successes of one's operations in order to demonstrate the adversary has no viable choice but to capitulate. Such use seeks to dissuade the enemy from continuing to resist. The coalition's initial difficulties in this area led General Dieter Stockmann, the Chief of Staff at the Supreme Headquarters Allied Forces Europe, to assert, "Due to lack of consistent information at the outset, we never succeeded in coordinating the operations until the very end of the campaign."<sup>73</sup>

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<sup>72</sup> Henriksen, *NATO's Gamble*, 13.

<sup>73</sup> Henriksen, *NATO's Gamble*, 15.

Finally, although NATO's expectation was for the air forces to achieve interoperability, the air forces record of employment indicates that a lack of *complementary capabilities* also caused friction. The exclusive possession by the USAF of ten capabilities that were critical to the outcome of the air war clearly demonstrated a lack of interoperability.<sup>74</sup> The disparity in capabilities also caused friction. The European community might not expect to fight an air war without the USAF, but it did not want to fight an air war on America's terms. One British after-action report notes, "The main focus of lessons activity at NATO is now on ensuring that all (but particularly the European) Allies modernise their capabilities to ensure that we are better prepared for future operations."<sup>75</sup> Furthermore, the lack of interoperability provided vulnerability to the friendly center of gravity—the cohesiveness of the coalition. Had Milosevic and the FRY been stronger, the coalition's lack of interoperability might have further strained its capacity, which would have posed a significant challenge to the accomplishment of the coalition's aims.

In short, OAF was an eventually successful but far from cohesive coalition air war. The coalition for OAF exhaustively deliberated over the ways and means of achieving their *common strategic objectives*. The coalition lacked *flexibility in communications* indicated by challenges in information sharing and information operations needed for a modern air war. Furthermore, the choice of a coercive air campaign caused friction within the coalition because of capacity and diversity shortfalls within some of the coalition member's air forces. The coalition's *complementary capabilities* were sufficient for success during OAF but fell short of NATO's expectations of interoperability.<sup>76</sup> Analysis of OAF provides useful lessons for future coalition preparedness regarding *common strategic objectives*, *flexibility in communications*, and *complementary capabilities*.

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<sup>74</sup> The allies lacked precision-guided munitions, laser-designator capability secure interoperable communications, high-fidelity identification friend or foe systems, electronic warfare capabilities, air defense threat warning systems, intelligence collection and dissemination (operational and tactical), heavy airlift, aerial refuelers, and night-vision capability. Gallis, *Kosovo*, 15.

<sup>75</sup> Hoon, *Kosovo*, 5, 17.

<sup>76</sup> Gallis, *Kosovo*, 15.

## Operation Enduring Freedom

The terrorist attacks of 11 September 2001 on the USA shocked the administration of President George W. Bush and the nation. Reaction to the attacks initially focused on defense by clearing the skies of all but non-military air traffic, while leaders raised the alert status of US military forces to DEFCON 3.<sup>77</sup> Following these and other defensive actions, the US government began to plan for offensive operations. The strategic objectives of Operation Enduring Freedom have changed over time, but President Bush's address to the US Congress on 20 September 2001 is the clearest definition of the initial military objectives: to destroy terrorist training camps and infrastructure in Afghanistan, to capture al-Qaeda leaders, and to bring about the cessation of terrorist activities originating from Afghanistan.<sup>78</sup>

Following 11 September, President Bush stated the Taliban government of Afghanistan was complicit in the terrorist attacks of al-Qaeda.<sup>79</sup> After the Taliban's refusal to deliver al-Qaeda leaders to US authorities, the US Armed Forces deployed forces to the region. On 7 October 2001, the coalition initiated offensive actions in Afghanistan.<sup>80</sup> Initial airstrikes degraded the enemy's capability, and British and American Special Forces and intelligence agencies formed a coalition with the Northern Alliance, an indigenous force opposed to the Taliban regime.<sup>81</sup> Coalition ground forces with western airpower toppled the Taliban in Mazar-i Sharif, Kabul, and Kunduz in early November.<sup>82</sup> In late November US Marines deployed south of Kandahar; and by early December their actions, along with those of the rest of the coalition, led to the fall of Kandahar, the last Taliban-controlled city in Afghanistan.<sup>83</sup> Then in the spring,

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<sup>77</sup> Benjamin S. Lambeth, *Airpower Against Terror: America's Conduct of Operation Enduring Freedom* (Santa Monica: RAND Corporation, 2005), xiii.

<sup>78</sup> George W. Bush, "Address to the Joint Session of the 107<sup>th</sup> Congress" in *Selected Speeches of President George W. Bush* (Washington DC: Whitehouse Archives, 2001-2008), 75 available at [http://georgewbush-whitehouse.archives.gov/infocus/bushrecord/documents/Selected\\_Speeches\\_George\\_W\\_Bush.pdf](http://georgewbush-whitehouse.archives.gov/infocus/bushrecord/documents/Selected_Speeches_George_W_Bush.pdf) (accessed on 15 Mar 2013).

<sup>79</sup> Bush, "Address to the Joint Session of 107<sup>th</sup> Congress," 76.

<sup>80</sup> Robert S. Tripp, Kristin F. Lynch, John G. Drew, and Edward W. Chan, *Lessons from Operation Enduring Freedom* (Santa Monica: RAND Corporation, 2004), 16.

<sup>81</sup> Nora Bensahel, *The Counterterror Coalitions: Cooperation with Europe, NATO, and the European Union* (Santa Monica: RAND Corporation, 2003), 11.

<sup>82</sup> Lambeth, *Airpower Against Terror*, xviii.

<sup>83</sup> Lambeth, *Airpower Against Terror*, 139.

summer, and fall of 2002, operations in Afghanistan transitioned from major combat operations to a “low-intensity counterinsurgency.”<sup>84</sup>

The initial phase of OEF only partially met the strategic objectives set forth before the war. US forces destroyed terrorist camps and infrastructure, liberated Taliban-controlled cities, and thwarted terrorist activities originating in Afghanistan. The coalition achieved only partial success, however, in capturing the al-Qaeda leaders. The coalition faced difficulties in mid-December achieving this objective in the Tora Bora region of Afghanistan.<sup>85</sup> Both the adopted strategy and the friction within the coalition for OEF partly explain this unevenness in the accomplishment of strategic objectives.

OEF provides an example of air war adapting to a new operating environment. The environment influenced the action of coalition air war in Afghanistan in October of 2001 in two ways: a new operational-level construct for force employment, and limited strike participation by coalition partners. These ways resulted from a particular approach to the air war termed the “Afghan Model.”<sup>86</sup> The Afghan model represented an evolution in strategy of coalition air war, but it also created frictions evidenced by difficulties in coordinating coalition operations and challenges in understanding various participants’ capabilities.

The American effort in OEF included allies, but it was not reliant on their participation for several reasons. First, the US desired retribution following the 11 September, 2001 attacks. Second, the US was mindful of the types of frictions that had occurred during OAF.<sup>87</sup> Third, the strategy the US preferred was in large measure not supportable by allies.<sup>88</sup> In short, US leaders chose not to adopt a strategy requiring broader participation from allies

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<sup>84</sup> Lambeth, *Airpower Against Terror*, 200.

<sup>85</sup> Richard B. Andres, Craig Wills, & Thomas Griffith Jr., Allies and The Strategic Value of the Afghan Model,” *International Security*, Vol. 30, No. 3 (Winter 2005/06), 124.

<sup>86</sup> Andres, Wills, & Griffith Jr., “Winning with Allies and The Strategic Value of the Afghan Model,” 124; Stephen D. Biddle, “Allies, Airpower, and Modern Warfare: The Afghan Model in Afghanistan and Iraq,” *International Security*, Vol. 30, No. 3 (Winter 2005/06), 161.

<sup>87</sup> Lambeth, *Airpower Against Terror*, 116.

<sup>88</sup> “One problem that prevented the international community from showing a more solid military front was...American air- and sealift capacity, its air and naval power, and existing base network were far superior to those of its allies.” Stephen Tanner, *Afghanistan: A Military History from Alexander the Great to the War Against the Taliban* (Philadelphia: DeCapo Press, 2009), 300.



because of previous precedent, desire for rapid operations, and limits in broader capabilities of coalition members.<sup>89</sup>

At the same time, OEF required a coalition for successful execution. The coalition provided access to Afghanistan, unique capabilities, and moral support, despite limits to sortie generation and execution capacity. The moral legitimacy and other supporting means provided by the coalition were important in the air war. President Bush and Secretary Powell recognized this and made a significant effort to seek support for the Afghanistan operations. On the eve of the invasion, 27 nations pledged over-flight or basing permissions for coalition aircraft.<sup>90</sup> Furthermore, “NATO invoked its charter’s Article 5, Britain’s Prime Minister Blair actively supported the coalition’s goals, stating that the leaders of France, Germany, other European Union countries, and Russia all agreed that this attack is an attack not only on America but on the world.”<sup>91</sup>

In contrast with OAF, America sought to build a coalition based on capability to project airpower: “Secretary of Defense Rumsfeld, in particular—insisted that this time around, the coalition would be determined by the needs of the situation rather than the other way around.”<sup>92</sup> As such, there were a few key participants in the operation.<sup>93</sup> The United Kingdom provided access and enablers for the ground-air operations, to include 20 percent of the in-flight refueling capability.<sup>94</sup> France provided full-spectrum airpower for the initial

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<sup>89</sup> Lambeth, *Airpower Against Terror*, 117.

<sup>90</sup> Lambeth, *Airpower Against Terror*, 37.

<sup>91</sup> Lambeth, *Airpower Against Terror*, 26.

<sup>92</sup> Lambeth, *Airpower Against Terror*, 118.

<sup>93</sup> “Canada provided sustained support of Operation Noble Eagle, defense of North America, with F-18’s and subsequently provided support Canada’s contribution, code-named Operation Apollo, included a detachment of two CP-140 Aurora long-range patrol aircraft for conducting surveillance operations in the Gulf region. It also included a strategic airlift detachment of CC-150 Airbus A-310s and a tactical airlift detachment of three CC-130 aircraft for transporting military personnel and materiel into the theater.” Lambeth, *Airpower Against Terror*, 118.

<sup>94</sup> “The British contribution included several Royal Navy submarines armed with TLAMs and a total of 10 RAF tankers (both Tristars and VC-10s) and reconnaissance aircraft (Canberra PR9s and a Nimrod R1), with the Canberras and tankers reportedly operating out of Seeb and the Nimrod out of Thumrait, both in Oman. Significantly, the RAF’s tanker contribution provided 20 percent of the total inflight refueling capacity that was available for Enduring Freedom missions.” Lambeth, *Airpower Against Terror*, 118.

stages of OEF.<sup>95</sup> During this period, it was the only nation to provide strike aircraft. Australia supported OEF with mobility, reconnaissance, and special operations forces.<sup>96</sup> Despite the contributions of the other forces, the US provided the bulk of the assets because of the firepower and special capabilities required by the strategy.

The strategy represented an evolution in coalition air war.<sup>97</sup> The effort to overthrow the Taliban and al-Qaeda resulted from technological advancements enabling a new form of ground-air coordination, in which large conventional air forces supported indigenous forces and supporting SOF.<sup>98</sup> On 7 October 2001, US and allied forces commenced operations to degrade the enemy communications and defenses, while coalition SOF joined multi-national intelligence agency forces to coordinate the actions of indigenous forces, “as a screen against the enemy infantry and force the enemy to mass before calling in precision air strikes.”<sup>99</sup> The operational constraints of Afghanistan required long-range, precision airpower and timely tactical intelligence.<sup>100</sup> Using conventional strike aircraft communicating and coordinating with special operators to eliminate targets became standard operating procedure.

