FOREWORD

This syllabus for the Airpower I course for the Air Command and Staff College, October-December 2018, provides both an overview of the course narrative and objectives, as well as a detailed description of each lesson to assist students in their reading and preparation for lecture and seminar. Included herein is information about the course’s methods of evaluation, the schedule, and the fulfilment 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.

SIGNED

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APPROVED

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Dean
AIRPOWER I
COURSE OVERVIEW

COURSE DESCRIPTION
Airpower I (AP1) examines the emergence and development of airpower from the First World War through the Vietnam War. This course analyzes the development of key ideas, capabilities, organizations, practices, and limitations that framed the conduct of air warfare in the first three-quarters of the twentieth century. These events continue to inform debates about airpower’s purpose, utility, and effectiveness. Course readings, lectures, and seminar discussions will cultivate adaptive leaders and critical airpower thinkers by challenging officers to examine the evolution of airpower and how it serves to fulfill national security outcomes.

COURSE OBJECTIVES
1. Comprehend the development and employment of airpower from First World War through the Vietnam War and its applications in joint and coalition warfare.
2. Comprehend the influence of leadership, organization, technology, and ideas on the evolution of joint airpower.
3. Comprehend the lessons of airpower from 1914 to 1973 to analyze the capabilities, limitations, and effectiveness of airpower in the current and future joint fight to fulfill national security outcomes.

COURSE ORGANIZATION AND NARRATIVE
In a 2017 book titled *The Future of War: A History*, Lawrence Freedman identifies three distinct periods in the history of twentieth century conflict. The first period was dominated by great power conflict in which the militaries of the great powers focused on attaining decisive victories to end wars as quickly as possible. This period included the First and Second World Wars and lasted until the end of the Cold War. What followed has been defined by various terms such as the “End of History,” the “Unipolar Moment,” and the “Pax Americana.” Although these ideas suggested a future of peace and prosperity, the rising prevalence of irregular wars indicated that utopian optimism was unfounded. In a series of conflicts from Africa to the Balkans to the Middle East, Western militaries found that traditional strategies for decisive battles often failed to produce satisfying national security outcomes.

By the twenty-first century, many strategists had attempted to rethink strategy for an age of so-called “New Wars” that required less kinetic force and more nuanced strategies. Yet just as Western militaries were refocusing on irregular wars, Freedman identifies a shift to a third period that involves a renewed possibility for great power conflict. The rise of China and the resurgence of Russian power and aggressiveness, along with states like Iran and North Korea, indicate that great power wars are a possibility that Western militaries cannot ignore. How to prepare for big wars while still possessing the right strategies for smaller, irregular wars has become a central challenge for the American military. The fact that it and its partners have to achieve this delicate balance amid an on-going Information Revolution in which technology is increasing the prominence of the space and cyber domains makes this an even greater challenge.
Airpower I and II adopt Freedman’s model to examine the development and employment of airpower in the twentieth and twenty-first century. Both courses use historical case studies to promote critical thinking about the capabilities and limitations of airpower as a tool of national security strategy. 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 – perhaps best epitomized by the slaughter at Verdun – drove interest in achieving decisiveness in warfare. As you learned in War Theory, airpower provided one of the most attractive means of achieving decisiveness, either by destroying the enemy surface forces from the air or by attacking 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 that airpower was an instrument of decisiveness and that it produced inherently strategic effects. This idea became foundational for the newly independent US Air Force in 1947, and it remains essential today. In the context of the Cold War, both conventional and nuclear airpower were used to deter the Soviet Union and to achieve decisive victory if deterrence failed. 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 ability of the USAF – and airpower – to achieve decisive victory seemed highly suspect after Vietnam.

What followed was nothing less than an attempted transformation of American airpower. Remaining focused on possible war with the Soviet Union and other conventional threats, the USAF pursued new ways of training and new doctrine to stay ahead in the fight. At the same time, the continued expansion of American deterrence capabilities in air and space left the Soviet Union strategically disadvantaged. When the Cold War ended, the American military strategy seemed to have been largely validated. Not long after, the aggression of Saddam Hussein’s Iraq was countered in Operation Desert Storm. Coming at the end of the Cold War, Desert Storm seemed to display airpower’s potential to achieve decisive victory in any regional conflict that the United States and its allies were likely to embark upon.

Unlike the preceding century, the 1990s were characterized by the absence of foreseeable great power conflict. The USAF was reformed in light of a new geopolitical and military theory that suggested it would most likely not fight in great power conflicts. Instead, it had to be prepared to intervene when necessary in smaller regional conflicts and civil wars. In 1999, the Kosovo conflict provided an opportunity to test this new paradigm. Though debate persists regarding the exact impact of airpower in the success of Operation Allied Force, most observers recognize that airpower greatly contributed to the outcome, with some claiming that OAF demonstrated airpower’s ability to win wars by itself.

The confidence and certainty with which Americans entered the twenty-first century was shaken but not destroyed by the events of 9/11. As the United States embarked upon Operation Enduring
Freedom, the belief that airpower and other forms of military power would produce decisive results was nearly unquestioned. And in fact, the campaign did decisively defeat the Taliban and helped destroy Al Qaeda’s global terrorist network. In 2003, Operation Iraqi Freedom’s “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 strategic outcomes.

