



AIRPOWER STRATEGY AND OPERATIONS
SYLLABUS
AY 25

**JOINT PROFESSIONAL MILITARY EDUCATION
PHASE I INTERMEDIATE LEVEL COURSE**

**UNITED STATES AIR FORCE
AIR COMMAND AND STAFF COLLEGE**
Twenty-First Century Leaders for Twenty-First Century Challenges

**AIR COMMAND AND STAFF COLLEGE
MAXWELL AFB, AL**

FOREWORD

This Airpower Strategy and Operations course syllabus for the Air Command and Staff College, September - December 2024, provides both an overview of the course narrative and objectives, as well as a detailed description of each lesson to assist reading and preparing for seminar. Included herein is information about the course's methods of evaluation, the schedule, and the fulfillment of joint professional military education core goals.

Airpower represents one of the greatest opportunities and challenges of modern times. How we approach that challenge is now in your hands.

Heather P. Venable, PhD
Course Director
Airpower Strategy and Operations

Sarah N. Bakhtiari, Col, USAF, PhD
Dean of Education

TABLE OF CONTENTS

	PAGE
FOREWORD.....	2
TABLE OF CONTENT.....	3
COURSE DESCRIPTION.....	4
COURSE OBJECTIVES.....	6
COURSE METHODS OF EVALUATION.....	6
COURSE ADMINISTRATION.....	9
SCHEDULE OF MEETINGS	
DAY 1: WORLD WAR I: THE BIRTH OF OPERATIONAL AIRPOWER.....	10
DAY 2: POST-WORLD WAR I AIRPOWER.....	12
DAY 3: WARTIME ADAPTATION IN WORLD WAR II (EUROPE) 1939-1942.....	13
AIRPOWER WARGAME #1.....	14
DAY 4: WARTIME ADAPTATION IN WORLD WAR II (PACIFIC) 1939-1943.....	15
DAY 5: AIRPOWER IN EUROPE, 1943-1945.....	16
DAY 6: AIRPOWER IN THE PACIFIC, 1944-1945.....	17
DAY 7: THE KOREAN WAR.....	18
AIRPOWER WARGAME #2.....	19
DAY 8: DROPPING THE BOMB TO MUTUALLY ASSURED DESTRUCTION.....	20
DAY 9: AIRPOWER IN THE VIETNAM WAR.....	21
DAY 10: EFFECTIVENESS OF INTERDICTION AND BOMBARDMENT.....	22
DAY 11: POST-VIETNAM REFORMS.....	24
AIRPOWER WARGAME #3.....	26
DAY 12: THE RISE OF JOINT AIRPOWER.....	28
DAY 13: THE GULF WAR.....	29
DAY 14: STRATEGIC EFFECTIVENESS OF AIR MOBILITY.....	30
DAY 15: OPERATION ALLIED FORCE.....	31
DAY 16: AIRPOWER IN THE GLOBAL WAR ON TERROR.....	32
DAY 17: OPERATION INHERENT RESOLVE.....	33
APPENDIX: COURSE FACULTY.....	34

AIRPOWER STRATEGY AND OPERATIONS COURSE OVERVIEW

COURSE DESCRIPTION

Airpower Strategy and Operations examines the emergence and development of airpower from World War I through the early years of the wars in Afghanistan, Iraq, and Syria to better understand airpower employment today. Using the lens of strategic competition, the course analyzes the development of key ideas, capabilities, limitations, organizations, and practices that framed the conduct of air warfare in the twentieth and early twenty-first centuries as airmen innovated and adapted rapidly in the air domain. The case studies examined in Airpower Strategy and Operations continue to inform debates about airpower's purpose, utility, and effectiveness.

Given the terrible human and material costs of conventional great power wars, American military leaders have devoted considerable effort to winning them as quickly and decisively as possible. In particular, the bloody stalemate of the First World War drove interest in achieving decisiveness in warfare. In this regard, airpower especially appealed to civilian leaders and military professionals, both for its ability to destroy enemy surface forces from the air and to attack the enemy's home front. It was in this context of great power conflict and total war that airpower was born.

For most American airmen, the outcome of the Second World War vindicated their belief in airpower's decisiveness. The idea of airpower as a decisive instrument with deterrent capabilities became foundational for the newly independent US Air Force in 1947. In the context of the Cold War, airmen sought to use both conventional and nuclear airpower to deter the Soviet Union and, if deterrence failed, to achieve decisive victory.

At the same time, American involvement in limited proxy wars in Korea and Vietnam forced the USAF to adapt to other forms of warfare. Finding the proper balance between tactical, operational, and strategic levels of war became a central concern for American airpower, especially as tactical and operational success in Korea and Vietnam did not translate into clearly achieved strategic objectives. In particular, the military's ability to achieve decisive victory seemed in doubt after Vietnam.

What followed was nothing less than an attempted transformation of American military power and airpower. Remaining focused on possible war with the Soviet Union and other conventional threats, the US military pursued new training, doctrine, and innovative technology to stay ahead of the Soviets. Drawing upon lessons learned from previous and contemporary conflicts—including the Vietnam War and the 1973 Arab-Israeli War—the US military searched for a new paradigm to achieve decisive victory should the next great war occur. In addition to improving conventional military means, the United States sought to expand deterrent capabilities in air and space to put the Soviet Union at a strategic disadvantage.

The end of the Cold War seemed to validate American military strategy. Not long after, a coalition overwhelmingly countered Saddam Hussein's aggression in Operation DESERT STORM (ODS), thereby displaying US airpower's potential to achieve decisive victory in any regional conflict. Though debate persists regarding the exact impact of airpower in the success of Operation ALLIED FORCE (OAF) in 1999, most observers agree that airpower also greatly contributed to the outcome, with some even claiming that OAF demonstrated airpower's ability to win wars by itself.

The events of 9/11 shook but did not destroy the confidence and certainty with which Americans entered the twenty-first century. The United States embarked upon Operation ENDURING FREEDOM with the nearly unquestioned belief that airpower and other forms of military power would produce decisive results. Again in 2003, Operation IRAQI FREEDOM's (OIF) "shock and awe" campaign saw airpower topple the regime of Saddam Hussein, seemingly producing even greater decisiveness than ODS. Yet in both Afghanistan and Iraq, violent insurgencies soon undermined American confidence in military power's ability to bring about positive and enduring strategic outcomes.

Today, in the face of significant uncertainty regarding the future, many leaders question how airpower theory, strategy, and operations must evolve. As land and sea power remain vital to American national security, and as space and cyber power continue to develop and evolve amid an ongoing information revolution, the joint force faces the challenge of integrating airpower into all-domain operations and solving problems at the operational level of war to achieve national security objectives.

After careful study and discussion of the historical and contemporary development of airpower and its associated concepts, students will be prepared to help integrate airpower into all-domain operations as a part of the joint force to achieve national security outcomes. Course readings, lectures, problem-based learning activities, and seminar discussions will cultivate critical airpower thinkers and challenge students to improve their ability to lead in complex, uncertain times. Students will further consider how to make ethical decisions with the ultimate goal of applying airpower in a combined, joint context to serve national strategic objectives.

COURSE PHASES

The course pursues airpower's chronological development through three phases:

Phase One: From Airpower's Birth to Its Coming-of-Age

This phase begins by exploring World War I, the first conflict in which combatants employed large-scale airpower. The course then evaluates the different solutions nations sought to employ in response to that conflict and other factors in preparation for future warfare. Finally, it delves into airpower employment in World War II in several different theaters. (6 days)

Phase Two: Change and Continuity in Limited War

After having unleashed air and nuclear capabilities in World War II, airmen struggled to adapt to the far more constrained operating environments of the Cold War, especially during the Korean and Vietnam Wars. (4 days)

Phase Three: Reforming and Increasing Airpower Capability

The US military underwent a significant transformation after the Vietnam War. This phase traces the many increases in airpower capability while also highlighting some continuing limitations of airpower, concluding with the Global War on Terror. (7 days)

COURSE OBJECTIVES

- 1) Understand how the foundations of airpower's first century inform twenty-first century warfare.
- 2) Understand continuities in airpower employment while tracing important changes over time.
- 3) Apply airpower's capabilities and limitations to fulfill national security objectives in complex, uncertain environments.

COURSE METHODS OF EVALUATION

AO-600 (E): MID-TERM ESSAY

Deliverable: Students will answer an open book question in an essay format. The question will require the students to apply the main course concepts up to this point in the course. The assignment is worth 40 percent of the course grade.

Prompt: What were the most important element(s) of continuity and change in airpower from the beginning of airpower through World War II?

Additional Instructions:

1. **Type of Assignment:** Graded, take-home, written essay.
2. **Time Allotted:** From issuance on 3 September 2024 (Day 1) to Wednesday 6 November 2023 by 1700 CST.
3. **Resources:** You may use any course content and other materials provided in the ACSC curriculum. Students may use reputable outside materials, such as print and digital content available from MSFRIC. You should prioritize material from the AO course. Wikipedia is not an acceptable source for academic work.
4. **Length:** Six pages double-spaced.
5. **Style:** Use professional formal standard written English such as would be typical for materials written for professional publication. The paper should use one-inch margins, Times New Roman – 12pt for all text, and include page numbers (except on the Title Page).
6. **Endnotes:** All essays must give credit for using others' ideas, thoughts, and concepts in the endnotes. Citations are required for both direct quotations and paraphrasing of material. Endnotes come at the end of the essay and do not count against the page limit. Please see *AU-1: Air University: Style and Author Guide, Second Edition* for guidance on formatting endnotes. No bibliography is required.
7. **Collaboration:** Students must follow ACSC guidelines on collaboration. All collaboration must be cited in the first endnote.
8. **Title page:** Include a title page with the following information: Title: Subtitle given to the essay; Student Name; Seminar Number; Assignment Title (e.g., AO-600); and Date. The Title Page does not count against the page limit.
9. **Turn-in Procedures and Other Guidance:** While the procedures are identified above, your AO instructor may provide additional guidance. Specific, course-wide guidance on turn-in procedures (Canvas vs e-mail vs Teams) will be provided NLT 1 week prior to due date.
10. **Questions:** Refer any questions about the above guidelines to your AO instructor.

AO-601 (E): MISSION STATEMENT ASSIGNMENT

Students will write JFACC mission statements in seminar. This assignment will be conducted on Day 12. Assignment guidance will be provided at the beginning of seminar on Day 12. This assignment is Pass/Fail.