This air-centric strategy was successful. The objectives were to respond rapidly to the crisis, avoid a ground war with heavy formations, and avoid creating a government without indigenous allies.<sup>101</sup> The outcome of the operation was the low-cost destruction of the Taliban government and the disruption of al-Qaeda in Afghanistan. Despite the overall success, there were frictions within the coalition.

Friction in the coalition resulted from the strategy chosen by the US. The strategy was not fully supportable by US allies due to the operational constraints in Afghanistan. Nora Bensahel’s RAND report indicated that offers came with capabilities that could not support the chosen strategy: “While the

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<sup>95</sup> Nora Bensahel, *The Counterterror Coalitions*, 12.

<sup>96</sup> Australia’s participation began with “a small contingent of F/A-18s and Boeing 707 tankers for the defense of Diego Garcia” and would to include greater mobility and other supporting functions as OEF continued. Lambeth, *Airpower Against Terror*, 118; Bensahel, *The Counterterror Coalitions*, 12.

<sup>97</sup> Andres, Wills, & Griffth Jr., “Winning with Allies,” 124.

<sup>98</sup> Andres, Wills, & Griffth Jr., “Winning with Allies,” 127.

<sup>99</sup> Andres, Wills, & Griffth Jr., “Winning with Allies,” 127

<sup>100</sup> Lambeth, *Airpower Against Terror*, xxiv.

<sup>101</sup> Andres, Wills, & Griffth Jr., “Winning with Allies,” 127.

offers were numerous, their operational utility was often questionable. As a result, the United States declined most of the offers of combat forces it received.”<sup>102</sup> In retrospect, there are arguments for and against this approach; but there is little doubt this was the choice made in October 2001.<sup>103</sup>

The coalition also suffered from dispersed and at times unsynchronized headquarters, which did not adapt well to operational changes in the campaign. Three strategic headquarters were involved in the unconventional war during the initial stages of OEF: United States Central Command (USCENTCOM) in Tampa, FL; Army Central Command (ARCENT) in Kuwait; and United States Central Air Forces (CENTAF) in Saudi Arabia. The dispersal of these headquarters had both strategic and operational ramifications.

The use of the geographically dispersed headquarters challenged the principle of centralized control-decentralized execution. At times, the air component was not synchronized with the CENTCOM Commander, General Tommy Franks, US Army, or the guidance from his staff. This was because USCENTCOM continued to conduct planning and made strategic decisions with the Secretary of Defense to the exclusion of the joint forces air component commander (JFACC), General Charles Wald, USAF, and his CENTAF planners.<sup>104</sup> The use of multiple headquarters, over 8 time-zones, was a challenge for command and control and contributed to the difficulty to achieving *flexibility in communication* between the indigenous forces and the Western forces particularly in eastern Afghanistan.

Friction was also evident at the operational level when an attempt was made to capture or kill the fleeing al-Qaeda leaders in the Tora Bora region. Airpower could not overcome these frictions, which contributed to a strategic

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<sup>102</sup> Nora Bensahel, *The Counterterrorism Coalitions*, 9.

<sup>103</sup> Stephen D. Biddle, “Allies, Airpower, and Modern Warfare,” 162; The following sources discuss the evolution of air war in OEF: Andres, Wills, & Griffith Jr., “Winning with Allies;” Stephen D. Biddle, “Allies, Airpower and Modern Warfare;” Lambeth, *Airpower Against Terror*; Stephen Tanner, *Afghanistan: A Military History from Alexander the Great to the War Against the Taliban*

<sup>104</sup> As described by one analyst, “CENTCOM had become so accustomed to maintaining close control over the day-to-day operations of the CAOC [because of Operation Southern Watch] that General Franks did not include General Wald in any of the initial planning decisions when he briefed Secretary Rumsfeld and General Myers on the air attack plan for the first night of Enduring Freedom.” Lambeth, *Airpower Against Terror*, 297.

setback. Air operations during Tora Bora were a qualified success. In the first week of operations, American forces estimated airstrikes killed five hundred members of al-Qaeda and destroyed large numbers of weapons and supplies.<sup>105</sup> Then, after the bombing, the air forces transitioned to providing close air support for SOF who were embedded with the indigenous forces. B-1s, B-52s, F-16s, AC-130s, and MQ-1s provided firepower and surveillance enabling SOF forces advance to investigate results of the bombing and eliminate remaining enemy.<sup>106</sup> The geography of the region degraded airpower's effectiveness. The ability of the al-Qaeda leaders to conceal themselves in the rugged terrain inhibited destruction of adversaries that eventually fled to and escaped through the mountains. Much as in the evacuation of the Germans at Messina, airpower could not stop the leaders of significant al-Qaeda forces at Tora Bora. While geography contributed to the inability to interdict the enemy, the causes for the strategic setback at Tora Bora also had much to do with coalition dynamics.

Misperceptions about the capabilities and motivations within the coalition were contributing factors to the setback at Tora Bora. After the fall of Kabul, the indigenous forces in Afghanistan began to diverge in interests from the Western forces in Afghanistan. Andres, Wills, and Griffith noted the state of the coalition after the fall of Kabul in the fall of 2001 and observe, "US and Northern Alliance goals began to diverge. By this point the alliance had conquered more of Afghanistan's territory than it could easily control. Northern Alliance warlords saw little gain in a campaign of extermination against al-Qaida...Thus, at Tora Bora, Afghan morale came from US diplomacy and cash, not internal motivation."<sup>107</sup> At Tora Bora, the Afghans fought, but the effectiveness of the force was limited because of both insufficient capability and decreased motivation. The misperceptions preceding the operations at Tora Bora had strategic consequence—the failure to capture or kill Osama bin Laden, and his chief lieutenants allowing a significant number of al-Qaeda and Taliban leaders to escape into Pakistan.<sup>108</sup>

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<sup>105</sup> Paul Krause, "The Last Good Chance, 651.

<sup>106</sup> Lambeth, *Airpower Against Terror*, 150.

<sup>107</sup> Andres, Wills, & Griffith Jr., "Winning with Allies," 147.

<sup>108</sup> Stephen D. Biddle, "Allies, Airpower, and Modern Warfare," 174.

Stephen Biddle claimed the reason for bin Laden's escape was the coalition's overreliance on indigenous troops to seal the border between Afghanistan and Pakistan.<sup>109</sup> The implication from this claim is that the enemy would not have escaped if there had been a large contingent of western troops into the region before the battle. The validity of Biddle's assertion is questionable because of the geography of the Tora Bora region and the enormity of the task. After the operation, the task force director of operations, Colonel Mark Rosengard, US Army, stated, "You can't find the infantry organization in anybody's army that can occupy and control Tora Bora."<sup>110</sup> More significantly, the argument restricts understanding of a greater strategic lesson the operation presented, which requires deeper analysis than merely arguing the caliber of the troops employed. Rather than attempt to compare troop capabilities in the rugged terrain, the strategist gains more from acknowledging the divergence of the coalition's objectives prior to the operation. The difficulties of the Tora Bora operation illustrate the importance of resolving *common strategic objectives* prior to the start of coalition war.

The air campaign in OEF provided an example of an air war evolution called the Afghan Model. The US, however, still required a coalition to enable operations. NATO aircraft and those from nine other nations participated in air operations during OEF; but more importantly, 27 total nations permitted overflight or basing permission for US and coalition aircraft. Analysis of the coalition air war indicated success but frictions came from dispersed headquarters and divergent strategic aims. In three months, Oct-Dec 2001, indigenous ground forces abetted by coalition SOF and airpower ousted the Taliban government from the main city of Afghanistan. The victories of the coalition at Mazar-i Sharif, Kabul, Kunduz, and Kandahar demonstrated successes of the planning for a different kind of war using the Afghan Model. After the initial thrust of the operation; however, frictions in the coalition and limitations of the Afghan Model were evident in the aftermath of the strategic setback at Tora Bora. Despite the adaptive evolution of the air war, the

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<sup>109</sup> Stephen D. Biddle, "Allies, Airpower, and Modern Warfare," 174.

<sup>110</sup> Andres, Wills, & Griffith Jr., "Winning with Allies," 148.

frictions in the coalition's *flexibility in communication* and *common strategic objectives* indicate that coalition dynamics can transcend the chosen strategy.

### **Redefining the Framework**

The themes from the historical examples prompt a re-examination of the initial framework as presented in Chapter 2. To accomplish this review, two questions are relevant. How was the framework applied? What was missing from the framework?

Table 2, "Scorecard of Air Wars," shows a scorecard of the air wars as related to the initial framework from Chapter 2. The analysis indicates two trends for the coalitions in the examples, which struggled to meet the criteria of *flexibility in communications* and *common strategic objectives*. During Husky, the German forces escaped through Messina and were reconstituted on mainland Italy. During OAF, frustration toward the US stemmed from the execution of a separate air tasking order. In OEF, operational difficulties with strategic effect arose at Tora Bora partially because objectives were not common across the coalition. In short, the initial framework captured frictions in communications and objectives in all three examples of coalition air war.

The criterion *complementary capabilities* also requires analysis. The outcomes of the air wars, as depicted in the after-action reports from both Husky and OAF, indicate the coalitions for both air wars lacked complementary capabilities. Complementary capabilities mean making commensurate the strengths of each participant, while communicating sufficiently to make progress toward the overall aim. In Husky and OAF, communication during the air war was ineffective. The implication from both analyses is that the allies in each air war executed most missions without merging each other's strengths in support of the overall campaign. Conversely, while acknowledging the US flew the preponderance of the missions during OEF, other nation's air forces added balance, capacity, and breadth to the coalition air campaign. This increased capability was specifically noteworthy in the areas of intelligence, surveillance and reconnaissance; air refueling; tactical transport; light lift; and close air support.<sup>111</sup> Finally, during OEF, the coalition achieved advancements in

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<sup>111</sup> Bensahel, *The Counterterror Coalitions*, 11.

communications during what was termed a “fast-break war.”<sup>112</sup> Thus, the coalition in OEF met the threshold for complementary capabilities.

Table 2 provides a consolidated view of the criteria of the initial framework for each historical instance. This view adds to the analysis by clearly indicating trends. The scoring is indicated by a “+” which signifies the frictions within the coalition were not attributable to the criterion or a “-” which signifies friction in the coalition was attributable to the criterion. Finally, this table provides insight useful for redefining the initial framework into a framework for coalition air war.

**Table2: Scorecard of Air Wars, Using Initial Framework**

<b>Air War Analysis</b>	<b>HUSKY</b>	<b>OAF</b>	<b>OEF</b>
Historical Understanding	+	+	+
Flexibility in Communication	-	-	-
Common Strategic Objectives	-	-	-
Complementary Capabilities	-	-	+
Roles Commensurate with Capabilities	+	+	+

*Source: Author’s Original Work*

The table above indicates an unexpected result. Based on the analysis of trends in Chapter 2, the positive scores of *historical understanding* and *roles commensurate with capabilities* are surprising. The conclusion here is the

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<sup>112</sup> Conrad C. Crane, “The U.S. Army’s Initial Impressions of Operations Enduring Freedom and Noble Eagle,” Center for Strategic Leadership, U.S. Army War College, Carlisle Barracks, 2002, 3, available at <http://www.au.af.mil/au/awc/awcgate/army-usawc/csl-oef-report.pdf> (accessed on 13 Feb 2013).

scores reflect differences in air war from land war, in which the domain of the former mitigates the potentialities of friction in both categories. While historical understanding shapes the characteristics of the warfare employed in the air domain, the analysis suggests the criterion has less impact in the air than in the land domain. Furthermore, when assigning roles in the air domain the ability of a nation's forces to participate in coalition war is closer to being binary in the air domain than it is in the land domain. Frequently this is a function of equipment, although proficiency and training in advance of the air war is important. Put baldly, there is a shortage of "haves" relative to "have-nots" in the air domain. Therefore, while the criteria of historical understanding and roles commensurate with participation are important to coalition war writ large, both criteria are less significant for success in coalition air war.

