



# ***JOINT CAMPAIGNING***

**SYLLABUS**

**AY24**

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

**UNITED STATES AIR FORCE  
AIR COMMAND AND STAFF COLLEGE**

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**FOREWORD**

The syllabus for *Joint Campaigning* reflects an ACSC vision of educating and developing airpower leaders who solve problems at the operational level of war, and aligns curriculum with the U.S. Air Force Chief of Staff’s 14 Feb 2022 directive “to equip all airmen with all-domain expertise to best ensure integration with the Joint Force,” while also following CJCSI 1800.01F and other pertinent guidance from higher headquarters.


A primary objective of ACSC curriculum is building fluency in the language of joint operations and giving students opportunities to apply joint campaigning concepts via realistic academic exercises. *Joint Campaigning* exercises the sum-total of student academic learning at ACSC and challenges students to apply innovative thinking across all warfighting domains and demonstrate proficiency in the language of joint operations. It meets JPME I certification requirements as outlined in OPMEP-F (15 May 2020) and is anchored in ACSC Program Learning Outcomes (PLOs).

The name of the course itself accounts for the recent shift in Department of Defense thinking first articulated in the 2018 publication of the *Joint Concept of Integrated Campaigning* (JCIC), concepts now formally integrated into Joint Publications 3-0 (June 2022) and 5-0 (December 2021). The term “campaigning” reflects an expanded definition of warfighting to include operations and activities below that of traditional armed conflict, in cooperation with allies and partners, across the warfighting domains, and leveraging all instruments of national power.

The present course rests on the foundational work of its original architect, Dr. Brent A. Lawniczak, as well as the contributions of AY19-AY22 course director, Dr. Christopher Weimar. Bolstered by the efforts of the Department of Joint Warfighting faculty, the course received praise across the AY21-AY23 timeframe from a slate of retired General Officers, who provided feedback on student Mission Analysis (MA) and Course of Action (COA) Approval briefings.


This course both relies on, and builds upon, the academic pillars underpinning the ACSC curriculum. We believe *Joint Campaigning* delivers impressive learning outcomes, thanks in large part to the outstanding teamwork and camaraderie we’ve experienced from course directors and their teams from across the ACSC faculty and staff.

SIGNED



Brian R. Price, Ph.D.  
Course Director

APPROVED



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## JOINT CAMPAIGNING COURSE OVERVIEW

### COURSE DESCRIPTION

The *Joint Campaigning* (JC) course emphasizes hands-on, experiential learning, and provides insight into how the joint force plans and executes military operations at the operational level of war. JC also explores how planners incorporate design thinking methodology into the Joint Planning Process (JPP) and leverages all-domain military capabilities across the competition continuum, to achieve specific objectives in support of national security interests.

This course equips students with the language and skills necessary to integrate into a joint planning group (JPG), contribute to the planning process, and articulate a compelling vision about how military force contributes to the achievement of objectives and enables desired end states. JC is premised on an understanding of operational art and design, and how these concepts are useful for cutting through ambiguity and uncertainty, delivering clarity amid significant environmental complexity. It stresses the need for understanding the crucial roles that interagency, non-governmental, and partner nations play in planning and executing contemporary military operations.

As the final course of the academic year, JC builds on concepts first introduced during the Joint Air Operations Planning course (JAOPC), then developed across the ACSC curriculum and further refined during the Contemporary and Emerging Warfare (CW) course. It demands participants apply design thinking and exercise usage of the JPP within different operational contexts, driving seminar planning teams to take into consideration joint force organization and capabilities, the disposition of adversary forces, and geostrategic uncertainty in an era of great power competition. It links lessons of the past with the present, illuminating modern doctrinal concepts within historical military campaigns. It also examines national strategic guidance in relation to operational level planning, providing students an understanding of the range of options Joint Force Commanders (JFC) have for weaving together service and functional command support to accomplish the mission.

### COURSE OBJECTIVES

Through the study of doctrine, strategic guidance, and the analysis of historical operations, JC will enable students to:

1. Understand how the JPP is used to solve operational problems in volatile, uncertain, complex, or ambiguous environments.
2. Apply operational art and design within the JPP.
3. Apply the design thinking methodology to the operational environment (OE), utilizing current joint doctrine.
4. Apply knowledge about how the joint force is organized, employed, and sustained through the framework of joint operations across the competition continuum.

## COURSE QUESTIONS

JC weaves together multiple threads related to operational art and design, all-domain operations, and military planning. At the operational level, it explores how we develop plans to apply the military instrument of power in pursuit of national security interests. The following themes frame this examination:

1. Understand strategic direction, guidance, and commander's intent: What are the objectives and desired conditions? (**Ends**)
2. Understand and apply the art of military operations: What actions, in what order, are most likely to achieve those objectives and conditions? (**Ways**)
3. Understand and apply military science: What resources (including time and space) are required to accomplish the required actions? (**Means**)
4. Understand risk analysis: What is the chance of mission failure or other unacceptable results in performing a set of actions? (**Risk**)

## COURSE ORGANIZATION AND NARRATIVE

The JC course emphasizes the concept of campaigning in an era of strategic competition, where military operations do not achieve a conclusive end so much as transition into a revised logic for consolidating and securing gains, suggesting that U.S. narrative-control and its ability to wield influence is centrally important. Strategic competitors like the People's Republic of China (PRC) and Russia blur the line between competition and conflict, waging gray-zone proxy conflict, as well as economic, legal, and informational warfare in pursuit of revisionist aims. While countering these emergent challenges, and to achieve a sufficient deterrent effect, the United States must also signal its robust preparation for and readiness to engage in major combat operations (MCOs). Credible deterrence requires military professionals that understand and ensure that operations nest within a hierarchical family of plans. These plans are globally integrated, down through combatant-commander campaign and contingency plans.

JC is organized into three phases:

**Phase 1: Problem Framing:** Phase I will familiarize students with the operational design methodology, where planners analyze strategic guidance and the OE, working towards the development of an operational approach and mission analysis briefing. This phase will focus on the desired ends, and how the military instrument of power may be applied in pursuit of national interests. Upon the completion of this phase, students will be familiar with doctrinal concepts and aspects of operational design, and JPP Steps 1 and 2 (Planning Initiation and Mission Analysis) which assist the planner in identifying and framing the problem to be solved.

**Phase II: Problem Solving:** Phase II focuses on the ways and means of utilizing the military instrument of power toward solving national security problems. This phase will acquaint students with operational art as applied across the five domains (air, maritime, land, cyber, space) as military planners develop potential solutions (courses of action) to operational problems. It also asks students to consider the limits of U.S. military power and expeditionary capabilities, examining concepts of deployment and sustainment, and their importance when planning joint military

operations. Phase II further explores how courses of action (COA) are developed, analyzed, and assessed to provide commanders with an informed perspective on each COA's strengths and weaknesses.

**Phase III: Practical Application (PACIFIC ENDEAVOR Joint Planning Exercise):** Phase III provides students the opportunity to practice the range of JC course concepts while incorporating cumulative knowledge gained throughout the ACSC academic year. PACIFIC ENDEAVOR asks students to plan in a complex operational environment marked by intense strategic competition. Applying operational art and design within the framework of the JPP, students will engage the scenario as a seminar planning team and develop COAs guided by strategic guidance and informed by commander's intent.

### **COURSE REQUIREMENTS AND METHODS OF EVALUATION**

1. **READINGS.** Students are expected to complete all the assigned readings before entering lecture and seminar. Some books and articles are marked as required reading, while others are marked "split." The CI will assign the split readings to specific groups of students; each group will be expected to lead the discussion of the assigned split reading. Please note that some of the split readings are marked as "optional" and will be engaged with at CI discretion. Students are encouraged to review the syllabus-given context for the assigned reading, and should come to seminar with questions, commentary, and observations to support informed classroom discussion.
2. **LECTURES.** Students will attend or view lectures relating to assigned readings and seminar topics. Lecture presentations complement readings and seminar discussion, enhancing knowledge of course concepts. Lectures provide historical and/or theoretical background, prepare students for in-class activities and the application of course concepts, and enhance seminar learning. Lecture content and commentary are not for attribution.
3. **ORAL BRIEFING ASSIGNMENTS.** There are three oral briefing assignments during the course. The first briefing, the Operational Art & Design group presentation, requires students follow the briefing format outlined in the JC 600E assignment rubric. The next two briefings take place during PACIFIC ENDEAVOR (Mission Analysis and COA Approval). Specific directions and requirements for these briefings will be provided at the start of the exercise. All students will participate in the oral briefing assignments. Reference Appendix I for additional details.
4. **WRITTEN ASSIGNMENT.** There is one written assignment which must be completed individually. The written assignment will use a Position Paper format. Reference Appendix II for additional details.
5. **SEMINAR AND WORKSHOP CONTRIBUTIONS.** Student contribution during seminar discussions is vital to successful learning outcomes. Students must prepare for each seminar by completing all the assigned readings. Each student is expected to contribute meaningfully to seminar discussions. During workshops, students must "row" together as a team, cooperating as a seminar to comprehend all elements of ambiguous and uncertain problem-

sets, analyzing data to develop an understanding of the problem, and proposing solutions. Reference Appendix III for additional details.

a. **PEER ACCOUNTABILITY.** As a subset of the seminar and workshop contribution grade, and the PACIFIC ENDEAVOR grade, two peer inputs will provide the course instructor (CI) insight and perspective. The first peer input, covering Phases 1 and 2 of the courses, will be turned in on 15 April. The second peer input, covering PACIFIC ENDEAVOR, will be turned in on 26 April. Peer inputs do not directly affect student grades, but are diagnostic tools designed to enhance CI overall understanding of student contributions during the course, in consideration of the number and volume of student-led activities. Peer input will allow the CI to provide individual feedback after Phase 2 of the course, and then serve as a final opportunity for CI and peer-informed feedback before the conclusion of the academic year. Detailed instructions will be provided by the CI.

6. **METHODS OF EVALUATION.** The evaluations for the course consist of the group presentation (JC 600E), the position paper assignment (JC 601E), Phase I and Phase II individual class contributions (JC 602E), and performance during PACIFIC ENDEAVOR, which consists of two group briefings and the assessed quality of individual contribution during the exercise (JC 603E).

<u>Assignment</u>	<u>Type Grading</u>	<u>Weight (%)</u>	<u>Due Date</u>
Group Presentations (JC 600E)	Individual	15%	1 April
Position Paper (JC 601E)	Individual	20%	12 April
Seminar/Workshop Contributions (JC 602E)	Individual	20%	15 April
*PACIFIC ENDEAVOR (JC 603E)	Individual	45%	23 & 28 April

\* During PACIFIC ENDEAVOR, grades will be an *individual* grade accounting for the individual student contributions during the exercise and performance during the group briefings.

## **COURSE ADMINISTRATION**

The majority of assigned JC readings are in Canvas and Teams. Readings available electronically will be labeled [EL] in the course syllabus. Readings that are not available in Canvas and Teams will appear in course-issued books.

Complete versions of Joint Publications and other doctrinal resources are available for access and download from the Joint Doctrine website: <http://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/>

Unclassified but restricted publications are available via CAC access at the Joint Electronic Library (JEL+) website: <https://jdeis.js.mil/jdeis/generic.jsp>

ACSC produces the following publications for student use during the academic year. Upon graduation, students may keep the following publications for personal use:

a. **ACSC – DEW Joint Warfighting Capabilities Primer, AY24.** A reference guide of U.S. joint force capabilities. Updates will be available on Teams and Canvas. Briefing templates located within can be used as starting points for describing information, cyber, space, and EW priorities at the operational level of war.

- b. **ACSC – DEW Staff Officer’s Guide, AY24.** Includes a useful collection of templates, worksheets, checklists, and descriptions of various staffing products.
- c. **Operational Design: Distilling Clarity from Complexity for Decisive Action,** Jeffrey M. Reilly, Maxwell AFB: AU Press, first printed 2012; fourth printing 2020. As the founder of the Joint All-Domain Strategist (JADS) concentration at ACSC, Reilly’s celebrated book on operational design is referenced throughout the JC course.

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

- a. Woodward, Bob. *Plan of Attack*. New York: Simon and Schuster, 2004.
- b. Zenko, Micah. *Red Team: How to Succeed by Thinking Like the Enemy*. New York: Basic Books, 2015.



### **Joint Campaigning Phase 1**

#### **Problem Framing: Understanding the Problem, Strategic Direction, and the Operational Environment**

Familiarizes students with the methods through which planners analyze and incorporate strategic guidance in the development of the operational approach (operational design methodology) and mission analysis. Focuses on desired ends, and how the military instrument of power may be applied in pursuit of national interests.

<b><u>Cases:</u></b> TORCH OIF/OEF Nigeria PRC in Africa Russia in Africa	<b><u>Major Concepts:</u></b> Campaigning / Competition Continuum / Great Power Competition Strategic Direction & Guidance Global Military Integration Joint Planning & Execution Community Joint Planning Process (JPP) Operational Art REVIEW: Elements of Op Design Complexity/Operational Design Methodology	<b><u>Structure:</u></b> 10 course days 2 lectures 6 seminars 3 workshops
		<b><u>Practical Application:</u></b> 1-day (3 hour) Operational Design Workshop 2-day (6 hour) Mission Analysis Workshop

### **Joint Campaigning Phase 2**

#### **Problem Solving: Developing Solutions through the Application of Military Capabilities**

Focuses on the ways and means planners will consider when utilizing the military instrument of power. Operational art as applied in joint campaigning across all domains and across the competition continuum. Phase 2 builds on capabilities and domains knowledge built previously in the curriculum, emphasizing command and control, synchronization and how COAs are developed, analyzed, and compared to achieve desired objectives and end states within the parameters of acceptable risk.

<b><u>Cases:</u></b> OIF/OEF Nigeria PRC in Africa Russia in Africa ISIS	<b><u>Major Concepts:</u></b> Operational Art COA Development Command and Control / Command Relationships and Authorities Integrated Deterrence Great Power Competition Military Operations in the Homeland Wargaming/Red Team	<b><u>Structure:</u></b> 9 course days 3 lectures 6 seminars 4 workshops
		<b><u>Practical Application:</u></b> 2-day (6-hour) COA Development Workshop 1-day (3-hour) COA Analysis & Wargaming Workshop 1-day (3-hour) COA Comparison & Assessment Workshop 1-day (1.5 hour) Air C2 Workshop 1-day (1.5 hour) C2 Design Workshop
<b><u>Evaluations:</u></b> Group Presentation Position Paper Class Contribution		

### **Joint Campaigning Phase 3**

#### **Practical Application: PACIFIC ENDEAVOR**

<b><u>Case:</u></b> PRC/Taiwan	<b><u>Major Concepts:</u></b> PRC Great Power Competition Campaigning   Joint Planning   Globally Integrated Operations Applying concepts from across the ACSC curriculum	<b><u>Structure:</u></b> 9 course days 1 lecture 8 workshops
		<b><u>Practical Application:</u></b> 7-day (6 hour) student planning 1-day (2.5 hour) Final briefing and debrief
<b><u>Evaluations:</u></b> Mission Analysis Brief COA Approval Brief		

# JOINT CAMPAIGNING LESSONS

## Day 1: JC 500 | Thurs. 7 March 2024 Introduction to the Joint Campaigning Course

### LESSON OBJECTIVES

1. Understand Joint Campaigning (JC) course objectives, organization, and methods of evaluation, as well as its linkages within the overall ACSC curriculum.
2. Understand the relationship between service planning processes and the JPP.
3. Understand the relationship between operational art, design, and its doctrinal underpinnings.
4. Understand the concept associated with campaigning and global military integration.

### LESSON OVERVIEW

#### JC 500 (L): Introduction to the Joint Campaigning (JC) Course

**Overview:** JC is the capstone course to joint professional military education at ACSC, and is built upon concepts previously developed throughout the academic year. It leans heavily on knowledge gained about how the U.S. joint force fights as explored during the *Airpower Strategy & Operations* and *Contemporary & Emerging Warfare* courses.

The lesson introduces students to how we fight as a joint force and includes concepts that provide the framework for understanding and solving operational-level military problems. The lecture is informed by joint and service doctrine – the science of military operations. However, a thorough understanding of history and current events will be crucial to achieving course objectives, and provide context through which doctrinal elements have been derived, as well as understanding how those elements are applied across the range of military operations. This lesson will also provide students with an overview of the course objectives, themes, structure, calendar of events, and evaluation instruments.

*CONTACT HOURS: 0.5-hour lecture.*

### REQUIRED READINGS

1. Course Syllabus and Calendar. *A careful review of the course syllabus and calendar will also provide students information regarding assignments and their respective weightings toward computation of the final course grade.*

### LESSON INTEGRATION AND RATIONALE

This lesson provides an overview of the course. It presents students a course roadmap to include JC course methodology, objectives, evaluations, and desired learning outcomes.

## **PHASE 1: PROBLEM FRAMING**

*Understanding: Identifying the Problem, Strategic Direction, and the Operational Environment*

**Day 1: JC 501A | Thur. 7 March 2024**  
**Joint Planning**

**LESSON OBJECTIVES**

1. Comprehend the context of JC course concepts, campaigning, joint and service doctrine, and considerations for deploying, employing, and sustaining the joint force.
2. Understand the relationship between national security interests and the development of military objectives, and how the ends-ways-means-risk model of analysis is utilized when planning within a complex OE.
3. Understand how the planning process is guided by national interests and strategic guidance, and how joint, interagency, intergovernmental and multinational (JIIM) considerations impact the planning and execution of military operations.
4. Comprehend how the fundamentals of military theory and the principles of joint operations are woven together via operational art and design, utilizing an in-depth historical analysis of military operations.