Additional Instructions:

1. **Type of Assignment:** Graded, open book.
2. **Time Allotted:** Day 12 (November 14/15), 1-hour in-class (30 minutes for individual writing and 30 minutes for group writing)
3. **Resources:** You may use any course content or other materials provided in the ACSC curriculum.
4. **Length:** Each mission statement should consist of a single paragraph and be less than one page.
5. **Style:** Use professional formal standard written English such as would be typical for materials written for professional publication. The paper should use one-inch margins, Times New Roman – 12pt for all text, and include page numbers.
6. **Endnotes:** Endnotes are not required for this assignment.
7. **Collaboration:** Students are not allowed to collaborate on the individual portion of this assignment.
8. **Title page:** A title page is not required for this assignment. Include the name of the operation and the names of all group members on each mission statement.
9. **Turn-in Procedures and Other Questions:** While the procedures are identified above, your AO instructor may provide additional guidance.
10. **Questions:** Refer any questions about the guidelines to your AO instructor.

AO-602 (E): END-OF-COURSE ESSAY

Deliverable: This open-book essay question will require the students to apply the main course concepts throughout the entire course. It will be worth 40 percent of the course grade.

Prompt: Using the course content, make an argument regarding the most strategically effective use of airpower in history. Briefly, what implications, if any, does your case study have for contemporary warfare? In light of your argument, briefly offer what key recommendation you would make regarding preparation for future conflict to the U.S. Air Force, your own nation's Air Force, or your own service.

Additional Instructions:

1. **Type of Assignment:** Graded, take-home, written essay.
2. **Time Allotted:** From issuance on 3 September 2024 (Day 1) to 9/10 December 2024 (Day 17) at 1700 CST. You should turn in your assignment on the day that your class meets.
3. **Resources:** You may use any course content or other materials provided in the ACSC curriculum, prioritizing material from AO. Students are encouraged to use reputable outside material, particularly as can be obtained from MSFRIC, whether print or digital. Wikipedia is not an acceptable source for academic work.
4. **Length:** Five pages, double-spaced.

5. **Style:** Use professional formal standard written English such as would be typical for materials written for professional publication. The paper should use one-inch margins, Times New Roman – 12pt for all text, and include page numbers (except for Title Page).
6. **Endnotes:** All essays must give credit for using others’ ideas, thoughts, and concepts in the endnotes. Citations are required for both direct quotations and paraphrasing of material. Endnotes come at the end of the essay and do not count against the page limit. Please see AU-1: *Air University: Style and Author Guide, Second Edition* for guidance on formatting endnotes. No bibliography is required.
7. **Collaboration:** Students must follow ACSC guidelines on collaboration. All collaboration must be cited in the first endnote.
8. **Title page:** Include a title page with the following information: Title: Subtitle given to the essay; Student Name; Seminar Number; Assignment Title (e.g., AO-600); and Date. The Title Page does not count against the page limit.
9. **Turn-in Procedures and Other Guidance:** Your AO instructor may provide additional guidance. Specific, course-wide guidance on turn-in procedures (Canvas vs e-mail vs Teams) will be provided NLT 1 week prior to due date.
10. **Questions:** Refer any questions to your AO instructor.

AO-603 (E): MID-TERM CLASS CONTRIBUTION

Students are expected to attend all scheduled sessions, individually read the assigned pages, participate in class applications, and meaningfully contribute to seminars. This contribution is worth 10 percent of the course grade. Students will receive mid-term feedback and a grade on their class contribution thus far on course Day 9 (31 October/1 November 2024).

AO-604 (E): FINAL CLASS CONTRIBUTION

Students are expected to attend all scheduled sessions, individually read the assigned pages, participate in class applications, and meaningfully contribute to seminars. This contribution is worth 10 percent of the course grade. This grade is independent of the mid-term class contribution grade and evaluates class contribution in the course from Day 10 through 17.

COURSE ADMINISTRATION

There are two types of readings in this course: 1) readings from books issued by ACSC; and 2) electronic files or hyperlinks to online content indicated by the suffix [EL]. Students can access the syllabus, lecture videos, electronic readings, and other supplemental materials online through Canvas as well as through Microsoft Teams. ACSC provides students with copies of the following course books, which must be returned at the conclusion of the course:

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).

Mark Clodfelter, *The Limits of Airpower: The American Bombing of North Vietnam* (Lincoln, NE: University of Nebraska Press, 2006).

James S Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University Press of Kansas, 2003).

Conrad Crane, *American Airpower Strategy in Korea, 1950-1953* (Lawrence, KS: University Press of Kansas, 2020).

Conrad Crane, *American Airpower Strategy in World War II: Bombs, Cities, Civilians, and Oil* (Lawrence, KS: University Press of Kansas, 2016).

Thomas E. Griffith, *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (Lawrence, KS: University Press of Kansas, 1998).

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

Benjamin Lambeth, *The Unseen War: Allied Air Power and the Takedown of Saddam Hussein* (Annapolis, MD: U.S. Naval Institute Press, 2013).

Brian D. Laslie, *The Air Force Way of War: U.S. Tactics and Training after Vietnam* (Lexington, KY: University Press of Kentucky, 2015).

Billy Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power. Tuscaloosa, AL: The University of Alabama Press, 2009.*

Ralph H Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Denton, TX: University of North Texas Press, 2005).

Phillips Payson O'Brien, *How the War Was Won: Air-Sea Power and Allied Victory in World War II* (Cambridge, UK: Cambridge University Press, 2015).

John Andreas Olsen, ed., *A History of Air Warfare* (Washington, D.C.: Potomac Books, 2010).

Michael Weaver, *The Air War in Vietnam* (Lubbock, TX: Texas Tech University Press, 2022).

Kenneth P. Werrell, *Archie to SAM: A Short Operational History of Ground-Based Air Defense* (Maxwell AFB, AL: Air University Press, 2005).

Please refer any general questions to:

Dr. Heather P. Venable, Course Director, heather.venable@au.af.edu, Office 191

Lt Col Joe Baldwin, Deputy Course Director, joseph.baldwin.5@au.af.edu, Office 183

Lt Col Kevin Boss, Deputy Course Director, kevin.boss@au.af.edu, Office 122

LtCol John "Garick" Chamberlin, Deputy Course Director, john.chamberlin@au.af.edu, Office 186

Please refer questions regarding Teams or Canvas content to:

Lt Col Joe Baldwin, joseph.baldwin.5@au.af.edu, Department of Airpower, Office 183

AIRPOWER STRATEGY AND OPERATIONS SCHEDULE OF MEETINGS

Phase I: From Airpower's Birth to Its Coming-of-Age

DAY 1: WORLD WAR I: THE BIRTH OF OPERATIONAL AIRPOWER

DATE: 3 or 4 October 2024

LESSON OBJECTIVES

1. Understand the course objectives, course narrative, course syllabus, methods of evaluation, and expectations for seminar.
2. Comprehend the emergence of a disruptive new technological innovation – the airplane – and its strategic effectiveness in fulfilling the USAF's current five core missions in World War I.
3. Assess the historical and contemporary relationship between the air and the ground domain in seeking to gain an advantage in warfare.

LESSON OVERVIEW

AO 500 (S): Operational Airpower in World War I

When the First World War erupted in Europe in 1914, heavier-than-air flight was barely a decade old, and it had been used in very few military operations. However, it quickly became an indispensable aspect of military operations, particularly on the Western Front. By the end of the war, airmen employed airpower in virtually every role that it fulfills in modern applications, albeit in a much more primitive fashion.

CONTACT TIME: 2.0-hour seminar

AO 501 (L): Interwar European Airpower (Dr. Rich Muller)

Overview: This lecture examines the variety of responses by major powers to learning lessons from World War I. By comparing the types of aerial services created by France and Germany, Dr. Rich Muller of SAASS demonstrates the “paths not taken” by the British and American airpower organizations to show there was no common conception of aviation in the interwar period.

CONTACT HOURS: 1.0-hour lecture

OPTIONAL VIEWING

A filmed version of the AO Course Introduction is located in the Day 1 Folder on Teams if you would like to review it.

RECOMMENDED VIEWING

These short videos will help provide some broad introductory context to World War I. They do not replace the readings, which focus far more on airpower.

[World War I \(short version\)](#)

[World War I - Summary on a Map](#)

REQUIRED READINGS (68)

1. Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln, NE: University of Nebraska Press, 2006), 211-223. **(13)**
2. John Morrow, "The First World War, 1914-1919," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 3-25. **(23)**
3. Walter Boyne, "The St. Mihiel Salient," *Air & Space Forces Magazine*, 1 February 2000. **(11) [EL]**
4. Peter A. Fedders, "The German-American Air War at St. Mihiel and Meuse-Argonne in Late 1918," *Over the Front* 24, no. 1 (Spring 2009): 42-53. **(12) [EL]**

Please bring a list of the three most important similarities and the three most important differences in articles 3 and 4.

5. 21st-century relevance: John Maurer, "Overcoming Inherent Defender Advantages," *War on the Rocks*, 27 Sept 2022, <https://warontherocks.com/2022/09/airpower-and-interdiction-overcoming-defender-advantages/> **(9) [EL]**

DAY 2: POST-WORLD WAR I AIRPOWER

DATE: 7 or 8 October 2024

LESSON OBJECTIVES

1. Comprehend how the legacies of the First World War and the geopolitical, economic, and technological frameworks of the post-World War I period influenced the innovation and adaptation of airpower in Europe and the United States.
2. Assess the role of cognitive dissonance in shaping and institutionalizing ideas about the effectiveness of military capabilities in future conflict.
3. Assess the factors that shape airpower development and employment as an instrument of national power and apply them to strategic competition today.

LESSON OVERVIEW

AO502 (S): Contrasting Emerging Airpower Theory and Doctrine in Germany and the United States

In World War I, airmen largely agreed that airpower was most effective when used in support of ground operations, particularly through artillery spotting and intelligence, surveillance, and reconnaissance (ISR). Unsurprisingly then, Germany primarily concentrated its airpower on supporting ground force maneuver after World War I. Most airpower leaders in the United States, however, embraced the idea of strategic bombardment as airpower's primary mission. Students will compare and contrast German and American airpower perspectives and study the development of strategic attack after World War I. The seminar will allow students to examine organizational culture and cognitive dissonance as key drivers of doctrinal thought.

CONTACT HOURS: 2.0 hours

AO503 (L): Introduction to World War II (Dr. Springer)

World War II (1939-1945) was the largest international event of the twentieth century and one of the major turning points in US and world history. In the six years between the invasion of Poland and the bombing of Hiroshima and Nagasaki, the world was caught up in the most destructive war in history. Armed forces of more than seventeen million fought on the land, in the air, and on the sea. This lecture provides important context regarding events that led to the outbreak of war, overviews the major theaters of war, and explores the early air war in Europe and the Pacific, particularly Germany's quick defeat of France using sophisticated air-ground operations.