The addition of one criterion to the framework for analysis of coalition air war, derived from the analysis of the instances above, answers the question of what was missing from the initial framework. The framework for coalition air war must include *flexibility in force presentation*, e.g. forward-basing capabilities or long-range airpower. In each example studied above, geography significantly influenced coalition operations; and because airpower most often supports objectives in the land domain, geography will likely remain a significant factor. Thus, coalitions must have the ability to base and employ in different environments. The primary indicator for this is logistical proficiency. As illustrated during OEF, the forces of some nations did not have a significant role because their ability to generate airpower was not self-sufficient.<sup>113</sup> States that provide forces to a coalition must be able to deploy and sustain those forces. Therefore, flexibility in force presentation will be important in any future coalition air war.

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<sup>113</sup> Bensahel, *The Counterterror Coalitions*, 9.



**Table3: Amended Framework for Air Domain Analysis**

<b>Relationships</b>	<b>Organize, Train and Equip (OT&amp;E) Functions</b>
Flexibility in Communication	Complementary Capabilities
Common Strategic Objectives	Flexibility in Force Presentation

*Source: Author's Original Work*

Chapter 3 examined three historical examples of coalition air war. Analysis of trends in coalition preparedness determined the answer for two questions: How was the initial framework applied? What was missing from the framework? By answering both questions, the analysis indicated the criteria of historical understanding and roles commensurate with capabilities were not as significant within coalition air war as they were to coalition war writ large. It also indicated the need for one new criterion: *flexibility in force presentation*. Therefore, the amended framework reflective of air war, shown in Table 3, deletes historical understanding and roles commensurate with capability and adds flexibility in force presentation. By amending the framework for coalition war in general, to a framework that is specifically tailored to the realities and demands of coalition air war, the forgoing historical analysis has provided a construct with which to assess the USAF's contemporary preparations for future coalition air war.

## Chapter 4

### Contemporary Preparations for Coalition Air War

*Future wars will require all elements of national power – economic, diplomatic, financial, law enforcement, intelligence and overt/covert military operations. While wars can benefit from coalitions, they should not be fought by committee. Our joint forces must be able to communicate and operate seamlessly on the battlefield.*

James G. Roche

This chapter examines the USAF's current preparations for coalition air war. It first provides the rationale for the analysis' orientation. It then digests the doctrine pertinent to coalition air war to provide a backdrop from which to examine extant preparations for such war. The chapter next outlines the existing Air Force approach to coalition operations and analyzes the USAF's preparations with likely coalition partners in the Pacific and Atlantic regions. A comparison of the historical framework to the contemporary preparations closes the chapter. This analysis provides evidence for conclusions and suggestions in the final chapter.

#### **Rationale**

American strategists should anticipate that future air wars will be coalition air wars. This study provides several reasons suggesting the recent trend of coalition warfare will continue: recent success of coalitions, national policy and strategic guidance, the political environment, and fiscal projections. In addition, in every war, since the Mexican-American Border Wars (1910-1919), airpower provided by the US Army Signal Corps, the US Army Air Corps, the US Army Air Forces, and the United States Air Force has been part of a coalition effort.

Future power projection will in all probability require coalition airpower. John Andreas Olsen contends the USAF transitioned from a "Global-Reach Global-Power" service in the 1980s and 1990s into an "expeditionary air force" in the 2000s.<sup>1</sup> The transition required growth in power-projection capability to sustain the United States' reliance on a full-service air force for national defense. Olsen describes a full-service air force that possesses everything from

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<sup>1</sup> John Andreas Olsen, *Global Air Power* (Washington DC: Potomac Books, 2010), 3.

latest-technology fighters and bombers, to enabling persistent assets such as remotely piloted aircraft (RPA) conducting intelligence, surveillance, and reconnaissance.<sup>2</sup> The USAF indeed remains a full-service air force. But, since the USAF transitioned to an expeditionary air force, the number of aircraft in its inventory has been reduced by two-thirds.<sup>3</sup>

While the capability of individual platforms has steadily increased and political reliance on air forces appears to have grown, capacity has not kept pace. Because of these contemporary conditions, the historical use of airpower, and the anticipated demand for airpower suggests continuing preparations for future coalition air war is necessary. Thus, the projection of airpower in future air wars might require a coalition for capacity, if not for both capacity and capability. The USAF strategic guidance acknowledges the importance of coalitions in future air war. The 2012 USAF Posture Statement notes, “We have now reached a point where no other Service operates independently of the Air Force; we are an effective catalyst for U.S. and Coalition military operations.”<sup>4</sup>

The Pacific and Atlantic regions contain likely coalition partners in any future air war. The National Military Strategy stresses the influences of geography, economics, and security will continue in tomorrow’s global security environment for both regions.<sup>5</sup> The President, however, provided new strategic guidance rebalancing priorities, which increased focus on the Asia-Pacific region. Thus, the US has an increased interest in identifying likely future coalition partners within the Asia-Pacific region, while remaining engaged in the Middle East and Africa by partnering with air forces in Europe. The new strategy, influenced by geography, economics, and security concerns, promises to make the role of airpower in national security quite prominent.

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<sup>2</sup> Olsen, *Global Air Power*, 4.

<sup>3</sup> James C. Ruehrmund Jr. and Christopher J. Bowie, “Arsenal of Airpower: USAF Aircraft Inventory 1950-2009” (Mitchell Institute Press, 2010) available at [http://www.afa.org/mitchell/reports/MS\\_TAI\\_1110.pdf](http://www.afa.org/mitchell/reports/MS_TAI_1110.pdf) (accessed on 2 Apr 2013).

<sup>4</sup> *United States Air Force Posture Statement* (Department of the Air Force, 28 February 2012), 3, available at <http://www.posturestatement.af.mil/shared/media/document/AFD-120321-055.pdf> (accessed on 13 Mar 2013).

<sup>5</sup> *National Military Strategy*, (Office of the Chairman of the Joint Chiefs of Staff, 8 Feb 2011), 2.

Airpower is especially important in the Asia-Pacific region because of the “the tyranny of distance” in the region.<sup>6</sup> General George Kenney’s approach to airpower employment in the Southwest Pacific during WWII illustrated the impact of geography on the Pacific campaign and the necessity of airpower for effective military force.<sup>7</sup> Pacific nations are also the world’s largest economic powers. The Central Intelligence Agency’s (CIA) *World Factbook* lists the US, China, and Japan as the states with the highest Gross Domestic Product (GDP) over the last 10 years.<sup>8</sup> The US also has substantial military forces forward-based in Asia. Unlike NATO, these forces’ presence rests upon bilateral agreements, rather than a collective security agreement. Since WWII, Australia and Japan have a strong history of security cooperation with the United States. Thus, the Royal Australian Air Force (RAAF) and the air component of the Japanese Self Defense Forces (JASDF) represent the most likely partners for the USAF. Each promises to be a significant coalition partner in the Asia-Pacific region in the case of a future air war.

Although America’s most recent wars have been in the Middle East and South Asia, Europe remains a geographically significant area of operations. It also provides access to the Middle East and Africa. Furthermore, the continent remains a major economic hub. The European Union is the largest economy in the world.<sup>9</sup> European nations still have major military forces; and although they have dwindled in number, the forces remain technologically proficient. Collectively, the 27 air forces of the European Union (EU) represent one of the four largest air forces in the world.<sup>10</sup> The most well-equipped and highly

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<sup>6</sup> Tyranny of Distance is a commonly used expression when describing the geography of the Pacific region. For one instance of this expression, see the US Eighth Army Commanding General Lt. Gen. John D. Johnson’s description of the Pacific region. Walter T. Ham IV, “Johnson Describes Eight Army Role in Pacific Shift,” Pacific Command Website available at <http://www.pacom.mil/media/news/2012/10/29-johnson-describes-8th-army-role-in-pacific-shift.shtml> (accessed 3 Apr 2013).

<sup>7</sup> Thomas E. Griffith, *MacArthur’s Airman: General George C. Kenney and The War in the Southwest Pacific* (Lawrence, KS: University Press of Kansas, 1998).

<sup>8</sup> Retrieved from CIA World Factbook (Washington, DC: 2013) available at <https://www.cia.gov/library/publications/the-world-factbook/fields/2221.html> (accessed on 2 Apr 2013).

<sup>9</sup> Retrieved from CIA World Factbook (Washington, DC: 2013) available at <https://www.cia.gov/library/publications/the-world-factbook/geos/ee.html> (accessed on 2 Apr 2013).

<sup>10</sup> Flightglobal, *World Air Forces 2013* (Emmen, Switzerland: Flight International, 2012) available at <http://www.ruag.com/aviation> (accessed 6 Jan 2013).

capable air forces in Western Europe are those of France, Germany, and the United Kingdom.<sup>11</sup> Therefore, these three nations' air forces could be significant contributors during a future coalition air war. This study pays particular attention to the air forces of France and the United Kingdom because of their more recent advances in equipment and their more frequent participation in coalition operations within and outside of NATO.<sup>12</sup>

In sum, the USAF's partnerships with the RAAF, the JASDF, the RAF, and the FAF represent strategically significant relationships for future coalition air war. Thus, a three-part analysis which examines USAF doctrine, USAF strategy, and their applications to strategic relationships and readiness for coalition air war with these likely partners serves as the evidence to discern whether the criteria derived in Chapter 3 is being met by contemporary preparations.

### **Doctrine**

Analyzing the preparations for coalition air war requires understanding the USAF's current doctrine as it applies to coalition air war. *Merriam Webster* defines doctrine as, "a particular principle, position, or policy taught or advocated, as a religion or government."<sup>13</sup> Joint Publication 1-02 asserts doctrine is "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application."<sup>14</sup> US Air Force doctrine documents (AFDD-1) are in accord with the approved joint definition; however, Dennis Drew and Donald Snow published a more succinct and perhaps more useful definition of doctrine, "Military doctrine is what we believe about the best ways to do things."<sup>15</sup> Two themes emerge from the definitions above: *doctrine*

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<sup>11</sup> Flightglobal, *World Air Forces 2013*.

<sup>12</sup> Germany's exclusion was because their recent history in coalition air war is limited. The Luftwaffe did not participate in Operation Unified Protector or Operation Iraqi Freedom and their participation in Operation Enduring Freedom has been limited as the analysis in Chapter 3 demonstrated.

<sup>13</sup> *Merriam Webster Online Dictionary*, available at <http://www.merriam-webster.com/dictionary/doctrine> (accessed on 3 Apr 2013).

<sup>14</sup> JP 1-02, 95.

<sup>15</sup> Reprinted from *Making Strategy: An Introduction to National Security Processes and Problems*, Chapter 11, August 1988, pp. 163–174. Dennis Drew and Donald Snow, "Military Doctrine" (Maxwell AFB: AL, 1988) available at

*provides sanctioned guidance and doctrine contains ways and means thought to be successful.* For doctrine to be effective, the group — the USAF in this study — must internalize the doctrinal practices as the best ways and means to prepare for coalition air war. Thus, the following analysis will assess the extent to which current USAF doctrine for coalition air war provides guidance that captures the criteria developed in this study.

The doctrinal sources for coalition air war, which include both warfighting and preparations, are varied and numerous. The doctrine for coalition air warfighting has three distinct levels: multinational joint doctrinal publications, which are mainly allied joint doctrine (AJD) for use with NATO nations; US joint publications (JP), which provide US forces best practices including multinational concepts; and US Air Force doctrine documents (AFDD), which further refine the beliefs of warfighting for use in the air domain. The four most useful sources of the US doctrine for coalition air war are Joint Publication (JP) 3-16, *Multinational Operations*; JP 3-0, *Joint Operations*; JP 3-30, *Command and Control of Joint Operations*; and Air Force Doctrine Document (AFDD) 3-0, *Operations and Planning*. All four sources stress the importance of synchronization during multinational operations and coordination during planning.