Today, as we face increased uncertainty regarding the future, the American military may be left with significant questions about the proper role of airpower. As land and sea power remain vital to American national security, and as space and cyber power continue to develop and evolve amid an on-going Information Revolution, the USAF faces the challenge of achieving strategic effect with airpower through multiple domains. While terrorists and insurgents remain significant threats to American national security, we are already seeing a return to great power rivalry and conflict. While the future is always unclear, it seems likely that the emergence of near-peer threats will profoundly shape American national security strategy. After careful study and discussion of the historical and contemporary development of airpower, you will be better prepared to help develop the best course of action to ensure that airpower remains capable of achieving national security outcomes.

**JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)**

AP1 addresses Intermediate-Level College Joint Learning Areas and Objectives for Joint Professional Military Education (JPME), established by the Chairman of the Joint Chiefs of Staff via the Officer Professional Military Education Policy (OPMEP), CJCS1 1800.01E, signed 29 May 2015. The course supports the following Joint Learning Areas and Objectives, listed below with points of explanation:

**Learning Area Objective 1 – National Military Capabilities Strategy**

a. Comprehend the capabilities and limitations of US military forces to conduct the full range of military operations in pursuit of national interests.

b. Comprehend how the U.S. military is organized to plan, execute, sustain, and train for joint, interagency, intergovernmental, and multinational operations.
Learning Area Objective 2 – Joint Doctrine and Concepts
b. Comprehend the interrelationship between Service doctrine and joint doctrine.
c. Apply solutions to operational problems in a volatile, uncertain, complex or ambiguous environment using critical thinking, operational art, and current joint doctrine.

Learning Area Objective 3 – Joint & Multinational Forces at the Operational Level of War
b. Comprehend Joint Force command relationships.
   • Lessons AP-503, AP-505, AP-507, AP-509, AP-511, AP-513, AP-515, AP-517, AP-519, AP-521, AP-523, AP-525, AP-527, AP-528, AP-529 examine and analyze the strategic, operational, and tactical level conduct of air forces and its leaders in relation to the overall command structures and how the use of the airpower weapon contributes to the overall conduct of war, including continuity and change in the relationships between them.
c. Comprehend the interrelationships among the strategic, operational, and tactical levels of war.
d. Comprehend how theory and principles of joint operations pertain to the operational level of war across the range of military operations to include traditional and irregular warfare that impact the strategic environment.
Learning Area Objective 4 – Joint Planning and Execution Process

c. Comprehend the integration of joint functions (command and control, intelligence, fires, movement and maneuver, protection and sustainment) to operational planning problems across the range of military operations.


d. Comprehend the roles that factors such as geopolitics, geo-strategy, society, region, culture/diversity, and religion play in shaping planning and execution of joint force operations across the range of military operations.


e. Comprehend the role and perspective of the Combatant Commander and staff in developing various theater policies, strategies and plans.

- Lessons AP-502, AP-503, AP-504, AP-505, AP-506, AP-507, AP-508, AP-509, AP-511, AP-512, AP-513, AP-514, AP-515, AP-518, AP-520, AP-521, AP-522, AP-523, AP-524, AP-525, AP-526, AP-527, AP-528 discuss the capabilities and limitations of operational planning and functions across the range of military operations in theoretical and historical context to include examining the roles and actions of military leaders in the shaping and implementation of plans and operations to meet objectives within a theater.

f. Comprehend the requirements across the joint force, Services, inter-organizational partners and the host nation in the planning and execution of joint operations across the range of military operations.

- Lessons AP-506, AP-507, AP-509, AP-510, AP-511, AP-513, AP-515, AP-524, AP-525, AP-528 discuss the requirements and the capabilities and limitations of operational planning across multiple organizations and functions across the range of military operations in theoretical and historical context.

Learning Area Objective 5 – Joint Command and Control

a. Comprehend the organizational options, structures and requirements available to joint force commanders.

b. Comprehend the factors of intent through trust, empowerment and understanding (Mission Command), mission objectives, forces, and capabilities that support the selection of a specific C2 option.
   • Lessons AP-507, AP-509, AP-511, AP-512, AP-513, AP-518, AP-520, AP-523, AP-525, AP-526, AP-527, AP-528, AP-529 discuss the effects of the interplay of strategy and technology, functions of leadership and reliable intelligence in shaping the contours of an aerial campaign.

c. Comprehend the effects of networks and cyberspace on the ability to conduct Operational Joint Command and Control.
   • Lessons AP-507, AP-509, AP-513, AP-519, AP-520, AP-527, AP-528, AP-529 discuss the effects of the interplay of strategy and technology, functions of leadership and employment of airpower in conjunction with early issues affecting the communications/intelligence collection/reporting and functional exercise of C2 in a joint operational environment.