**LESSON OVERVIEW**

**JC 501A (L): Joint Planning: Operational Art and Design**

**Overview:** Dr. Brent Lawniczak, Assistant Professor of Military and Strategic Studies, provides an overview briefing on Operation TORCH which touches on elements of operational art and design. Operation TORCH was the first major Allied operation in the European theater during WWII involving U.S. forces. As an example of the final “product” of military operational planning, Operation TORCH presents several timeless military planning and operational considerations that remain relevant today. This lecture assesses the plan for Operation TORCH, and demonstrates how planners today use a similar construct for analyzing problems and developing military solutions in a complex operational environment. As an example, Operation Torch will assist students in gaining familiarity with planning concepts and broader JC course themes. Operation TORCH highlights the difficulties of long-distance power projection, multinational military operations, command relationships, and the necessity for operational military adaptation and innovation. Operation TORCH also reveals elements of operational design found in doctrine, particularly Joint Publication 5-0 *Joint Planning*. A solid understanding of these concepts, and their interrelated connections, within the ends-ways-means-risk analysis framework, is key to the military professional’s capacity to solve complex problems.

*CONTACT HOURS: 1.0-hour lecture.*

**SUGGESTED ADDITIONAL MATERIAL**

1. Rick Atkinson, *An Army at Dawn: The War in North Africa, 1942-1943*, (Henry Holt & Company: New York, 2002), 1-160. *Provides an overview of the strategic guidance, national interests, various military decision makers, and operational objectives that impact a military campaign. This historical perspective provides the background knowledge to enable student comprehension of the connections between Joint Planning concepts and the development and execution of an operational plan (Operation TORCH). Atkinson’s book*

*reminds the reader that seemingly clinical doctrinal approaches to operational planning eventually translate to the human dimension of warfare; that the risk and cost of military operations have important political and military strategic consequences, but ultimately fall upon those who execute the plan. Atkinson's text offers students an overview of multiple JC course concepts and objectives, as well as Joint Planning concepts and activities, that will be instrumental throughout the course.*

## **LESSON INTEGRATION AND RATIONALE**

This historical case-study lecture familiarizes students with multiple course concepts, incorporating geopolitical concepts from the broader ACSC curriculum and narrowing the scope to the operational level of war. It emphasizes the costs and risk inherent in great power conflict, introduces operational planning concepts regarding the use of the military instrument of power, and surveys a valuable historical example of a joint military operation. It also frames the entire JC course, linking doctrinal concepts and tenets to the analysis of complex problems and the development of military plans to address them.

**Day 1: JC 501B | Thur. 7 March 2024**  
**Campaigning, Joint Military Operations, and the Joint Planning Process**

“The joint force campaigns across the competition continuum. GCPs and CCPs encompass concurrent and related operations, activities, and investments to achieve operational-level objectives that support achievement of strategic objectives. In concert with other instruments of national power, these actions not only maintain or achieve strategic objectives but also *anticipate a future beyond those objectives* [emphasis added]. The actions include many Service component operations, joint operations, and continual alignment of military actions with interorganizational and multinational partners.”

—Joint Publication 3-0

“Campaigning is not business as usual—it is the deliberate effort to synchronize the Department’s activities and investments to aggregate focus and resources to shift conditions in our favor. Through campaigning, the Department will focus on the most consequential competitor activities that, if left unaddressed, would endanger our military advantages now and in the future.”

—U.S. Secretary of Defense Lloyd Austin

### **LESSON OBJECTIVES**

1. Understand how the evolving nature of threats to U.S. national security, from the PRC, Russia, Iran, ISIS, and others, have spurred advances in how the United States plans for the use of military force across the competition continuum.
2. Understand how concepts such as campaigning, global military integration, operational art and design, and the joint functions are integrated throughout the planning process.
3. Understand how the JPP structures a shared vocabulary that facilitates planning for joint operations.

### **LESSON OVERVIEW**

#### **JC 501B (S): Campaigning, Joint Military Operations, and the Joint Planning Process**

**Overview:** Joint Publication 3-0 and 5-0 articulate a vision where the United States finds itself facing a fundamental change in the OE. Operations blur the line between war and peace, and information flows are now inherently all-domain. The PRC and Russia act with rising levels of aggression, generating global instability and spiking demand for U.S. and partner forces across the globe. These forces are in short supply with finite funding within governmental budgets.

Such changes demand a shift in the way military commanders and staff planners see the environment, away from traditional perception of regional conflict and towards operations instead being part of the larger, more integrated whole. “Campaigning” recognizes continuous operations across the competition continuum, from cooperation through competition and conflict; it accounts for competitors like the PRC and Russia and the challenge they pose to the international order, and takes into consideration the burdens placed on the processes and functions of the traditional geographic combatant command structure.

To meet these challenges, the Department of Defense (DoD) recently implemented a new planning construct called Globally Integrated Operations, which seeks to load-balance forces where they might have the greatest effect. This global perspective represents a fundamental shift from the regional mindset dominant during the wars in the Middle East. While the levels of *warfare*—strategic, operational, tactical—remain relevant, next generation staff officers must also grasp this new planning paradigm.

The JPP contains the primary language of military planning. It enables the commander and planning staff to infuse military science with creative art, jointly and across all domains. Proficiency in JPP and fluency in the joint functions ensure that commanders and planning staffs can skillfully craft operations and define clear military objectives.

The JPP is a proven method of arranging problem solving activities within a complex OE in which cooperation, competition, and conflict may coexist. The JPP, in conjunction with operational art and design, enables the derivation of actionable tasks from broad strategy (strategy-to-task). The JPP allows planners to successfully integrate military options into ends-ways-means-risk calculations in pursuit of national interests. This seminar sets the baseline for concepts addressed throughout JC: levels of warfare, the conflict continuum, campaigning, the ends-ways-means-risk model, the roles of various actors in the national security system (POTUS, SECDEF, CJCS, CDRs, JFCs), and the processes which guide planning for military operations.

*CONTACT HOURS: 2.0-hour seminar.*

## REQUIRED READINGS

1. Arthur F. Lykke, Jr. “Defining Military Strategy,” *Military Review*, 1997, 183-186, (4pp.) [EL]. *Lykke presents his influential model of ends-ways-means-risk developed at the Army War College and widely used as a model to capture the military aspects of strategy. For critics, see the article in the Suggested Readings.*
2. Chad Pillai, “Developing a Combatant Command Campaign Plan,” *West Point: Modern War Institute* <https://mwi.westpoint.edu/developing-a-combatant-command-campaign-plan-lessons-learned-at-us-central-command/> [EL]
3. National Defense Strategy, 2022. 8, 12-13, Section V, “Campaigning” [EL] *The NDS establishes that campaigning is not business as usual; sets the stage for the critical synchronization and focus that distinguish campaigning from earlier efforts.*
4. Joint Publication 5-0, Joint Planning, 1 December 2020, Executive Summary; I-1 to I-11 (up to GIF Development and Review Process); I-24 to I-27; II-10 to II-12; V-1 to V-16 (“Campaigning”). [EL] *The Joint Publication 5-0 Executive Summary and Chs. I-II reading selections briefly preview operational planning and the the framework the JC course will use to identify and solve problems. They also introduce information about the role of joint planning, theater campaign plans, the joint planning and execution community (JPEC), operational assessment, and other planning systems and constructs such as Interagency and Multinational Planning. Joint Publication 5-0 Ch. 5 discusses campaigning and its*

*relationship to the development of global, functional, geographic, contingency and crisis action planning.*

5. Joint Publication 3-0, Joint Operations, 18 June 2022, Executive Summary, I-1 to I-15; V-1 to V-8. [EL] *Joint Publication 3-0 emphasizes the cornerstone concepts of competition continuum and campaigning as the preferred approach to strategic competition. It recognizes that the growing demand signal for U.S. forces is complicated by rising costs and a declining U.S. force structure.*

### **SPLIT:**

- A. David Brennan and John Feng, “China-Ukraine Dispute Simmers over new Taiwan Group,” Newsweek online, 27 Aug 2022, <https://www.newsweek.com/china-ukraine-dispute-simmers-taiwan-friendship-group-1736848>. [EL]
- B. Elliot Abrams, “The Ukraine War, China and Taiwan,” Council on Foreign Relations blog, 3 May 2022, <https://www.cfr.org/blog/ukraine-war-china-and-taiwan>. [EL]
- C. Tiejun Zhang, “China is not Russia; Taiwan is not Ukraine,” The Diplomat online, 25 Jul 2022, <https://thediplomat.com/2022/07/china-is-not-russia-taiwan-is-not-ukraine/>. [EL]
- D. Michael Schuman, “China’s Mistakes Can be America’s Gain,” The Atlantic online, 26 Sep 2022 <https://www.theatlantic.com/international/archive/2022/09/xi-jinping-china-us-mistakes/671544/>. [EL]

### **SUGGESTED ADDITIONAL MATERIAL**

1. Bob Woodward, *Plan of Attack*, (New York: Simon and Schuster, 2004), 1-138. *Offers an evocative overview on modern approaches to planning focused on the invasion of Iraq. Woodward provides historical background that illuminates how operations are actually planned.*
2. Joint Publication 3-08, Interorganization Cooperation, 12 October 16, Validated 18 October 2017, ix-xviii. Skim I-1 to I-17 and II-2 to II-12. [EL] *Provides concepts and considerations on interorganizational cooperation for understanding how the military contributes to unified effort within the U.S. government.*

### **LESSON INTEGRATION AND RATIONALE**

This lesson begins with a threat-informed discussion of strategic competition challenges facing the United States and its partners. The People’s Republic of China, termed the “pacing threat” by senior DoD leadership, poses set of long-term strategic challenges, while Russia serves as a revisionist spoiler to the American-led international order in Europe, the Middle East, and Africa. In addition, violent extremist organizations (VEOs) such as ISIS, and rogue states such as North Korea and Iran, threaten regional stability with wide reaching global consequences. This lesson drives discussion towards recent joint force planning concepts conceived as responses to these threats: campaigning, globally integrated operations, and dynamic force employment.



The joint force relies upon the JPP, and its unique planning vocabulary, as a common process for developing joint military operations. It is essential for military officers and interagency partners to build fluency in this planning language.

This lesson introduces doctrinal planning concepts, building on the classical principles of war covered in *Military Theory* (MT), and incorporates geopolitical and strategic concepts addressed in *National Security* (NS). The lesson narrows focus to operational-level planning concepts and provides context for future lessons oriented on operational art and design.

## **ASSIGNMENT**

**JC 600E:** Distributed to students during seminar by CI. Reference Appendix I for assignment objectives and additional details.

## **KEY VOCABULARY**

### **PRIMARY:**

Campaigning  
Competition Continuum  
Dynamic Force Employment (DFE)  
Globally Military Integration  
Great Power Competition  
Joint Force Commander (JFC)  
Joint Planning Process (JPP)  
Levels of Warfare  
Lykke Model of Strategy

### **SECONDARY:**

Combatant Command (CCMD)  
Combatant Commander (CCDR)  
Combatant Command Campaign Plan (CCP)  
Contingency Planning  
Joint Planning & Execution Community (JPEC)  
Unified Command Plan (UCP)

## Day 2: JC 502 | Fri. 8 March 2024

### Introduction to Operational Design: Complexity in Operational Planning

“The elements of operational design can be used by the commander and staff to organize their thoughts, break down and identify the problem, understand the strategic environment and associated implications, organize the OE, and [most importantly], orient the Joint Force on the objective or end-state.”

—Joint Publication 5-0

#### LESSON OBJECTIVES

1. Understand concepts associated with complexity as they pertain to planning, campaigning, and military operations, across the competition continuum.
2. Understand concepts associated with operational art and design, and their relationship within military planning, campaigning, operations.
3. Understand the doctrinal elements within operational design, and interrelation of these elements in framing complex problems, as well as and their utility in constructing the commander’s operational approach.
4. Understand the critical role and significance of the commander’s operational approach, planning guidance, and intent.
5. Comprehend how adversaries like the PRC and Russia employ ambiguity within their respective operational approaches and military strategies, and how such approaches relate to competition.

#### LESSON OVERVIEW

##### JC 502 (S): Operational Design: Complexity in Operational Planning

**Overview:** Operational design provides structure for solving complex problems. It enables planners to identify and accurately catalog what is known and unknown about an environment, and then describe a vision of the desired environment versus what exists in the current, observed environment. The elements of operational design ensure that the commander and planning staff have considered key aspects of the operating environment (OE), enabling shared understanding and delivering clarity on how military force will be utilized to accomplish objectives.

Modern military operations must account for myriad sources of environmental complexity: cultural dynamics, religious considerations, cross-border geopolitical interests interwoven throughout the area of operation – an endless variety may exist. Operational design assists the commander and planners in framing complex and ill-structured problems so that planning leads to effective action; it links military objectives to strategic national security objectives, and ultimately, enables decision making. Operational design’s iterative dialogue enables shared understanding of complex problem sets, providing clarity and focus for problem-framing and the development of potential courses of action.

Joint Publication 5-0 provides a more focused operational perspective: “the cognitive approach by commanders and staffs...develop strategies, campaigns and operations to organize and employ military forces by integrating ends, ways, means and evaluating risks.” Commander and planning staff agility and creativity, informed by the shared understanding of the OE, is crucial to meeting the challenges posed by thinking opponents.

*CONTACT HOURS: 3.0-hour seminar.*

## **REQUIRED READINGS**

1. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012), 1-14. [EL] *Many students find Dr. Reilly’s book an exceptional introduction to challenging concepts.*
2. Joint Publication 5-0, *Joint Planning*, 01 December 2020, IV-1 through IV-45. [EL] *This reading is central to understanding the “science” that enables the application of operational art.*
3. Bob Woodward, *Plan of Attack*, (Simon and Schuster, New York, 2004), 52-66. *This selection from Plan of Attack provides a seminal example of an operational approach, as presented by General Franks to President Bush. It is considered to be an early precursor to the current doctrinal understanding of operational design and how to visualize an operational approach. It also provides an introduction to the complexity of the U.S. national security community.*

## **SPLIT:**

- A. Benjamin Jensen, “How the Taliban did it: Inside the “Operational Art” of its Military Victory,” *New Atlanticist* blog, 15 Aug 2021. <https://www.atlanticcouncil.org/blogs/new-atlanticist/how-the-taliban-did-it-inside-the-operational-art-of-its-military-victory/> [EL]
- B. U.S. Army, *TRADOC Pamphlet 525-5-500, Commander’s Appreciation and Campaign Design*, (Fort Monroe, VA, 2008), 4-18. [EL] *This selection provides an introduction to different types of complexity and the characteristics of complex problem sets military planners may encounter. Understanding different forms of complexity, and characteristics of “wicked problems,” is essential for military planners.*
- C. Dale C. Eikmeier, “Design for Napoleon's Corporal,” *Small Wars Journal* online, 27 Sep 2010, <https://smallwarsjournal.com/blog/journal/docs-temp/557-eikmeier.pdf> pages 1-11. [EL]
- D. David Kilcullen, *The Dragons and the Snakes: How the Rest Learned to Fight the West*, (Oxford: Oxford University Press, 2020), 156-161, 205. [EL] *Pay close attention to the graphics Kilcullen provides on pages 158 and 205, which visualize the concept of Liminal Warfare and Unrestricted Warfare as roughly analogous to the U.S. military conception of the competition continuum*

## SUGGESTED ADDITIONAL MATERIAL

1. Joint Staff J7, *Insights and Best Practices Focus Paper: Design and Planning*, (Washington, DC, 2013), 1-27.
2. General Paul K. Van Riper, “The Foundation of Strategic Thinking,” *Infinity Journal* 2 no. 3 (Summer 2012), 4-10.
3. Horst W. J. Rittel and Melvin M. Webber, “Dilemmas in a General Theory of Planning,” *Policy Sciences*, 4, no. 2 (June 1973), 155-169.
4. Joint Staff J7, *Planner’s Handbook for Operational Design* (Suffolk, VA., 2011), I-1 to D-24.
5. Colonel Gerard Tertychny, “Rain of Ruin: Operational Design and the Pacific War, 1944-1945,” *Campaigning: The Journal of the Joint Forces Staff College*, Fall 2015, 13-20.
6. William J. Denn, “Operational Art: How Clausewitz and Isserson turn American Strategy into Tactical Action,” West Point: Modern War Institute online, 30 Dec 2016 <https://mwi.usma.edu/operational-art-clausewitz-isserson-turn-american-strategy-tactical-action/>
7. Robert M. Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare*, (University Press of Kansas, 2004). *This text captures the changes in technology and military use-cases between World War I and the First Gulf War. This topic is especially relevant since we are now in a period not unlike the post-Vietnam era, where the U.S. military is struggling to modernize and maintain operational readiness in the face of emerging threats and new technologies.*
8. Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity*, 3<sup>rd</sup> ed., Elsevier, (London: Morgan Kaufmann, 2011). *Provides an extremely useful set of analysis tools with an emphasis on complex adaptive systems, feedback loops, etc.*

## LESSON INTEGRATION AND RATIONALE

This lesson addresses how complex problems challenge the development of solutions and complicate the timeliness of decision-making. It also underscores how the PRC and Russia exploit complexity and ambiguity to obscure environmental clarity U.S. military planners instinctively desire when crafting effective responses. The lesson provides essential background on the concepts of complex problems, operational art, and operational design. Ensuing JC lessons discuss, analyze, and apply the methodology for creating and visualizing an operational approach.