Each of the above stresses the importance of coalition air operations. The importance of doctrine when fighting as part of a coalition is clear. As the US joint publication notes, “Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States.”<sup>16</sup> The doctrinal publications cited above contain the beliefs that the four criteria of the framework for coalition air war (common strategic objectives, flexibility in communication, flexibility in force presentation and complementary capabilities) are important for coalition air war.

The manuals present these concepts, however, with some ambiguity. For example, this study established that coalitions require common strategic

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<http://www.au.af.mil/au/awc/awcgate/readings/drew1.htm> (accessed on 2 Apr 2013), 1.

<sup>16</sup> Joint Publication 3-30, Doctrine for the Armed Forces of the United States (Office of the Joint Chiefs of Staff, 12 January 2010), i, available at [http://www.dtic.mil/doctrine/new\\_pubs/jp3\\_30.pdf](http://www.dtic.mil/doctrine/new_pubs/jp3_30.pdf) (accessed on 2 Apr 2013).

objectives; but JP 3-16 states “coalitions are formed by different nations with different objectives, usually for a single occasion or for longer cooperation in a narrow sector of common interest.”<sup>17</sup> Later JP 3-16 states a “multinational force commander’s [MNFC] primary duty is to unify the efforts of the multinational force toward common objectives.”<sup>18</sup> This difference in doctrine illustrates one example of difficulty in discerning the ways to fight coalition war from current doctrine. This critique might seem banal; but upon reflection, the historical examples indicated that the greatest amount of friction in coalitions came from a lack of clarity in purpose during both planning and execution. Thus, to mitigate friction when planning with coalition partners, consolidation and clarification of the current coalition warfighting doctrinal beliefs appears prudent.

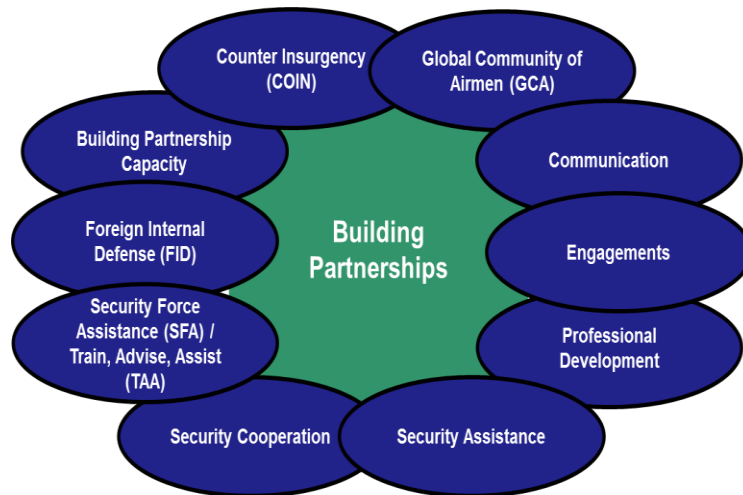
For instance, the USAF doctrine on preparations with potential partners for coalition war is limited. Doctrine for building partnerships (BP), one of the USAF’s 11 core functions, does not exist in an independent document. BP became a core function in 2009 under the guidance of the Chief of Staff of the Air Force (CSAF) General Norton A. Schwartz. There were requests for BP doctrine after BP became a USAF core function, and such doctrine was in draft status in 2011. Then, the Air Force Working Doctrine Group (AFWDG) cancelled the draft doctrine for BP because the group judged BP to be an integrating function for areas in which doctrine already existed such as foreign internal defense or security force assistance.<sup>19</sup> Figure 1 illustrates this understanding of BP. This approach subordinates building partnerships to other ways and means, when in fact BP should represent the primary ways and means with which to prepare for coalition air war.

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<sup>17</sup> Joint Publication 3-16, Doctrine for the Armed Forces of the United States (Office of the Joint Chiefs of Staff, 7 March 2007), ix, available at [http://www.dtic.mil/doctrine/new\\_pubs/jp3\\_16.pdf](http://www.dtic.mil/doctrine/new_pubs/jp3_16.pdf) (accessed on 2 Apr 2013).

<sup>18</sup> Joint Publication 3-16, xii.

<sup>19</sup> Lt Col Ann M. Halle, interview by the author, 12 March 2013.



**Figure 1: Conceptual Understanding of Building Partnerships**

Source: “Distinguishing Between Security Force Assistance & Foreign Internal Defense: Determining A Doctrine Road-Ahead” Article – Maj Derek Jenkins, *Small Wars Journal*

Furthermore, doctrinal ways and means for measuring success in preparations for air war are limited. One common view holds that preparations for coalition air war, sometimes referred to as shaping operations, were preventive in nature and that the only way to determine the utility of such operations was the test of combat.<sup>20</sup> Such a critique, of course, could be made of any doctrine; but other doctrine is tested, critiqued, and improved prior to the test of combat. Thus, a better understanding of where and how to focus preparation methods for future coalition air war, codified fully by doctrine, seems achievable and necessary.<sup>21</sup> Measurement of coalition air war preparations can enable improvements to the relevant doctrinal sources because in its simple form doctrine contains ways and means thought to be successful.

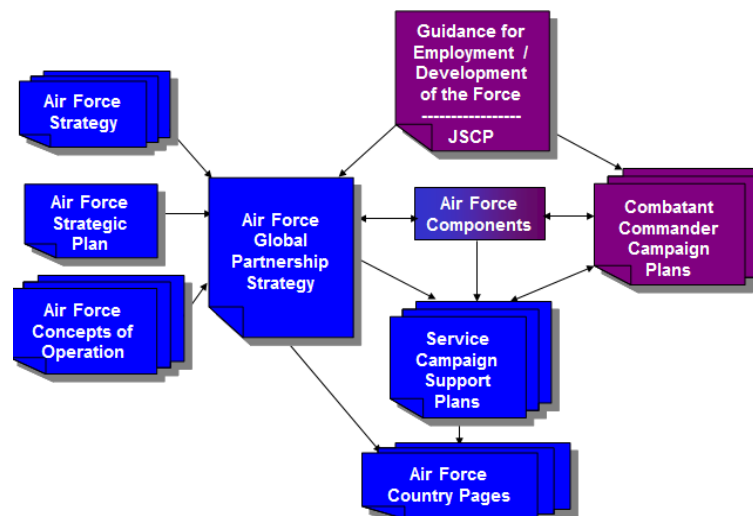
<sup>20</sup> Michael Fricano (HQ PACAF/A5I), interview by the author, 18 Mar 2013; Philip Senna (HQ AETC/A3Q), interview by the author, 21 March 2013; Richard Burgess (HQ ACC/IA), interview by the author, 13 March 2013;

<sup>21</sup> There currently exists in draft form a Headquarters Air Force guide for security cooperation assessment. When published, the document may help to eliminate this critique.



## Coalition Air War Nested within USAF Strategy

The USAF strategy for preparing for coalition air war is centered around increasing readiness through relationships. These relationships, characterized by habitual interactions with potential partners, aim to increase access for American airpower within a theater or to improve the integration of airpower with partner air forces.<sup>22</sup> If nations do not possess sufficient capabilities, the USAF seeks to build partner capacity. Preparations focus on readiness in tactics, techniques, standards, and procedures that foster interoperability with partner nations. The means and methods for these ways are diverse and numerous; however, the strategy is nested within the Guidance for Employment of Forces (GEF), the USAF Posture Statement, the Joint Strategic Capabilities Plan (JSCP), the Air Force Global Partnership Strategy (AFGPS), Major Command Strategic Plans (SP), Theater Campaign Plans (TCP) and Campaign Support Plans (CSP).<sup>23</sup>



**Figure 2: Strategy to Task of Partnerships**

Source: “Building Partnerships” Briefing --Secretary of Air Force, International Affairs (SAF/IA)

The Air Force Components at the operational level of war implement the Geographic Combatant Commander’s (GCC) theater campaign plan. The GCC’s theater campaign plan prioritizes relationships and readiness, and the air

<sup>22</sup> Michael Fricano (HQ PACAF/A5I), interview by the author, 18 Mar 2013.

<sup>23</sup> Philip Senna (HQ AETC/A3Q), interview by the author, 21 March 2013.

components identify initiatives and requirements for building relationships and readiness with likely coalition partners within the campaign support plan. The AFGPS, MAJCOM SPs, and the USAF Strategy also provide guidance to components within the GCCs. Figure 2 illustrates the relationship among these documents, which defines the process of translating strategy to preparation for coalition air war.<sup>24</sup> The GCCs and Pentagon staff agencies such as SAF/IA plan and execute the USAF's strategy for coalition air war preparations: readiness through relationships.<sup>25</sup>

Three difficulties emerge in implementing the strategy for preparation through relationships and readiness: time, funding, and institutional agreements. This is because the strategy requires long-term commitment to overcome challenges of time, funding, and institutional support when building a partner's capacity or seeking to gain theater access. The United States' military training mission with the Kingdom of Saudi Arabia (KSA) is an example that demonstrates the difficulties of implementing the strategy but also the potential gains of readiness through strategic relationships.

The US and the KSA began their habitual relationship in the 1950s.<sup>26</sup> Training and equipment from the USAF bolstered the KSA's security during the Cold War, and the exchange benefitted American interests in two ways. The first was enhancing regional security by securing KSA's oil resources, which

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<sup>24</sup> Richard Burgess (HQ ACC/IA), interview by the author, 13 March 2013.

<sup>25</sup> A very identifiable example explaining the relationship of strategy to task in partnerships comes from United States Southern Command (USSOUTHCOM). In SOUTHCOCOM, the strategic guidance states United States Air Forces Southern Command (AFSOUTH) must focus on three missions: Building Partner Nation Capacity (BPC), Countering Transnational Organized Crime (C-TOC), and Foreign Humanitarian Assistance and Disaster Relief (FHA/DR). To accomplish those missions AFSOUTH conducts operations to increase the "Partner Nation's (PN) Aviation Enterprise so that they willingly and effectively participate in an interoperable coalition." AFSOUTH accomplishes these objectives along four lines of effort: command and control; intelligence, surveillance, and reconnaissance; mobility; and air domain awareness. Habitual interactions with its partners allow AFSOUTH to enact this strategy. Thus, the air component within the GCC increases relationships with willing partners by working together with partner nations' air forces to prepare and execute coalition air operations. Maj William Hersch (AFSOUTH/A5 DEP), to the author, e-mail, 18 March 2013.

<sup>26</sup> United States Training Mission Training Mission, "Unit Information," available at <http://usmtm.org/about.html> (accessed on 3 Apr 2013).

today still represent nearly 20% of the world's proven reserves.<sup>27</sup> The second was gaining and maintaining access to the region, which eventually became a robust infrastructure needed for aviation operations.<sup>28</sup> The relationship continues today with the recent sale of 84 F-15SAs to the Kingdom.<sup>29</sup> The Secretary of the Air Force International Affairs (SAF/IA) office processes and monitors such sales, after the approval process.<sup>30</sup> The nearly \$30 billion in recent sales is significant, but perhaps the most significant payoff in the relationship was the access to the infrastructure in 1991 during the Persian Gulf War — 40 years after the relationship began. US response to the 1991 Iraqi invasion of Kuwait in which the USAF initiated nearly immediate flying operations from the KSA was a result of 40 years of building partner capacity.<sup>31</sup> It became evident to the pilots who landed on massive runway complexes in 1991, some in the middle of the desert, that the habitual relationship with the KSA was productive.<sup>32</sup>

Understanding the USAF's strategy of readiness through relationships and the challenges associated with such a strategy allows for a more detailed examination of contemporary preparations for coalition air war with likely partners. The three difficulties illustrated of time, funding, and institutional

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<sup>27</sup> U.S. Energy Information Administration, "Independent Statistics and Analysis," <http://www.eia.gov/countries/country-data.cfm?fips=sa> (accessed on 3 Apr 2013).