CONTACT HOURS: 1.0 hour

REQUIRED READINGS (95)

1. James S. Corum, "The Old Eagle as Phoenix: The Luftstreitkräfte Creates an Operational Air War Doctrine, 1919–1920," *Airpower History* 39, no. 1 (Spring 1992): 13-21. **(9) [EL]**
2. Billy Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power*. Tuscaloosa, AL: The University of Alabama Press, 2009, 3-26. **(24)**
3. Tami Davis Biddle, *Rhetoric and Reality in Air Warfare* (Princeton, NJ: Princeton University Press, 2002), 1-10 and 128-175. **(58)**
4. 21st-Century Relevance: Brian Linn and Brian Donlon, "Learning or Confirming? History and the Military Professional," *War Room*, 7 Dec. 2023, <https://warroom.armywarcollege.edu/articles/learning-lessons-2/>. **(4) [EL]**

DAY 3: WARTIME ADAPTION IN THE EARLY PHASES OF WORLD WAR II (EUROPE), 1939-1942

DATE: 10 or 11 October 2024

LESSON OBJECTIVES

1. Examine the operational dynamics of the air campaign over Great Britain in the summer and fall of 1940 and how early forms of C2, intelligence, and logistics contributed to the RAF's success.
2. In the light of the RAF's success in the Battle of Britain, examine the assertion that airpower is predominantly an offensive tool.
3. Compare and contrast offensive and defensive airpower in the Battle of Britain and the Russo-Ukraine War.

LESSON OVERVIEW

AO 504 (S): The Battle of Britain

The Battle of Britain remains perhaps the only significant example of a successful defensive air campaign in history. Consequently, it merits careful study by military professionals. The battle's conduct and outcome provide compelling insights into the dynamics of universal factors in air warfare. Examples include the interplay of strategy and technology, the function of leadership, the role of reliable intelligence in shaping the contours of an aerial campaign, and the elusive nature of air superiority.

CONTACT HOURS: 2.0 hours

REQUIRED READINGS (99)

1. Richard Overy, "The Air War in Europe, 1939-1945," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 27-35. **(9)**
2. Robin Higham, "The RAF and the Battle of Britain" in *Case Studies in the Achievement of Air Superiority*, ed. Benjamin Franklin Cooling (Washington, D.C.: US Government Printing Office, 1994), 115-178. **(64) [EL]**
3. 21st-Century Relevance: Justin Bronk, *Russian Combat Air Strengths and Limitations: Lessons from Ukraine*, Occasional Paper (Arlington, VA: Center for Naval Analyses Corporation, April 2023). **(26) [EL]**

AIRPOWER WARGAME #1

DATE: 10 or 11 October 2024

Applying the Lessons Learned from the Battle of Britain

CONTACT HOURS: 3.0 hours

Relevance to Courseware:

Germany failed to adapt during the Battle of Britain, but it also made negative adaptations that undermined its air campaign. For example, it neither anticipated nor reacted quickly enough to British radar and command and control. In addition, the German air offensive drastically changed course from a focus on ports and other maritime targets to enable an amphibious landing to an air superiority emphasis—albeit an unfocused one—to strategic attack against London. Students will apply lessons learned from the failure of Germany’s strategy during the Battle of Britain and the RAF’s successful defensive counter-air campaign in a contemporary airpower wargame over Taiwan.

Map: *Next War Vietnam* Strategic Display and *Next War Taiwan* Operational Map

Objectives:

- Red – Apply insights from Germany’s strategy during the Battle of Britain to defeat blue forces. Defeat will be determined by the complete destruction of HQ Units placed within the population centers. This objective reinforces the importance of British command and control in enabling the effective and efficient use of airpower.
- Blue – Attrite Germany’s forces to <50% making them incapable of offensive action while simultaneously HQ Units defending population centers.

Application Rules & Initial Setup:

- Blue will place a HQ within the major urban areas of Taipai, Kaohsiung, Tainan, and Taichung on the Operational Map (4 total).
- Blue will receive 3 Patriot Battery Units to help defend the cities; students will determine their placement.
- Blue will receive reinforcements each turn to replicate the production capabilities of Great Britain throughout the Battle of Britain.
- Red will begin with a larger number of forces but will not receive reinforcements to simulating the overconfidence of the German leadership during their air offensive against Great Britain.
- Additional rules, orders of battle, sequence of play, and detailed setup guidance will be provided on Teams prior to the beginning of the game.

Required New Rules to Learn Prior to Gameplay:

- Advanced Air Superiority Combat Rules (*NW Game Series Rules*, 31-34)
- Air Strikes (*NW Game Series Rules*, 34-36)
- Advanced Air Defense Rules (*NW Supplement #3 Alternate Air Defense Rules*)

DAY 4: WARTIME ADAPTION IN THE EARLY PHASES OF WORLD WAR II (PACIFIC), 1939-1943

DATE: 15 or 16 October 2023

LESSON OBJECTIVES

1. Analyze how best to employ airpower and other capabilities to support strategic objectives. Perform an associated assessment.
2. Comprehend the strategic effectiveness of auxiliary airpower in World War II and the challenges of allocating resources between missions of air superiority, interdiction, and close air support.
3. Assess the conditions that both facilitated and constrained Gen George Kenney's ability to effectively function as Gen Douglas MacArthur's air component commander in the Southwest Pacific.
4. Analyze the challenges of employing auxiliary airpower against an opponent such as China.

LESSON OVERVIEW

AO 505 (S): Doolittle Raid Risk Assessment

Students will engage in a risk assessment of three potential courses of action for an attack on the Japanese homeland in response to Pearl Harbor.

CONTACT HOURS: 1 hour

AO 506 (S): Auxiliary Airpower on a Shoestring in the Southwest Pacific (91)

The air campaign in the Southwest Pacific during the Second World War is not as well-known as other, more high-profile air campaigns. Nonetheless, it marked the turning point as the United States shifted from a defensive holding position to an offensive in pushing back Japanese expansionism. It also provided the backdrop for the emergence of Gen George Kenney as an airpower leader whose success in confronting a set of leadership and operational challenges marked him as one of America's most effective and innovative air commanders. Kenney's ability to direct an effective air campaign in a complex environment with minimal resources makes his leadership worthy of careful study by contemporary military professionals.

CONTACT HOURS: 2 hours

REQUIRED READINGS (86)

1. Richard R. Muller, "The Air War in the Pacific," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 53-72. **(19)**
2. Thomas E. Griffith, *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (Lawrence, KS: University Press of Kansas, 1998), 46-112. **(67)**

DAY 5: AIRPOWER IN EUROPE, 1943-1945

DATE: 17 or 18 October 2024

LESSON OBJECTIVES

1. Analyze the conduct of the Combined Bomber Offensive (CBO), the adaptations airmen made during the operation, and the CBO's overall effectiveness in facilitating Allied strategy.
2. Understand the differences between the CBO in 1943 and the CBO in 1944/45.
3. Evaluate the ethical dilemmas commanders faced in opting for independent air offensives against Germany and Japan.

LESSON OVERVIEW

AO 507 (S): The Strategic and Operational Dilemmas of Independent Airpower against Germany

The strategic air offensive against Germany was one of the most complex air offensives ever undertaken, and even now, 80 years later, the efficacy of the CBO is the subject of debate. The US Army Air Forces (USAAF) and Royal Air Force (RAF) had to adapt in real-time along a steep learning curve when operations did not mirror planning. After obtaining some semblance of air superiority, American, British, and Commonwealth airmen mounted an all-out air offensive against German civilian, military, industrial, petroleum, synthetic fuels, and transportation targets. The debate about the efficacy of this campaign mirrors modern practitioners' debate regarding the relative value of strategic attack and direct support to surface forces. The reading for this day highlights how strategic bombing played a significant role in eroding Nazi combat power but not fully in the ways industrial web theory anticipated.

CONTACT HOURS: 2 hours

AO 508 (L): Hiroshima: Why the Bomb Was Dropped

This documentary provides various perspectives and important context regarding the first use of atomic weapons.

CONTACT HOURS: 1 hour

REQUIRED READINGS (91)

1. Phillips Payson O'Brien, *How the War Was Won: Air-Sea Power and Allied Victory in World War II* (Cambridge, UK: Cambridge University Press, 2015), 1-16, 266-307, 316-339, 349-357.

DAY 6: AIRPOWER IN THE PACIFIC, 1944-1945

DATE: 21 or 22 October 2024

LESSON OBJECTIVES

1. Comprehend the operational challenges of employing airpower against the Japanese homeland.
2. Analyze the extent to which the Pacific theater's strategic environment demanded greater flexibility from American airpower than the European theater. Compare the effectiveness of land- versus sea-based airpower.
3. Evaluate the ethical dilemmas commanders faced in employing airpower against Japan and how much those principles apply to contemporary warfare.

LESSON OVERVIEW

AO 509 (S): The Strategic, Operational, and Ethical Dilemmas of Airpower against Japan (68)

As the war in Europe concluded, the war in Asia drove towards an amphibious landing of terrible cost. The newly operational B-29 seemed to fulfill Douhet's vision of strategically effective airpower, replacing the bloodshed of ground combat. This seminar explores how this strategic air offensive sought to meet coalition objectives while grappling with the ethical dilemmas inherent in strategic bombing in an age before precision weapons. The seminar concludes with a discussion of the strategic effectiveness and the ethical dimensions of using atomic weapons against Japan.

CONTACT HOURS: 2.0 hours

AO 510 (L): Overview of the Korean War (Dr. Lisa Beckenbaugh)

This lecture covers the causes, major combat operations, and the outcomes of the Korean War. Highlights include the political, diplomatic, and military activities of the period. Students will comprehend how the Korean War fit into the global strategic competition of the Cold War and better appreciate the war's ground combat.

CONTACT HOURS: 1.0-hour lecture

REQUIRED READINGS (68)

1. Richard R. Muller, "The Air War in the Pacific," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 72-79. **(7)**
2. Conrad Crane, *American Airpower Strategy in World War II: Bombs, Cities, Civilians, and Oil* (Lawrence, KS: University Press of Kansas, 2016), 161-186. **(26)**
3. Ralph H Nutter, *With the Possum and the Eagle: The Memoir of a Navigator's War over Germany and Japan* (Denton, TX: University of North Texas Press, 2005), 229-252, 277-283. **(30)**
4. Thomas Powers, "Was It Right?" *The Atlantic*, July 1995, <https://www.theatlantic.com/magazine/archive/1995/07/was-it-right/376364/>. **(5) [EL]**

Phase II: Change and Continuity in Limited War

DAY 7: THE KOREAN WAR

DATE: 24 or 25 October 2024

LESSON OBJECTIVES

1. Comprehend the influence of the grand strategy of containment, the advent of nuclear weapons, and the emergence of limited geopolitical crises and wars on the employment of airpower in the Korean War.
2. Identify the technological, organizational, and command and control challenges that the newly-established USAF confronted in the Korean War and evaluate its success in innovating and adapting to overcome them.
3. Assess the extent to which airpower functioned as an effective instrument of national policy in the Korean War.
4. Evaluate the continuing relevancy of lessons from the Korean War regarding strategic competition with China.