## KEY VOCABULARY

### **PRIMARY:**

Elements of Operational Design  
Operational Art & Design  
Operational Approach  
Commander’s Planning Guidance & Intent

**Day 3: JC 503 | Mon. 11 March 2024**  
**Planning Initiation: Strategic Guidance,**  
**Understanding the Operational Environment and Defining the Problem**

“Warfare is no longer an activity confined only to the military sphere, and...the course of any war could be changed, or its outcome decided, by political factors, economic factors, cultural factors, technological factors, or other non-military factors. Faced with the far-reaching influence of military and non-military conflicts in every corner of the world, only if we break through the various kinds of boundaries in the models of our line of thought, take the various domains which are so completely affected by warfare and turn them into playing cards deftly shuffled in our skilled hands, and thus use beyond-limits strategy and tactics to combine all the resources of war, can there be the possibility that we will be confident of victory.”

—Col Qiao and Wang

### LESSON OBJECTIVES

1. Recognize the sources of strategic guidance and direction, their impact on military planning, how political ambiguity during the development of U.S. government policy drives a natural tension between policy makers and U.S. military leadership desire for precise direction.
2. Recognize the tools and processes used to analyze the operational environment (OE), to include understanding the human, physical, and informational dimensions of the OE, as well as the implications of the OE on the application of military force.
3. Understand the need to take into consideration and incorporate all elements of national power during military planning, and how a planner’s comprehensive understanding of the OE empowers their integration of elements of national power into the development of potential solutions.
4. Recognize how incomplete information about the OE informs concepts such as planning assumptions and risk analysis, as well as the creation of commander’s critical information requirements (CCIRs) and priority information requirements (PIRs).
5. Understand the relationship between the “observed conditions” and the “desired conditions” as it relates to planning, and the pitfalls of “mirror imaging” when operating in unfamiliar OEs.
6. Understand the doctrinal methodology for defining the problem.

### LESSON OVERVIEW

#### JC 503 (S): Planning Initiation

**Overview:** Planning Initiation starts with a review of strategic guidance, which underpins the development of an operational approach. This lesson asks, “what are the strategic goals to be achieved and the military objectives that support their attainment?” All military objectives should be linked to national security objectives, and ultimately, to national interests. This lesson will discuss the types and sources of strategic guidance and direction, how they influence military planning, and how military planning processes conversely influence geopolitical

behavior. Understanding national security interests assists the military planner in developing a description of the “desired system,” also known as the set of environmental conditions military operations are intended to achieve.

The U.S. military conceives of the OE much the same way as Clausewitz did: as an interlocked, complex, and adaptive system characterized by uncertainty and unpredictability. These adaptive systems interact and respond to stimuli in subtle and unpredictable ways. This complexity leaves commanders and planners at risk of “paralysis by analysis.” The JPP works to mitigate this type of risk and enables senior leader decision-making while accounting for political objectives, military realities, taking into consideration second- and third-order effects, and providing an assessment of risk and suggested mitigating factors.

The ability to develop a shared understanding of the OE, and accurately articulate this shared understanding to commanders and senior leaders, is a critical component of military art. The continuous process of developing a shared understanding of the OE includes understanding the human, physical, and informational aspects of the OE that constitute the “observed system.” When compared to the “desired system,” key variables that need to change are identified, and operational level “decisive points” can be derived.

The lesson reviews tools commonly employed by staff planners for creating a shared understanding of the OE, including the Joint Intelligence Preparation of the Operational Environment (JIPOE) process, and analytical models such as PMESII (Political, Military, Economic, Social, Information, Infrastructure) and ASCOPE (Areas, Structures, Capabilities, Organization, People, Events). These tools provide a starting point for shared understanding among the staff; planners are responsible for integrating their own personal judgment and expertise to capture relevant elements into the broader planning effort.

Finally, as a key element to developing a shared understanding of the OE, planners must also have a common understanding of the problem or problem set. Defining the problem is essential for the creation of appropriate solutions and the associated application of military capabilities (linking tactical actions to operational objectives in support of strategic goals). The agreement on an overarching problem statement is the key output of this step. Identifying and framing the problem is essential for determining the correct Center(s) of Gravity (COGs) (introduced in the next lesson) and developing the operational approach to solve the problem.

*CONTACT HOURS: 3.0-hour seminar.*

## **REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 Dec 2020, II-1 to II-9 (up to strategic estimate); III-1 to III-7 (up to assessment); III-9 to III-12 (up to Mission Analysis); Review I-7; Review IV-06 to IV-14 (stop at “Develop Operational Approaches”). **[EL]** *This excerpt provides the doctrinal underpinning for the operational design processes and its associated products that contribute to understanding of the OE. It also describes how the development of a problem statement assists planners in clearly articulating the problem.*
2. Joint Staff J7, *Planner’s Handbook for Operational Design*, V-9 to V-16. **[EL]**

3. Bob Woodward, *Plan of Attack*, (New York: Simon and Schuster, 2004), 1-23, 31-38, 85-95, 130-133, 177-179. [EL] *Provides real-world examples of how strategic guidance is communicated and circulated within networks of U.S. government and military senior leadership, as well as the iterative dialogue that occurs between these leaders in advance to critical decisions. It also broadly describes the inner workings of the JPEC.*

**SPLIT:**

- A. The Center for Global Security Research at Lawrence Livermore National Laboratory, “China’s Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy.” Spring 2023, p. 10-25., p. 64-65.
- B. National Security Strategy, Oct 2022, 6-13, 22-26.
- C. *Joint Guide for Joint Intelligence Preparation of the Operational Environment*, 26 May 2022, Skim xi-xxi; Skim Chapter I.
- D. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012), 14-19; AND Joint Publication 3-16, *Multinational Operations*, 1 March 2019, Ch. III.

**SUGGESTED ADDITIONAL MATERIAL**

1. *Joint Guide for Joint Intelligence Preparation of the Operational Environment*, 26 May 2022, Chapters II-V.
2. Joint Staff J7, *Planner’s Handbook for Operational Design*, (Suffolk, VA, 2011), V-4 (Establishing a Baseline) to V-16.
3. *Joint Operating Environment (JOE) 2035*, 14 July 2016, i-iii; 1-52.

**LESSON INTEGRATION AND RATIONALE**

This lesson underscores the importance of planners focusing on the most meaningful facets of the OE – to include its human, physical, and informational elements – while avoiding the distraction of extraneous information. This lesson also addresses inter-organizational and multinational stakeholder integration into planning. The concepts contained within the lesson prepare students for future exploration of COG analysis, methods for addressing specific aspects of the problem, and enabling focused planning and employment of military capabilities.

**KEY VOCABULARY**

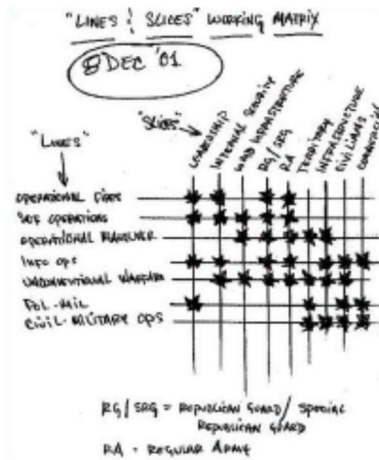
**PRIMARY:**

Strategic Direction and Guidance  
Operational Environment  
JIPOE  
PMESII

ASCOPE  
Observed System  
Desired System  
Problem Statement  
Problem Set

**SECONDARY:**

Commander's Critical Information Requirements (CCIR)  
Priority Intelligence Requirements (PIR)  
Decision Support Matrix (DSM)



The legendary “lines & slices” operational approach graphic developed by Gen. Tommy Franks, where the lines can be described as “lines of operation,” and the slices as “COGs” or target-sets. There is no defined standard for developing the graphic; the idea is to create a compelling visual aid to help articulate a vision and communicate the major concepts of an operation.



**Day 4: JC 504 | Tues. 12 March 2024**  
**Center of Gravity Analysis**

“The COG is the source of power or strength that enables a military force to achieve its objective and is what an opposing force can orient its actions against that will lead to enemy failure.”

—Joint Publication 5-0

**LESSON OBJECTIVES**

1. Understand the doctrinal concepts associated with COG analysis and critical factors, their role in operational design, and their utility in enhancing a planner’s understanding of the OE.
2. Understand the linkages between COGs, objectives, effects, decisive points, lines of operation, lines of effort, and end states, as well as how they contribute within the overall development of the operational approach.
3. Understand why COG analysis is continually revisited during military planning, and how COG analyses and their constant refinement impacts the planning and execution of operations.

**LESSON OVERVIEW**

**JC 504 (S): Center of Gravity Analysis**

**Overview:** COG analysis is frequently regarded as a vitally important element of planning, as it aids in the understanding of the OE and enables a closer examination of friendly, enemy, and neutral actor capabilities and vulnerabilities. However, the concept of a COG is also subject to critique regarding its underlying value and utility. Regardless, COG analysis remains a vital component of the JPP, as it assists planners in calibrating the application of finite military resources on complex problem sets. This lesson provides a basic understanding of doctrinal concepts related to COG analysis.

NOTE: The concept of a “COG” is a hotly contested subject within the U.S planning community. This particular course utilizes the RAND Corporation Vulnerability Assessment Method (VAM) as a guide.

*CONTACT HOURS: 3.0-hour seminar.*

**REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 Dec 2020, IV-22 to IV-27. [EL]
2. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012). 40-50. [EL]
3. Christopher M. Schnaubelt, Eric V. Larson, and Matthew E. Boyer, *Vulnerability Assessment Method Pocket Guide*, (Santa Monica, CA: RAND Corporation, 2014), Skim 1-6; Read 7-32; Skim 33-81. [EL]

## **SPLIT:**

A. Carl von Clausewitz , *On War*, trans. Peter Paret and Michael Howard, 595-600 [EL]; **AND** Dale C. Eikmeier, “The Center of Gravity, Still Relevant After All These Years,” *Military Review* online, 11 May 2017, pages 1-8.

<https://www.armyupress.army.mil/Journals/Military-Review/Online-Exclusive/2017-Online-Exclusive-Articles/The-Center-of-Gravity/> [EL]

B. Kornatz, “The Primacy of COG in Planning: Getting Back to Basics,” *Joint Forces Quarterly* 82, (3<sup>rd</sup> Quarter 2016), 91-96. [EL]

C. U.S. Air Force, *Air Force Doctrine Annex 3-0, Appendix A: Center of Gravity Analysis Methods*, 4 Nov 2016, 1-7. [EL]

D. Michael D. Reilly, *Hybrid Threat COG Analysis, Taking a Fresh Look at ISIL*, *Joint Forces Quarterly* 84 (1<sup>st</sup> Quarter 2017), 86-9.2 [EL]

## **SUGGESTED ADDITIONAL MATERIAL**

1. Jan L. Rueschhoff and Jonathan P. Dunne, “Centers of Gravity from the ‘Inside Out,’” *Joint Forces Quarterly* 60 (1<sup>st</sup> Quarter 2011), 120-125.
2. Milan Vego, *Joint Operational Warfare: Theory and Practice* (Newport: Naval War College Press, 2009), VII-13 to VII-27; VII-29 to VII-35. [EL]
3. Dale C. Eikmeier - Center of Gravity videos 3-4.  
<https://www.youtube.com/watch?v=9WnmVIyFG0>

## **LESSON INTEGRATION AND RATIONALE**

COG analysis assists planners determining sources of strength and weakness, as well as identifying vulnerability. COG analysis is an essential element of operational art and design and enables the precise application of military force. Critical factors analysis helps deconstruct complex systems and reveal vulnerability. Within the context of the OE’s defined problem, COG analysis helps focus the application, and potentially amplify the effect, of military force against identified objectives. This focus allows the planner to define an operation’s termination criteria and gives the commander a better grasp of the ends-ways-means-risk calculus. This lesson builds on MT’s coverage of Clausewitzian and Jominian principles of war, as well as the COG analysis conducted during JAOPC.

## **KEY VOCABULARY**

### **PRIMARY:**

Center of Gravity (COG)  
Critical Factors  
Critical Requirements  
Critical Capabilities  
Critical Vulnerabilities

## Day 5: JC 505A | Thurs. 14 March 2024

### Developing the Operational Approach

“The point of origin for developing an operational approach is an analysis of strategic guidance and a comprehension of the national strategic end state...The result of design is the development of an operational approach that engenders flexibility through incisive decision-making and balanced risk analysis.”

“When JFCs and their staffs initiate the development of an operational approach, they must recognize the fundamental difference between the functions of operational design and the functions of operational art (p. 21). An analysis of the...elements of operational design and the requirements for developing an operational approach reveal eight interrelated elements that provide a basic cognitive framework for problem framing. These elements are the end-state, objectives, effects, centers of gravity, decisive points, lines of operation, arrangement of operations, and assumptions.”

—Dr. Jeffrey M. Reilly, *Operational Design*

#### LESSON OBJECTIVES

1. Understand three of the nine steps within the operational design methodology (understanding strategic direction, understanding the operational environment, and defining the problem), and how they serve as the bedrock to development of an operational approach.
2. Recognize how the conceptual planning done during the development of an initial operational approach assists in determining the arrangement of operations.
3. Analyze a variety of operational approaches, and determine their utility in the planning and execution of joint military operations.

#### LESSON OVERVIEW

##### JC 505A (S): Developing the Operational Approach

**Overview:** The operational approach is a commander’s description of the broad actions the joint force must take to achieve the desired military end state. It is the visualization of how the commander will orchestrate the application of military force to transform current conditions into desired conditions, and how the commander wants the OE to look at the conclusion of the operation. The operational approach is based largely on an understanding of the OE and the definition of the problem. The operational approach will also consider broader U.S interagency and multinational interests. Once the commander approves the operational approach, it provides the basis for further detailed planning. The commander and planning staff should continually review, update, and modify the approach utilizing an iterative mindset, as new information flows into the planning staff and imposes change upon mission requirements. Refinement of the operational approach is ongoing, and its framework should allow for constant adaptation.

*CONTACT HOURS: 2.0-hour seminar.*

#### REQUIRED READINGS

1. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012), 21-29, 31-40 and 49-58. *Provides a*

*useful schema for incorporating the elements of operational design into an operational approach. Also details the historical basis and critical steps contained within the design methodology, including the use of the term “cognitive map” as a synonym for the operational approach. [EL]*

2. Admiral Lee His-min, “Taiwan’s Overall Defense Concept: Theory and Practice,” Hoover Institution online, 27 September 2021  
[https://www.hoover.org/sites/default/files/210927\\_adm\\_lee\\_hoover\\_remarks\\_draft4.pdf](https://www.hoover.org/sites/default/files/210927_adm_lee_hoover_remarks_draft4.pdf) [EL].
3. Joint Publication 5-0, *Joint Planning*, 01 Dec 2020, III-22 (1 page); review IV-14 to IV-22. [EL]
4. Joint Staff J7, *Planner’s Handbook for Operational Design* (Suffolk, VA, 2011), VI-1 to VI-7. [EL]

#### **SUGGESTED ADDITIONAL MATERIAL**

1. Edmund J. Burke, Kristen Gunness, Cortez A. Cooper III, Mark Cozad, “People’s Liberation Army Operational Concepts,” Santa Monica, CA: RAND, 2000 [EL].

#### **LESSON INTEGRATION AND RATIONALE**

This lesson provides an understanding of the doctrinal elements of operational design and the relationships between them. The visual depiction of the operational approach is a template from which to begin applying operational art. Doctrinal understanding of the elements of operational design and constructing an operational approach support the later development of lines of operation and effort, both of which students will practice during JC workshops and PACIFIC ENDEAVOR.

#### **KEY VOCABULARY**

##### **PRIMARY:**

Defining the Problem  
Problem Statement  
Cognitive Map  
Operational Approach  
Operational Art  
Operational Design  
Strategic Direction  
Understanding the Operational Environment

**Day 5: JC 505B | Thurs. 14 March 2024**  
**Nigeria Exercise (NEX) Background Brief**

**LESSON OBJECTIVES**

1. Understand the historical background, current actors, and significant events contained within a fictitious planning scenario based within Nigeria.
2. Recognize various elements of the OE within the Nigeria exercise, to include an appreciation of its disparate operational and strategic considerations, and the interplay between regional interests and broader geopolitical trends.
3. Recognize the extent to which great power competition exists on the African continent, analyzing the overall nature of PRC and Russia activities, and how great power competition shapes the OE while influencing the output of operational design.

**LESSON OVERVIEW**

**JC 505B (L): Nigeria Background Brief**

**Overview:** Strategic competition largely consists of actions best categorized as “below the level of armed conflict.” Competition for political and economic influence involves myriad local, regional, and global entities interwoven in a complex web of activity with significant ambiguity in the causal relationships.

Within the scenario, students learn about Nigeria and the broader geopolitical issues of the African continent. Nigeria is a state of significant importance, yet it faces challenges not uncommon to the developing world: ethnic, religious, cultural, and political divisions, exacerbated by marauding VEOs. Fault lines fracturing Nigerian and regional unity breathe life into a virulent insurgency. At the same time, Russian-funded private military companies (PMCs), seek to exploit instability and tie down U.S. and partner forces in a bid to capture vast Nigerian resource wealth. PRC presence is often anathema to U.S. interests, as it seeks to establish itself as the partner of choice for African governments and businesses. Within Nigeria, the PRC offers developmental assistance and tacit reinforcement of client political interests, often via direct cash infusions targeted at politicians, business leaders, and power brokers. In exchange, the PRC demands unrestricted market access and ability to tap Nigerian resource wealth. This fundamentally transactional and extractive relationship offers elite segments of Nigerian society political security, economic liquidity, and useful access to capital markets, all free from the perceived “strings attached” cooperation model championed by Western nations. As a final element, a projected water crisis threatens to bring drought to the region, further inflaming Nigerian ethnic, religious, cultural, and political tensions.