<sup>28</sup> "Specifically, it was agreed that USMTM would administer assistance under terms of the Mutual Defense Assistance Act of 1949 and the Mutual Security Act of 1951 and would assist and advise the Saudi Arabian Armed Forces with respect to plans, organization, administrative principles, and training methods." United States Training Mission Training Mission, "Unit Information," available at <http://usmtm.org/about.html> (accessed on 3 Apr 2013).

<sup>29</sup> Zachary Fryer-Biggs, "Boeing Gets \$11.4 Billion Piece of Saudi F-15 Deal," *Defense News*, 8 March 2012 available at <http://www.defensenews.com/article/20120308/DEFREG02/303080011/Boeing-Gets-11-4-Billion-Piece-Saudi-F-15-Deal> (accessed on 2 Apr 2013).

<sup>30</sup> "Section 36(b) of the Arms Export Control Act (AECA) requires the President to give Congress advance written notification of the intent to sell defense articles, equipment and services. [The Defense Security Cooperation Agency] DSCA prepares and delivers the notifications to Congress only with the approval of the State Department. Once Congress has been notified of a proposed arms sale under Section 36(b) AECA, the President must publish an unclassified version of the notification in the Federal Register." available at [http://www.dsca.mil/pressreleases/36-b/36b\\_index.htm](http://www.dsca.mil/pressreleases/36-b/36b_index.htm) (accessed on 3 Apr 2013).

<sup>31</sup> Philip Senna (HQ AETC/A3Q), interview by the author, 21 March 2013.

<sup>32</sup> Philip Senna (HQ AETC/A3Q), interview by the author, 21 March 2013.

agreements can constrain the ability of air forces to build relationships and sustain readiness.

### **Strategic Relationships and Readiness with Likely Partners**

This section examines the preparations for coalition air war of the USAF with the air forces of GB, FR, AU, and JP. Separating the analysis into the Pacific and Atlantic regions illuminates key differences in the relationships and readiness among the various air forces. The relationships in both regions involve engagement and standardization. The aims for readiness, however, differ between the regions. In the Pacific region, USAF strategy focuses on synchronization of air forces, while in the Atlantic region the strategic aims seeks to integrate air forces. Synchronization allows air forces to operate simultaneously within an operation using similar procedures with some degree of interoperability. Integration means the air forces operate simultaneously, use similar procedures, and possess a high-level of interoperability. Politics and geography are the main contextual factors influence this distinction.

#### **Pacific**

Contemporary preparations for coalition airpower in the Pacific region are built around the United States Pacific Air Forces (PACAF) component within United States Pacific Command's (PACOM) area of responsibility (AOR). The PACOM strategy of 2013 has seven themes, which inform PACAF's "core tenets": expand engagement, increase combat capability, and improve warfighter integration.<sup>33</sup> The following analysis of preparations with the RAAF and the JASDF reflects all three themes.

PACAF implements its strategic engagement through various bilateral agreements. These bilateral relationships make the theater security cooperation different from that of the Atlantic region, in which NATO provides a substantial multilateral influence. Furthermore, the variety of partnership and

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<sup>33</sup> *United States Pacific Command Strategy* (Honolulu, HI: Pacific Command, 22 Jan 2013) available at <http://www.pacom.mil/about-uspacom/2013-uspacom-strategy.shtml> (accessed on 20 Mar 2013) & General Herbert J. Carlisle, "Projecting Power And Influence In The Pacific," *Air Force Association Annual Air & Space Conference and Technology Exposition* (panel, National Harbor, MD, 18 Sept 2012), 14 available at [http://www.afa.org/events/conference/2012/scripts/Panel\\_9-18-12.pdf](http://www.afa.org/events/conference/2012/scripts/Panel_9-18-12.pdf) (accessed on 10 Apr 2013).

security concerns among the 36 nations within the PACOM AOR is wide.<sup>34</sup> This political reality, combined with the vastness of the Pacific Region, significantly influence the USAF's preparation for coalition air war in the Pacific. Thus, this context suggests the need for strong partners with mutual interests in the use of airpower, such as the RAAF and the JASDF. During fiscal year 2013, in one month alone, a bilateral defense conference and a roles and missions review with Japan will occur.<sup>35</sup>

Furthermore, PACAF's strategy seeks to address the potential limitation of bilateral relationships. While the first tenet of the strategy is to expand relationships, PACAF also seeks to enhance multilateral cooperation at the operational level.<sup>36</sup> The RAAF and JASDF conducted their first combined air exercise in 2011, in US air space at the Red Flag Alaska complex.<sup>37</sup> This event might indicate the beginnings of a shift in cooperation from bilateral to multilateral or combined synchronization of forces in the future. Willingness for cooperation such as this might strengthen USAF relationships within the region by easing engagement and providing an opportunity to increase combat capability through standardization.

Standardization of PACAF with its likely partners has three components. The first component is standardization through international rules. PACOM strategy sets the standard for partnership and allied interaction by stating those nations that seek cooperation with the USA must "advance a set of rules that are respected and followed by all, highlighting open access to the shared domains of sea, air, space and cyberspace and resolving disputes without coercion or the use of force."<sup>38</sup> The rules are important to America because "This homeland area [PACOM Headquarters Honolulu, Hawaii], coupled with

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<sup>34</sup> Australia, Bangladesh, Bhutan, Brunei, Burma, Cambodia, China, Fiji, India, Indonesia, Japan, Kiribati, Laos, Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Nauru, Nepal, New Zealand, North Korea, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Sri Lanka, South Korea, Thailand, Timor-Leste, Tonga, Tuvalu, Vietnam, Vanuatu. *United States Pacific Command Strategy*, 1.

<sup>35</sup> Michael Fricano (PACAF/A5I), *FY13 Events* (Honolulu, HI: 11 Mar 2013).

<sup>36</sup> Carlisle, "Projecting Power And Influence In The Pacific," (panel), 14.

<sup>37</sup> "Australia joins with Japan for first bilateral air combat training," Australian Government, Department of Defense <http://www.defence.gov.au/media/DepartmentalTpl.cfm?CurrentId=12156> (accessed on 25 Mar 2013).

<sup>38</sup> *United States Pacific Command Strategy*, 1.

our treaty alliances with Australia, Japan, Republic of Korea, Philippines, and Thailand are the cornerstone of U.S. engagement in the region.”<sup>39</sup> While these designations are less formal than in the European region, the delineation of the major partner air forces in the region and the insistence upon using common air rules provide a baseline for further standardization.

Standardization also occurs among air forces in the Pacific through employing common equipment. The Department of Defense’s (DoD) foreign military sales programs to the RAAF and the JASDF are important for standardization because Australian and Japanese domestic industries are not the primary suppliers of their air forces. Currently, the RAAF’s combat aircraft are all variants of US military aircraft.<sup>40</sup> The RAAF also plans to upgrade its fleet of airborne early warning and control (AWACS) aircraft by purchasing six Boeing “Wedgetails”; to enhance its air superiority and strike aircraft by purchasing between 70 and 100 JSFs; and to enhance its refueling capacity by acquiring Airbus KC-30A aircraft.<sup>41</sup> The JASDF combat aircraft include a mix of domestic aircraft and existing or previous variants of American airframes.<sup>42</sup> The JASDF plans to focus its modernization on air and missile defenses. *Jane’s Defence* reports these efforts encompass the acquisition and standardization of “the Patriot PAC-3, early warning radar and airborne early warning and control (AEWC) capabilities, bilateral ballistic missile command and control – through the formation of a bilateral working group – and the ‘fusion and dissemination’ of ground station and satellite data and information.”<sup>43</sup>

Two formal councils also facilitate standardization in the Pacific region: the Multinational Interoperability Council (MIC) and the Air and Space Interoperability Council (ASIC). The RAAF is a member of both organizations

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<sup>39</sup> *United States Pacific Command Strategy*, 1.

<sup>40</sup> Jane’s Sentinel Security Assessment - Oceania, *AIR FORCE, Australia* (IHS Global Limited, 2012) available at <http://www.janes.com/products/janes/defence/det-modules/air-space.aspx> (accessed 8 Mar 2013).

<sup>41</sup> Airbus, a division of EADS, produces the KC-30A for the RAAF. Jane’s Sentinel Security Assessment - Oceania, *AIR FORCE, Australia*, 1.

<sup>42</sup> Jane’s Sentinel Security Assessment – China and Northeast Asia, *AIR FORCE, Japan* (IHS Global Limited, 2012) available at <http://www.janes.com/products/janes/defence/det-modules/air-space.aspx> (accessed 8 Mar 2013).

<sup>43</sup> Jane’s Sentinel Security Assessment – China and Northeast Asia, *AIR FORCE, Japan*, 3.

and has a long history of coalition participation, which assists in achieving interoperability.<sup>44</sup> The JASDF is not a principal member of the ASIC; but because of Japan's bilateral relationship with the US, the JASDF and USAF seek to increase interoperability through different means of standardizing of procedures.<sup>45</sup> The JASDF and USAF synchronize air forces through United States Forces Japan (USFJ).<sup>46</sup>

Given the structural relationships of the air forces in the Pacific region, readiness to fight a coalition air war is limited to synchronization, rather than full integration. PACAF has three initiatives that seek to achieve synchronization. First, PACAF synchronizes forces during training exercises. Both PACOM and PACAF organize exercises by function and country participation, to include humanitarian exercises, combat exercises, and defensive exercises. The USAF, RAAF, and JASDF plan to engage in a multilateral exercise at Andersen Air Force Base, Guam called Cope North in 2013. This exercise is the second trilateral exercise among the USAF, RAAF, and JASDF.<sup>47</sup> The growth of this exercise into a trilateral exercise, which replaced the earlier bilateral Cope North exercise, signifies an increasing focus on synchronizing air forces. PACAF also seeks synchronization of air forces through multiple aspects of ballistic missile defense. Integrated air missile defense is the most significant effort within PACAF's strategy.<sup>48</sup> As indicated earlier, the JASDF are strengthening their equipment, but the USAF and JASDF

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<sup>44</sup> Australia Department of Defense, "Global Operations,"

<http://www.defence.gov.au/op/index.htm> (accessed 3 Apr 2013).

<sup>45</sup> Col Hiroaki Uchikura, JASDF, "The Future of Trans-Pacific Airpower Interoperability: Preparation for a Growing Anti-Access/Area Denial Environment," *21st Century Defense Initiative Policy Paper – The Brookings Institute* (Washington, DC: 30 June 2010) available at

[http://www.brookings.edu/~media/research/files/papers/2010/6/30%20transpacifi%20airpower%20uchikura/0630\\_transpacific\\_airpower\\_uchikura.pdf](http://www.brookings.edu/~media/research/files/papers/2010/6/30%20transpacifi%20airpower%20uchikura/0630_transpacific_airpower_uchikura.pdf) (accessed on 3 Apr 2013).

<sup>46</sup> The gaps in coordination caused by reduced information sharing suggest the challenge to region-wide coalition interoperability challenging. Ralph A Cossa, "Japan-South Korea Relations: Time to Open Both Eyes," *Council on Foreign Relations*, July 2012, available at <http://www.cfr.org/south-korea/japan-south-korea-relations-time-open-both-eyes/p28736> (accessed on 3 Apr 2013).