LESSON OVERVIEW

AO 511 (S): What American Airpower Strategy? The Newly-Independent US Air Force in the Korean War

Increasingly focused on developing its nuclear capability, the US Air Force suddenly found itself engaged in a conventional conflict where strategic airpower struggled to achieve political objectives. Though strategic airpower could deliver great destruction, the limited industrialization of North Korea and long periods of stalemate in the ground war provided few targets for conventional airpower. China's national interest in North Korea, and eventual intervention in the war, further complicated the options facing American airmen. The disconnect between strategic airpower capability and limitations imposed by national policy challenged airpower leaders to develop an effective strategy to win a limited war. What lessons regarding airpower in limited wars does the Korean War provide for airmen in twenty-first century strategic competition?

CONTACT HOURS: 2.0 hours

AO 512 (L): Strategies of Containment (Dr. Redman)

This lecture overviews US and Soviet nuclear policy from 1945 through 1962. It examines how national security strategy and national military strategy adapted to the strategic change brought about by nuclear weapons and the rise of the Soviet Union in the two decades after the end of the Second World War.

CONTACT HOURS: 1.0-hour lecture

REQUIRED READINGS (129)

1. Conrad Crane, *American Airpower Strategy in Korea, 1950-1953* (Lawrence, KS: University Press of Kansas, 2020), 1-9, 40-92, 155-184. **(92)**
2. 21st-century relevance: Douglas A. Birkey, *Air War over Korea: Lessons for Today's Airmen*, Policy Paper 34 (Arlington, VA: Mitchell Institute for Aerospace Studies, February 2022), 1-20. **(20) [EL]**
3. 21st-century relevance (optional in-class reading): Curtis E. LeMay Center for Doctrine Development and Education, *Air Force Doctrine Publication 3-03 Counterland Operations*, 21 October 2020, 6-12. **(7) [EL]**

AIRPOWER WARGAME #2

24 or 25 October

Applying Lessons Learned from the Korean Conflict

CONTACT HOURS: 3.0-hours

Relevance to Courseware:

The Korea conflict demonstrates the conflicting priorities of Close Air Support (CAS), Interdiction, and Strategic Strike. This air-land integration wargame will challenge students to decide how to apportion their forces and demonstrate how their decisions could impact the outcome of the conflict.

Map: *Next War Vietnam* Strategic Display and Operational Map

Objectives:

- Red – Gain control of Hanoi as determined by Red Forces at least one of the Hanoi Urban hexes on the Operational Map.
- Blue – Defend Hanoi and survive three turns by stopping Red forces from entering into region 3MR on the Operational Map.

Application Rules & Initial Setup:

- Must apportion for Strategic Strike, CAS, and Interdiction as determined by team strategy.
- Air superiority level is contested throughout this wargame; we will skip air superiority combat to allow for focus on other areas and consider the challenges of operating in a contested air environment.
- Both Air Forces will have similar size and capabilities to support their respective ground force's operations.
- Additional rules, orders of battle, sequence of play, and detailed setup guidance will be provided on Teams prior to the beginning of the game.

Required New Rules to Learn Prior to Gameplay:

- Air Interdiction Strikes (*Next War Series Rules, 35*)
- Advanced Supply Rules (*Next War Series Rules, 27-29* – review from MT)
- Detection (*Next War Series Rules, 31*)

DAY 8: FROM DROPPING THE NUCLEAR BOMB TO MUTUALLY ASSURED DESTRUCTION

DATE: 28 or 29 October 2024

LESSON OBJECTIVES

1. Comprehend the influence of the Cold War and the emergence of limited geopolitical crises on the employment of airpower.
2. Analyze how the proliferation of increasingly powerful nuclear weapons influenced the USAF's perception of strategic bombardment in its role in the United States's national security posture.
3. Understand the culture and budget predominance of Strategic Air Command (SAC) and its impact on the Air Force and the national defense enterprise, writ large, in the Cold War era.
4. Evaluate the extent to which the advent of nuclear weapons has altered airpower's effectiveness as an instrument of American national security, the role nuclear weapons play today in deterrence and national security, and challenges facing the USAF's current nuclear force in strategic competition with China.

LESSON OVERVIEW

AO 513 (S): The Changing Nature of War? Nuclear Weapons in the Cold War and Today

The approach to strategic bombing dramatically changed in the early Cold War. During the Second World War, massive fleets of bombers delivered large quantities of conventional weapons against single targets. In many ways, this approach held true following the detonation of atomic weapons. Yet, other factors changed due to technology, especially how the compression of time affected airpower employment. What challenges did and do airmen continue to face in integrating new capabilities into preexisting organizations and doctrinal frameworks in the context of great power competition? To what extent are foundational notions of deterrence established in the 1950s reflected in current US nuclear policies?

CONTACT HOURS: 2.0-hours

REQUIRED READINGS (79)

1. John Lewis Gaddis, *The Cold War: A New History* (New York, NY: The Penguin Group, 2005), 48-82 **(35)** [EL]
2. Melvin Deaile, "The SAC Mentality: The Origins of Strategic Air Command's Organizational Culture, 1948-51," *Air and Space Power Journal* (March-April 2015): 48-73. **(26)** [EL]
3. 21st-century relevance: Curtis E. LeMay Center for Doctrine Development and Education, *Air Force Doctrine Publication 3-72, Nuclear Operations, 18 December 2020*, 3-13. **(11)** [EL]
4. 21st-century relevance: Adam Lowther, "Why America Needs ICBMs," *Global Security Review*, February 2023, <https://globalsecurityreview.com/why-america-needs-icbms/>. **(3)** [EL]
5. 21st-century relevance: Robert J. Goldstein, "Why the new US ICBMs would be too expensive even if they were free," *Bulletin of the Atomic Scientists*, 3 January 2020, <https://thebulletin.org/2020/01/new-us-icbms-too-expensive-even-if-free/>. **(4)** [EL]

DAY 9: AIRPOWER IN THE VIETNAM WAR

DATE: 31 October or 1 November 2024

LESSON OBJECTIVES

1. Comprehend how the confluence of the dominant airpower theory, USAF organizational culture, and the character of the Vietnam War shaped US airpower employment.
2. Comprehend the factors that accounted for American forces' inability to achieve national objectives despite their overwhelming technological advantages and numerous tactical and operational successes in South Vietnam.
3. Analyze airpower's utility as a military instrument in limited wars and unconventional conflicts.

LESSON OVERVIEW

AO 514 (S): The Strategic Effectiveness of Direct and Indirect Airpower in South Vietnam

Even as the United States became increasingly involved in South Vietnam following the French withdrawal, the Air Force remained focused on general nuclear war. Yet in irregular war, tasks such as close air support, mobility, and allied advising are key. As the US became more committed to the fighting in South Vietnam, the Air Force struggled to adjust to the Vietnam ground war, which demanded roles it had neither equipped nor prepared for adequately. The Air Force responded by employing new and repurposing old technologies to adapt to its new missions. In Vietnam, the Air Force provided increasingly effective support to the ground forces, but the overall war strategy could not address the underlying causes of the insurgency, nor prevent the insurgents from building an effective organization. Further, the eventual collapse of South Vietnamese forces following the American withdrawal in 1972 points to enduring difficulties in foreign military training, which overlaps in many ways with the American withdrawal from Afghanistan.

CONTACT HOURS: 2.0 hours

REQUIRED READINGS AND VIEWING (78)

1. Compilation of excerpts from documentary series "Battlefield: Vietnam" (file available on Teams) **(15 min) [EL]**
2. James S Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University Press of Kansas, 2003), 1-10, 225-242*, 267-274 **(30)**
3. Michael Weaver, *The Air War in Vietnam* (Lubbock, TX: Texas Tech University Press, 2022), 128-135, 145-151, 158-169, 195-198, 207-217, 247-252 **(48)**

*there is no obvious page break on page 242. Read until the end of the last full paragraph.

DAY 10: THE STRATEGIC EFFECTIVENESS OF INTERDICTION AND STRATEGIC BOMBARDMENT

DATE: 4 or 5 November 2024

LESSON OBJECTIVES

1. Comprehend the political and grand strategic factors that accounted for changing approaches to strategic bombing between the Lyndon Johnson and Richard Nixon administrations during the US air war over North Vietnam.
2. Evaluate the relative strategic effectiveness of Operations Rolling Thunder, Linebacker I, and Linebacker II and evaluate how well airmen employed airpower at the operational level of war in complex situations.
3. Apply discussions of strategic effectiveness in the Vietnam War to evaluating airpower in a contemporary conflict.

LESSON OVERVIEW

AO 515 (S): The Strategic Effectiveness of Interdiction and Strategic Attack against North Vietnam

Many observers view Operation Rolling Thunder as a landmark case study in the history of airpower because it presents the useful perspective of “what not to do” by virtue of its gradual approach. Others view the Easter Offensive along with interdiction efforts of Linebacker I as more crucial. Finally, some hold up Linebacker II as the decisive air activity of the war and key driver of the 1973 Paris Peace Accords. This seminar asks students to consider the narratives about airpower that have become part of the war’s legacy and compare the strategic effectiveness of the three air campaigns.

CONTACT HOURS: 2.0 hours

AO 516 (S): Current Strategic Attack Application

You will receive examples of strategic attack from the Russo-Ukraine War to evaluate strategic effectiveness. You will break up into three groups. Each group will prepare a three-minute presentation analyzing the strategic effectiveness of one or more of the attacks of the group’s choosing. Additionally, each group should recommend alterations to improve strategic effectiveness.