Working under the framework of a USAFRICOM campaign plan, seminars will develop a contingency plan which addresses a fictional scenario where VEO activities threaten the internal security of Nigeria. The contingency plan must position the United States as Nigeria’s partner of choice while diminishing PRC and Russian influence in the region. The contingency plan will nest within the stated goals of the USAFRICOM campaign plan, ultimately leveraging the situation to the advantage of the United States.

A thorough understanding of scenario background material, to include the underlying tensions and issues at hand, will be essential for the successful completion of this workshop. The scenario overview lecture will be followed by a review of strategic guidance, which will go into greater detail outlining U.S. national interests and priorities in Nigeria.

*CONTACT HOURS: 1.0-hour lecture.*

### **REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 Dec 2020. Review V-1 to V-5 (up to Campaign Planning).
2. Joint Publication 3-0, *Joint Campaigns and Operations*, 18 June, 2022, Review I-4 to I-5, read VII-1 VII-37.

### **SUGGESTED ADDITIONAL MATERIAL**

1. James Stebens and Ryan Lucas, “Military Operations Other Than War in China’s Foreign Policy,” Washington, D.C.: The Stimson Center, 2022 [EL].

### **LESSON INTEGRATION AND RATIONALE**

The NEX overview lecture and lesson provide the starting point for student directed study in preparation for the Operational Design workshop. Students are expected to arrive to seminar prepared with an understanding of Nigeria and the surrounding region. The seminar planning team will propose integrated military and whole-of-government approaches, to include working alongside partners, allies, NGOs, and even potentially regional competitors. NEX is designed to reflect real-world elements of the OE, in which myriad sensitivities and considerations form a “witch’s brew” of complexity and uncertainty.

## Day 6: Directed Study | Fri. 15 March 2024

### OVERVIEW

Day 6 is dedicated to group study of the NEX documentation. It is not a “free” day but it is considered by the course team and CIs to be unstructured time, so seminar planning teams can process and organize their thoughts and observations about the scenario material.

The course team has provided scenario and background material and worksheets to help guide the process. Your CI will define specific directed study expectations, but seminar planning teams are expected to complete all assigned tasks so that planning may commence on Day 7.

**Day 7: JC 507 | Mon. 18 March 2024**  
**Operational Design Workshop**

“Operations invariably occur in multi-faceted environments. The process of operational design, however, is not about discovering complexity. Design is about creating operational vision from complexity and offsetting the uncertainty embedded in operations with effective decisions.”

—Dr. Jeffrey M. Reilly, *Operational Design*

### LESSON OBJECTIVES

1. Demonstrate the use of operational art and design, utilizing the JPP as a guide.
2. Apply elements of operational art and design to articulate an observed and desired OE, while defining a problem statement which addresses complex problems within the OE and in the context of strategic competition.
3. Analyze strategic guidance and elements within the OE to develop military objectives and desired military end states within the context of the scenario.
4. Apply elements of operational art and design in the creation of an initial operational approach, commander’s planning guidance, and commander’s intent.

### LESSON OVERVIEW

#### JC 507 (W): Operational Design Workshop

**Overview:** The Operational Design Workshop will focus on the development of an initial operational approach, concentrating on “understanding strategic direction,” “understanding the operational environment,” and “framing the problem.” Staff planners are seeking an answer to the question: “*What are U.S. strategic goals and the military objectives that support their attainment?*” The workshop will include a review of national strategic guidance and the process of how to define the problem. JC planning workshops are designed to enhance student ability to derive solutions to complex problems in potentially volatile, uncertain, and ambiguous environments that characterize campaigning during strategic competition.

This lesson underscores the importance of developing an initial operational approach, and how it assists in JPP Steps 2 and 3 (Mission Analysis and COA Development). Based on the seminar planning team’s understanding of the OE, their sense of the nature of the problem, and the initial operational approach, the commander will then typically provide initial planning guidance prior to the planning staff conducting JPP Step 2 (Mission Analysis).

The required output for this workshop is creation of a problem statement, a description of current and desired operational environment, a description of both desired operational and strategic end states, a description of military objectives, and the identification of adversary centers of gravity. The workshop will culminate in the creation of an initial operational approach, commander’s guidance, and commander’s intent.

*CONTACT HOURS: 3.0-hour seminar workshop.*



## REQUIRED READINGS

1. Joint Publication 3-08, *Interorganizational Cooperation*, 12 Oct 2016, Validated 18 October 2017, II-12 to II-18; II-21 to II-32. **[EL]** *Outlines important concepts and considerations to interorganizational cooperation and how the military contributes to unified effort within the U.S. government.*
2. NEX planning guidance, research materials, and other open source research materials as required. **[EL]** *Students must read the scenario planning guidance and materials prior to the start of the workshop. Students will not have the time to “spin-up” on the scenario during seminar. Students must conduct their own outside research to facilitate analysis and application of the elements of operational art and design during military planning activities.*
3. JC Workshop Templates. **[EL]** *Serves as a suggested guide to enable organized research and note-taking on scenario materials.*

## SUGGESTED ADDITIONAL MATERIAL

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, Ch. IV.
2. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell, AFB: Air University Press, 2012), 1-14; 21-29; 31-38; 40-58.

## LESSON INTEGRATION AND RATIONALE

During this workshop students will “walk” through operational design. While CI guidance will be important to workshop success, students are advised to refresh their familiarity with concepts and materials found earlier during the academic year within JAOPC and CW. This level of familiarity will empower students to work faster and more independently.

This lesson directly supports student-application of JPP concepts, which will be further developed in subsequent JC workshops. During these workshops, seminar planning teams will continue to apply operational art and design within later stages of the JPP. The experience gained during these workshops fosters critical-analytical thinking and prepares seminar planning teams for the advanced student-led planning expected during PACIFIC ENDEAVOR.

**Day 8: JC 508 | Tues. 19 March 2024**  
**Introduction to Mission Analysis**

“Many times, imperfect understanding or bad interpreting of the generals’ orders has caused confusion in their armies; therefore the words in which orders are given in time of peril should be clear and distinct. . . . You ought to take care to avoid general words and use precise ones, and of the precise ones, avoid those that can be wrongly interpreted.”  
—Niccolò Machiavelli, *The Art of War*

**LESSON OBJECTIVES**

1. Understand the activities involved and desired outputs of JPP Step 2 (Mission Analysis).
2. Understand the significance of planning assumptions, commander’s critical information requirements (CCIRs), and risk assessment during military planning.
3. Understand the process of developing a mission statement.

**LESSON OVERVIEW**

**JC 508 (S): Introduction to Mission Analysis**

**Overview:** Mission analysis is critical to framing problem within the OE and developing solutions in later stages of the JPP. Mission analysis activities support the determination of tasks required to accomplish the mission, the purpose of the mission, limitations on freedom of action (constraints and restraints), and the forces and organization needed for the operation. Mission analysis outputs inform and influence the remainder of detailed planning, in particular COA development. Factors such as planning assumptions and CCIRs influence intelligence collection and analysis and ends-ways-means-risk assessment throughout planning and execution. The seminar will include a discussion and review of the declassified USCENTCOM OPLAN 1003V Change 1, providing insights on the elements of mission analysis.

*CONTACT HOURS: 3.0-hour seminar.*

**REQUIRED READINGS**

1. Headquarters U.S. Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Read pages 1-16; skim 39-90. **[EL]** *The declassified 1003V Operation Plan (OPLAN) for Operation Iraqi Freedom (OIF). This document demonstrates the format and content of an actual OPLAN and illustrates how the operational approach informs detailed planning – and particularly mission analysis activities – at the headquarters, component, and subordinate command levels.*
2. Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-12 through III-32. **[EL]** *This selection introduces the doctrinal activities associated with the Mission Analysis step of the JPP.*

## **SPLIT:**

- A. Walter L. Perry, Richard E. Darilek, Laurinda L. Rohn, and Jerry M. Sollinger, eds. *Operation Iraq Freedom: Decisive War, Elusive Peace*, RAND online, 4 Jan 2016, [https://www.rand.org/pubs/research\\_reports/RR1214.html](https://www.rand.org/pubs/research_reports/RR1214.html), pp. xix-xxxii, 31-56. *Provides context for the Iraq operation AND Joint Publication 3-08, Interorganizational Cooperation*, 12 Oct 2016 Validated 18 October 2017; IV-19 to IV-30. [EL] *Describes concepts and considerations associated with interorganizational cooperation necessary to understand how the military contributes to unified effort within the U.S. government.*
- B. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 16-39. [EL]
- C. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 39-63. [EL]
- D. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 63-79 and 86-88. [EL]

## **LESSON INTEGRATION AND RATIONALE**

This lesson introduces the elements of mission analysis. It further supports the Mission Analysis workshop, which builds on the scenario and planning products referenced and developed in the Operational Design workshop.

**Days 9 and 10: JC 509-510 | Thurs. and Fri. 21-22 March 2024**  
**Mission Analysis Workshop Day 1 and Day 2**

“...[The Mission Analysis brief] [provides] the commander with the results of the staff’s analysis of the mission, offers a forum to discuss issues that have been identified, and ensures the commander and staff share a common understanding of the mission.”

—Joint Publication 5-0

### **LESSON OBJECTIVES**

*Note: These objectives build upon products developed during JC 507*

1. Demonstrate usage of operational art and design while utilizing the JPP at the operational level of war, in order to achieve national strategic goals.
2. Understand the processes involved in JPP Step 2 (Mission Analysis), while observing how the processes within the JPP are iterative in nature.
3. Understand why understanding strategic guidance, commander’s intent and planning guidance, and the development of an initial operational approach are essential elements of mission analysis.
4. Develop a mission statement and mission analysis briefing.

### **LESSON OVERVIEW**

#### **JC 509-510 (W): Mission Analysis Workshop Day 1 and Day 2**

**Overview:** Mission analysis is an important step of the JPP, where planners “study the assigned tasks and to identify all other tasks necessary to accomplish the mission.” Mission Analysis is particularly iterative, constantly evolving the planning products and providing the planning team the best opportunity to accurately define the OE and nature of the task. Determining how the operation will be assessed, prior to the start of detailed planning within later portions of the JPP, will reduce the risk of mission creep and assist in aligning tasks to objectives.

This workshop exercises mission analysis activities and builds upon the seminar’s collective work conducted during the Operational Design Workshop (JC 507). The result of the Mission Analysis Workshop will include a refined Operational Approach and delivery of a Mission Analysis briefing. The outputs of Mission Analysis prepare the seminar to develop Courses of Action during later stages of JC as they explore Step 3 of the JPP.

The planning team uses a Mission Analysis briefing to inform the commander of the planning activities conducted through Step 2 of the JPP. The development and presentation of the brief allows for a collective appreciation for how mission analysis activities converge to inform commander’s planning guidance. It “[provides] the commander with the results of the planning staff’s analysis of the mission, offers a forum to discuss issues that have been identified, and ensures the commander and planning staff share a common understanding of the mission.”

*CONTACT HOURS: 2x 3.0-hour seminar workshops.*

### **REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, Appendix K-17 through K-25 (Operation Assessment). [EL] *The plan for assessing the achievement of operational goals should be built into the overall plan. This section provides guidance on how to ensure assessment considerations are built into the JPP.*
2. NEX planning guidance, research materials, and other open source research materials as required. [EL] *Students must read the scenario planning guidance and materials prior to the start of the workshop. Students will not have the time to “spin-up” on the scenario during seminar. Students must conduct their own outside research to facilitate analysis and application of the elements of operational during military planning activities.*
3. JC Workshop Templates. [EL] *Serves as a suggested guide to enable organized research and note-taking on scenario materials.*

### **SUGGESTED ADDITIONAL MATERIAL**

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, Review III-12 through III-32 (Mission Analysis), Appendix K.
2. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell AFB: Air University Press, 2012), 54-58, beginning with “Assumptions: The Forgotten Element in Design.”

### **LESSON INTEGRATION AND RATIONALE**

The Mission Analysis Workshop synthesizes all JC concepts covered through this point in the course. The CI will guide the seminar through the activities of Mission Analysis, allowing the seminar planning team to proceed semi-independently while maintaining a presence in the classroom to course-correct where necessary. Ideally, students drive the planning process, while the CI supports plan development with minor input and advice.

The outputs and planning products developed during this lesson – including **assumptions**, **limitations** (restraints and constraints), **tasks**, **initial risk assessment**, **CCIRs** and a **mission statement** – support the subsequent COA Development Workshop, in which students will develop distinct COAs. Workshops hone analytical thinking, integrates peer leadership and staff officer skills, and prepares the seminar to conduct fully student-led planning during PACIFIC ENDEAVOR.

## **Phase 2: PROBLEM SOLVING**

*Developing Solutions through the Application of Military Capabilities*

**Day 11: JC 511 | Mon. 1 April 2024**  
**Operational Art – Student Presentations**

“Studying the past may be a matter of marginal utility only, but the past is us and it is on the past alone that all decision making is inevitably based. If systematic study of the past is taken away, only personal experience, hearsay, and intuition remain.”

–Martin van Creveld, *Command in War*

### LESSON OBJECTIVES

#### Reference Appendix I for assignment details.

1. Understand the fundamentals of operational art and design and their applications for the development of potential military solutions to complex security problems.
2. Analyze a military operation – focusing on the commander’s vision, decision making, employment of operational art and design, and application of the principles of joint operations – resulting in successful accomplishment of the mission.
3. Analyze commander characteristics linked to success in combat operations, and how they relate to modern doctrinal concepts.

### LESSON OVERVIEW

#### JC 511 (S): Operational Art (Student Presentations)

**Overview:** Students brief a curated selection of historical operations, which should analyze and critique the ability of the commander and their planning staff to develop COAs which solve military problems and accomplish the mission. The second phase of JC bolsters seminar appreciation for command decisiveness via assessing how associated commanders and planning staffs employ or reject doctrinal concepts and principles to accomplish the mission. This lesson, coupled with an understanding of service capabilities, consists of an analysis of an operational situation and assessment of the commander’s utilization of the appropriate ways and means for achieving the desired ends. The student presentation (JC 600E) constitutes 15% of the JC course grade.

*CONTACT HOURS: 2.5-hour seminar.*

### REQUIRED READINGS

1. Rebecca Jensen and Steve Leonard, *Back to the Future: Rediscovering Operational Art in an Era of Great Power Competition*, West Point: Modern War Institute online, 10 Sep 2021, <https://mwi.westpoint.edu/back-to-the-future-rediscovering-operational-art-in-an-era-of-great-power-competition/> [EL]
2. B.A. Friedman, *On Operations: Operational Art and Military Disciplines*, “A Theory of Operational Art,” (Annapolis: Naval Institute Press, 2021) 52-59. [EL] This chapter addresses a theoretical attempt to synthesize strategy, operations, and tactics.
3. Bo Arnold and John Nagl, *A Light Footprint in Syria: Operational Art in Operation Inherent Resolve*, *Small Wars & Insurgencies*, 2023, VOL. 34, NO. 5, 1007–1039 [EL]

4. Student Research and Presentation Guidance (Appendix I). *This document provides detailed guidance on the content, timing, and miscellaneous requirements of the graded in-class student presentation.*

### **LESSON INTEGRATION AND RATIONALE**

This lesson examines historical examples relevant to the understanding of operational art and design. The analysis of historical operations, commander and planning staff application of capabilities, their use of doctrine, and reliance on military principles will inform seminar understanding of how to wield these various elements during the development of COAs. The lesson also emphasizes the importance of creative thinking during complex problem-solving. Later during the course, lessons on COA development highlight service capabilities. COA Development Workshops will leverage this combined knowledge, culminating in the application of knowledge during PACIFIC ENDEAVOR. This lesson builds on MT's coverage of classic military theorists (Clausewitz, Jomini, and Sun Tzu) and the principles of war.

### **ASSIGNMENT**

**JC 601E (Position Paper) handed out – Reference Appendix II for assignment details.**



**Day 12: JC 512A | Tue. 2 April 2024**  
**Joint Special Operations: Campaigning Across the Continuum**

“At the intersection of competition and armed conflict lies adversarial competition, typically a SOF operating space.”

–USAF AFDP 3-05

**LESSON OBJECTIVES**

1. Understand the capabilities and roles special operations forces (SOF) bring to warfighting and military planning.
  
2. Understand the fundamentals of SOF C2 organization.

**LESSON OVERVIEW**

**JC 512 (L): Joint Special Operations: Campaigning Across the Continuum**

**Overview:** Dr. Joseph Osborne will cover three main topic areas to include an overview of the missions, service components, and the personnel that constitute SOF. It will examine how SOF campaigns in support of the Theater Commander, how SOF forces are structured at the theater level and how one might find SOF arrayed in a specific country or area supporting the theater campaign plan and the Ambassador’s country plan. Finally, the lecture will cover how SOF fits in the conventional / interagency / SOF approach to Irregular Warfare.

*CONTACT HOURS: 1.0-hour lecture.*

**Day 12: JC 512B | Tue. 2 April 2024**  
**Course of Action Development**

“A COA is a potential way (solution, method) to accomplish the assigned mission.”  
—Joint Publication 5-0

**LESSON OBJECTIVES**

1. Understand how operational art and design, the initial operational approach, and mission analysis guide and inform the development of potential solutions and guide the application of military capabilities.
2. Understand the processes involved in JPP Step 3 (COA Development), COA development considerations for planners, and what constitutes a valid COA.