Learning Area Objective 6 – Joint Operational Leadership and the Profession of Arms
a. Comprehend the role of the Profession of Arms in the contemporary environment.

b. Comprehend critical thinking and decision-making skills needed to anticipate and recognize change, lead transitions, and anticipate/adapt to surprise and uncertainty.
   • Lessons AP-502, AP-503, AP-504, AP-505, AP-507, AP-508, AP-509, AP-510, AP-511, AP-512, AP-513, AP-514, AP-515, AP-516, AP-517, AP-518, AP-519, AP-520, AP-521, AP-522, AP-523, AP-525, AP-526, AP-527, AP-528, AP-529 provide examples of theorists and practitioners anticipating and recognizing change in the conduct of war, whether the sources of such change are political, social, cultural or technological.

c. Comprehend the ethical dimension of operational leadership and the challenges it may present when considering the values of the Profession of Arms.

d. Analyze the application of Mission Command (intent through trust, empowerment, and understanding) in a Joint, Inter-Agency, Inter-Governmental, and Multi-National (JIIM) environment.

e. Communicate with clarity and precision.
   • Writing assignments: AP-801 Midterm and AP-802 Final Exam assess students’ ability to think and write critically about military operations.

f. Analyze the importance of adaptation and innovation on military planning and operations.


SPECIAL AREAS OF EMPHASIS (SAE)

SAE 1: Trans-regional, Multi-function, Multi-domain Joint Warfighting:

SAE 2: Strategic Deterrence in the 21st Century Deterrence and Escalation Dynamics:
    AP-516, AP-517, AP-519, AP-520, AP-521, AP-522, AP-523

SAE 3: Non-Traditional threats to security and Stability:
    AP-518, AP-519, AP-524, AP-525

SAE 5: Need to enhance Countering Weapons of Mass Destruction (CWMD) Awareness:
    AP-516, AP-517, AP-520, AP-521, AP-522, AP-523

COURSE REQUIREMENTS

1. READINGS. Students are expected to complete all assigned readings for the day prior to lecture and seminar. Students are encouraged to review the lesson objectives and overviews provided in the syllabus before reading the assigned texts.

2. LECTURES. Students will attend faculty lectures relating to assigned readings and seminar. These presentations complement the readings and seminar discussion, and therefore enhance knowledge of the course concepts. Lectures provide additional historical background and different perspectives to stimulate and enhance learning in seminar.

3. SEMINAR PARTICIPATION. Student participation in seminar discussions is vital to the individual learning and success. Each member of seminar is expected to contribute to the discussion.

4. WRITTEN ASSIGNMENTS. Two graded written assignments fulfill the requirements of the Airpower I course: a four-page take-home mid-term examination, and an in-class comprehensive final exam. All written work must include an acknowledgement of colleagues who made an intellectual contribution to the work as the first citation.
5. METHODS OF EVALUATION. The four-page take-home examination is worth 40 percent of the final course grade; the four-page in-class comprehensive final examination is worth 60 percent of the final course grade.

COURSE ADMINISTRATION

There are two types of readings in this course: 1) readings from books issued by ACSC, which can be seen listed below with full bibliographic information; and 2) selected electronic files posted on Canvas indicated as “[EL]” (electronic). Full bibliographic information for [EL] readings can be found on the relevant days in the syllabus. Students can access the syllabus, course calendar, and selected readings as well as other supplemental materials online. In addition, lecture slides will be posted when available after the lecture.

ACSC provides students with copies of the following course books, which must be returned at the conclusion of the course:


Please refer any questions to Dr. Trevor Albertson (Course Director, trevor.albertson.1@us.af.mil, Office 189), Dr. Jordan Hayworth (Deputy Course Director, jordan.hayworth@us.af.mil, Office 184), or Maj Jonathan Stinson (Deputy Course Director, jonathan.stinson.1@us.af.mil, Office 183).
LESSON OBJECTIVES
1. Comprehend the course objectives and course narrative.
2. Comprehend the course syllabus, methods of evaluation, and expectations for seminar.
3. Comprehend the relevance of using historical examples in assessing the development of airpower in the twentieth century.

LESSON OVERVIEW
AP-500 (L): Course Overview (Albertson/Peck)

Overview: “Airpower” refers to the air, space, and cyber assets available to military leaders for use in conflicts. This course is designed to examine how airpower can contribute effectively to a nation’s security, as well as how it has been employed in past conflicts and how it might influence future wars. This day’s lecture introduces students to the key concepts and framework of the course.

CONTACT HOURS: 1.0-hour lecture

AP-501 (S): Course Introduction

Overview: In this seminar, instructors introduce themselves to their seminars, discuss classroom policies, and set the stage for seminar discussions scheduled for Day 1.

CONTACT HOURS: 1.0-hour seminar

REQUIRED READINGS
LESSON OBJECTIVES

Context: Comprehend how nineteenth century notions of decisive battle in great power war shaped ideas and preconceptions of airpower effectiveness before, during, and after the First World War.

Experience: Comprehend how the application of airpower in the First World War helped refine pre-war assumptions about the utility of airpower as an instrument of British and U.S. national security policies.

Assessment/Integration: Comprehend the role of cognitive dissonance in shaping and institutionalizing enduring ideas about the optimal effectiveness of cutting-edge military capabilities in future conflict.

LESSON OVERVIEW

AP-502 (L): Airpower in the First World War (Lukasik)

Overview: When the First World War erupted in Europe in 1914, heavier-than-air flight was barely a decade old, and was used in very few military operations. However, it quickly became a vital component to strategy in the First World War, and an indispensable aspect of military operations, particularly on the Western Front. By the end of the war, airpower was used in virtually every role that it fulfills in modern applications, albeit in a much more primitive fashion. This lecture provides a broad overview of the first significant attempts to use military airpower, and demonstrates how important airpower was in the development and employment of strategy during the war.