CONTACT HOURS: 1.0 hour

REQUIRED READINGS (72)

1. Compilation of excerpts from documentary series “Battlefield: Vietnam” (file available on Teams) **(32 min) [EL]**
2. Wayne Thompson, "Operations over North Vietnam, 1965-1973," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 107-126. **(20)**
3. Skim Mark Clodfelter, "The Limits of Airpower or the Limits of Strategy," *Joint Forces Quarterly* 78 (3rd Quarter 2015): 111-124. **(14) [EL]**
4. John F. Guilmartin, Jr., "Bombing the Ho Chi Minh Trail: A Preliminary Analysis of the Effects of Air Interdiction," *Airpower History* 38, no. 4 (Winter 1991), 3-17. **(15) [EL]**
5. Michael Weaver, *The Air War in Vietnam* (Lubbock, TX: Texas Tech University Press, 2022), 261-272 and 407-413. **(19)**

6. Curtis E. LeMay Center for Doctrine Development and Education, *Air Force Doctrine Publication 3-0, Plans and Operations*, 4 November 2016, 88-91. (4) [EL]

*****AO-600 MID-TERM ESSAY DUE ON CANVAS ON WEDNESDAY NOVEMBER 6 BY 1700*****

Phase III: Reforming and Increasing Airpower Capability

DAY 11: POST-VIETNAM REFORMS

DATE: 7 or 8 November 2024

LESSON OBJECTIVES

1. Comprehend the long-term effects of the Vietnam War on the United States Air Force and the broader airpower community, and the overarching effectiveness of US military reforms in the 1970s and 1980s.
2. Comprehend the importance of the Arab-Israeli Wars (particularly the 1973 war) in shaping US military reforms and how this conflict continues to influence debates about joint all-domain operations.
3. Analyze the similarities and differences of the US military's reforms after Vietnam to how the US military is realigning today for strategic competition, particularly against China.

LESSON OVERVIEW

AO 517 (S): US Air Force Reforms after the Vietnam War

The readings enable a discussion about the Air Force's operational focus after Vietnam and its relevance to national security imperatives during the period. After Vietnam, the US military increasingly focused on a potential Soviet invasion of Central Europe as its primary national security threat. For the Air Force specifically, students should consider the extent to which the institution learned the correct lessons from the Vietnam War. Consider if the Air Force had produced Red Flag exercises and tactically-oriented fighters like the F-16 before Vietnam. How much would these innovations have produced better outcomes for the war? These themes highlight the complexity of the post-Vietnam period and the Air Force's struggle to connect operations with strategy in this new era of Cold War.

CONTACT HOURS: 2.0 hours

AO 518 (L): Know Your Allies: The 1982 Falklands Conflict (Gp Capt John Shields, RAF)

Students will watch this pre-recorded lecture **prior to seminar** to evaluate the operational level prosecution of the air campaign during the 1982 Falklands Conflict between the United Kingdom and Argentina. For the United Kingdom, the tyranny of distance over vast oceans with limited basing options prevailed. In contrast, Argentina had significantly shorter lines of communication to the disputed islands not far from its shores. Although the scale and means are different, the contemporary parallels to strategic competition in INDOPACOM are evident. The lecture opens by providing strategic context before analyzing and evaluating the air campaign. The lecture culminates with lessons identified, insights into how US allies fight, and implications for the contemporary operating environment.

CONTACT HOURS: 1.0 hours

REQUIRED READINGS (81)

1. Mike Worden, *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945-1982* (Maxwell AFB, AL: Air University Press, 1998), 211-228. **(18) [EL]**
2. Brian D Laslie, *The Air Force Way of War: U.S. Tactics and Training after Vietnam* (Lexington, KY: University Press of Kentucky, 2015), 33-81. **(49)**
3. 21st-century relevance: LTC Nathan Jennings, "The 1973 Arab-Israeli War: Insights for Multi-Domain Operations," Land Warfare Paper 152, (Arlington, VA: Association of the United States Army, 16 Dec 2022), <https://www.ausa.org/publications/1973-arab-israeli->

- [war-insights-multi-domain-operations](#). (6) [EL]
4. 21st-century relevance: Matthew J. Bradley and Daniel J. Lehoski, “Test and Train to the Threat, or Die,” *War on the Rocks*, 14 July 2023, <https://warontherocks.com/2023/07/test-and-train-to-the-threat-or-die/>. (8) [EL]

AIRPOWER WARGAME #3

Applying Lessons learned from the Falklands War

November 7 or 8 2024

CONTACT HOURS: 3.0-hours

Relevance to Courseware:

The Falklands War was a war fought over the sovereignty of an island with tremendously long supply lines. Who controls the surrounding seas and air often determines success in such situations. The wargame will allow students the opportunity to combine Naval and Air Forces to achieve their objectives in a scenario revolving around PRC naval and air blockade of the Taiwan Straits.

Map: *Next War Vietnam Strategic Display*

Objectives:

- Red – Maintain control of the Taiwan Straits Sea Zone and attrite US Naval forces to less than 50% original size.
- Blue – Take control of the Taiwan Straits and maintain at least one Strategic Line of Communication (SLOC) represented by a chain of controlled sea zones.

Application Rules & Initial Setup:

- Sea Zones will initially be controlled as follows:
 - o Blue – Japan, Northern Approaches, Marianas, Philippines Sea, Philippines, Celebes Sea
 - o Red – Spratley Islands, South China Sea, Taiwan Strait, East China Sea, Ryukyus, Gulf of Tonkin, Mainland China
 - o Sea Zones not listed above start the game contested
- Initial setup must include 1 PLAN carrier group or SAG in Taiwan Straits to establish PRC claims to area.
- In addition to the above, Red will place naval forces first
- Blue will have the initiative for each game turn
- All other Naval forces placement will be determined by student teams during initial setup
- Submarine threat by Red is set to 4; ASW for Blue is set to 2
- Additional rules, orders of battle, sequence of play, and setup guidance will be provided on Teams prior to the beginning of the game.

Required New Rules To Learn Prior to Gameplay:

- Air Unit Ranges (*Next War Game Series Rules*, 31-32 – see *Next War Vietnam Strategic Display*)
- Naval Rules (*Next War Game Series Rules*, 8-10, 24-25)
- Naval Movement (*Next War Game Series Rules*, 15-17)
- Carrier Air Wing Rules (*Next War Game Series Rules*, 9 and 40)

- Sea Control (*Next War Game Series Rules*, 8)
- Naval Detection (*Next War Game Series Rules*, 24)
- Naval Surface Combat (*Next War Game Series Rules*, 25)

DAY 12: THE RISE OF JOINT AIRPOWER

DATE: 14 or 15 November 2024

LESSON OBJECTIVES

1. Analyze how training and doctrine changes in the 1970s influenced airpower employment in the 1980s.
2. Analyze the effectiveness of airpower in Operations URGENT FURY and EL DORADO CANYON and the Falklands War.
3. Evaluate the strengths and weaknesses of the Goldwater-Nichols Act and the extent to which the United States might require more reforms today.

LESSON OVERVIEW

AO 601 (E): MISSION STATEMENT ASSIGNMENT

Students will complete the in-class Mission Statement writing assignment. This assignment is Pass/Fail.

CONTACT HOURS: 1.0 hours

AO 519 (S): Case Studies in Post-Vietnam US Airpower

The 1980s are often a forgotten period of American military history, as they fill an intermediary period between the dramatic events of the Vietnam War and Operation Desert Storm. Yet, they are a pivotal period, as the Goldwater-Nichols Act forced the separate services to put aside many of their rivalries in pursuit of national defense priorities, thereby creating the environment necessary to allow joint planning and operations. Students will evaluate how the US military's ability to conduct joint operations evolved during this decade by examining interventions in Grenada and Libya.

CONTACT HOURS: 1.0 hours

REQUIRED READINGS (60)

1. James A. Winnefeld and Dana J. Johnson, *Command and Control of Joint Air Operation: Some Lessons Learned from Four Case Studies of an Enduring Issue*, RAND Report R-4045-RC (Washington, D.C.: RAND Corporation, 1991), iii-12. **(14) [EL]**
2. Brian D Laslie, *The Air Force Way of War: U.S. Tactics and Training after Vietnam* (Lexington, KY: University Press of Kentucky, 2015), 99-112. **(14)**
3. Daniel L. Haulman, "Crisis in Grenada: Operation URGENT FURY," in *Short of War: Major USAF Contingency Operations, 1947-1997*, ed. A. Timothy Warnock (Maxwell AFB, AL: Air University Press, 2000), 135-144. **(10) [EL]**
4. Judy Endicott, "Raid on Libya: Operation EL DORADO CANYON," in *Short of War: Major USAF Contingency Operations, 1947-1997*, ed. A. Timothy Warnock (Maxwell AFB, AL: Air University Press, 2000), 145-155. **(11) [EL]**
5. Congressional Research Service, *Goldwater-Nichols at 30: Defense Reform and Issues for Congress*, CRS Report (Washington, D.C.: Congressional Research Service, 2 June 2016), 1-11. **(11) [EL]**

DAY 13: THE GULF WAR

DATE: 18 or 19 November 2024

LESSON OBJECTIVES

1. Comprehend how America's victory in 1991 appeared to validate the institutional path taken by the US military since the end of the Vietnam War.
2. Evaluate the utility of Robert Pape and John Warden's competing interpretations of Operation DESERT STORM (ODS) regarding how airpower contributed to the achievement of political objectives.
3. Assess the role of ODS in transforming airpower into the premier military instrument of choice for American policymakers in subsequent decades.
4. Compare and contrast the United States' approach to joint operations with China's new joint force.

LESSON OVERVIEW

AO 520 (L): Operation DESERT STORM (Lt. Gen. David Deptula, retired)

Operation DESERT STORM—our redemptive war after Vietnam—seemed to validate the US approach to conventional military operations, the Reagan military buildup, and the USAF's focus on training in the two decades leading up to 1991. This war also witnessed the establishment of the Air Component Commander, a single airman responsible for all air operations in theater. This lecture examines the geopolitical underpinnings of the war, the air and ground phases of the war, and the legacy for airmen and others of this successful but complicated military operation.

CONTACT HOURS: 1.0 hours

AO 521 (S): Airpower Effectiveness in ODS and its Implications for Joint Warfare

The lecture and readings invite seminar discussion on how well the 1991 air war reconciled operational effectiveness with meaningful national security outcomes. The war also put the DOD's new joint structures and procedures to the test. Given the high praise for Operation DESERT STORM, and, more specifically, its air campaign, consider how well airpower met national security objectives in this conflict. Also consider varying narratives surrounding airpower's strategic effectiveness in this conflict.