**LESSON OVERVIEW**

**JC 512 (S): Course of Action Development**

**Overview:** This lesson describes COA development and the process of utilizing a COA sketch as an aid for developing and visualizing stages of an operation. During JPP Step 3 (COA Development), the planning staff create unique, distinct COAs which achieve the commander’s desired military end state. COAs are shaped by commander’s guidance and intent, built upon a foundation of awareness created during mission analysis, and contain additional facets of operational art and design. Well-crafted COAs account for the complexities of the OE while maintaining structural flexibility to react to unforeseen circumstances and challenges.

*CONTACT HOURS: 2.0-hour seminar.*

**REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-32 through III-44 (COA Development); VII-6 paragraph 5(a)(b)(c)(d) and Appendix E (FDOs/FROs); (Review) IV-41 through IV-44 (Defeat and Stability Mechanisms). *This selection provides doctrinal guidance for COA development, including methods and criteria for validating a COA. It also introduces the concept of flexible deterrent options (FDOs) and flexible response options (FROs).*
2. Bob Woodward, *Plan of Attack* (New York: Simon and Schuster, 2004), 75-84, 96-103, 105-106. *These excerpts illustrates the iterative nature of COA development in relation to strategic guidance, assumptions, end state, objective, and effects. They link detailed COA development back to the principles of operational design.*

**SPLIT:**

- A. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell AFB: Air University Press, 2012), 21-24.
- B. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Air University Press, 2012), 25-29.

C. Milan Vego, "On Military Creativity," *Joint Force Quarterly*, 70, 3rd Quarter (2013), 83-86.

D. Milan Vego, "On Military Creativity," *Joint Force Quarterly*, 70, 3rd Quarter (2013), 87-90.

#### **SUGGESTED ADDITIONAL MATERIAL**

1. Rick Atkinson, *An Army at Dawn* (New York: Henry Holt and Company, 2002).

Suggested for alternate split:

- a. p. 30-32, 69-89;
- b. p. 90-115;
- c. p. 130-140, 270-282;
- d. p. 303-317, 408-415; 537-541.

#### **LESSON INTEGRATION AND RATIONALE**

This seminar illuminates how elements of operational design and mission analysis, including the commander's operational approach, guidance, and intent, are also critical to JPP Step 3 (COA Development). It introduces concepts such as defeat and stability mechanisms as relevant components to COA development and uses OIF planning examples to illustrate concepts. The lesson also fosters discussion about the iterative nature of COA development, testing COA validity, and how commander and planning staff visualization utilizing COA sketches are useful tools. The lesson introduces concepts which will be important to later stages of JC and leans on case studies to enhance student comprehension of warfighting domains and service capabilities while introducing key consideration which will later become vital to JPP Step 4 (COA Analysis and Wargaming).

**Days 13 and 14: JC 513-514 | Thurs. and Fri., 4-5 April 2024**  
**COA Development Workshop Day 1 and Day 2**

“Since the operational approach contains the JFC’s broad approach to solve the problem at hand, each COA will expand this concept with the additional details that describe who will take the action, what type of military action will occur, when the action will begin, where the action will occur, why the action is required (purpose), and how the action will occur (method of employment of forces). Likewise, the essential tasks identified during mission analysis (and embedded in the draft mission statement) must be common to all potential COAs.”

—Joint Publication 5-0

### **LESSON OBJECTIVES**

1. Apply concepts learned while conducting planning activities for JPP Step 3 (COA Development); develop two valid COAs that provide potential solutions to the scenario problem(s) as identified in the previous workshops.
2. Understand the processes involved in JPP Step 3 (COA Development), COA development considerations for planners, and what constitutes a valid and complete COA.
3. Understand how operational art and design, the initial operational approach, and mission analysis guide and inform the development of potential solutions and guide the application of military capabilities.

### **LESSON OVERVIEW**

#### **JC 513-514 (W): COA Development Workshop Day 1 and Day 2**

**Overview:** During the problem-framing stage, seminar planning teams develop the rough contours of solutions to problems. Detailed application of military force and capabilities begins in earnest during JPP Step 3 (COA Development.) Equipped with an understanding of the tools available to them, students will apply their gained knowledge toward development of two valid COAs.

Developing valid and complete COAs are an essential element to planning. The planning staff develops COAs which adhere to commander’s guidance and are built upon the results of mission analysis. COAs must be sufficiently detailed to articulate how they will achieve the commander’s desired end state, while also maintaining flexibility to react to unforeseen challenges.

*CONTACT HOURS: 2x 3.0-hour seminar workshops.*

### **REQUIRED READINGS**

1. NEX planning guidance, research materials, and other open source research materials as required. **[EL]** *Students must read the scenario planning guidance and materials prior to the start of the workshop. Students will not have the time to “spin-up” on the scenario during seminar. Students must conduct their own outside research to facilitate analysis and application of the elements of operational during military planning activities.*

2. JC Workshop Templates. [EL] *Serves as a suggested guide to enable organized research and note-taking on scenario materials.*

#### **SUGGESTED ADDITIONAL MATERIAL**

1. UK Essays, “Command Principles of Operation Anaconda,” Nov. 2018 <https://www.ukessays.com/essays/military/command-principles-of-operation-anaconda.php>.
2. Joint Publication 5-0, *Joint Planning*, December 2020, Review III-32 through III-44 (COA Development); VII-6 paragraph 5(a)(b)(c)(d) and Appendix E (FDOs/FROs).
3. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell AFB: Air University Press, 2012), Review 50-54 (“The Arrangement of Operations”).
4. TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, 6 December 2018, 15-46.

#### **LESSON INTEGRATION AND RATIONALE**

This two-day COA Development Workshop builds upon the previous Operational Design and Mission Analysis Workshops. It provides the opportunity to practice JPP Step 3 (COA Development) within the ongoing NEX. This lesson synthesizes various course elements to include operational art and design, all-domain operations, joint force capabilities, command relationships, and force structures. This lesson builds on MT’s coverage of classic military theories, and MT and CW lessons on irregular and gray zone warfare, as well as LP lessons on ethical military leadership.

**Day 15: JC 515 | Mon. 8 April 2024**  
**COA Analysis and Wargaming Workshop**

“COA analysis is the process of closely examining potential COAs to reveal details that enable the commander and staff to tentatively evaluate COA validity and identify the advantages and disadvantages of each proposed friendly COA.”

—Joint Publication 5-0

### **LESSON OBJECTIVES**

1. Apply planning concepts while conducting JPP Step 4 (COA Analysis and Wargaming), employing planning tools to capture the results of COA Analysis (synchronization matrix, DSMs, and the decision support template.)
2. Understand JPP Step 4 (COA Analysis and Wargaming), including the importance of wargaming and red teaming, and how commanders and planning staffs wargaming, red teaming, and Decision Support Matrices (DSMs) to refine COAs.

### **LESSON OVERVIEW**

#### **JC 515 (W): COA Analysis and Wargaming Workshop**

**Overview:** COA Analysis and Wargaming enable planners to critically examine COAs and assist in their refinement. Wargaming and red teaming helps mitigate instances of mirror imaging (a planning assumption that opponent will react in a manner as we would under similar circumstances).

This lesson provides seminar planning teams the opportunity to wargame COAs developed during previous workshops. Wargaming should provide insight into the relative strength and weaknesses of each COA, suggest improvements, and enhance commander decision making advantage when assessing COAs. A close examination of potential COAs should reveal details pertinent to its validity and completeness. Once COA validity is established, planning staffs will compare the COAs to evaluation criteria during JPP Step 5 (COA Comparison).

*CONTACT HOURS: 3.0-hour seminar workshop.*

### **REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 Dec. 2020, III-45 to III-53. *This selection outlines the doctrinal approach, purpose, and methods of COA analysis and wargaming [EL].*
2. Micah Zenko, *Red Teaming: How to Succeed by Thinking Like the Enemy* (New York: A Council on Foreign Relations book, 2015), ix-xxxii [E].
3. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell AFB: Air University Press, 2012), 65-81. *This reading details the wargaming methodology and disusses a variety of wargaming products which help inform the commander’s decision making, including a discussion about DSMs.*

4. NEX planning guidance, research materials, and other open source research materials as required. [EL]
5. JC Workshop Templates. [EL] *Serves as a suggested guide to enable organized research and note-taking on scenario materials.*

### **SPLIT**

- A. Micah Zenko, *Red Teaming*, Chapter 1 (1-23, “Best Practices in Red Teaming”), [EL]
- B. Micah Zenko, *Red Teaming*, Chapter 2 (25-69, “Modern Military Red Teaming”), [EL]
- C. Applegate et. al., *The Craft of Wargaming*, Chapter 9 (132-137, “Conduct”), [EL]
- D. Applegate et. al., *The Craft of Wargaming*, Chapter 12 (156-167, “COA Wargaming”), [EL]

### **SUGGESTED ADDITIONAL MATERIAL**

1. Decision Support Matrix (DSM) examples [EL].
2. Jeff Applegate, Robert Burks and Fred Cameron, *The Craft of Wargaming: A Detailed Planning Guide for Defense Planners and Analysts*, Annapolis: Naval Institute Press, 2020. [EL]

### **LESSON INTEGRATION AND RATIONALE**

This lesson is the seventh of eight scenario-based JC planning workshops in which students will “walk” through the JPP. The COA Analysis and Wargaming Workshop builds on previous lessons and serves as a practical application of the concepts found during JPP Step 4 (COA Analysis and Wargaming). The seminar planning team analysis of COAs will facilitate critical-analytical thinking skills and sets the stage for the PACIFIC ENDEAVOR.

**Day 16: JC 516 | Tues. 9 April 2024**  
**COA Comparison and Approval Workshop**

“A military mindset is objectively analyzing a planned course of action and anticipating the likely consequences before you take that action.”

—Rep. Tulsi Gabbard

**LESSON OBJECTIVES**

1. Apply planning concepts while conducting JPP Step 5 (COA Comparison), employing the doctrinal methodologies for conducting and presenting a COA comparison methodology and rationale.
2. Understand how to compare COAs against criteria, for suitability and sustainability of assigned forces at the operational level of war, and creating a methodology for recommending to the JFC the COA that best accomplishes the mission.
3. Recognize the actions a commander may take during JPP Step 6 (COA Approval).

**LESSON OVERVIEW**

**JC 516 (W): COA Comparison and Approval Workshop**

**Overview:** This seminar covers JPP Steps 5 and 6 (COA Comparison and COA Approval). The workshop proposes techniques and highlights potential pitfalls planners may encounter during JPP Step 5 (COA Comparison) and illustrates how a properly conducted COA comparison drives the COA recommendation. Planners must clearly understand the COA comparison process, available tools, and methods of presentation, especially given the commander’s considerable reliance on guidance from their staff at this point in the JPP. A careful selection and thorough definition of evaluation criteria (against which the COAs will be assessed) are key to effective COA comparison. Rigorous COA comparison criteria facilitate the planning staff’s ability to evaluate the merits of each COA independently of each other, and aid commander decision-making during COA approval. During JPP Step 6 (COA Approval), the commander’s decision informs the creation of the commander’s estimate. Once reviewed and approved by the commander, the estimate becomes the concept of operation (CONOPS), allowing a transition to JPP Step 7 (Plan or Order Development).

*CONTACT HOURS: 3.0-hour seminar workshop.*

**REQUIRED READINGS**

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-55 through III-61, Appendix F. *Doctrinal guidance for conducting COA Comparison and Approval offers methodologies for comparison and presenting the planning staff’s rationale behind the recommended COA.*
2. NEX planning guidance, research materials, and other open source research materials as required. **[EL]** *Students must review products from previous JC planning workshops and refine them per CI direction in preparation for this Workshop. Students should also conduct their own research to facilitate the analysis and application of COA comparison and COA approval processes during seminar. Student research should further aid the practical*



*application of doctrinal concepts and the discernment of appropriate questions and information sources to enable military planning activities.*

3. JC Workshop Templates. [EL] *Serves as a suggested guide to enable organized research and note-taking on scenario materials.*

#### **SUGGESTED ADDITIONAL MATERIAL**

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, VI-1 to VI-12. *Chapter VI reviews the importance of operation assessment.*

#### **LESSON INTEGRATION AND RATIONALE**

This seminar introduces JPP Steps 5 and 6 (COA Comparison and COA Approval). Building on the previous scenario-driven planning workshops, it introduces COA comparison and COA approval concepts and processes, addressing the significance and appropriate application of their results. The selection and definition of evaluation criteria, and the comprehensive comparison of seminar-developed COAs, foster critical-analytical thinking and sets the stage for PACIFIC ENDEAVOR.

**Day 17: JC 517A and 517B | Thurs. 11 April 2024**  
**Air Command & Control**

“The JFACC recommends the proper employment of air component forces. The JFACC also plans, coordinates, allocates, tasks, executes, and assesses joint air operations to accomplish assigned operational missions. Because of the wide scope of joint air operations, the JFACC typically maintains a similar theater-wide or joint operations area (JOA)-wide perspective as the JFC.”

—AFDP 3-30

**LESSON OBJECTIVES**

1. From the perspective of the U.S. Air Force, understand the tenets of airpower, the unique aspects of the air, space, and cyber domains; differences between air and surface forces in the structuring of C2 relationships, and their relationships when integrating airpower into joint force planning.
2. Understand how the U.S. Air Force distinguishes between COCOM, OPCON, TACON, ADCON, “Supported” and “Supporting,” how these concepts are reflected in command relationships, and consider how changes in the operating environment impact existing doctrinal concepts associated with Command & Control.
3. Understand the roles of the Joint Force Air Component Commander (JFACC), the Commander, Air Force forces (COMAFOR), the Air Component Staff , Joint Air Component Coordination Element (JACCE), and the Air Operations Center (AOC) within a campaign or contingency plan.
4. Apply the tenets of airpower, the characteristics of the air, space, and cyber domains, and the organizational principles discussed in the seminar and within AFDP 3-30 in an exercise critiquing a proposed air C2 design.

**LESSON OVERVIEW**

**JC 517A&B (L)/(W): Air Command & Control**

**Overview:** The integrated nature of air operations, presents challenges for structuring joint command and control. Through Air Force Policy Directive (AFPD) 3-30, the U.S. Air Force describes considerations necessary for the joint employment of air forces. The lesson blends a “deep dive” on AFDP 3-30 with a panel discussion, pulling current operational experience with recent U.S. Air Force doctrinal guidance. A panel discussion featuring Col Clayton Schaefer (USAF) and Col Mark Hickey (RCAF) provides perspective leading the 601<sup>st</sup> AOC. This will underscore how forces are operating today under C2 constructs, how allies and partners are integrated into the process, the problem of homeland defense, and unique challenges faced by air forces. The seminar will culminate in a practical exercise, challenging student teams to fix a flawed C2 structure, and, in small teams, to design a C2 and force presentation organization for a potential future conflict.

*CONTACT HOURS: 1.0-hour lecture and 2.0-hour seminar.*

## REQUIRED READINGS

1. Air Force Doctrine Publication 1, *The Air Force*, 10 Mar, 2021, pages 1-44. [EL]
2. Air Force Doctrine Publication 3-30, *Command and Control*, 7 January 2020, pages 52-54; 1 to 26, Appendix B, “The Air Operations Center” [EL]

## LESSON INTEGRATION AND RATIONALE

This lesson examines how the U.S. Air Force supports and integrates with the joint force and studies unique characteristics of the air domain, integrating knowledge built in *JAOPC*, *Military Theory*, *Airpower*, and *Contemporary and Emerging Warfare*.

### Key Terms

Warfighting Domains  
Airpower  
Information Environment  
Command and Control (C2)  
Mission Command  
Assigned, Attached, Allocated  
Unity of Command  
Joint Force Air Component Commander (JFACC)  
Supported, Supporting  
ADCON | OPCON | TACON | COCOM  
COMAFFOR (Commander, Air Force Forces)  
Air Operations Center (AOC)  
Joint Air Component Coordination Element (JACCE)

**Day 18: JC 518A and 518B | Fri. 12 April 2024**  
**Evolving AFDP 3-30: Air C2 in Major Operations**

“The AETF [Air Expeditionary Task Force] is the organizational structure for Air Force forces to execute operational tasking when there is not an existing Air Force structure prepared to accept expeditionary forces.”

—AFDP 3-30

**LESSON OBJECTIVES**

1. Understand the differences between centralized and decentralized command authority, and the concept of mission command via the “centralized command, distributed control, and decentralized execution (CC-DC-DE)” methodology.
2. Understand how the Air Force plans to present forces and integrate with the joint force through in-theater, out-of-theater, transient, exercise forces, and the Air Expeditionary Task Force, including elements from air mobility, space, cyber, reserve and guard components, and homeland defense, according to AFDP 3-30.
3. Understand how current and emerging developments are challenging the ATO and AOC processes.
4. Understand how the mission to defend the homeland places unique demands on air planning.
5. Apply and integrate the tenets of airpower with the unique requirements for air C2 through the design of a viable C2 map.

**LESSON OVERVIEW**

**JC 518A&B (L)/(W): Evolving AFDP 3-30: Air C2 in Major Operations**

**Overview:** Panel discussion with Col Kenneth “Flounder” Jones (USAF, Ret.), Col Steve Gregg (USAF, Ret.), Col Charles Douglas (USAF, Ret.). Integrating airpower into joint operations, considering the unique requirements and complexities of the air, cyber and space domains, challenges existing organizational constructs. As with other aspects of conflict in the current era, Air Force C2 doctrine is rapidly evolving. This session looks at the pressures on the existing approaches to C2, on the AOC and ATO, and examines how the force has evolved in response. The panel will discuss the evolution of C2 and the AOC in major joint operations, providing perspective for the following seminar discussions and practical exercise that follows. The panel builds on a coordinated CSS speaker, Gen Lori Robinson (USAF, Ret.), former Commander PACAF and NORTHCOM. At the conclusion of the panel, students will break into seminar workshops to continue the close examination of AFDP 3-30, focusing on the proposed organizational constructs for the presentation of forces in joint operations, especially through the Air Expeditionary Task Force construct. The seminar closes with a practical exercise, where student groups design a proposed C2 structure for a major operation.