CONTACT HOURS: 1.0-hour lecture

AP-503 (S): Emergence of Airpower Theory and Doctrine

Overview: The First World War witnessed the birth not only of airpower application, but also of the ideas that would shape airpower theory and doctrine for decades to come. Many of these ideas were grounded in fantasy and imagination as much as in concrete reality and practical experience. Nevertheless, the relatively limited use of airpower in the strategic attack role would shape the contours of far-reaching discussions among American and British Airmen about the future potential of air warfare to generate strategically meaningful outcomes in wars between industrialized nation-states.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (149)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-502 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 4f, 4g, 5a, 6a, 6b, 6c, 6d, 6e, 6f

AP-503 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1b, 2b, 2c, 3b, 3c, 3d, 4f, 4g, 5a, 6a, 6b, 6c, 6e, and 6f
LESSON OBJECTIVES

Context: Comprehend how the legacies of the First World War and the geopolitical, economic, and technological frameworks of the interwar period influenced the development of airpower in Europe and North America.

Experience: Comprehend how Gen Henry Harley “Hap” Arnold forged a set of tangible intellectual, technological, and organizational frameworks that served as the basis for the emergence of the United States as the world’s greatest air power during and after the Second World War.

Assessment: Comprehend the long-term impact and legacy of Hap Arnold’s airpower vision for American national security policy and strategic culture.

LESSON OVERVIEW

AP-504 (L): Interwar Airpower Theory & Application in France and Germany (Muller)

Overview: This lecture examines the myriad of responses to the aviation experiences of the First World War that were followed by major powers during the interwar period. By comparing the types of aerial services created by France and Germany, Dr. Muller of SAASS demonstrates the “paths not taken” by the British and American airpower organizations, and shows there was no common conception of aviation in the interwar period.

CONTACT HOURS: 1.0-hour lecture

AP-505 (S): Innovation in Airpower Theory, Technology, and Organization

Overview: Gen Henry Harley “Hap” Arnold was the central leader in the organizational development of American military airpower that led to the creation of the USAF as an independent service in 1947. Before and during the Second World War, his institutional leadership and vision set the foundation for the strategically coherent employment of American airpower on a global scale. His efforts proved indispensable to the Allies’ victory over the Axis powers, and provided the USAF with a strategic orientation focused on leveraging technological innovation and a holistic understanding of airpower.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (115)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-504 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 4f, 4g, 5a, 6a, 6b, 6c, 6e, 6f

AP-505 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 5a, 6a, 6b, 6c, 6e, 6f
DAY 3

DATE: 22 October 2018

LESSON OBJECTIVES

Context: Comprehend the broader contextual frameworks that shaped the RAF’s and the Luftwaffe’s respective approaches to strategic air attack in the early phases of the Second World War.

Experience: Comprehend how the operational dynamics of the air campaign over Britain in the summer of 1940 and RAF Bomber Command’s early attempts at strategic attack reflected and departed from pre-war ideas and expectations concerning airpower’s utility in war.

Assessment/Integration: Comprehend the importance of the Battle of Britain in shaping past and present understandings of airpower effectiveness.

LESSON OVERVIEW

AP-506 (L): Victory Through Airpower (Film)

Overview: Produced by Walt Disney Studios with the co-operation of the U.S. government in 1943, Victory Through Airpower is a cinematic adaptation of the book by the same title. It was written by aircraft designer and airpower advocate Alexander P. de Seversky. Both the book and the film reflect broadly held assumptions about what airpower could accomplish as an instrument of national policy in the war against Nazi Germany and Imperial Japan. Victory Through Airpower offers insight into the official rhetoric about airpower capabilities in the early phases of America’s involvement in the Second World War, and represents a vivid counterpoint to the operational realities of the USAAF’s contribution to the Combined Bomber Offensive, which will be examined in upcoming seminars.

CONTACT HOURS: 1.5-hour film

AP-507 (S): Defensive Counter-Air and the Early Bombing War

Overview: The Battle of Britain remains 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 such universal factors in air warfare as the interplay of strategy and technology, the function of leadership and reliable intelligence in shaping the contours of an aerial campaign, and the elusive nature of air superiority. As one of the first major, sustained aerial encounters of the Second World War, the Battle of Britain exercised an important influence on the mindsets of the American and British Airmen who, later in the war, sought to erode Germany’s capacity and will to fight by means of a major strategic bombing campaign.

CONTACT HOURS: 1.5-hour seminar
REQUIRED READINGS (129)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-506 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 4c, 4f, 4g, 4h, 5a, 6c, 6f

AP-507 supports the following Joint Learning Areas and Objectives for JPME: 1c, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend the origins of the theory and practice of tactical airpower in the Second World War.

Experience: Comprehend the development and effectiveness of air-ground teams in joint and coalition operations in the Second World War.

Assessment/Integration: Comprehend the relationship between tactical air capabilities and airpower’s utility as an instrument of national policy.