CONTACT HOURS: 2 hours

REQUIRED READINGS (72)

1. Robert Pape, "The Limits of Precision-Guided Airpower," *Security Studies* 7, no. 2 (1997): 93-114. **(22) [EL]**
2. John Warden, "Success in Modern War: A Response to Robert Pape's *Bombing to Win*," *Security Studies* 7, no. 2 (1997): 172-190. **(19) [EL]**
3. John Andreas Olsen, "Operation Desert Storm, 1991," in *A History of Air Warfare*, ed. John Andreas Olsen, (Washington, D.C.: Potomac Books, 2010): 177-200. **(24)**
4. 21st-century relevance: David Bickers, "Understanding the Vulnerabilities in China's New Joint Force," *Joint Force Quarterly* 103 (October 2021): 78-79, 82-86. **(7) [EL]**

OPTIONAL READINGS (35)

1. Daryl Press, "The Myth of Airpower in the Persian Gulf War and the Future of Warfare," *International Security* 26, no.2 (2001): 10-44. **(35) [EL]**

DAY 14: THE STRATEGIC EFFECTIVENESS OF AIR MOBILITY

DATE: 21 or 22 November 2024

LESSON OBJECTIVES

1. Comprehend the importance of air mobility to US military strategy, especially in enabling the flexible application of joint military power from tactical to strategic.
2. Analyze the factors that make an air mobility operation successful in light of future air operations and deployments against peer competitors.
3. Comprehend lessons from the Berlin Airlift, Nickle Grass, Afghanistan, and various Humanitarian Assistance and Disaster Relief operations and apply relevant lessons to an INDOPACOM operation.

LESSON OVERVIEW

AO 522 (L): Air Mobility's Capabilities and Limitations (Lt Col Arthur)

This lecture baselines students' knowledge on all facets of air mobility including strategic and tactical airlift, airdrop, aerial refueling, aeromedical evacuation and distinguished visitor airlift capabilities and limitations. It explores areas for future development in air mobility capabilities and presents both historical and modern-day challenges to the mobility system through the lens of past and future conflicts in INDOPACOM. Finally, it challenges students' understanding of principles of an air mobility network and dispersed logistics system in an INDOPACOM scenario.

CONTACT HOURS: 1.0 hours

AO 523 (S): Case Studies in Air Mobility

This seminar begins with two historical case studies highlighting air mobility's strategic effectiveness: the Berlin Airlift and Operation NICKEL GRASS. The seminar then pivots to non-combat uses of air mobility in humanitarian operations. Next, students will engage with readings providing key information regarding air mobility capabilities before considering how the US needs to approach contested logistics for future challenges.

CONTACT HOURS: 1.0 hours

AO 524 (S): Air Mobility and Logistics in the INDOPACOM Application

Students will evaluate and apply the principles of an air mobility network and dispersed logistics system in an INDOPACOM scenario. Students will be given requirements, resources to meet those requirements, and constraints/restraints to the transportation scenario. Students will learn the strengths and weaknesses of air-based logistics by applying principles of airpower with a goal of moving war material to forward operating bases in a minimum amount of time.

CONTACT HOURS: 1.0 hours

REQUIRED READINGS (54)

1. William P. Head, "The Berlin Airlift," *Airpower History* 68, No. 3 (Fall 2021): 23-34. **(12) [EL]**
2. Walter J. Boyne, "Nickel Grass," *Air Force Magazine*, December 1998, 54-59. **(6) [EL]**
3. David Capie, "The United States and Humanitarian Assistance and Disaster Relief (HADR) in East Asia: Connecting Coercive and Non-Coercive Uses of Military Power," *Journal of Security Studies*, Mar 2015, 309-331. **(23) [EL]**
4. Ivan Sand, "Challenges and Lessons Learned from the Deployment of French Airpower in Afghanistan," *Journal of Indo-Pacific Affairs* 38 no. 3 (Winter 2021): 78-91. **(13) [EL]**

DAY 15: OPERATION ALLIED FORCE

DATE: 2 or 3 December 2024

LESSON OBJECTIVES

1. Analyze the advantages and pitfalls of relying on kinetic airpower as the weapon of choice for resolving political and humanitarian crises in wars in which the concept of decisive victory may not apply.
2. Evaluate the utility of airpower as a coercive instrument in limited war versus the argument that Operation ALLIED FORCE (OAF) demonstrated the fulfillment of airpower's promise to produce decisive strategic outcomes on its own.
3. Evaluate the extent to which modern notions of strategic attack coincide and diverge from earlier generations of airpower theorists.

LESSON OVERVIEW

AO 525 (L): Airpower and a Fragile Coalition Answer an Atrocity (Dr. Al Peck)

US Air Force Lt Gen Allen G. Peck, USAF, retired, PhD, played an instrumental role in the planning and execution of Operation ALLIED FORCE. The end of the Cold War helped unleash long-dormant ethnic and religious tensions in many parts of the world. In the Balkans, rivalries led to a series of military operations, interventions, and humanitarian crises that gained the attention of transnational organizations. This lecture will briefly review airpower operations in the Balkans during this period. It will then delve more deeply into the background leading to NATO's decision to use airpower to compel the Serbian leadership to cease atrocities against ethnic Albanians in the province of Kosovo. The discussion will address key planning and execution challenges for the ALLIED FORCE air operation and the degree to which these challenges were overcome.

CONTACT HOURS: 1.0 hours

AO 526 (S): Airpower Effectiveness in OAF and its Implications for Strategic Attack

The readings and lectures stimulate a debate regarding the strategic and operational effectiveness of the bombing of Yugoslavia in 1999. ALLIED FORCE's legacy is more complicated and contested than that of Desert Storm. Many airmen support the view that the Kosovo campaign validated airpower's ability to be singlehandedly decisive, while others disagree. Students will assess the operational and strategic outcomes for the Balkan operation, and the implications for airpower's future in contributing towards meaningful national security outcomes in strategic competition. Additionally, OAF prompted Russia to rethink its relationship with the West, contributing to a focus on external threats and associated military modernization.

CONTACT HOURS: 2.0 hours

REQUIRED READINGS (101)

1. Benjamin Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA: RAND Corporation, 2001), 1-86 **(87)**
2. Mark Conversino, "The Changed Nature of Strategic Air Attack," *Parameters* 27, no. 4 (1997): 28-41. **(14) [EL]**

DAY 16: AIRPOWER IN THE GLOBAL WAR ON TERROR

DATE: 5 or 6 December 2024

LESSON OBJECTIVES

1. Comprehend the impact of the September 11 attacks on US national security strategy.
2. Assess the relative effectiveness of airpower as an instrument of national policy in OEF and OIF against the background of the changing character and objectives of both conflicts.
3. Examine the relevance of airpower in conflicts where kinetic solutions, while often alluring, may undermine the broader strategic objective of protecting the population and maintaining its political loyalty.

LESSON OVERVIEW

AO 527 (S): Airpower Case Studies in Afghanistan and Iraq

This seminar appraises the case studies of Operation Enduring Freedom and Operation Iraqi Freedom. The major combat phases in Afghanistan and Iraq resembled state-on-state conflict, although they were heavily lopsided affairs. By 2008, however, coalition forces had begun stability operations and counterinsurgency efforts in both nations, which provided different challenges for airpower. Students should compare and contrast the Vietnam War to these two conflicts while considering the capabilities and limitations of airpower in meeting national security objectives in counterinsurgency.

CONTACT HOURS: 1.5 hours

AO 528 (L): Operation IRAQI FREEDOM (Col David Hathaway (guest), USAF, retired))

Col Hathaway highlights the planning experience in the lead up to and initial days of Operation IRAQI FREEDOM. He concludes with some lessons learned from OIF that can be applied to contemporary operational air planning.

CONTACT HOURS: 1.5 hours

REQUIRED READINGS (110)

1. Benjamin Lambeth, *The Unseen War: Allied Air Power and the Takedown of Saddam Hussein* (Annapolis, MD: U.S. Naval Institute Press, 2013), 59-146. **(87)**
2. Benjamin Lambeth, "Operation Enduring Freedom," in *A History of Air Warfare*, ed. John Andreas Olsen (Washington, D.C.: Potomac Books, 2010), 255-277. **(23)**

DAY 17: OPERATION INHERENT RESOLVE

DATE: 9 or 10 December 2024

LESSON OBJECTIVES

1. Understand the challenges airpower faced in Operation INHERENT RESOLVE (OIR).
2. Understand the performance of Russian airpower in OIR and its implications for strategic competition.
3. Apply insights from OIR to emerging challenges for future warfare, especially considering coalition operations.

LESSON OVERVIEW

AO 529 (S): Operation INHERENT RESOLVE

Overview: This seminar examines OIR's lessons and insights for strategic competition, comparing its airpower utilization with other conflicts, and addressing challenges faced. Leveraging students' OIR experiences, discussions aim to enhance critical thinking for future conflicts as the U.S. shifts toward jointly within a major coalition conflict presented many challenges and opportunities.

CONTACT HOURS: 2.0 hours

AO 530 (L): A Planner's Experience in Operation INHERENT RESOLVE (Lt Col Hellesto)

Overview: This lecture will discuss the operational and strategic challenges encountered during OIR, and it will also examine how the lessons from OIR have developed into operational concepts that are currently being used and may need to be used in future conflicts. The ability to operate jointly within a major coalition conflict presented many challenges and opportunities. contemporary operational air planning.

CONTACT HOURS: 1.0 hour

REQUIRED READINGS (49)

1. Ralph Shield, "Russia's Air War Win in Syria," *Airpower in the Age of Primacy*, 229-254. (25) [EL]
2. Becca Wasser, et al, *The Air War Against the Islamic State* (Santa Monica, CA: RAND Corporation), 293-308. (15) [EL]
3. Stacie L. Pettyjohn and Becca Wasser, "From Forever Wars to Great-Power Wars: Lessons Learned from OIR," *War on the Rocks*, 20 August 2021. (9) [EL]

***AO-602 FINAL ESSAY DUE ON CANVAS 9 OR 10 DECEMBER at 1700.* If you normally have Airpower on Monday/Thursday, it is due on 9 December. If you normally have Airpower on Tuesday/Friday, it is due on December 10.**

APPENDIX: COURSE FACULTY

AO Course Director

Dr. Heather P. Venable is an Associate Professor of Military and Security Studies in the Department of Airpower. She has taught Airpower I, Airpower II, and electives on close air support and the historical experience of combat. She also has served as the course director for the former Airpower I and Airpower II courses. As a visiting professor at the US Naval Academy, she taught naval and Marine Corps history. She graduated with a BA in History from Texas A&M University and an MA in American History from the University of Hawai'i. She received her PhD in military history from Duke University. She also has attended the Space Operations Course as well as the Joint Firepower Course. She has written *How the Few Became the Proud: The Making of the Marine Corps' Mythos, 1874-1918* (Naval Institute Press, 2019). Previous published work includes "'There's Nothing that a Marine Can't Do': Publicity and the Marine Corps, 1905-1917" in *New Interpretations in Naval History: Selected Papers from the Sixteenth Naval History Symposium* and "The China Marines and the Crucible of the Warrior Mythos, 1900-1941" in *Crucibles: Selected Readings in U.S. Marine Corps History*. She was a non-resident fellow at Marine Corps University's Krulak Center from 2021 to 2023 and is a Research Fellow at West Point's Modern War Institute. Her professional service includes service as a managing editor for The Strategy Bridge. Her current research centers on intersections between theory and pre-war thinking and the application of airpower in combat.