<sup>47</sup> "U.S., Australia, Japan militaries prepare for exercise Cope North 2013," *Pacific Air Forces News Release* (Joint Base Pearl Harbor-Hickam, HI: 7 Jan 2013) available at <http://www.pacaf.af.mil/news/story.asp?id=123331696> (accessed on 30 Mar 2013)

<sup>48</sup> "That's what I worry about when I go to bed and I wake up in the morning is IAMD." Carlisle, "Projecting Power And Influence In The Pacific," (panel), 14.



are also enhancing readiness through exercises. The two air forces completed the “Integrated Air and Missile Defense War Game IV” in support of their 1960 Treaty of Mutual Cooperation and Security.<sup>49</sup>

Finally, PACAF seeks synchronization as part of its theater-security-cooperation initiatives. Within the region, the aviation enterprise development (AED) structure provides a useful framework with which to build partner capacity. The AFGPS defines AED as partnership efforts to increase another state’s “full spectrum of air domain capabilities and detailed planning factors that support resolving or mitigating geopolitical strategic challenges.”<sup>50</sup> This effort aims to improve the aviation capacity and capability of key partner nations so they can provide their own defense, stability, and humanitarian operations. This is done in the expectation that the state’s increased aviation capacity could enable future participation in broader coalition efforts.<sup>51</sup> The USAF has created several organizations to help achieve these objectives: the Air Advisor Academy, the Air Force Special Operations Command’s 6th Special Operations Squadron, and Air Mobility Command’s mobility support advisory squadrons.<sup>52</sup>

The demand for these particular organizations is increasing in several areas. Figure 3, “GCC Requirements for Air Advisor Training,” illustrates one aspect of such demand by illustrating PACOM’s requirement for general-purpose air advisors rapidly expanding from Fiscal Year (FY) 12 to FY13 with a sustained requirement of advisors from FY13 to FY18. The planned employment of air advisors indicates that PACAF seeks to increase partner capacity so partner nations can both improve their own security and increase interoperability with the USAF.<sup>53</sup> The AED concept, combined with the high

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<sup>49</sup> Staff Sgt. Nathan Allen, “U.S, Japan refine integrated air and missile defense during exercise,” *Pacific Air Forces News Release* (Joint Base Pearl Harbor-Hickam, HI: 12 Mar 2013) available at <http://www.af.mil/news/story.asp?id=123339848> (accessed on 3 Apr 2013).

<sup>50</sup> *United States Air Force Global Partnership Strategy*, 21.

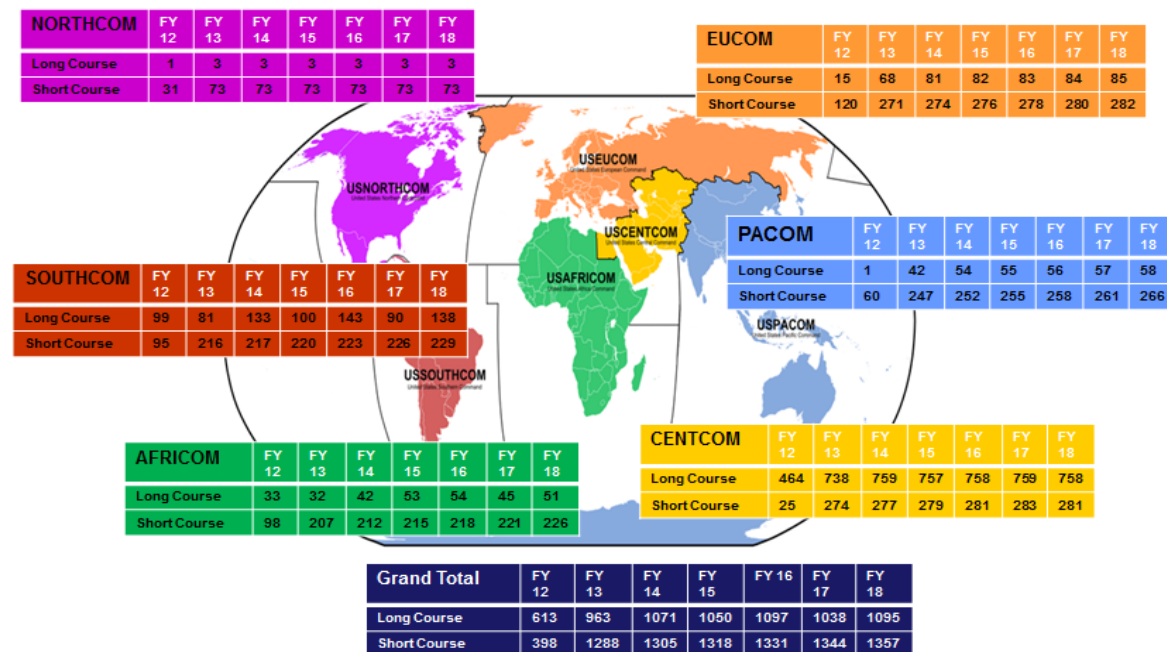
<sup>51</sup> *United States Air Force Global Partnership Strategy*, 21.

<sup>52</sup> Maj Chris Wachter, “Air-Mindedness: The Core of Successful Air Enterprise Development,” *Air and Space Power Journal Jan-Feb 2012*, available at <http://www.airpower.au.af.mil/digital/pdf/articles/Jan-Feb-2012/Views-Wachter.pdf> (accessed on 20 Mar 2013).

<sup>53</sup> Because of the wide disparity of air forces’ capabilities in the region, the PACAF international affairs directorate views BPC as having three objectives: to increase



fidelity bilateral and multilateral exercises with key allies, means PACAF seeks to synchronize its activities with numerous air forces, while working to increase interoperability with the more capable air forces in the region.<sup>54</sup>



**Figure 3: GCC Requirements for Air Advisor Training**

Source: “USAF Air Advisor Academy” Briefing –Colonel Col J. Olaf Holm, USAF

## Atlantic

This analysis examines efforts by both the Headquarters United States Air Force (HAF) and the United States Air Forces Europe (USAFE), the air component of European Command (EUCOM). The purpose of USAFE, as outlined by the “EUCOM’s 2013 Posture Statement” to the US Congress, is “to provide forward-based, full-spectrum airpower in support of global, national, alliance, and coalition operations.”<sup>55</sup> USAFE accomplishes this mission by

partner nations’ security, to make some partner nations more interoperable, and to help other partner nations become more competent. Michael Fricano (PACAF/A5I), FY13 Events (Honolulu, HI: 11 Mar 2013).

<sup>54</sup> PACAF conducts significant exercises with Australia, Japan, Korea, and Thailand.

<sup>55</sup> Admiral James Stavridis, *Stronger Together-EUCOM 2013 Posture Statement*: Testimony Before the House Armed Services Committee, 113th Congress, USAFE-i

conducting operations such as “combat air patrols supporting NATO’s Icelandic and Baltic air policing...and ISR missions across the greater Levant” along with other missions.<sup>56</sup> The USAF, through USAFE, plans and executes a significant amount of its operations in the Atlantic as part of an alliance or a coalition with several significant air forces. Thus, while the US has many partner nations within Europe and EUCOM’s theater security cooperation efforts continuously seek to build partnerships, the main thrust of USAF coalition preparations in the Atlantic region comes from combining the air forces of the US, the UK, and France.

Three components comprise the strategic relationships and readiness of the Royal Air Force (RAF) and the *Armee De L’Air* (FAF) with the USAF. The first is informal and formal engagement. The air chiefs of the three nations frequently engage in strategic discussions to improve operational interoperability among the services. A *Jane’s Defence Weekly* article, written by the air chiefs, cited a recent history of informal relationship among the chiefs and each of their staffs.<sup>57</sup> Following the cooperation evident during Operation Unified Protector (Mar-Oct 2011), the chiefs published a jointly-authored editorial acknowledging their informal relationship, “Long before that campaign started, the three of us and our staffs had been working closely to improve strategic-level collaboration.”<sup>58</sup>

Since 2011, the three air forces have participated in a broader series of strategic talks called the Strategic Trilateral Initiative (STI), which takes place between each air chief’s strategic studies groups. A letter of intent signed by the three air chiefs formalized these talks in Jun 2011.<sup>59</sup> To date, there have been four workshops, the latest in December 2012.<sup>60</sup> The focus of the workshops is to “build relationships and to explore the potential to integrate

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available at <http://www.eucom.mil/mission/background/posture-statement> (accessed on 3 Apr 2013).

<sup>56</sup> Admiral Stavridis, *Stronger Together-EUCOM 2013 Posture Statement*, USAFE-ii.

<sup>57</sup> “Libyan air ops showcase French, UK, US partnership,” *Janes Defence Weekly*, 21 March 2012, 19.

<sup>58</sup> “Libyan air ops showcase French, UK, US partnership,” *Janes Defence Weekly*, 21 March 2012, 19.

<sup>59</sup> Lt Col John M. Schutte (HAF/CK), interview by the author, 12 March 2013.

<sup>60</sup> Lt Col John M. Schutte (HAF/CK), interview by the author, 12 March 2013.

more closely.”<sup>61</sup> The discussions of the most recent workshop were held by four echelons of leadership in four related areas: general officers focusing of command relationships; a strategic group focusing on “command and control arrangements, information sharing, national control, national caveats, and basing”; an operational group discussing “command and control and information sharing processes”; and a technical group examining “machine-to-machine issues affecting the interoperability of systems that support the targeting process.”<sup>62</sup> Thus, through informal and formal means, the pursuit of strategic relationships between the USAF, RAF, and FAF is ongoing at the HAF and component level (USAFE).

The three air forces pursue standardization among their forces in four ways. The forces work to meet NATO standards articulated in procedures and doctrine. The earlier discussion regarding the purpose of allied doctrine illustrated this method of standardization. Standardization among the air forces also comes from seeking common operational objectives in the Atlantic region. There is standardization of the USAF’s objectives with the RAF and the USAF’s operational objectives with the FAF. The USAF’s operational lines of effort with the RAF are access, information exchange, and interoperability, while the lines of effort with the FAF are information exchange and interoperability.<sup>63</sup> The identification of these themes at the operational level informs senior-leader forums such as the STI and suggests how the relationship might continue to improve.

The air forces also seek standardization through the MIC and the ASIC. These bodies identify and prioritize standardization tasks.<sup>64</sup> One task identified by the ASIC in 2012 was to standardize survival training among air forces.<sup>65</sup>

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<sup>61</sup> *Report on the Fourth Trilateral Workshop 3-6 December 2012*, Chief of Staff of United States Air Force-Strategic Studies Group (Washington DC: 28 Feb 2013).

<sup>62</sup> *Report on the Fourth Trilateral Workshop 3-6 December 2012*.

<sup>63</sup> *Report on the Fourth Trilateral Workshop 3-6 December 2012*; EUCOM Country Page, *United Kingdom* available at <http://www.eucom.mil/mission/the-region/unitedkingdom> (accessed on 2 Apr 2013); EUCOM Country Page, *France* available at <http://www.eucom.mil/mission/the-region/france> (accessed on 2 Apr 2013).

<sup>64</sup> *Chairmen of the Joint Chiefs of Staff Instruction 2700.01E*, (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 18 Jan 2012), 35.

<sup>65</sup> For instance, the ASIC works to identify and prioritize ways for the air and space forces of the “5-eyes” nations to further standardize. Air and Space Interoperability

Standardization in this area would simplify equipment requirements and tactics, techniques, and procedures (TTPs) for recovery operations. When implemented, the standardization efforts are tested in multinational exercises.

Finally, the three air forces increase standardization where feasible by using common aircraft. While both the UK and FR have significant domestic aircraft industries, some commonalities of equipment help to standardize operations. These equipment commonalities are primarily in mobility and intelligence, surveillance, and reconnaissance (ISR).<sup>66</sup> With the exception of the planned adoption of the F-35 aircraft by the RAF, there is no common platform for strike or air superiority among the nations.<sup>67</sup> Commonality of the mobility and ISR platforms helps to increase the capability to employ airpower globally by facilitating the flow of and access to information. Standardization assists in achieving complementary effects through integration.