LESSON OVERVIEW

AP-508 (L): Airpower on the Eastern Front (Pavelec)

Overview: Though the war on the Western Front often occupies the American conception of the Second World War in Europe, the struggle between Germany and the Soviet Union dwarfed the Western Front in terms of casualties and territory exchanged. This lecture provides an opportunity to compare and contrast the American and British approaches to tactical airpower in the Second World War with those pioneered and developed by the Soviet Air Force on the Eastern Front.

CONTACT HOURS: 1.0-hour lecture

AP-509 (S): The Air-Ground Team in North Africa and Europe

Overview: Beyond the strategic bombardment campaign against the Axis forces in the European theater, tactical airpower provided close air support to troops on the ground and carried out aerial interdiction missions in North Africa and Europe. These efforts crippled the German army’s ability to maneuver on the battlefield while placing enormous pressure on its lines of communications and resupply. Each of these missions proved both effective and important in the eventual Allied victory. This seminar examines the role of innovative Airmen such as Elwood “Pete” Quesada, Joe Cannon, and O.P. Weyland in developing the theories and practices of tactical airpower.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (185)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-508 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 4c, 4f, 6b, 6e, 6f

AP-509 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 5b, 5c, 6a, 6b, 6d, 6e, 6f
LESSON OBJECTIVES
Context: Comprehend the grand strategic, political, and institutional realities that provided the backdrop for the planning and execution of the Combined Bomber Offensive.

Experience: Comprehend the conduct of the CBO and evaluate its effectiveness in facilitating the Allies’ overarching war aims.

Assessment/Integration: Comprehend the CBO’s utility as a conceptual model for warfighting concepts that prioritize striking the enemy’s vital centers for strategic effect, including in domains other than air, such as space and cyber.

LESSON OVERVIEW
AP-510 (L): Planning for the Combined Bomber Offensive (Biddle)
Overview: The CBO was designed to break the will of Nazi Germany through targeting civilian society and industry. Based on her groundbreaking book on American and British airpower in the Second World War, Tami Davis Biddle will highlight the challenges in planning this massive and intensive strategic air offensive. American Airmen remained focused on the destruction of war-making capacity despite the likelihood of inflicting horrific casualties on German civilians. This lecture will cover planning for the CBO and establish the context for an in-depth analysis of the bombing campaigns against Germany and Japan.
CONTACT HOURS: 1.0-hour lecture

AP-511 (S): The Combined Bomber Offensive and the Efficacy of Strategic Attack in Europe
Overview: The strategic air offensive against Germany defined strategic bombardment in both history and memory. It was the most complex air offensive ever undertaken. The U.S. Army Air Forces (USAAF) were compelled to adapt in real-time along a steep learning curve when operations did not mirror planning. Regardless, American, British, and Commonwealth Airmen mounted an all-out air offensive against German civilian, military, industrial, petroleum, synthetic fuels, and transportation targets in an effort to destroy Germany’s ability to continue to fight the Allies. The USAAF’s contribution to the Combined Bomber Offensive directly influenced its subsequent institutional independence.
CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (123)

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)
AP-510 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 4c, 4h, 6a, 6b, 6e, 6f

AP-511 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 5b, 6a, 6b, 6c, 6d, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend how the Pacific theater’s strategic environment demanded greater flexibility from American airpower including naval aviation.

Experience: Comprehend the conditions that both facilitated and constrained Gen George Kenney’s ability to effectively function as GEN Douglas MacArthur’s air component commander.

Assessment/Integration: Comprehend the roles and responsibilities of the theater air commander in relation to the theater commander’s strategic priorities.

LESSON OVERVIEW

AP-512 (L): Naval Aviation in the Pacific (Springer)

Overview: This lecture provides an overview of naval airpower operations in the Pacific theater during the Second World War. It begins with an examination of the Pearl Harbor attack, which demonstrated the revolutionary nature of aircraft carriers, and follows the U.S. Navy’s counteroffensive through the Central Pacific, culminating with cross-domain operations against the Marianas Islands, a series of attacks designed primarily to create airbases for strategic attacks against the Japanese homeland.

CONTACT HOURS: 1.0-hour lecture

AP-513 (S): George Kenney: Airpower Leadership in Joint, Combined, and Coalition Operations

Overview: The air campaign in the Southwest Pacific during the Second World War is not as well-known as other, more high-profile air campaigns of that conflict. Nonetheless, it proved a crucial element in the larger strategic context, which framed the ability of American forces to defeat Japan. 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 the most effective and innovative American air commanders of the twentieth century. Kenney’s ability to direct an effective air campaign in a complex operational environment with minimal resources makes his leadership worthy of careful study by contemporary military professionals.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (146)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-512 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 4c, 4f, 4g, 5a, 5b, 6a, 6b, 6c, 6d, 6e, 6f

AP-513 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend how the character of the Pacific War shaped American airpower strategy against Japan.

Experience: Comprehend competing visions of airpower’s effectiveness as a tool of national strategy in the air campaign against Japan, and how these visions shaped the planning and conduct of the campaign.

Assessment/Integration: Comprehend the validity and implications of Richard Overy’s claim that the air campaign against Japan fulfilled the prophecies of the classical airpower theorists.