AO Deputy Course Directors

Maj Joe Baldwin is an instructor in the Department of Airpower at the Air Command and Staff College (ACSC) where he teaches the Airpower Strategy and Operations course as well as the Contemporary and Emerging Warfare course. Prior to this assignment, he served on the commander's action group at Third Air Force, Ramstein Air Base, Germany. Maj Baldwin is a senior pilot, previously qualified in the M-28 Skytruck, PC-12, T-6A, and most recently C-130J. Maj Baldwin holds a Bachelor of Science in Aeronautical Engineering from the United States Air Force Academy, Master of Science in Aeronautical Science from Embry Riddle Aeronautical University, and Master of Military Operational Art and Science degree from ACSC.

Lt Col Kevin Boss is an instructor in the Department of Airpower at the United States Air Force's Air Command and Staff College (ACSC). He entered the Air Force in 2004 and initially served as an Air Battle Manager before transitioning to the intelligence career field in 2013. Lt Col Boss has deployed in support of Operations ENDURING FREEDOM and ODYSSEY DAWN / UNIFIED PROTECTOR and served a tour in the 603d Air Operations Center. He holds an EdD in Aviation and Space Education from Oklahoma State University, holds MS degrees from Embry Riddle Aeronautical University and Southeastern Oklahoma State University, and is a graduate of ACSC (AY17). Lt Col Boss joined the ACSC faculty in July 2023 upon completion of tours as a Squadron Commander and Deputy Group Commander.

Lt Col John "Garick" Chamberlin, PhD, is an Assistant Professor of Military and Security Studies in the Department of Airpower at the United States Air Force's Air Command and Staff College (ACSC). He holds a PhD in History from Purdue University, an MA in National Security Affairs from Naval Postgraduate School, and a BS in Middle East Studies from Excelsior College (USNY). Garick has split his Air Force career roughly equally between intelligence and education assignments, having taught at the Defense Language Institute and the US Air Force Academy, and

commanded a Student Squadron at Squadron Officers School prior to his assignment to ACSC. In the Intelligence field, he was attached to the RC-135 both as an enlisted aviator and as an intelligence officer, and also served on the 3rd Air Force and US Air Forces in Europe staffs and as the Chief of Wing Intelligence for the 22 ARW at McConnell AFB. Garick has over a dozen deployments to the Middle East, as well as one to Kosovo. His research focuses on the diplomatic and military history of the Early American Republic, primarily related to North African affairs.

Seminar Instructors

Lt Col Todd “King” Arthur is the Deputy Department Chair of the Department of Airpower at the US Air Force’s Air Command and Staff College (ACSC). Lt Col Arthur is a command pilot with over 5500 hours in the C-5 A/B/M, T-1A, T-6A and E-11 aircraft. He served as an instructor pilot in all four airframes, and flew combat missions in Operations IRAQI FREEDOM, ENDURING FREEDOM, and FREEDOM SENTINEL. He is a graduate of the US Air Force Academy, ACSC, and commanded the 430 EECS. Lt Col Arthur received his Bachelor of Science from the United States Air Force Academy with a minor in Military Doctrine, Operations and Strategy. He also holds a Master of Business Administration from Touro University with an emphasis in corporate finance. Lt Col Arthur also has a Master of Military Sciences from Air University. His last assignment was Commander, 430 EECS Prince Sultan Air Base, Saudi Arabia.

Lt Col Edmund Ballew is an instructor in the Department of Leadership at the Air Command and Staff College. Prior to this assignment, he served as the Commander, 32d Student Squadron, Squadron Officer School, Maxwell Air Force Base, Alabama. Lieutenant Colonel Ballew commissioned in 2004 following his graduation from the United States Air Force Academy, earning a Bachelor of Science degree in Business Management. Lieutenant Colonel Ballew has served in a variety of flying and supervisory positions including the C-21A, T-53A, C-17A, and KC-135R/T/RT aircraft.

Maj Steven “Noforn” Barfoot is an Instructor in the Department of Airpower at the United States Air Force’s Air Command and Staff College (ACSC). He teaches the Airpower Strategy and Operations and the Contemporary and Emerging Warfare courses. Prior to instructing at ACSC, he was a member of ACSC’s AY22 class. In his previous assignment, he was the assistant director of operations at the 527th Space Aggressor Squadron at Schriever AFB, CO. As an air traffic controller in the Royal Canadian Air Force, Maj Barfoot cross-trained into space operations in 2009 when he was assigned to the 12th Space Warning Squadron, Thule Air Base, Greenland. Since then, he’s had numerous space assignments in both Canada and the US. Additionally, he has worked in space acquisitions as the project director for the Surveillance of Space 2 capability; the follow-on to Sapphire. Maj Barfoot holds a Master of Business Administration as well as a Master of Military Operational Art and Science and a Master of Philosophy in Military Strategy.

Dr. Lisa L. Beckenbaugh is the Chair of the Leader and Research Development Department at the US Air Force’s Air Command and Staff College (ACSC). Dr. Beckenbaugh received her bachelor’s and master’s degrees from St. Cloud State University and her PhD from the University of Arkansas. Dr. Beckenbaugh has taught at a variety of undergraduate and graduate civilian institutions. Her book, *The Versailles Treaty: A Documentary and Reference Guide* for ABC-CLIO, was published in 2018. Dr. Beckenbaugh also serves as the faculty advisor for the Gathering of Eagles elective and has edited five of their published books, most recently, *Why We Stay: Stories of Unity and Perseverance*. Dr. Beckenbaugh’s current research is on the 1st MASH (Mobile Army Surgical

Hospital), later redesignated 8209th MASH, during the Korean War. Research Interest/Expertise: Oral History, American POWs, World War II, Women in Combat, Battlefield Medicine, and MASH Units in the Korean War.

Dr. Terry Beckenbaugh is an Associate Professor in the Department of Airpower at the US Air Force's Air Command and Staff College (ACSC). He came to ACSC from the US Army Command and General Staff College at Fort Leavenworth, Kansas, where he taught for nine years in the Department of Military History. Dr. Beckenbaugh received his PhD in 19th Century US History from the University of Arkansas, and his Masters and Bachelors in US History and History, respectively, from Shippensburg University of Pennsylvania. Beckenbaugh has taught at a variety of undergraduate and graduate civilian institutions. He is currently working on a book on the White River Campaign in Arkansas in the spring-summer of 1862, and has numerous publications and conference presentations.

Maj Jacob "Jake" Bradosky is an Instructor in the Department of Airpower at the Air Force's Air Command and Staff College (ACSC). Prior to this assignment, he was the Program Element Monitor for B-1, B-2, B61-12, and Nuclear Weapons Support, Directorate of Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics, Pentagon. Maj Bradosky began his career in ICBM operations at Malmstrom AFB, Montana. He went on to serve in a variety of Acquisition assignments to include program management positions for Sentinel, ICBM reentry systems, and several satellite programs including partner programs with Taiwan and Norway. Maj Bradosky has deployed in support of Operations FREEDOM'S SENTINEL, RESOLUTE SUPPORT, and ALLIES REFUGE. Maj Bradosky holds a Bachelor of Science in Organizational Leadership from Wright State University, Master of Business Administration from Liberty University, and Master of Military Operational Art and Science degree from ACSC.

Maj Chris "KRUSTY" Carver is an Air University Fellow and Instructor in the Department of Airpower at the United States Air Force's Air Command and Staff College (ACSC). Serving in this capacity, he teaches the Joint Air Operations Planning Course, Airpower Strategy and Operations Course, and the Contemporary and Emerging Warfare Course. Maj Carver is a Senior Remotely Piloted Aircraft Pilot with more than 3,100 hours in the MQ-9 Reaper and MQ-1 Predator, including 2,500 in combat supporting Operations ENDURING FREEDOM, NOMAD SHADOW, FREEDOM SENTINEL, RESOLUTE SUPPORT, and INHERENT RESOLVE. His past assignments include operational flying units, test, formal training units, and one deployment to Afghanistan as a MQ-1 Launch and Recovery Pilot. Maj Carver received a Master of Arts in Military History from the American Military University and a Master of Military Operational Art and Science degree from ACSC.

Lt Col Michael "Deano" Dean is an Instructor in the Department of Airpower at the Air Force's Air Command and Staff College (ACSC). Within AU, Lt Col Dean has served as the Air University (AU) Fellow Program Manager, AY23 Airpower and Contemporary Warfare Instructor, and was an AU Fellow with instructor experience at Squadron Officer School. His recent assignments include strategy and current plans development on the United States Air Forces-Europe Staff and 603d Air Operations Center. He is an Air Battle Manager with over 2,000 hours on the E-3 AWACS. Lt Col Dean has deployed in support of Operations Iraqi Freedom, Unified Protector, Enduring Freedom, and Inherent Resolve. Other notable missions supported are Operation Noble Eagle, SOUTHCOM Counter-Drug Operations, Presidential Overwatch, and representing Air Forces-Africa on numerous

security cooperation delegations. Lt Col Dean received a Master of Arts in Education from George Fox University and a Master of Operational Art and Science from ACSC in AY22.

Lt Col Jeremiah “Happy” Gilmore is an Instructor in the Department of Airpower at the US Air Force’s Air Command and Staff College (ACSC). Prior to this assignment, Lt Col Gilmore was a Staff Officer at Air Combat Command (ACC) where he worked acquisition and capability development for several emerging Air force Programs. He holds a Master’s in Military Operational Art and Science from Air University as well as a Master of Science in Administration from Central Michigan University. He earned a Bachelor of Science degree in Computer Science from the University of Georgia and received his commission from ROTC. He has previously served at Offutt AFB where he deployed with the RC-135 to the CENTCOM and INDOPACOM AORs. He has also completed an instructor assignment at the Combat Systems Officer Formal Training Unit in Pensacola Florida. He is a Senior Combat Systems Officer with over 2000 hours in the RC-135 and T-1A aircraft.