The three air forces integrate through a variety of means. The AFGPS provides means for integration such as personnel exchanges, exercises, and partner air force engagements through operator-engagement talks.<sup>68</sup> These means continue long-standing practices of integration among Airmen dating back to the *escadrilles* of WWI.<sup>69</sup> The outcome of the aircrew exchanges, various large force exercises, and operator-engagement talks is the same now as they were then — normalization of expectations. Despite the value of these means, the opportunities to integrate among the air forces are decreasing because of budgetary pressures. The USAF and RAF are reducing personnel exchanges from 46 to 36, and there will be fewer FLAG exercises in the future.<sup>70</sup>

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Council, *Air and Space Interoperability Council Task List 2012* (Joint Reserve Base Andrews, MD: 19 June 2012), 13.

<sup>66</sup> Jane's Sentinel Security Assessment - Western Europe, *AIR FORCE, France* (IHS Global Limited, 2013) available at <http://www.janes.com/products/janes/defence/det-modules/air-space.aspx> (accessed 8 Mar 2013) & Jane's Sentinel Security Assessment - Western Europe, *AIR FORCE, United Kingdom* (IHS Global Limited, 2013) available at <http://www.janes.com/products/janes/defence/det-modules/air-space.aspx> (accessed 15 Jan 2013).

<sup>67</sup> Royal Air Force, "Future Armament", available at <http://www.raf.mod.uk/equipment/f35jointstrikefighter.cfm> (accessed 3 Apr 2013).

<sup>68</sup> *United States Air Force Global Partnership Strategy* (Washington, DC: Office of the Secretary of the Air Force, Dec 2011).

<sup>69</sup> Lee Kennett, *The First Air War: 1914-1918* (New York, NY: Simon & Schuster, 1991), 65 & 140.

<sup>70</sup> Don Branum, "US Air Force: RAF exchange officer departs Air Force Academy" *Air Force Academy Public Affairs*, 27 Apr 2012, available at

To counteract the decreasing numbers, there are efforts to improve each occurrence of integration through more robust and higher-fidelity scenarios.<sup>71</sup> An example of this is the first-ever inclusion of the F-22 and the Eurofighter within the same RED FLAG.<sup>72</sup> The particulars of the exercise demonstrate the combined scale of participation, “RF-Nellis 13-3...is the largest RED FLAG of the year with over 100 aircraft and 3,000 personnel.”<sup>73</sup> Finally, operator-engagement talks occur with a number of potential partners. These talks are critical to “building personal relationships and enhancing global partnerships, leading to increased interoperability” within the region.<sup>74</sup>

The above analysis indicates that engagement, standardization, and synchronization occur among the USAF, the RAAF, and the JASDF, while engagement, standardization, and integration occur among the USAF, the RAF, and the FAF. In the Pacific region, engagement is bilateral; however, it might shift to become multilateral in the future. Standardization stems from rules, like equipment, and formal councils. Synchronization is the result of exercises and the effort of USAF corporate constructed organizations using concepts such as AED within PACAF’s command. In the Atlantic region, the expansion of the STI illustrates greater attention to senior-leader engagements. Standardization now takes place between the USAF, RAF, and FAF to further NATO standards including similar operational objectives and several common aircraft among the three air forces. Integration of the same three air forces continues to improve because of the normalizing of expectations and thus the increase in interoperability.

### **Contemporary Preparations in Light of the Historical Framework**

Comparing the USAF’s current preparations to the criteria presented in Chapter 3’s framework must be made at two levels of analysis: 1) the general direction provided by corporate air force; and 2) the implementation of the general direction in operational settings by regional air components. Although

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<http://www.defencebriefing.net/modules.php?op=modload&name=News&file=article&sid=242648> (accessed on 4 Apr 2013).

<sup>71</sup> Todd Parker, DAFC RED FLAG Program Manager (ACC/A3YE), *RED FLAG 101 Briefing 2012-2013* (HQ Air Combat Command, 2012).

<sup>72</sup> Todd Parker (ACC/A3YE), *Bullet Background Paper on RED FLAG-NELLIS 13-3* (HQ Air Combat Command, 16 Jan 2013), 1.

<sup>73</sup> Parker, *Bullet Background Paper on RED FLAG-NELLIS 13-3*, 1.

<sup>74</sup> *United States Air Force Global Partnership Strategy*, 32.

the second level of analysis is where future air wars will be fought and, in large measure, is the focus of the coalition and coalition air war research, this chapter clearly illustrates the preparations for coalition air war must consist of both corporate and component actions. Thus, to determine the effectiveness of the current preparations for coalition air war requires answering two questions: How well does the corporate structure of the USAF enable PACAF and USAFE to meet the historically derived criteria? Are the components in the Pacific and Atlantic regions meeting those criteria – specifically USAFE’s partnership efforts with the RAF and FAF and PACAF’s partnership efforts with the RAAF and the JASDF?

The USAF as an institution should enable coalition air war by performing the organize, train, and equipping functions described as complementary capabilities and flexibility in force presentation. The ways outlined in Chapter 3 that achieve these criteria are engagement and standardization. The means to accomplish those ways illustrated in Chapter 4 are strategic relationships, doctrine, and interoperability among coalition air forces.

This chapter illustrates that the USAF as an institution recognizes the value and the potential payback from engagement. The support of the STI indicates the corporate USAF views engagement is important. This strategic trilateral initiative will improve the relationships with potential partners in the Atlantic region and specifically improve already well-established norms and procedures with the RAF and the FAF. This engagement focuses as much or more on processes for coalition air war as it does the platforms employed in coalition air war. In addition, the long-term commitments that the US government makes to foster the development of other nations’ aviation capabilities and aviation infrastructure illustrates corporate USAF emphasis on engagement. The commitment to strategic relationships between the USA and the KSA is an example of not only the importance for engagement, but also the challenges of such engagement. These two examples demonstrate engagement is deeply rooted in corporate USAF structure through the emphasis on strategic relationships.

The USAF doctrine for fighting as a coalition is sufficient, but the doctrine for preparing for coalition war lacks a focus. This conclusion is derived

from two factors: historical analysis and contemporary research. The historical analysis indicates two of the four criteria for coalition air war, flexibility in communications and flexibility in force presentation, are both prerequisites for effective synchronization and integration. During Operation Husky, fratricide occurred because of deficiencies in communications. NATO partners could not communicate during OAF because they did not have common equipment and processes in place for producing air tasking orders. Several air forces could not participate during OEF because they could not present forces in an environment constrained by geography. Current doctrine does provide guidance for coalition warfighting, but doctrine for preparations in communications and force presentation with partners is not robust. This doctrinal gap degrades engagement and standardization efforts.

The significant emphasis on interoperability for all coalition operations stated in the DoD and USAF's strategic guidance ignores the reality that coalitions in air war require varying degrees of interoperability. The deficiency becomes more understandable given JP 1-02's definition of interoperability as — operations in synergy in the execution of assigned tasks — which sets an unrealistically high standard. Historical experience indicates that coalition air war might not require such a high degree of compatibility. In all three instances analyzed in Chapter 3, interoperability of airpower was not required to achieve the coalition objectives. The study concluded that the coalitions, as a whole, did not achieve complementary airpower during Operations Husky and Allied Force, and the coalition airpower operations during OEF were complementary but not fully interoperable. Thus, the analysis provided the final two criteria for coalition air war as common strategic objectives and complementary capabilities because Operations in synergy might not be required or possible with all partner air forces.

Thus, the corporate USAF has both strengths and weaknesses in preparing for coalition air war. Corporate air force engagement successfully enables common strategic objectives and flexibility in communication for the air components, but its preparations regarding the organize, train, and equip function of flexibility in force presentation and complementary capabilities should be improved through doctrine and a different view of interoperability.

Furthermore, readiness for coalition air war within air components should result from flexibility in communications and common strategic objectives gained by relationships and readiness fostered by the air components within each region. Chapter 3 indicates those relationships are dependent on the components achieving a necessary degree of interoperability and normalizing expectations through habitual interaction. These ways result in either integration or synchronization of air forces. Assessing the strengths and weaknesses of the air components' preparations for coalition air war by using all four criteria is helpful for an understanding of overall USAF coalition air war preparations and readiness.

Flexibility in communications and flexibility in force presentation are the strengths in preparations for coalition air war in the Pacific region. PACAF's conduct of missile-defense exercises with Japan illustrates preparations that possess flexibility in communications. In addition, the growth and diversification of the RAAF inventory to include more advanced air-superiority, attack, ISR, and air refueling capabilities indicates improvement in flexibility in force presentation, which was enabled by PACAF. Furthering improvements in standardization, however, would help strengthen common strategic objectives within the vastness of the Pacific theater. A way to improve standardization, aside from formalized councils such as the MIC and ASIC, is by publishing relevant and useful doctrine for preparations, which includes best practices for assessing BP efforts. Thus, preparations for coalition air war in Pacific might be improved through actions already indicated in the corporate discussion. Such actions might enable more multilateral preparations. Increasing multilateral preparations would develop complementary capabilities among partner nations instead of the current bilateral approach to readiness.

In the Atlantic region, the strengths in preparations for coalition air war are flexibility in communications, common strategic objectives, and flexibility in force presentation. The enduring relationships, the increased doctrinal development, and the intense standardization provide almost instant airpower employment interoperability among the USAF, the RAF, and the FAF. Given this context, improvements in the efficacy of airpower, as a whole, could occur by accepting the idea that future coalition air war might require complementary



capabilities rather than fully integrated force structures. The research in Chapter 3 and analysis already presented in this chapter indicates that friction occurs in coalition air war more often because of the process associated with the employment of airpower, rather than difficulties the integration of flights of aircraft in coalition air war. As one coalition air planner rightly stated, in many coalition operations, a “fighter is a fighter is a fighter....but coordinating command and control and airlift is the hard part for these operations.”<sup>75</sup> The component and corporate air force must not overestimate the importance of superiority in platform capabilities among nations versus likely foes. Both must balance the lurking desire for full chasing complete integration of platform capabilities versus adopting an understanding that complementary capabilities can be successful when executed through combined processes during coalition air war.

**Table 4: Scorecard of Extant Preparations for Coalition Air War**

<b>Organization</b>	<b>Strengths</b>	<b>Weaknesses</b>
Corporate	Common Strategic Objectives Flexibility in Communication	Flexibility in Force Presentation Complementary Capabilities
PACAF	Flexibility in Communication Flexibility in Force Presentation	Common Strategic Objectives Complementary Capabilities
USAFE	Flexibility in Communication Flexibility in Force Presentation Common Strategic Objectives	Complementary Capabilities

*Source: Author's Original Work*

Chapter 4 examined the extant preparations for coalition air war by corporate USAF, PACAF, and USAFE and determined corporate USAF correctly emphasizes engagement and its warfighting doctrine is appropriate, but corporate beliefs regarding preparations for coalition air war are imprecise. PACAF's strengths are its ability to synchronize capabilities with various air

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<sup>75</sup> Maj Kevin Lord (USAFE/A3TW), interview by the author, 6 March 2013.

forces in the region through engagement, but higher standardization with the more capable partner air forces in the region would enhance readiness for coalition air war. USAFE's standardization among partner air forces is significant and engagement promises further improvements in coalition air war preparations, but the command must focus on interoperability in both the processes for coalition air war and the equipment of such war. Table 4 thus illustrates how the strengths and weaknesses relate to the historically derived framework. The analysis of the extant preparations for coalition air war allows for the conclusions that follow.