*CONTACT HOURS: 1.5-hour lecture and 1.5-hour seminar workshop.*

## REQUIRED READINGS

1. Air Force Doctrine Publication 1, *The Air Force*, 10 March 2021, pages 1-44 [EL].
2. Air Force Doctrine Publication 3-30, *Command and Control*, 7 January 2020, pages 26-50; Appendix C, “The Air Forces (AFFOR) Staff, 59-64” [EL].
3. Joint Publication 1 Volume 2, *The Joint Force*, 19 June 2020, CH5, Joint Command and Control, pages IV-1 to IV-5; IV-7 to IV-20; and A-1, A-2 [EL]. *This publication describes joint doctrine governing activities of the U.S. military in joint campaigns and operations, and it provides considerations for military interaction with governmental and non-governmental agencies, multinational forces, and other interorganizational partners.*
4. Joint Publication 3-30, *Joint Air Operations*, 25 July 2019, pages II-20 to II-22, Appendix G-1 through G-5 [EL].

## LESSON INTEGRATION AND RATIONALE

Focusing on presentation of forces and evolving air C2 structures, the lesson completes the student examination of integrating the Air Force into joint operations, integrating knowledge built in JAOPC, Military Theory, Airpower, and Contemporary and Emerging Warfare.

### Key Terms

Centralized Command | Distributed Control | Decentralized Execution  
Air Expeditionary Task Force  
In-Theater Forces, Out-of-Theater Forces, Transient Forces  
Space Coordinating Authority  
Special Operations Liaison  
Director of Cyberspace Forces  
Joint Force Commander (JFC)  
Unity of Effort  
Flexibility & Versatility  
Persistence & Concentration  
Priority & Balance

**Day 19: JC 519A | Mon. 15 April 2024**  
**Global Force Employment, Operational Contract Support, National Guard, and Reserve Component**

“Commanders who appreciate OCS and consider its second- and third-order effects in operational planning also take advantage of the non-kinetic power OCS yields to shape the environment—this is the “art and science” of war fighting.

—Brig Gen Alice Trevino

**LESSON OBJECTIVES**

1. Understand the concept of Global Force Employment (GFE), the Global Force Management (GFM) process, how GFM drives assignment, allocation, and apportionment of forces.
2. Understand the concept of Operational Contract Support (OCS), and consider how OCS might be leveraged to assist the joint force while operating in a contested environment.
3. Understand the difference between forces operating under Title 10 and Title 32 authorities.
4. Understand the capabilities of the Reserve components and the National Guard.

**LESSON OVERVIEW**

**JC 519 (S): Global Force Management, Operational Contract Support & the Reserve Component**

**Overview:** The Department of Defense has adopted the GFE concept to balance forces globally across the Combatant Commands. OCS is also used to address gaps in joint force capabilities and serves as a force multiplier in most operations, but reliance on OCS presents significant challenges to forces operating in non-permissive environments. The National Guard and Reserve component is an essential reservoir of overall joint force readiness. Together, these four elements are essential for military planners to take into consideration when developing operational plans.

*CONTACT HOURS: 2.0-hour seminar.*

**REQUIRED READINGS**

1. Jack Detsch, “Departure of Private Contractors was a Turning Point in Afghan Military’s Collapse,” *Foreign Policy*, (16 Aug 2021) [EL].
2. Tim Conway (J35), Information Paper, “Global Force Management,” Aug, 2023. 1-4, [EL].
3. Joint Publication 5-0, 1 Dec. 2020, Appendix D, ‘Global Force Management,’ D-1 to D-8, [EL].
4. Congressional Research Service, “Defense Primer: Reserve Forces,” 17 Jan. 2023, 1-3, [EL].

**SUGGESTED ADDITIONAL MATERIAL**

1. Joint Publication 3-08, *Interorganizational Cooperation*, 12 Oct 2016, Validated 18 October 2017, Chapter III.

2. Thomas Goss, “Who’s in Charge? New Challenges in Homeland Defense and Homeland Security,” *Homeland Security Affairs* II(1), 2006, 1-12.
3. Travis Finlay, “Title 10, Title 32, and Title 50: Overcoming Homeland Defense Stovepipes,” unpublished MA thesis, Henly-Putnam University, 29 Sept. 2016. [https://www.academia.edu/30422907/Title\\_10\\_Title\\_32\\_and\\_Title\\_50\\_Overcoming\\_Homeland\\_Defense\\_Stove\\_pipes](https://www.academia.edu/30422907/Title_10_Title_32_and_Title_50_Overcoming_Homeland_Defense_Stove_pipes).
4. Michael A. Cryer, “Enabler or Vulnerability: Operational Contract Support in Large-Scale Combat Operations,” SAMS monograph, 18 May, 2019 [EL].
5. Department of Joint Warfighting, *Joint Campaigning Capabilities Primer (JCCP) AY24*, U.S. National Guard. *The JCCP provides a brief overview of service capabilities, force presentation, and major assets to enhance understanding of the services’ unique contributions to the Joint Force.*

#### **LESSON INTEGRATION AND RATIONALE**

This lesson extends the Defense of the Homeland theme and capabilities discussions begun in Contemporary and Emerging Warfare. Global Force Management describes how the force is managed and distributed globally. Operational Contract Support and the Reserve and National Guard are highlighted as vital components of enhancing overall U.S. force posture.

**Phase 3: PRACTICAL APPLICATION**  
*Joint Planning Exercise (PACIFIC ENDEAVOR)*



**Day 19: JC 519B | Mon. 15 April 2024**  
**PACIFIC ENDEAVOR Road to War**

“Taiwan is clearly one of their ambitions. . . . And I think the threat is manifest during this decade, in fact, in the next six years.”

—Adm. Philip Davidson, April 2018

**LESSON OBJECTIVES**

1. Understand the geostrategic and political backdrop of PACIFIC ENDEAVOR in preparation for the directed study day.

**LESSON OVERVIEW**

**JC 519 (L): PACIFIC ENDEAVOR Road to War**

**Overview:** This lecture provides a strategic overview of a fictional future scenario in the Western Pacific, providing the basis for student directed study and preparation. The lecture surveys historical and current events, international relationships, strategic competition, and the transition from competition-operations to open conflict. While the brief provides a framework for detailed study and planning, students are also expected to examine open-source materials to provide richness and depth to PACIFIC ENDEAVOR planning activities and products.

*CONTACT HOURS: 1.0-hour lecture.*

**REQUIRED READINGS**

1. Office of the Security of Defense Annual Report to Congress 2023, *Military and Security Developments Involving the People’s Republic of China*. pp. i-xii, 1-46 47-184 (skim)  
[EL]

**LESSON INTEGRATION AND RATIONALE**

This lecture prepares students for a directed study day, during which students will be expected to thoroughly analyze scenario products and other relevant open-source information to enable detailed discussion and planning throughout PACIFIC ENDEAVOR.

**Day 20: Directed Study | Tues. 16 April 2024**

“The realization of complete national reunification is driven by the history and culture of the Chinese nation and determined by the momentum towards and circumstances surrounding our national rejuvenation. Never before have we been so close to, confident in, and capable of achieving the goal of national rejuvenation. The same is true when it comes to our goal of complete national reunification.”

—Taiwan Affairs Office of the State Council, PRC, August 2022



Source: <https://www.express.co.uk/news/world/1346178/china-taiwan-invasion-us-intervenes-nuclear-missiles-world-war-3>.

**Day 21 – Day 28: JC 521-528 | Thurs. 18 April – Mon. 29 April 2023**  
**PACIFIC ENDEAVOR**

“As a method of warfare with ‘beyond limits’ as its major feature, its principle is to assemble and blend together more means to resolve a problem in a range wider than the problem itself. For example, when national is threatened, the answer is not simply a matter of selecting the means to confront the other nation militarily, but rather a matter of dispelling the crisis through the employment of ‘supra-national combinations.’”

—Cols. Qiao Liang and Wang Xiangsui

### **LESSON OBJECTIVES**

1. Apply planning concepts to develop an initial operational approach based on directives and guidance provided, conducting appropriate JPP activities to develop solutions to operational problems.
2. Conduct mission analysis and develop COAs that demonstrate how the military instrument of power may be used to further national interests against a nuclear-capable peer adversary, accounting for information operations, a whole of government approach, and multinational cooperation.
3. Analyze U.S. military force capabilities and limitations and appropriately organize and plan for the employment of forces across the range of operational domains.
4. Analyze the developed plan for validity and efficacy, demonstrating proficiency with the JPP and relevant joint and service doctrine.

### **LESSON OVERVIEW**

#### **JC 521-527 (S): PACIFIC ENDEAVOR Joint Planning Exercise**

**Overview:** PACIFIC ENDEAVOR is the capstone event for JC – it requires the application of planning concepts in a scenario involving the defense of a People’s Liberation Army (PLA) invasion of Taiwan. Note: The majority of the PACIFIC ENDEAVOR seminars are six-hour days, and students are expected to participate and fully engage during the entirety of those programed periods of work.

As officers assigned to headquarters planning staffs and their associated JPGs, planners may be required to develop multiple COAs per the Joint Strategic Campaign Plan (JSCP); a POTUS, SECDEF, or combatant commander tasking; or changes in the strategic environment. While PACIFIC ENDEAVOR is a deliberate planning scenario, this eight-day exercise requires the completion of JFC tasking on a specific timeline. Students will apply previous course (and planning) concepts, such as all-domain operations; service capabilities; geographic and functional combatant commands; command organizations and relationships; interagency, intergovernmental, and multinational considerations; and strategic guidance. Students will synthesize during PACIFIC ENDEAVOR, analyzing the OE and strategic guidance, developing two COAs, and presenting a Mission Analysis briefing and a COA Approval briefing to the Commander (played by the CI).

Student performance will be evaluated on the development and presentation of two briefs. The Mission Analysis briefing will be conducted on PACIFIC ENDEAVOR Day 4. The COA Approval briefing will be conducted on PACIFIC ENDEAVOR Day 8. Together, the two PACIFIC ENDEAVOR briefings constitute JC 603E, a graded evaluation totaling 45% of the JC course grade. Evaluated briefings should be regarded as in-class examinations; they will occur only at the times scheduled on the ACSC ATO. Seminar planning teams should devise their own daily itinerary based on the following breakdown of PACIFIC ENDEAVOR daily activities.

**Day 1 (6 hours):**

Planning Initiation  
Develop Initial Operational Approach

**Day 2 (6 hours):**

Develop Initial Operational Approach (cont.)  
Begin Mission Analysis

**Day 3 (6 hours):**

Continue Mission Analysis  
Revise Initial Operational Approach (as necessary)

**Day 4 (6 hours):**

Deliver Mission Analysis Briefing and Executive Summary (JC 603E part one)  
Begin COA Development

**Day 5 (6 hours):**

COA Development

**Day 6 (6 hours):**

COA Development

**Day 7 (6 hours):**

COA Analysis and Wargaming  
COA Comparison  
Develop COA Approval Brief

**Day 8 (2.5 hours):**

Deliver COA Approval Briefing (JC 603E part two)

*CONTACT HOURS: 44.5-hour seminar.*

## **REQUIRED READINGS**

1. PACIFIC ENDEAVOR scenario planning guidance, research materials, and other open source research sources as required. **[EL]** *Students must read the scenario guide and conduct appropriate research prior to the start of PACIFIC ENDEAVOR during the scheduled directed study time. The extensive background material on the PRC and*

*associated components of the PLA, Taiwan, Japan, and Australia helps frame the scenario. Students will not have the time to “spin-up” on the scenario during this seminar. In addition to the materials provided, students will be required to conduct their own research to aid the practical application of doctrinal concepts and the discernment of appropriate questions and information sources to enable military planning activities.*

2. JC Planning Study Guide. **[EL]** *This guide is provided to enable coherent research and note-taking on scenario materials. Students should use the guide and prepare notes for in-class use per CI direction.*
3. JC Course assigned readings. **[EL]** *As the final JC event, all of the course readings and applicable service and joint doctrine are appropriate resources for use in the planning exercise. This exercise requires students to integrate the concepts and doctrinal principles from across the JC course lessons. Students should also incorporate the concepts and knowledge gained from other ACSC courses. Students should bring appropriate reference materials to seminar to facilitate joint planning and hands-on practical learning.*

#### **LESSON INTEGRATION AND RATIONALE**

PACIFIC ENDEAVOR is the JC capstone planning exercise focused on the defense of Taiwan. It uses a near-complete PLA order of battle, playing out in the same “world” as the Fiery Reef scenario from JAOPC. The exercise will test your ability to assimilate concepts from across the ACSC AY24 curriculum and apply them to a complex operational problem in a time-compressed environment. The goal is for the seminar to emerge from PACIFIC ENDEAVOR with a better understanding of the relationship between strategic events, the role of joint doctrine in guiding the planning process, the application of operational art and design, and the application of military capabilities to support national interests. This lesson builds on MT’s coverage of classic military theory and military operations in the Space Domain, Strategic Deterrence, Information Warfare, Gray Zone Warfare, and the Continuum of Competition. It builds on NS’s examination of the PRC ascendance as a global power, INDOPACOM, Offshore Control, Extended Deterrence, and the new Cyberwar era. It builds on AO’s and CW’s discussion of historical airpower capabilities and limitations, the CFACC, the AOC, and the Space and Cyberspace domains.

**Appendix I**  
ASSIGNMENT JC 600E – OPERATIONAL ART & DESIGN GROUP PRESENTATIONS

**STUDENT GUIDANCE**

*This assignment constitutes 15% of the JC course grade (JC 600E).*

**Overview:** In his seminal work *Command in War* (1987), Martin Van Creveld posits, “Studying the past may be a matter of marginal utility only, but the past is us, and it is on the past alone that all decision making is inevitably based. A systematic study of the past prevents leaders and planners from relying solely on personal experience, hearsay, and intuition.” This lesson provides an opportunity to study and present a short briefing on a selected commander and battle. It will provide insight into the critical and creative thinking required of the military professional to devise appropriate courses of action (COAs) to solve complex problems. This assignment provides insight into how planners and commanders wield elements of operational design to achieve military objectives. This assignment, coupled with an understanding of the capabilities and resources used in accomplishing military missions, will enable students to analyze a situation and determine appropriate ways and means for achieving desired ends – known in joint doctrine as developing COAs.

At the conclusion of the JC 501 seminar discussion, the CI will assign students to one of four research groups. Each group will select a specific commander and related battle/operation from the list below, and then present their research to the seminar during JC 511. All students must participate in the presentation, and each student will receive an individual grade. The presentation will adhere to the following guidance:

1. The presentation will be **no longer than 20 minutes for each group**. Use of PowerPoint slides is at the discretion of the CI.
2. **2-4 minutes**: Overview of the operation that includes a discussion on complexity and uncertainty from the viewpoint of the commander.
3. **4-6 minutes**: Identify **no fewer than 3 and no more than 5 elements of operational design** that the commander either skillfully utilized or failed to consider, and the impact it had on the operation,
  - a. How did these elements inform the commander’s decision-making process?
  - b. Did the commander appreciate certain elements, or discount them? Why?
4. **4-6 minutes**: Identify **no fewer than 3 and no more than 5 principles of joint operations**. Principles of joint operations were formerly known as principles of war to which the commander adhered, or were disregarded/violated, and how they impacted the commander’s decisions.
  - a. Why were these principles/concepts significant to the outcome of the battle/operation and the decisions made?
  - b. Was the “violation” of certain principles a direct contributor to military success (or failure), or was success achieved despite flawed use of doctrine/principles?
  - c. How do the principles connect to the elements of operational design that you identified?

5. **2-4 minutes:** Identify friendly and enemy operational level COGs based on the readings and your understanding of COGs.
  - a. Were these the appropriate COGs for the problem?
  - b. How did the COGs inform the commander's decision-making process?

Each student presentation will be followed by a 10-minute question/answer/discussion period led by the CI. Alternately, the CI may opt to conduct all presentations first and use the remainder of the seminar time for discussion.

### **REQUIRED READINGS**

1. Rebecca Jensen and Steve Leonard, [\*Back to the Future: Rediscovering Operational Art in an Era of Great Power Competition\*](#), Modern War Institute at West Point, 9/10/21 [EL]. *Illustrates the utility of operational art through its application while underscoring its role as a crucial link between tactics and strategy. Readers are shown how operational art proved effective through the Gulf War but waned during the 1990's only to be resurrected after the challenges of the early phases of OEF and OIF. The reader should come away with a better understanding of how operational art contributes to success and why it is vital to Great Power Competition.*

2. Group research as required for assigned Commander-Operation pairing.

### **SUGGESTED ADDITIONAL MATERIAL**

1. Milan Vego, "On Military Creativity," *Joint Force Quarterly*, 70, 3rd Quarter (2013), 83-90. *Vego points out several aspects of military creativity, and the necessity for the military professionals' "...ability to find workable, novel solutions to problems—to be innovative and adaptable in fast moving, potentially confusing situations," a primary goal of ACSC and the JW course.*

### **LESSON INTEGRATION AND RATIONALE**

The ability to research and critically analyze historical operations exercise student ability to creatively develop COAs for solving complex problems. Later in the course, the COA Development Workshops will leverage this analysis, and the course will culminate with the application of this knowledge during PACIFIC ENDEAVOR. This lesson builds upon the foundation of Military Theory lessons that address and examine classic military theorists (ex. Clausewitz, Jomini, Sun Tzu), and the principles of war.