Major Jessica Harris is an instructor in the Department of Airpower at the Air Command and Staff College (ACSC), where she teaches the Airpower Strategy and Operations course and the Contemporary and Emerging Warfare course. Prior to this assignment, she was the director of operations at the 24th Analysis Squadron at the Air Force Technical Applications Center (AFTAC) at Patrick SFB, Florida. Major Harris is a career intelligence officer, with previous assignments at the 603d Air and Space Operations Center, Air University’s International Officer School, and Headquarters NATO Allied Air Command. She holds a bachelor’s in international relations from Florida State University and a master’s in military operational air and science from ACSC.

Maj Adam “Hoppy” Hopkins is the International Officer Director of Operations (IO/DO) for ACSC. Prior to this assignment, he was an Instructor Navigator on the C-130H, serving two tours in Afghanistan until the system that shall not be named (GPS) unceremoniously took his place through the creation of the infamous and dastardly C-130J. After wandering in the desert of lost navigators, Maj Hopkins found sanctuary among the peaceful people of the Acquisitions career field. In this new role, he led programs that maintained the DoD’s wind tunnel/engine testing infrastructure, enhanced its space-based missile warning/defense capabilities, and developed a nationwide wildfire tracking system. These incredible feats were accomplished with nothing but a History degree from USAFA, an MBA from Western Kentucky, and fourteen years' worth of grit and elbow grease. He now also holds a Military Operational Art and Science master's degree from Air University.

Dr. Matthew M. Hurley, Colonel, USAF (retired) is an Assistant Professor of Military and Security Studies in the Department of Airpower at the US Air Force’s Air Command and Staff College (ACSC). Dr. Hurley is a Distinguished Graduate of the US Air Force Academy Class of 1990 and a 2005 Distinguished Graduate of ACSC, having also earned an MA in History from the University of Washington in 1991 and a PhD in History from The Ohio State University in 2009. He spent most of his military career as an intelligence officer, completing threat and theater analysis assignments in Air Mobility Command, Pacific Air Forces, US Air Forces in Europe, NATO, and US Forces Korea. Dr. Hurley retired from the Air Force in 2014 as the Chief of USAF ISR Doctrine and Policy Integration, HQ AF/A2, The Pentagon. Since leaving active service he has worked as a Senior Fellow for the Mitchell Institute for Aerospace Studies and an aviation history author for Helion & Co. Publishers, and he continues to serve as a volunteer guide at the National Museum of the US Air Force. He joined Air University as a civilian professor in May 2024.

Maj Daniele Lins is an Instructor in the Department of Airpower at the United States Air Force's Air Command and Staff College (ACSC). She teaches the Airpower Strategy and Operations and the Contemporary and Emerging Warfare courses. Maj Daniele Lins belongs to the Brazilian Air Force's first female pilot class, which graduated in 2006. After graduation, her operational career was based on fighter and strike aviation until 2016. After that, she was assigned to work for the Brazilian Airspace Control Department where she worked as the Brazilian representative on the ICAO RPAS Panel (Headquarters in Montreal, Canada) and manager of the Working Group to develop UTM CONOPS for the South American region (under the ICAO SAM - Lima, Peru). Prior to her current assignment in the United States, she worked for the Brazilian CSAF and flew in the 2nd Squadron of the Special Transportation Group, performing DV airlift (for the Vice President and Ministers). Maj Daniele Lins attended the Brazilian Air Force Academy, receiving his bachelor's degree in Aeronautical Science with qualification in Military Aviation. She also holds a Lato Sensu postgraduate course in Public Administration and Air Force Employment, an MBA in Planning and Strategic Management, and a Master of Military Operational Art and Science.

Major Matthew Markling is an instructor in the Department of Leadership at the Air Command and Staff College. Prior to this assignment, he served as the Commander, DCMA Israel, Tel Aviv, Israel. Major Markling commissioned in 2011 following his graduation from the United States Air Force Academy, earning a Bachelor of Science degree in Foreign Area Studies. Major Markling has served in a variety of contracting officer positions as an unlimited contracting officer in operational and systems units as well as MAJCOM staffs.

Dr. Edwin H. Redman, Colonel, USAF, retired is an Assistant Professor of Military and Security Studies in the Department of Airpower at the US Air Force's Air Command and Staff College (ACSC). Dr. Redman is a command pilot with tours in each of the Air Force's bomber aircraft. He served as an instructor pilot in the T-38, B-1 and B-2, and flew combat missions in Operation IRAQI FREEDOM in 2003 in the B-2. He is a graduate of the US Air Force Academy, ACSC, and the School of Advanced Air and Space Studies (SAASS). Following SAASS, Dr. Redman attended Duke University, where he received his PhD in History. His last operational assignment was Deputy Commander, 509th Operations Group, Whiteman Air Force Base. He completed his active-duty service at Air University, holding several positions, including Director of Warfighting Education at the LeMay Center for Doctrine Development and Education, and Director of the Grand Strategy Seminar, Air War College. He retired from the Air Force in 2014 and joined Air University as a civilian professor in 2015.

Lt Col Drew Roberts is an instructor in the Department of Airpower at the Air Command and Staff College where he teaches the Airpower Strategy and Operations and Contemporary and Emerging Warfare Courses. He is an Electronic Warfare Officer (EWO) on the RC-135 Rivet Joint with deployments in support of USCENTCOM, USEUCOM, and USINDOPACOM. He also served as an exchange officer with the Royal Air Force conducting test and evaluation and flying operations on the British RC-135. Lt Col Roberts received a Bachelor of Science degree in Criminal Justice from Florida State University, a Master of Arts in Intelligence Studies from American Military University, a Master of Military Operational Arts and Sciences from ACSC, and recently completed and defended his doctoral dissertation from the University of North Texas in military history. His research is focused on the integration of airpower into combined arms operations during the First World War.

Lt Col James “Jim” Six is an instructor in the Department of Airpower at the Air Command and Staff College (ACSC) where he teaches the Airpower Strategy and Operations and the Contemporary and Emerging Warfare courses. Prior to this assignment, he served as the Deputy Commander Detachment 3, Training Support Squadron, Air Combat Command (ACC) at Davis-Monthan Air Force Base, AZ. Lt Col Six is a Senior Combat Systems Officer with over 1,000 flight hours in the EC-130H “Compass Call”, including over 550 combat hours flown in various operations as an Evaluator Mission Crew Commander. Lt Col Six received a Bachelor of Science in Mechanical Engineering from the Clemson University (Go Tigers!), holds a Master of Arts in History from American Military University, and a Master of Military Operational Art and Science degree from ACSC.

Dr. M.V. "Coyote" Smith is the Director of the Grissom Space Specialization in the Department of Airpower at Air Command and Staff College. He retired from the Air Force as a colonel with over 30 years of experience in various flying, missile, and space assignments. A combat veteran, he served as an operational strategist and targeteer at the air operations center during Allied Force. During Enduring Freedom, he served as a joint strategist on the staff of CMDRUSCENTCOM. Later, he would serve as the Pentagon's Chief Air and Space Strategist on the SECDEF's Strategic Planning Council during Iraqi Freedom. He is a graduate of the USAF Weapons School, ACSC, SAASS, and holds a Ph.D. in strategic studies from the University of Reading in the UK. He loves the Air Force and all things airpower and spacepower and believes you should "Get Some!"

Dr. Paul J. Springer is a full professor of comparative military studies. He holds a PhD in military history from Texas A&M University. He is the author or editor of more than a dozen books, including *America's Captives: Treatment of POWs from the Revolutionary War to the War on Terror*; *Military Robots and Drones: A Reference Handbook*; *Transforming Civil War Prisons: Lincoln, Lieber, and the Laws of War*; *Cyber Warfare: A Reference Handbook*; and *Outsourcing War to Machines: The Military Robotics Revolution*. In addition, he has published hundreds of shorter pieces, on a variety of subjects including military history, terrorism, strategy, technology, and military robotics. Dr. Springer is a Senior Fellow of the Foreign Policy Research Institute, and the series editor for both the *History of Military Aviation* and *Transforming War* series, produced by the U.S. Naval Institute Press. Currently, he is completing three books, including a collective biography of the West Point Class of 1829; a military history textbook (co-authored with ACSC Professor S. Michael Pavelec); and an examination of the post-Civil War creation of higher education institutions in the South. Research Interest/Expertise includes: POW operations; military leadership and command; terrorism; strategy; military technology; artificial intelligence; cyber warfare; and U.S. military history.

Maj Ian “Dutch” VanBergen is an instructor in the Department of Airpower at the Air Command and Staff College (ACSC) where he teaches the Airpower Strategy and Operations and the Contemporary and Emerging Warfare courses. Prior to this assignment, he served as the Chief of Staff, 314th Airlift Wing, Little Rock AFB, AR. Maj VanBergen is a senior pilot with over 2,500 hours in the C-130J, T-44A, and T-6A aircraft. He received his Bachelor of Arts in Criminal Justice from the University of Nevada, Las Vegas and a Master of Military Operational Art and Science degree from ACSC.

Dr. Michael E. Weaver is an associate professor of comparative military studies in the Department of Airpower. He joined the faculty of ACSC in 2002 after completing his doctorate at Temple University under the tutelage of Russell Weigley. Weaver's first book was *Guard Wars: The 28th Infantry Division in World War II* (Indiana University Press, 2010). His second, *The Air War in Vietnam* (Texas Tech University Press, 2022), was published November 2022. In *Oxford University Press Bibliographies*, *The Journal of Aeronautical History*, *Intelligence and National Security*, *Airpower History*, and *Diplomatic History* he has published articles on the Cuban Missile Crisis, air intelligence during World War II, aircraft capabilities, and air combat training during the Cold War. Weaver specializes in aviation history, the Cold War, the Vietnam War, American history, and World War II.

Lt Col Matt "Indy" Ziemann is an instructor in the Department of Leadership and Research at the Air Command and Staff College. He teaches Leadership in the Profession of Arms, Leadership in Command, Airpower Strategy and Operations, and is the military advisor for the Gathering of Eagles. He is a career intelligence officer and political-military affairs strategist with a background primarily in special operations. He is an instructor/evaluator senior airborne ISR Operator with over 1200 flight hours in a variety of special operations aircraft including over 850 combat hours flown in Operation IRAQI FREEDOM and Operation NEW DAWN. He is also a civilian pilot owning an RV-4 for the past 17 years and flying WWII warbirds for the Commemorative Air Force. Lt Col Ziemann commanded the 392d Intelligence Squadron and served as military Deputy Director of Air University's Commanders' Professional Development School running O-6 pre-command training prior to his arrival on ACSC faculty. He received his Bachelor of Science in Management from the US Air Force Academy and holds a Master's in Business Administration with an emphasis in strategic leadership from Trident University and a Master of Military Operational Art and Science degree from ACSC.