LESSON OVERVIEW

AP-514 (L): American Airpower Strategy against Japan (Crane)

Overview: At the outbreak of the Second World War in 1939, President Roosevelt called upon the warring nations to refrain from bombing “civilian populations or unfortified cities.” Yet by 1945, the USAAF was doing precisely that, targeting densely populated areas in 64 Japanese cities before dropping the atomic bombs. This lecture spotlights the role of transnational knowledge in this process, as U.S. officers and civilian experts studied the ideas of interwar European proponents of strategic bombing like Douhet, as well as the evolving tactics of British and U.S. area-bombing in Europe. By 1945, the USAAF had become persuaded of the value of massive urban area attacks, incendiary bombing, and even the possibility of destroying civilian “morale.”

CONTACT HOURS: 1.0-hour lecture

AP-515 (S): Strategic Airpower against Japan

Overview: The strategic bombing of Germany, though an important part of the effort, failed to deliver on the ultimate promise of “victory without ground invasion.” With the war in Asia driving towards an amphibious landing of terrible promise, the newly operational B-29 had only a few short months to realize Douhet and Mitchell’s visions of strategically effective airpower, replacing the bloodshed of ground combat. This seminar examines the USAAF’s air campaign against Japan and the emergence to prominence of Curtis E. LeMay, one of the most successful operational commanders in the history of American airpower.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (97)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-514 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 4c, 4f, 4g, 5a, 6a, 6b, 6c, 6e, 6f

AP-515 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 6a, 6c, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend how the advent of nuclear weapons helped bring an end to the Second World War, laid the foundations for American grand strategy in the early phases of the Cold War, and opened an on-going debate about the utility and ethical implications of weapons of mass destruction in national policy.

Experience: Comprehend the role of the atomic bombings in creating conditions that led to Japan’s surrender in August 1945.

Assessment/Integration: Comprehend the legacy of the Hiroshima and Nagasaki bombings for American strategy since 1945.

LESSON OVERVIEW

AP-516 (L): Strategies of Containment (Redman)

Overview: This lecture provides an overview of U.S. nuclear policy from 1945 through 1962. John Lewis Gaddis identified five strategies of containment that informed U.S. policy during the Cold War. This lecture will examine the first four: the original concept as presented by George Kennan in the “long telegram” and expressed by President Harry Truman (1947-1949); President Eisenhower, Secretary Dulles, NSC-68, and the imperative of the Korean War (1950-1953); President Eisenhower, Secretary Dulles, and the “New Look” (1953-1961); and the early Kennedy Presidency and the beginnings of “Flexible Response.” The lecture 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

AP-517 (S): The Atomic Bomb and the Origins of Deterrence

Overview: The end of the Second World War in the Pacific remains one of the most examined periods in history. Several arguments compete for acceptance as to why Japan surrendered to the Allies. Was it the firebombing raids against Japanese cities? The naval blockade? The impending amphibious invasion? The Soviet declaration of war? The atomic bombings of Hiroshima and Nagasaki? It is this last argument, concerning the atomic bombings, which many Americans cite as the definitive reason Japan surrendered. For over 70 years, airpower advocates have accepted this same assumption: that the use of atomic weapons—employed by airpower—ended the war. This belief has served as the basis for contemporary nuclear deterrence and, perhaps, the relative peace between the world’s great powers since the end of the war. The history, however, is less clear and many questions are yet unanswered, including questions about the ethics and morality of using nuclear weapons. Was airpower responsible for ending the war? Was it the right way to end the war? This week’s readings engage these issues. Understanding the complexities of this twentieth century event and subsequent debate is vital for military professionals operating in the twenty-first century.

CONTACT HOURS: 2.0-hour seminar
REQUIRED READINGS (158)
1. Michael Gordin, *Five Days in August*, all.

JOINT LEARNING AREAS AND OBJECTIVES (JPME-I)
AP-516 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 4f, 6a, 6b, 6c, 6e, 6f

AP-517 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 3b, 3c, 3d, 4f, 6a, 6b, 6c, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend the influence of the grand strategy of containment and the emergence of limited geopolitical crises and wars on the employment of airpower in the Berlin Airlift and the Korean War, respectively.

Experience: Comprehend the technological, organizational, and command and control challenges that the newly-established USAF confronted in the Berlin Airlift and the Korean War, and evaluate its success in overcoming them.

Assessment/Integration: Comprehend the extent to which airpower functioned as an effective instrument of national policy in the Berlin Airlift and the Korean War.

LESSON OVERVIEW

AP-518 (L): The Berlin Airlift (Terino)

Overview: One of the first great diplomatic crises of the Cold War standoff between the United States and the USSR War, the Berlin Crisis of 1948-1949 also provided a remarkable demonstration of the capacity of non-kinetic airpower to facilitate broader goals of national policy. Called upon to carry out a massive airlift to alleviate the Soviet Union’s blockade of West Berlin, the newly independent USAF showcased its impressive ability to project airpower for strategic effect. In the process, the Berlin Airlift illuminated the growing importance of strategic and tactical airlift as a non-kinetic counterpart to the USAF’s development of kinetic airpower roles and missions. This lecture examines the Berlin Airlift and the vital role that Lt Gen William Tunner, a pioneer of air mobility in the USAF, played in the operation’s success.