### **Commander-Operation pairings available for study:**

General Ulysses S. Grant at Vicksburg  
General Robert E. Lee at Chancellorsville  
General Douglas F. MacArthur at Inchon  
Air Chief-Marshal Hugh Dowding at the Battle of Britain  
Reichsmarshal Hermann Goering at the Battle of Britain  
Admiral Chester Nimitz at the Battle of Midway  
Generaloberst Helmuth von Moltke (the younger) at the Battle of the Marne  
Viscount General William Slim at the Battles of Kohima/Imphal  
Napoléon Bonaparte at Austerlitz  
Lt Col James H. Doolittle and the USAAF Raid on Tokyo

**Appendix II**  
ASSIGNMENT JC 601E – POSITION PAPER

**STUDENT GUIDANCE**

*This assignment constitutes 20% of the JC course grade (JC 601E).*

**Overview:** Phase 1 of *Joint Campaigning* introduced students to the concept of operational art, operational design, and their utility in solving complex problems. During the Nigeria Exercise (NEX), seminars conducted Operational Design and Mission Analysis workshops, giving structure to the identified problem, and developing the broad contours of a solution. In the CW course, students were introduced to the concept of warfighting domains and the services as force providers. Seminars learned about how each service operationalizes warfighting capabilities and delivers effects. In this assignment, students will exercise their understanding of these topics through the analysis and selection of a force module which will augment existing USAFRICOM force assignment and allocation tables. The forces outlined in the modules are to be considered additional resources available to integrate into planning for BPLAN 8888-24. Each student will produce a position paper, advocating for one of the modules and discussing any remaining force requirement recommendations. This assignment will test student ability to produce thoughtful written work.

During NEX workshops, seminars developed an initial operational approach and conducted mission analysis. Seminars identified a military end state, objectives, a list of tasks, and a mission statement. Students will utilize the content of their seminar’s analysis in the crafting of a response, without consulting or cross-referencing the work done in other seminar classrooms.

**DESCRIPTION**

One of the activities of Mission Analysis, “Conduct Initial Force and Resource Analysis,” was **not** accomplished during the Mission Analysis workshop (reference JP 5-0, p. III-20). Based on the output from the Operational Design and Mission Analysis workshops, analyze the enclosed force modules. Select one (1) force module to augment the existing USAFRICOM force assignment and allocation tables and argue why it is best suited for accomplishing the set of tasks, operational objectives, and desired military end states described in the seminar’s operational approach. Address the following:

1. Align capabilities contained within the selected force module to specific tasks derived during the Mission Analysis workshop. Describe why that force module and its associated capabilities are best suited for the task. In the justification, take into consideration counterarguments and directly address their merits (or lack thereof):
  - Address a minimum of eight (8) tasks. There may be more than one unit assigned to any task. There may be more than one task assigned to any unit. There may be units in the module that receive no tasks.
  - Address all essential tasks that were identified by the seminar in the Mission Analysis workshop.
2. Based on the analysis conducted above, identify capability gaps in the selected force module:



- Identify between two to four (2-4) capability gaps in your selected force module, describing the shortfalls in detail. Identify where capability gaps within the selected force module can be filled or supplemented within the existing USAFRICOM force assignment and allocation tables.
- If unable to fill the capability gap from within USAFRICOM force assignment and allocation tables, identify and argue for a suggested capability available within the broader joint force that can fill the requirement. Within the joint force inventory, describe a potential provider (down to the unit level), and which component command it would align under.

3. Using the selected force module, revisit the seminar's operational approach and make appropriate revisions:

- Identify specifically where adjustments are required within the existing operational approach framework, describe overarching changes the additions have on the achievement of operational objectives and military end states, as well as planning assumptions. Alternately, if analysis suggests no-need for adjustment, defend the assessment.

## ADMINISTRATION AND LOGISTICS

JC 601E will be no more than (5) single-spaced pages formatted per Air Force *Tongue and Quill* Position Paper format guidelines. Do not write an extended review of the already existing operational approach or mission analysis conducted during the workshops, or a narrative describing different proposed Courses of Action.

JC 601E is an **individual** assignment constituting **20% of the JC course grade**. The paper will be assigned on **01 April** and is due to the seminar instructor no later than 17:00 CST on **12 April**, via electronic submission. Citations are not required for information derived from the *Joint Warfighting Capabilities Primer*, the *ACSC Staff Planning Guide*, and any seminar-developed products. Appropriate citations are required when quoting other sources, to include doctrinal publications. Graphics, tables, or charts should be placed at the end of the document, will be assessed as part of the graded evaluation, and do not count toward the page-length requirement.

## Appendix III

### ASSIGNMENT JC 602E – SEMINAR AND WORKSHOP CONTRIBUTIONS AND PEER ACCOUNTABILITY

#### STUDENT GUIDANCE

*This assignment constitutes 20% of the JC course grade (JC 602E).*

**Overview:** Underpinning the success of any staff officer is the philosophy “compete against a high standard, not against your peers.” *Joint Campaigning* encourages this philosophy by assessing performance from the CI perspective as well as from the candid feedback of seminar colleagues. When it is your time to follow, be a good follower. When it is your time to lead, embrace your role and empower the team, skillfully matching troop-to-task, while providing vision and direction. Read all the assigned material during all stages of the course:

- For **required readings**, students are expected to meet the requirement and come to seminar prepared and actively participate in discussion. Readings should NOT be divided among the flight members.
- For the **split readings**, each group is expected to cover down on the material assigned, concisely brief the group, and drive seminar discussion. This need-not involve developing slides, but shared notes are a good practice. Failing to “do one’s part” on the split readings risks the seminar missing out on important material and concepts.
- For the **workshops**, students are expected to actively participate in research and breakout sessions. It is mandatory all students participate in NEX workshop briefings, as well every student brief a segment of the Mission Analysis and COA Approval briefings for PACIFIC ENDEAVOR. CI will aspire to evenly divide workshop leadership roles among the seminar, however these opportunities are limited.

Based on the collaborative nature of the course, *Joint Campaigning* also features two (2) peer inputs. Peer inputs are not a standalone graded event, but are diagnostic tools designed to enhance CI overall understanding of the depth and quality of student contributions.

- The first will be turned in on **15 April**, on the last day of Phase II, before starting PACIFIC ENDEAVOR.
- The second will be turned in on **26 April**, the final day of student-collaboration for Phase III.

**Appendix IV**  
ASSIGNMENT JC 603E – PACIFIC ENDEAVOR

**STUDENT GUIDANCE**

*This assignment constitutes 45% of the JC course grade (JC 603E).*

**Overview:** During PACIFIC ENDEAVOR, seminars will conduct Planning Initiation and Mission Analysis, culminating in a formal Mission Analysis briefing to the INDOPACOM Commander, played either by the CI or a retired General Officer. The seminar will receive feedback, and then will return to building at least two COAs, culminating in a formal COA Approval briefing.

During this time, the CI will be largely absent from the planning room(s) but will be available to answer requests for information to facilitate seminar planning.

The expectations from the instructors, from the course team, the ACSC leadership, and from the retired General Officers is to see first-rate staff products.

To succeed in **Mission Analysis**, briefing teams will be assessed on performance across the following interest areas:

- PMESII and overall quality of analysis of the Operational Environment.
- Problem Statement (Defining the Problem).
- Operational Approach.
- Mission Statement.
- Assumptions, CCIRs and Risk.
- Teamwork, leadership, and quality of collaboration.
- Briefing coherence and depth.

To succeed in **COA Approval**, briefing teams will be assessed on performance across the following interest areas:

- Commander's Intent and Purpose.
- COA Sketches and Phasing.
- Timing/Forces.
- Information Operations.
- Branches/Sequels.
- Teamwork, leadership, and quality of collaboration.
- Briefing coherence and depth.

## Appendix V JPME JOINT LEARNING AREAS, SAEs, ACSC PLO MAPPING

The *Joint Campaigning* (JC) course is built around the requirements for JPME-1 certification, with a particular focus on the application of knowledge and skills acquired throughout the academic year **through the JPP, focused on competition and conflict with the PRC**. Requirements are drawn from the Joint Chiefs of Staff via the Officer Professional Military Education Policy (OPMEP-F), CJCSI 1800.01F, 15 May, 2020. The ACSC curriculum for AY24 supports the following ACSC Program Learning Outcomes, listed below.

### AY 2024 ACSC PROGRAM LEARNING OUTCOMES (PLO)

**ACSC PLO 3:** Describe capabilities, limits, integration of instruments of national power across the spectrum of competition, conflict and war.

**ACSC PLO 5:** Apply military theory, doctrine, guidance, and JC principles to plan for all-domain, globally integrated operations

All four course learning objectives work to fulfill PLO 3 and PLO 5: 1) Understand strategic direction, guidance and commander's intent; 2) Understand and apply military art: what actions, in what order, are most likely to achieve those conditions; 3) Understand and apply military science: what resources are required to accomplish those actions; 4) Understand risk analysis: what is the chance of mission failure or other unacceptable results in performing a set of actions.

### AY 2024 JOINT LEARNING AREAS FOR JPME-1

The *Joint Campaigning* course accomplishes the following JPME Joint Learning Areas (JLAs):

#### JLA 1 – Strategic Thinking and Communication

The strategic environment is taken into account through the JPP both through the receipt of guidance and analyses of the OE using a variety of toolsets. Each of these tools seeks to provide a framework for strategic thinking. Likewise, the crucial importance of the narrative and strategic communications is emphasized throughout the course and is an element of the assessment for the PACIFIC ENDEAVOR capstone exercise. This is a core theme in campaigning, so it has taken an even larger place within the course in AY24.

- Planning Techniques: JC 500, JC 501, JC 502, JC 503, JC 504, JC 505, JC 506.
- NEX (Competition with PRC and Russia): JC 507, JC 509-10, JC 513-16
- PACIFIC ENDEAVOR (Conflict with PRC), JC 519b-528

#### JLA 2 – The Profession of Arms

Specific staff officer skillsets, to include critical thinking, professional writing, staffing best-practices and leadership are incorporated not only into the workshops listed below, but into most seminar lessons, as practical exercises are used to develop specific skillsets:

- Staff Work: JC 508-9; JC 512-13; JC 521-33
- Position Paper, JC 601E
- Staff Briefings, JC 600E, JC 602E, JC 603E (PACIFIC ENDEAVOR)

### **JLA 3 – The Continuum of Competition, Conflict, and War**

The course has been restructured around the emerging concept of campaigning and the continuum, even renamed, “Joint Campaigning” as a transition away from the “Joint Warfighting” nomenclature of the AY22 version of the course.

- JC 500; JC 501
- NEX, JC 507, 509; JC 513-16, (PRC and Russia)
- PACIFIC ENDEAVOR, JC 519b-528 (PRC)

### **JLA 4 – The Security Environment**

The course studies the global security environment through analysis conducted over fictional scenario exercises. In the first, the United States is engaged in geopolitical competition with China and Russian in the USAFRICOM area of responsibility in the year 2025. Students must develop a contingency plan that addresses U.S. national security interests in the region while also advantageously positioning the United States as the “partner of choice,” incorporating a spectrum of diplomatic, informational, military, and economic levers of national power. In the second exercise, the PRC strategic calculus propels the regime to aggressively assert military power throughout in the South China Sea and initiate military operations to forcefully reintegrate Taiwan with mainland China. Students conduct mission analysis at the theater level, which exercises simultaneously JLAs 4, 5 and 6.

- NEX, JC 507, 509; JC 513-16, (Competition with PRC)
- PACIFIC ENDEAVOR, JC-519b-528 (Conflict with PRC; Japan and Australia as U.S. allies)

### **JLA 5 – Strategy and Joint Planning.**

- NEX, JC 507, 509; JC 513-16, (Competition with PRC)
- PACIFIC ENDEAVOR, JC 519b-528

### **JLA 6 – Globally Integrated Operations.**

- NEX, JC 507, 509; JC 513-16, (Competition with PRC)
- PACIFIC ENDEAVOR, JC 519b-528

## AY 2024 SPECIAL AREAS OF EMPHASIS FOR JPME-1

### ***SAE 1 – Irregular Warfare***

JC 505B, JC 508-10, especially JC 512A, and JC 513-14, discuss irregular warfare as part of the analysis and application of activities for Operation Design, Mission Analysis and COA Development workshops. C2 of special operations air is a part of the readings for JC 518b, and special operations forces may be applied in the operational-level student-led planning exercise, PACIFIC ENDEAVOR.

### ***SAE 2 – Nuclear Capabilities and Concepts***

Nuclear considerations, capabilities and the risk of escalation are core elements of PACIFIC ENDEAVOR, encompassing lessons JC 521-527. Students are expected to build in escalation off-ramps into the planning process and consider where in the branch and sequel components of their COAs are tied to nuclear escalation.

### ***SAE 3 – Strategic Deterrence in the 21<sup>st</sup> Century***

Strategic deterrence plays a role in the Nigeria exercise, expressed both in the fictional USAFRICOM Campaign Plan and associated strategic guidance, which requires students achieve military and political objectives that better positions the United States as a strategic competitor. Strategic deterrence plays greater role in PACIFIC ENDEAVOR, where cross-domain methods of deterrence are explored, and potentially play out in the wargame course that follows the conclusion of JC.

### ***SAE 4 – Data, Analytics & Artificial Intelligence***

Minor overall role, but provides allowances for students to explore limited use of “AI” (natural language processing) as part of the planning process to explore the application and potential impact of this emerging technology on operational planning.

### ***SAE 5 – Global Force Management***

Explicitly covered in JC 519, it forms a lesson objective for that day and is supported by two readings, the information paper by Tim Conway (J35) and the JP 5-0 Appendix D. It also forms an implicit restriction on actions in the Nigeria exercise and PACIFIC ENDEAVOR.

### ***SAE 6 – People’s Republic of China***

Allows for multiple application of knowledge about the PRC developed over the course of the ACSC academic year. In-depth reading on the subject within JC 501 and serves as the primary focus of PACIFIC ENDEAVOR (JC 521-527). Contains several hundred pages of PRC-based source material provided as part of the exercise. Additionally, PRC coercive economic policies and security cooperation lobbying in Nigeria represent an important fact of the Nigeria exercise, forcing students to grapple with PRC competition and the inherent challenge the U.S. faces with partners who’ve purchased and integrated Chinese technology into their inventory of military equipment.

### ***SAE 7 – Inter-Agency Cooperation***

For the Nigeria exercise and PACIFIC ENDEAVOR, students must consider inter-agency cooperation. Students will consider the inter-agency role and develop command and control structures that both support and integrate inter-agency activities into military planning. Students will also analyze and apply inter-agency capabilities to achieve national objectives, while walking through the JPP for the Nigeria exercise and PACIFIC ENDEAVOR.

***SAE 8 – Russia, North Korea, Iran***

Russia plays significant role in the Nigeria exercise as a strategic competitor belligerent. North Korea plays a role as a competitor in PACIFIC ENDEAVOR. Iran plays a very minor role in both the Nigeria exercise and PACIFIC ENDEAVOR, as students are advised to consider the impact Iranian oil exports and foreign military sales industries have on the operating environment.

***SAE 9 – Women, Peace & Security***

The desire for peace and security for all people in the region is a primary military and political objective within the Nigeria exercise and PACIFIC ENDEAVOR, playing a major role in shaping the course of actions developed within both exercises.

## **Appendix VI**

### INSTRUCTOR BIOGRAPHIES

#### **COURSE TEAM**

##### **Dr. Brian R. Price (CIV) | Course Director**

Dr. Brian R. Price is an Associate Professor in the Department of Joint Warfighting at Air Command and Staff College. He holds a B.A. in Political Science from the University of California, Los Angeles, and earned his Ph.D. in Military History from the University of North Texas. He is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College. Dr. Price has conducted research for the POW-MIA Accounting Agency, deployed as a Social Science subject matter expert with SOF in Afghanistan, serving back-to-back tours as a Senior Social Scientist in Regional Command East, Afghanistan. He worked for ten years in Silicon Valley, rising to the level of Vice President, and ran his own publishing company before taking his doctorate. His research interests focus on the nexus of culture, technology, and war, and his current research focuses on the development of post-Vietnam TACAIR, a project for which he has conducted extensive archival research along with oral histories on several senior officers. He is published in numerous journals and has authored several books in his second field of interest - medieval and early modern warfare. In his spare time, he teaches historical swordsmanship and is an inductee to the Martial Arts Hall of Fame.

##### **Lt Col Blair Schaefer (USAF) | Deputy Course Director**

Lt Col Blair Schaefer is an instructor and Deputy Course Director in the Department of Joint Warfighting at Air Command and Staff College. As a Senior Air Battle Manager with over 2,200 flight hours, he has operational experience in the E-8C Joint Surveillance Target Attack Radar System and E-3A NATO Airborne Warning and Control System. Lt Col Schaefer graduated with a B.A. in Political Science from the University of Illinois and earned an M.S. in Strategic Intelligence from the National Intelligence University. He is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

##### **Maj Jason Matos (USAF) | JC Course Team**

Maj Jason Matos is an instructor in the Department of Joint Warfighting at Air Command and Staff College. As an Airfield Operations officer, he has experience leading airfield management functions in AMC, PACAF, and AFMC, as well as supporting Operations Enduring Freedom and Inherent Resolve. Maj Matos graduated with a B.S. in Air Traffic Management from Embry-Riddle Aeronautical University, holds an M.B.A. from Louisiana State University-Shreveport, and earned a Masters of Military Operational Art and Science from Air University. Prior to this assignment, he was the Director of Operations at the 96th Operation Support Squadron, Eglin AFB, Florida.