## Chapter 5

### Conclusions: Preparing the USAF for Coalition Air War

*Twenty-first century coalition war fighting is not like a pickup game of basketball at the gym, where we choose sides on a given day and fight together - working out the roles and relationships as the game progresses. It will take years of planning, information sharing, cooperative development, the creation of interoperability bridges, and shaping plug-and-play architectures to develop true coalition war fighting capabilities. We need to develop a doctrine for missions together, train, and have interoperable equipment to be effective in coalition operations.*

Jeffery Bialos

This chapter first summarizes the argument from the previous chapters regarding the essential elements of coalition warfare, a historically derived framework for coalition air war, and contemporary USAF's preparations for coalition air war. It then provides the answer to three questions, regarding the USAF preparations for coalition air war: What should the USAF continue to do essentially as it is doing now? What should the USAF change in ongoing activities? What new initiatives should the USAF pursue?

#### **Recapitulation of the Argument**

Recent USAF participation in coalition air war sparked the idea for this study. The USAF's participation in the coalition for OUP may be characteristic of future operations in which the USAF will participate. If so, airpower strategists must internalize the lessons of coalition war in general and the lessons from historical examples of coalition air war in particular. Several contextual elements also prompted focus on this topic. The nation's strategy emphasizes the use of coalitions in both peacetime security and in wartime operations. The focus of American military strategy for the last twelve years has rightly been on the Middle East, but the focus is changing. The shifting geopolitical environment will probably make coalitions even more necessary in the future than they have been in the past. America faces a resource deficiency, which could reduce the capacity of its armed forces and thus restrict the USAF's ability to conduct particular types of operations. Furthermore, the evolving political environment could accelerate the need for coalitions, particularly in air war, because of an anticipated reduction in the strength of

ground forces. Thus, the USAF must prepare to wage effective coalition air war. To do so, it must understand both coalition war in general and coalition air war in particular.

The study of coalition war writ large produced five criteria the strategist must understand during preparation for and conduct of coalition war. These criteria are historical understanding, flexibility in communications, common strategic objectives, complementary capabilities, and roles commensurate with participation. Coalition air war, however, is distinct from coalition war writ large because air war has a particular relationship to political objectives, the choice for air war is at times overly seductive, and the employment of airpower requires a higher degree of compatibility than military force in other domains. Thus, the criteria needed for effective coalition war required refinement.

The third chapter refined the initial framework, as it applied to air war. The preparations for, conduct of, and results of coalition air war during Operations Husky, Allied Force, and Enduring Freedom provided the evidence with which to do so. The refined framework consists of four essential elements of coalition air war: *flexibility in communications, common strategic objectives, complementary capabilities, and flexibility in force presentation.*

The thesis then examined the USAF's contemporary preparations from a strategic corporate viewpoint and within two geographical regions: the Asia-Pacific region and European-Atlantic region. The study determined there were three categories of contemporary preparations with likely partners in each region: doctrine, strategy, and strategic relationships and readiness. Furthermore, economic and security elements within each geographical region indicated the likely partners to be Great Britain and France in the Atlantic region and Australia and Japan in the Pacific region. In short, the relationships and readiness of air forces in the Atlantic region reflected engagement, standardization and integration, while the relationships in the Pacific region illustrated engagement, standardization, and synchronization. By analyzing USAF doctrine, USAF strategy, and the existing strategic relationships and readiness for coalition air war between the likely partners in those two geographic regions, conclusions regarding the USAF's preparations for coalition air war are possible.

## Conclusions

What should the USAF continue to do essentially as it is doing now? The USAF must continue to prioritize engagement to prepare for coalition air war. Operations Husky, Allied Force, and Enduring Freedom all illustrated the process of coalition air war mattered as much as the platforms employed during the coalition air wars. One very reliable way to improve processes is through engagement. Engagement can foster enduring competencies, achieve the necessary degree of interoperability, and normalize expectations through repeated interaction. Thus, engagement fosters the preparations for coalition operations and enables USAF preparations regarding doctrine, strategy, and relationships and readiness. All three elements require engagement. This will come at a cost because combined training missions, strategic initiatives, air chiefs conferences, and operator engagements all require resources to accomplish; *but if engagement is under-resourced, USAF preparations for coalition air war will suffer.*

What should the USAF change in ongoing activities? The USAF should cease its pursuit of uniform airpower interoperability. All future coalition participants in all geographic commands *will not* require the level of interoperability stated by the current strategic guidance. The USAF should instead focus on synchronization of airpower with most partners during coalition air war and integration with some partners. Two points support this conclusion: first, this study has demonstrated that integration is a very high standard requiring significant time, funding, and institutional commitment; second, the study illustrated integration is not always required to achieve the nation's political objectives. The NMS rightly defines the need for interoperability when it states, "We will make our alliance a model for interoperability, transparency, and meaningful combined full-spectrum activities."<sup>1</sup> But the same strategic document reaches too far when it asserts interoperability is a necessity in all circumstances, "We seek to facilitate interagency and enable international interoperability before crises occur."<sup>2</sup> Phase 0 operations are vital. Humanitarian assistance is essential. Warfighting

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<sup>1</sup> National Military Strategy, (Office of the Chairman of the Joint Chiefs of Staff, 8 Feb 2011), 13.

<sup>2</sup> National Military Strategy, 15.

is essential. The wholesale requirement for full-spectrum interoperability, however, is an unneeded overstretch for all coalition air operations no matter what the objective.

Striving for full-spectrum interoperability with all potential partners detracts from the Air Force's need for high-level interoperability for the few air forces that will determine the outcome of future coalition air wars. Christian Anrig captures these challenges when asserting, "Nowadays, interoperability is dependent upon complex and costly...weapons platforms. In particular, interoperability with the USAF is a major challenge for Continental European Air Forces."<sup>3</sup> Thus, increases in interoperability must target the *most likely* partners for air war, rather than all possible partners. By anticipating that most air forces in future coalition air wars will require complementary capabilities, rather than being fully interoperable, the USAF can focus its interoperability efforts on the most important partners.

Colonel Hiroaki Uchikura, JASDF, provides a useful template for conceptualizing an approach to interoperability short of integration.<sup>4</sup> The template provides a tiered approach to interoperability:

<i>Deconfliction -</i>	<i>Missions can be conducted and accomplished. However, in order to avoid midair collision and friendly fire, discrete airspace will be assigned.</i>
<i>Coordination -</i>	<i>Both can conduct variety missions in the same airspace based upon pre-coordinated plan. In addition, both can match up the operational tempo.</i>
<i>Synchronization-</i>	<i>Both can conduct variety of missions in the same airspace in a closely and timely coordinated manner.</i>

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<sup>3</sup> Christian F Anrig, *The Quest for Relevant Airpower: Continental European Responses to the Air Power Challenges of the Post-Cold War Era* (Maxwell AFB, AL: Air University Press, 2011), 6.

<sup>4</sup> Col Hiroaki Uchikura, JASDF, "The Future of Trans-Pacific Airpower Interoperability: Preparation for a Growing Anti-Access/Area Denial Environment," *21st Century Defense Initiative Policy Paper – The Brookings Institute* (Washington, DC: 30 June 2010) available at [http://www.brookings.edu/~media/research/files/papers/2010/6/30%20transpacifi%20airpower%20uchikura/0630\\_transpacific\\_airpower\\_uchikura.pdf](http://www.brookings.edu/~media/research/files/papers/2010/6/30%20transpacifi%20airpower%20uchikura/0630_transpacific_airpower_uchikura.pdf) (accessed on 3 Apr 2013), 15.

In his analysis, the level of information sharing determines the category of cooperation required. This assessment bolsters the conclusion that the processes for coalition air war matter as much as the platforms for such war. Thus, a tiered approach for interoperability appears to be helpful when coordinating a regionalized approach to USAF doctrine, strategy, strategic relationships and readiness in order to prepare for coalition air war.

Adopting and fully implementing a template such as the one above would require significant coordination. A centralized corporate staffing directorate might help plan, execute, and measure in order to prioritize interoperability with likely partners for coalition air war. Such a function would enumerate and publish an integrating concept for USAF coalition air war preparations that links doctrine, strategy, and relationships and readiness. This study determined no such organization or concept exists and that, while the USAF conducts efforts across several directorates in multiple major commands, the effectiveness of this coordination is uneven.<sup>5</sup> A central directorate could facilitate theater strategies, enhance operational planning, scrutinize large force exercises, coordinate defense sales, understand theater special operations, and clarify building partnership capacity needs in order to achieve the most advantageous preparations for coalition air war. The integrating concept produced would intensify the focus of interoperability to the appropriate partner air forces instead of the current full-spectrum approach. *Continuing the current wholesale approach to interoperability provided in the current strategic documents promises to become increasingly problematic in the future.* Habitual relationships must only seek *a necessary degree of interoperability* between likely partner air forces.

What new initiatives should the USAF pursue? Drew and Snow are right: doctrine is beliefs about the best ways to do things. Thus, the development and publishing of USAF doctrine for engagement and standardization with other air forces would be helpful for preparations for the USAF for coalition air war. Many products exist to assist with best practices for preparation for coalition air war, but the research did not find a central overarching document of best practices for building partnerships. Cancellation

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<sup>5</sup> David Gillette (HAF/A5XX), interview by the author, 22 March 2013.

of the attempt to create and publish such a document in 2011 was a step backward in the institutionalization of the BP core competency.

Published doctrine could also resolve the confusion about the definition and purpose of BP. The USAF Posture Statement defines the building partnerships core function as, “The establishment of strong, foundational aviation enterprises in our partner nations enables successful, sustainable security within their own borders while contributing to regional stability. Successful partnerships ensure interoperability, integration and interdependence between air forces, allowing for effective combined and coalition operational employment.”<sup>6</sup> In other words, the posture statement provides that two distinct themes make up BP. The first theme is building partner capacity for at risk nations, assisting those nations to increase internal security, which lessens dependence on external help. The second theme, which is the emphasis for this study, is the preparation for future coalition operations or coalition air war. In the first category, the USAF seeks to ensure the capability and the capacity for “partner nations to resolve their own national security challenges, thereby reducing the potential demand for a large U.S. response or support.”<sup>7</sup> Building partnerships, however, for the USAF must go beyond setting conditions otherwise known in joint planning as Phase 0.<sup>8</sup>

The US Armed Forces have captured their core beliefs about warfighting with a coalition, and building partner capacity to mitigate security risks, but not in the second category of building partnerships, preparations for coalition warfare. The USAF Posture Statement seeks engagements and building capacity, but the statement also calls for a second category within building partnerships aimed at preparations preparation for coalition air war. Any understanding of BP as only Phase 0 operations — focused only in countries at risk — dismisses the second purpose of BP defined by the posture statement. *Doctrine can help eliminate confusion regarding the definition, purpose, and necessity of BP for both how to reduce security risks and how to prepare to win*

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<sup>6</sup> *United States Air Force Posture Statement*, 23.

<sup>7</sup> *United States Air Force Posture Statement*, 23.

<sup>8</sup> Joint Publication 3-0, *Doctrine for the Armed Forces of the United States* (Office of the Joint Chiefs of Staff, 11 August 2011), V-6, available at [http://www.dtic.mil/doctrine/new\\_pubs/jp3\\_0.pdf](http://www.dtic.mil/doctrine/new_pubs/jp3_0.pdf) (accessed on 2 Apr 2013).



*larger air wars as a coalition*, which would better institutionalize the core competency.

This thesis concludes with four main insights. If policy makers choose war in the future, the US armed forces will probably fight as part of a coalition; and specific preparations before coalition war enhance the probability for coalition success. Preparations for coalition air war are distinct from those of coalition war writ large. Contemporary preparations by the USAF for coalition air war focus on doctrine, strategy, and strategic relationships and readiness with possible partners. Continuing engagement, adopting a new understanding of interoperability, and making improvements in doctrine will strengthen current and future USAF preparations for coalition air war. When fully embraced, these suggestions will enhance America's security by increased readiness to employ airpower in sturdy, effective alliances.<sup>9</sup>

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<sup>9</sup> *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, ed. Robert Strassler (New York, NY: Simon & Schuster, 1996), 68.

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