CONTACT HOURS: 1.0-hour lecture

AP-519 (S): American Airpower Strategy in Korea

Overview: In Korea, a USAF increasingly focused on developing its nuclear capability faced a conventional conflict where strategic airpower did not enable achievement of wartime goals. 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 in the midst of the larger Cold War context. Forced to adapt, the USAF maintained air superiority, countering communist numerical superiority on the ground and applying pressure to communist forces, which eventually resulted in a negotiated cease-fire.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (114)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-I)

AP-518 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 4f, 4g, 5a, 5b, 6a, 6b, 6c, 6d, 6e

AP-519 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 5a, 5c, 6a, 6b, 6c, 6e, 6f
DAY 10

DATE: 26 November 2018

LESSON OBJECTIVES

**Context:** Comprehend how the proliferation of increasingly powerful nuclear weapons influenced the USAF’s perception of its role in America’s national security posture as well as its vision of strategic air war.

**Experience:** Comprehend how the organization and development of the Strategic Air Command and the scientific effort to create the hydrogen bomb cemented the USAF’s place as the premier tool of the strategies of containment and deterrence.

**Assessment/Integration:** Comprehend the extent to which the advent of nuclear weapons has enhanced or detracted from airpower’s effectiveness as an instrument of American national security.

LESSON OVERVIEW

**AP-520 (L): Building a Global Air Force: Curtis LeMay and Strategic Air Command (Albertson)**

**Overview:** The career of Gen Curtis E. LeMay, one of the U.S. Air Force’s most prominent and controversial commanders, represents a case study in a successful transition from operational to institutional leadership. LeMay’s reputation as a highly effective combat leader in the Combined Bomber Offensive and in the strategic bombing campaign against Japan provided the basis for his emergence as a foundational leader of Strategic Air Command (SAC). SAC was the linchpin of America’s strategy of nuclear deterrence during the Cold War. This lesson examines LeMay’s progression from combat to organizational command, and serves as the basis for a discussion about his long-term influence on the USAF’s development into an organization capable of projecting airpower for strategic effect on a global scale.

*CONTACT HOURS: 1.0-hour lecture*

**AP-521 (S): The Hydrogen Bomb**

**Overview:** 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 the atomic weapons. In the period after the development of hydrogen weapons, massive fleets of bombers were eschewed in favor of single bombers and a single bomb being delivered against a single target. This seminar will examine the transformation of strategic airpower that resulted from this new technology.

*CONTACT HOURS: 2.0-hour seminar*

REQUIRED READINGS (150)

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-520 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 4f, 4g, 5a, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f

AP-521 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 3b, 3c, 3d, 4c, 4f, 4g, 5a, 6a, 6b, 6c, 6e, 6f
DAY 11

DATE: 29 November 2018

LESSON OBJECTIVES

**Context:** Comprehend the factors that shaped American nuclear strategy and posture during the 1950s and early 1960s.

**Experience:** Comprehend the military, academic, and industrial partnerships that facilitated the development of ICBMs and led to their integration into America’s nuclear arsenal.

**Assessment/Integration:** Comprehend how strategic imperatives compel military organizations to pursue technological and institutional innovations that have the potential to challenge or subvert deeply entrenched cultural norms.

LESSON OVERVIEW

**AP-522 (L): American Nuclear Strategy through the Cuban Missile Crisis (Deaile)**

*Overview:* New technologies demand new strategic paradigms. The development of larger and more powerful hydrogen weapons, coupled with more efficient delivery systems, forced an evolution of American defense strategy through the end of the twentieth century. President Eisenhower’s “New Look” strategy drove the nuclearization of the United States military while the Cuban Missile Crisis demonstrated the risk of a nuclear exchange. It was in this chaotic context that the Single Integrated Operational Plan (SIOP) was implemented to bring greater clarity and control to the execution of a nuclear war. This lecture examines how this evolution played out in the real world.

*CONTACT HOURS: 1.0-hour lecture*

**AP-523 (S): The USAF on the Verge of the Missile Age**

*Overview:* The United States’ program to develop ICBMs was perhaps the most monumental science program since the Manhattan Project, which developed the atomic bomb. The impact of the ICBM on United States defense policy was equally monumental. These readings will engage the manner, process, and planned employment of these weapons and how they changed the nature of the Cold War. Key personalities, problems of science, and their relationships to a burgeoning Air Force are essential topics to be examined as part of this lesson. In particular, Gen Bernard Schriever provides an instructive example of the complex challenges facing a commander as he weaved together operational and technical requirements; was this the fruition of Arnold’s vision of American airpower?

*CONTACT HOURS: 2.0-hour seminar*

REQUIRED READINGS (111)


[EL]

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-522 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 4c, 4f, 4g, 5a, 6a, 6b, 6c, 6d, 6e, 6f

AP-523 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 5a, 5b, 6a, 6c, 6b, 6d, 6e, 6f
LESSON OBJECTIVES
Context: Comprehend how the confluence of dominant airpower theory, USAF organizational culture, and the character of the First Indochina War shaped the patterns of air warfare in Southeast Asia.

Experience: Comprehend the various ways that French, British, and American air services approached using airpower in small wars in the twentieth century and evaluate the strategic utility of each.

Assessment/Integration: Comprehend the effectiveness of airpower in producing meaningful strategic outcomes in irregular conflicts.