##### **Lt Col Mark Muller (USAF) | JC Course Team**

Lt Col Mark Muller is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Muller graduated with an B.S. in Military History from the United States Air Force Academy and holds advanced academic degrees from Air University and Liberty University. As a career Cyberspace Operations Officer, Lt Col Muller has led operations at the Squadron, Wing, MAJCOM and Joint levels. Prior to this assignment, he represented and advocated for U.S. interests on the NATO International Military Staff in Brussels, Belgium.



## COURSE INSTRUCTORS

### **Lt Col D.J. Benzing (USAF)**

Lt Col D.J. Benzing is the Deputy Chair of the Department of Joint Warfighting at Air Command and Staff College. As a Command Pilot with more than 3,500 flight hours, his operational experience includes instructing, evaluating, and commanding missions in the C-17A in support of Operations Enduring Freedom, Iraqi Freedom, and New Dawn, as well as operations in and around the Horn of Africa to include numerous presidential support missions. Lt Col Benzing graduated with a B.S. in Biology from the U.S. Air Force Academy and holds advanced degrees from American Military University and Air University. Prior to this assignment, he commanded the 31st Student Squadron, Squadron Officer School.

### **CDR Dan Boutros (USN)**

CDR Dan Boutros is an instructor in the Department of Joint Warfighting at Air Command and Staff College. CDR Boutros graduated from the U.S. Naval Academy in 2001 with a Bachelor of Science degree in Aerospace Engineering, where he was part of a team that built and launched the school's first satellite into space. He earned his Naval Aviator wings as a helicopter pilot in 2003 and flew the SH-60F, HH-60H, and later the MH-60S with HS-3 in Jacksonville, FL and HS/HSC-14 in Atsugi, Japan and San Diego, CA, deploying aboard USS ROOSEVELT (CVN-71) and USS GEORGE WASHINGTON (CVN 73). He accumulated over 3,100 flight hours and flew missions in support of Operation Iraqi Freedom and Operation TELIC, as part of the Joint Helicopter Force in Basra, Iraq. His shore assignments include serving as an instructor pilot, attending the Naval Command and Staff College where he earned a Master's Degree in National Security and Strategic Studies, and serving on the Staff of U.S. Special Operations Command as Basing and Posture Branch Chief. He is a Joint Qualified Officer, commanded Navy Recruiting District Dallas, and most recently served as Air Boss onboard USS BOXER (LHD 4).

### **Lt Col Max Currier (USAF)**

Lt Col Max Currier is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Currier graduated with a B.S. in Aerospace Science from the University of North Dakota and holds an advanced degree from Air University. As a career Intelligence Officer, Lt Col Currier has instructed, supported, and led intelligence operations at the tactical, operational, and strategic levels in the Department of Defense and Interagency. Prior to this assignment, he supported current operations at a Data Masked unit.

### **LTC Camden Donnelly (USA)**

LTC Camden Donnelly is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Her recent assignments include Branch Chief for Plans and Exercises, J4 Logistics Directorate, and Secretary, Joint Staff at United States Forces Japan. She has deployed in support of Operations Enduring and Iraqi Freedom. LTC Donnelly received a Master of Transportation and Logistics Management from American Military University and a Bachelor of Art in Latin from University of Washington.

### **Lt Col Dan Evans (USAF)**

Lt Col Dan Evans is an instructor in the Department of Joint Warfighting at Air Command and Staff College. As a career Security Forces Officer, Lt Col Evans has served in various positions at the

unit and MAJCOM level. He has previous instructor experience as an Instructor of English at the U.S. Air Force Academy Preparatory School. Lt Col Evans graduated with a classical studies degree from Richard Stockton University and holds advanced degrees from American Military University and Air University. Prior to this assignment, he commanded the 380th Expeditionary Security Forces Squadron at Al Dhafra Air Base.

**Maj Alex Fiore (USSF)**

Maj Alex Fiore is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Maj Fiore is a career Engineering officer. He served in the 3rd Space Operations Squadron as the lead Military Engineering Officer for the DSCS-III satellite. Maj Fiore was assigned to the National Reconnaissance Office and Space Rapid Capabilities Office where he served on various space related acquisition programs. He also deployed with USSOCOM as part of the Ghost Acquisition Officer program. Maj Fiore graduated with a B.S. in Aerospace Engineering from Embry-Riddle Aeronautical University, holds a M.E. in Space Operations from the University of Colorado at Colorado Springs, and earned a Masters of Military Operational Art and Science from Air University as a Schriever Space Scholar. Prior to this assignment, Maj Fiore was the Chief of the Strategic Effects Branch at the Space Rapid Capabilities Office, Kirtland AFB, New Mexico.

**Maj Weston Fulfer (USAF)**

Maj Weston Fulfer is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Maj Fulfer is a Senior Pilot with more than 3,900 flight hours flying the C-130H, MC-12W, and the E-8C Joint Surveillance Target Attack Radar System. He has flown over 2,000 combat hours in support of Operation New Dawn, Enduring Freedom, and Inherent Resolve. Maj Fulfer graduated with a B.A. in Economics from the U.S. Air Force Academy and earned a Masters of Military Operational Art and Science from Air University. His most recent assignment was as an instructor at Officer Training School.

**CDR Keith A. Henderson (USN)**

CDR Keith A. Henderson is an instructor in the Department of Joint Warfighting at Air Command and Staff College. CDR Henderson graduated with a B.S. in Political Science from the U.S. Naval Academy. He also earned a Masters of Military Operational Art and Science from Air University and an M.S. in Joint Campaign Planning from National Defense University. A career Naval Aviator, CDR Henderson has deployed on multiple ships in support of contingency operations around the world. His staff tours include assignments at U.S. Africa Command, Supreme Headquarters Allied Powers Europe (SHAPE), and U.S. Indo-Pacific Command.

**Dr. Jon Hendrickson (CIV)**

Dr. Jon Hendrickson is an Associate Professor of Military and Security Studies in the Joint Warfighting Department and Course Director for the Air Command and Staff College capstone wargame. After being awarded a Tyng Scholarship to Williams College, he earned his PhD in military history from the Ohio State University, where he was awarded a Mershon Center Fellowship to conduct research in Vienna, Rome, Paris, and London. This research led to the publication of *Crisis in the Mediterranean*, a book on the shifting alliances and naval races in the Mediterranean before World War I. After graduating from Ohio State, he was awarded the Class of 1957 Post-Doctoral Fellowship in Naval History at the U.S. Naval Academy and taught at Coastal

Carolina University. He has published and presented several papers on naval and military history, ancient history, and diplomatic history. Dr. Henderson is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

#### **Lt Col Ryan T. Huff (USAF)**

Lt Col Ryan Huff is an instructor and Director of Staff in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Huff is a Senior Maintenance officer with more than 4,000 meeting hours. He has diverse experience across bombers (B-52), fighters (F-16), and air mobility platforms (C-5 & C-17). Lt Col Huff has served within tactical maintenance squadrons, as well as performing Executive Officer roles at the Group and MAJCOM Headquarters level. He has additional experience air advising and instructing officer professional military education.

#### **LTC Andrew Jasso (USA)**

LTC Andrew Jasso is an instructor of Joint Warfighting at Air Command and Staff College. Lieutenant Colonel Jasso is a graduate of the University of Texas Rio Grande Valley where he received a B.S. in Criminal Justice and is also a graduate of the U.S. Army Command and General Staff College. He has commanded an Infantry Rifle Company and Headquarters Company, commanded a Basic Training Battalion, and has held staff positions as Chief of Plans at the National Training Center, Fort Irwin, California and at U.S. Army Central Command (USARCENT) as a J35 planner for CJTF Operation Inherent Resolve. His most recent assignment was as the Chief of Movement and Maneuver for Operations Group Charlie at the Mission Command Training Program at Fort Leavenworth, Kansas.

#### **Dr. Brent Lawniczak (CIV)**

Dr. Brent Lawniczak is an Assistant Professor of Military and Security Studies in the Department of Joint Warfighting at Air Command and Staff College. A retired Marine aviator (UH-1N/UC-12), he has served in multiple theaters in various capacities. He is a graduate of Michigan State University, the United States Marine Corps Command and Staff College, and earned his PhD from Auburn University. He served as the Senior Marine Corps Advisor to the Commandant of ACSC from 2008-2012. Additionally, Brent was qualified as a Command Pilot, Forward Air Controller (Airborne), Forward Air Controller/Joint Terminal Attack Controller, and Weapons and Tactics Instructor. His interests and expertise include joint planning, operational design, joint fires, maritime and amphibious operations, aviation operations, policy formulation, American politics, international relations, the U.S. Constitution, and U.S. military history. He is the author of the book *Confronting the Myth of Soft Power in U.S. Foreign Policy* and several articles in various military journals.

#### **Lt Col Amanda May (USAF)**

Lt Col Amanda May is an instructor in the Department of Joint Warfighting at the Air Command and Staff College. Lt Col May is a Senior Pilot with more than 2,000 flight hours. Her operational experience includes evaluating, instructing, and commanding missions in the MC-12W and HH-60G. She has deployed four times across the Middle East and Africa supporting Intelligence, Surveillance and Reconnaissance, and Combat Search and Rescue missions. She graduated with a B.S. in Economics from the U.S. Air Force Academy and holds two advanced degrees from Air University and American Military University. Prior to this assignment, Lt Col May was the Chief of Wing Plans and Programs for the 18th Wing at Kadena Air Base, Okinawa, Japan.

### **MAJ Samuel McCleary (USA)**

MAJ Samuel McCleary is an instructor in the Department of Joint Warfighting at Air Command and Staff College. MAJ McCleary is a dual branch U.S. Army officer, with four years of service as an Infantryman before transferring to Military Intelligence. He served in both capacities with maneuver units in light infantry and armor divisions. MAJ McCleary has experience as a tactical collection and targeting officer, most recently as a strategic imagery Officer In Charge and Commander of a counterintelligence unit supporting U.S. Forces Korea Ground Component Command. He is a graduate of the Defense Strategic Debriefing Course, Foreign Military Advisor Training, Interrogation Managers Course, and the Joint Air Operations Course. MAJ McCleary earned a B.S. from Texas A&M University and a Masters of Military Operational Art and Science from Air University.

### **Dr. Ann Mezzell (CIV)**

Dr. Ann Mezzell is an Associate Professor in the Department of Joint Warfighting at Air Command and Staff College. She earned her PhD in Political Science from the University of Georgia as well as an M.A. in the same field from the University of Alabama. Her fields of concentration include international relations and comparative politics. In addition to teaching core curriculum, she is an instructor for electives covering the topics of state fragility and peacekeeping operations. Her research interests center on American foreign policy, human security, and military strategy. Her recent publications appear in *Strategic Studies Quarterly* and *Parameters*. Dr. Mezzell is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

### **Lt Col Brad Pogue (USAF)**

Lt Col Bradley J. Pogue is an Instructor and Academic Advisor in the Department of Joint Warfighting at Air Command and Staff College. He previously served as Associate Dean of Education Operations and as the Department of Joint Warfighting's Director of Staff. Lt Col Pogue is a Force Support Officer with Space Operations experience. His space operations experience is in Intelligence, Surveillance, and Reconnaissance and satellite command and control. He commissioned after receiving his B.A. in History from Berry College, and subsequently earned a M.A. in Government/International Politics from Regent University. Lt Col Pogue is a graduate of Air Command and Staff College, where he earned a Master of Military Operational Art and Science. Prior to his arrival at Maxwell Air Force Base, he was the Director of Operations for the National Reconnaissance Office Space Operations Squadron located in Las Cruces, New Mexico.

### **Lt Col Elizabeth Ramoso (USAF)**

Lt Col Elizabeth Ramoso is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Ramoso is a career Weather and Environmental Science officer with experience in traditional base weather support, special operations, U.S. Army, and the Air Operations Center (AOC). She has deployed twice to the Middle East, supporting AFSOC and CJFLCC missions. Lt Col Ramoso graduated with a B.S. in Meteorology from St. Louis University, holds a M.A. in National Security Studies from American Military University, and earned a Masters of Military Operational Art and Science from Air University. Her most recent assignment was Chief, Weather Branch, 611th AOC, Joint Base Elmendorf-Richardson, Alaska.

### **Lt Col Dave Robertson (USAF)**

Lt Col Dave Robertson is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Robertson is a Command Pilot with more than 3,000 flight hours. His operational experiences include squadron command, a staff assignment as Director, Joint Air Operations Center at Joint Special Operations Command, and multiple combat deployments and tours as an evaluator pilot in different MC-130 aircraft variants. Lt Col Robertson holds a B.A. in Political Science from Saint Joseph's University, as well as multiple advanced degrees in Public Administration, Military Operational Art and Science, and Strategic Studies. Prior to this assignment, Lt Col Robertson graduated from Air War College after having commanded the 9th Special Operations Squadron, Cannon AFB, New Mexico.

### **Maj Rich "Grimace" Schanda (USAF)**

Maj Rich Schanda is an instructor in the Department of Joint Warfighting at Air Command and Staff College. He is a Senior Pilot with operational experience instructing, evaluating, and commanding missions in the HH-60G and the RAF Puma Mk 2 in support of numerous military operations and exercises around the world. Maj Schanda graduated with a B.S. in Civil Engineering from Georgia Tech and earned a Masters of Military Operational Art and Science from Air University. A graduate of the RAF Qualified Warfare Instructor course, his most recent assignment was as an exchange pilot and Squadron Weapons Officer at 33 SQ, RAF Benson, in Oxfordshire, United Kingdom.

### **Dr. Christopher M. Stamper (CIV)**

Dr. Christopher Stamper is the Chair of the Department of Joint Warfighting at Air Command and Staff College. A retired U.S. Navy Commander and Naval Aviator, he earned a B.S. in Oceanography from the U.S. Naval Academy and holds a M.A. in National Security and Strategic Studies from the U.S. Naval War College. He also holds a Ph.D. in Public Administration from Capella University, specializing in East African affairs. Dr. Stamper served as operational flight instructor and taught as a faculty member at the U.S. Naval Academy and Air War College.

### **Lt Col Thomas A. Smicklas (USAF)**

Lt Col Thomas A. Smicklas is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Smicklas is a space and missile operations officer, financial manager, graduated squadron commander, and has served in a variety of operational assignments to include deployments to Amman, Jordan. He is a graduate of the University of Cincinnati where he earned a B.S. in Hospital Administration. Lt Col Smicklas also holds an M.B.A. from the University of Maryland and a Masters of Military Operational Art and Science from Air University and has ambitions of earning his Ph.D. from Oxford University. He is also a graduate of the Joint Combined Warfighting School, Joint Forces Staff College. Lt Col Smicklas served two staff tours at Air Force Space Command and most recently served at the U.S. Air Force Academy as Course Director in the Department of Military and Strategic Studies, as well as Deputy Director of the Department of Homeland Security's Center of Innovation.

### **Lt Col Bori Um (USAF)**

Lt Col Bori Um is an instructor in the Department of Joint Warfighting at Air Command and Staff College. As a career Communications and Cyberspace Operations Officer, Lt Col Um has served in various positions at the Squadron, Wing, Numbered Air Force, Major Command, Joint Task

Force, and Combatant Command levels. He has led Build Partner Capacity initiatives across the INDOPACOM theater with conventional, special operations, and cyber partner forces. Also, he has led SOCOM J6 Train, Advise, and Assist missions spanning various locations in Afghanistan. Lt Col Um graduated with a B.S. in Electrical Engineering from the University of Central Florida and holds advanced degrees from American Military University and Air University. Prior to this assignment, he oversaw Total Force Expeditionary Communications across the U.S. Air Force at Headquarters Air Combat Command.

**Lt Col Timmy “HOSS” Wang (USAF)**

Lt Col Timmy Wang is an instructor in the Department of Joint Warfighting at Air Command and Staff College. Lt Col Wang is a Senior Pilot with more than 900 combat hours in support of numerous operations around the globe. His operational experience includes instructing, evaluating, and commanding missions in the C-130 E/H and MQ-9. Lt Col Wang graduated with a B.S.E. in Aerospace Engineering from the University of Michigan, holds an M.A. in National Security Studies with an Asia regional focus from American Military University, and earned a Masters of Military Operational Art and Science from Air University. His most recent assignment was as the Director of Operations at the 26th Weapons Squadron, Nellis AFB, Nevada.

**Dr. Christopher Weimar (CIV)**

Dr. Christopher Weimar is an Assistant Professor of National Security Studies in the Department of Joint Warfighting at Air Command and Staff College (ACSC). He holds an M.Phil. and Ph.D. in Political Science from the Graduate Center of the City University of New York, an M.A. in International Relations from Boston University, and a B.A. in Mathematics and Computer Science from Fordham University. A retired U.S. Air Force Colonel, Dr. Weimar served on Active and Reserve status in Communications-Information Systems Management, Cyberspace Operations, and Logistics Readiness. He has served at all levels from flight to Combatant Command and has deployed to Djibouti, Kuwait, and Iraq. He served as the Deputy Director of Logistics and Engineering at North American Aerospace Defense Command and U.S. Northern Command. He is a graduate of Air Command and Staff College and Air War College by correspondence and completed the Joint and Combined Warfighting School-Hybrid Program.