LESSON OVERVIEW
AP-524 (L): The First Indochina War: Prelude to America’s Vietnam War (Hayworth)
Overview: This lecture examines the complex geopolitical and strategic situation that led the United States into an ill-defined conflict in Southeast Asia. In the two decades before America’s Vietnam War, the French – with substantial American support – fought their own conflict to retain control of Indochina, combatting the same opponents the Americans would face in the 1960s and early 1970s. The United States – and the USAF – found itself tasked with a myriad of new responsibilities ranging from battlefield support, to strategic bombing, to allied training, to support of counter insurgency. Despite Cold War concerns, the Americans ultimately did not directly intervene to save French Indochina, which was finally overthrown after the Vietnamese victory at Dien Bien Phu in 1954. The Americans, however, saw protecting the newly independent and anti-communist South Vietnam as a geopolitical imperative.
CONTACT HOURS: 1.0-hour lecture

AP-525 (S): Airpower in Irregular Warfare
Overview: Western powers’ use of airpower to fight insurgents did not begin in the Middle East. This seminar will provide a platform for a broader discussion concerning the utility of airpower in irregular wars by drawing attention to its use dating back to 1916. What aspects of airpower heritage were helpful in the Vietnam War? Conversely, what aspects of that heritage hindered the effective use of airpower by the United States? What can this teach us about the way we choose to use airpower today?
CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (164)

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)
AP-524 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 4c, 4f, 4g, 4h, 5a, 6a, 6b, 6e, 6f

AP-525 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 4h, 5a, 5b, 6a, 6b, 6c, 6d, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend how the nature of the Vietnam War and the broader backdrop of the Cold War complicated airpower’s ability to further America’s policy aims in Southeast Asia.

Experience: Comprehend the factors that accounted for American ground and air forces’ inability to produce favorable strategic outcomes despite their numerous tactical and operational successes between 1965 and 1968.

Assessment/Integration: Comprehend the Vietnam War’s influence on enduring debates concerning airpower’s utility as a strategic instrument in limited war.

LESSON OVERVIEW

AP-526 (L): Ground War in Vietnam (Allison)

Overview: This lecture examines American involvement in Vietnam with a particular focus on the challenges of land forces conducting operations against the Viet Cong and North Vietnamese conventional forces from 1964 through 1968. It will consider the utility of airpower in supporting land forces through Close Air Support (CAS) and Aerial Interdiction (AI).

CONTACT HOURS: 1.0-hour lecture

AP-527 (S): Operation Rolling Thunder

Overview: The Air Force struggled to adjust to the ground war in South Vietnam, a role it had neither equipped nor prepared for, but one that was critical to a successful strategic outcome in the war. The Air Force adapted and provided increasingly effective support to the ground forces, but the ground strategy could not address the underlying causes of the insurgency, nor prevent the insurgents from building an effective organization. In the end, the Air Force learned valuable lessons about conventional war and partnering with the joint team, but it could not capitalize on this capability in South Vietnam.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (119)


JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

AP-526 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 4c, 4f, 4g, 5a, 5b, 6a, 6b, 6d, 6e, 6f

AP-527 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 3c, 3d, 4c, 4f, 4g, 5a, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f
LESSON OBJECTIVES

Context: Comprehend how the shifts in domestic politics, great power relations, and the dynamics of the Vietnam War laid the groundwork for airpower’s contribution to ending the Second Indochina War.

Experience: Comprehend the relative effectiveness of the two sides’ preparation for and conduct of military operations during Linebacker II.

Assessment/Integration: Comprehend the strategic effectiveness of Linebacker II, its implications for airpower theory, practice, and the USAF’s organizational culture.

LESSON OVERVIEW

AP-528 (L): Airpower Effectiveness in Vietnam (Clodfelter)
Overview: This lecture provides an overview of the air war over Southeast Asia and the use of the air weapon for decisive, strategic effect from 1965-1972. During this period the US Air Force and Navy conducted an air war over North Vietnam to achieve U.S. political objectives with limited success while the US also conducted bombing campaigns in Laos and Cambodia. This lecture will outline the campaigns, as well as the effectiveness of the use of airpower in war. The lecture will conclude with an overview of the lasting lessons of the air war over Vietnam and the enduring importance of U.S. airpower.

CONTACT HOURS: 1.0-hour lecture

AP-529 (S): Linebacker II
Overview: The culmination of the Vietnam War was a dedicated and hard-hitting strategic bombing campaign against enemy cities and port facilities. Linebacker II is held up as the decisive air activity of the war, and continues to be interpreted as a “war-winning” campaign. Did it in fact win the war? Could it have won the war earlier? This seminar analyzes the successes and failures of the campaign, and the role airpower played in the final battles of the Vietnam War.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS (127)

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)
AP-528 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2b, 2c, 3b, 4c, 4f, 4g, 4h, 5a, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f

AP-529 supports the following Joint Learning Areas and Objectives for JPME: 1a, 1c, 2c, 3b, 3c, 3d, 4c, 4f, 5b, 5c, 6a, 6b, 6c, 6d, 6e, 6f
Day 15

DATE: 13 December 2018

LESSON OVERVIEW
AP-802 (S) In-Class Comprehensive Final Exam
CONTACT HOURS: 4.0-hour seminar