



JOINT CAMPAIGNING: “HOW WE FIGHT”

SYLLABUS

AY23

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

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

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**AIR COMMAND AND STAFF COLLEGE
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FOREWORD

The syllabus for the *Joint Campaigning* course is based on the ACSC vision to educate and develop airpower leaders who solve problems at the operational level of war, to align the college's curriculum with the 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," and to meet CJCSI 1800.01F and other pertinent guidance from higher headquarters.


A major component of ACSC's 2023 curriculum is to build **Airmen's fluency in the language of joint operations** and to create opportunities to apply the theoretical and conceptual foundations of joint campaigning and warfighting to warfighting contexts. *Joint Campaigning* remains the course that **synthesizes the whole of the student experience at ACSC** and **challenges students to innovate across all domains**, deepening their proficiency in joint language and demonstrating the depth and breadth of their ACSC professional education. It meets JPME I certification requirements as articulated in OPMEP-F (15 May 2020) and reflects ACSC's Program Learning Outcomes (PLOs).

The course is newly named to account for a shift in Department of Defense thinking first articulated in the 2018 *Joint Concept of Integrated Campaigning* (JCIC), most of which has now been formally integrated into Joint Publications 3-0 (June 2022) and 5-0 (Dec.-2021). The term "campaigning" reflects the aim of more comprehensive, continuous integration across all domains and the competition continuum, in synchronization with the other instruments of national power.

The present course rests on the critical foundational work of its original architect, Dr. Brent A. Lawniczak, as well as the contributions of the AY19-AY22 course director, Dr. Christopher Weimar, and his team. Bolstered by the effort and experience of the Joint Warfighting Department faculty, the course drew praise from retired General Officers, who received and provided feedback on AY21 and AY22 student Mission Analysis (MA) and Course of Action (COA) Selection briefings.


This course both builds and relies upon the pillars built across the ACSC curriculum. Elements of the course—in particular, force capabilities—have been moved to *Contemporary and Emerging Warfare*, while other concepts have received introductions and discussion in the *Joint Air Operations Planning Course* (ACSC JAOPC) and throughout the curriculum, which enabled the course team to compress some introductory content and insert new material—in particular, on Command Relationships. We believe these new modules deepen the course while leveraging the outstanding teamwork and camaraderie we've experienced from our fellow course directors and their teams.

SIGNED



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APPROVED



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TABLE OF CONTENTS

	<u>PAGE</u>
Foreword	1
Table of Contents	2
Course Description / Overview	3
Course Objectives, Questions, Organization and Narrative	4
Phases & Map (Graphic)	5
Course Requirements and Methods of Evaluation	6
Course Administration & Book List	7-8
Course Snapshot	9
Lesson List (see table below)	10-75
Appendix 1 – 600-E: Operational Art Assignment	76
Appendix 2 – 601-E: Point Paper Force Recommendation Assignment	79
Appendix 3 – 602-E: Peer Review Requirements	82
Appendix 4 – 603-E: PACIFIC ENDEAVOR Expectations/Requirements	83
 Appendix 5 – Joint PME Learning Areas and Objectives/Special Areas of Emphasis/ACSC PLOs	 84
Appendix 6 – OSD China-Focused Content & Outcomes	88
Appendix 7 – Course Faculty	90

Course Schedule

<u>Phase 1</u>	<u>Page</u>	<u>Phase 2</u>	<u>Page</u>	<u>Phase 3</u>	<u>Page</u>
JC-500 – L: Introduction	10	JC-514 – Operational Art	48	JC-525 – L – Road to War	71
JC-501 – L: TORCH	11	JC-515 – L – Reserve Cmpt	50	JC-526-32 – W: PACIFIC	73-75
JC-502 – Campaigning	13	JC-516 – S – Reserves/OCS	52	ENDEAVOR	
JC-503 – Op Design	17	JC-517 – CMD REL	55		
JC-504 – Op Environment	21	JC-518 – CMD REL	55		
JC-505 – COG Analysis	25	JC-519 – L – JTF Perspective	59		
JC-506 – L: Op Approach	28	JC-520 – S – Op Art	61		
JC-507 – L: NIGERIA	31	JC-521 – W: NIGERIA	63		
JC-508 – W: NIGERIA	34	JC-522 – W: NIGERIA	63		
JC-509 – W: NIGERIA	37	JC-523 – W: COA Analysis	65		
JC-510 – Mission Analysis	40	+Wargaming		L=lecture	
JC-511 – MA (Tora Bora)	42	JC-524 – COA Decision	68	S=seminar	
JC-512 – W: NIGERIA	44			W=workshop	
JC-513 – W: NIGERIA	44				

JOINT CAMPAIGNING COURSE OVERVIEW

COURSE DESCRIPTION

Emphasizing hands-on, experiential learning, and centering on the operational level of war, the *Joint Campaigning* (JC) course is designed for comprehension and analysis of how the U.S. joint force goes to war and prevails. JC demonstrates and exercises how the joint force organizes, deploys, employs, sustains, and redeploys all-domain military capabilities across the competition continuum, toward a range of military objectives, and in support of national interests.

The course equips military and interagency professionals with the skills to articulate and influence the application of the military instrument of power, and more specifically, to provide commanders with military options. It highlights the utility of operational art and design – essential for discerning strategic goals and operational context amid complexity and uncertainty – for all military professionals, regardless of specialty. It stresses the need for understanding the crucial roles that interagency, multinational, intergovernmental partners play in planning and executing contemporary joint and combined operations.

The JC course builds on knowledge introduced in JAOPC, developed across the ACSC curriculum, and refined in the Contemporary and Emerging Warfare (WC) course. It asks students to apply and exercise the joint planning process (JPP) at the operational level, given their consideration of the national planning system and strategy development processes, joint force organization and capabilities, and opposition forces. It surveys historical operations for the contextualization and application of modern doctrinal concepts, examines strategic guidance in relation to operational level plans, and reviews joint force commander options for integrating service and functional command support to achieve success at the operational level of war.

Tying various course concepts together, students will broaden their usage and deepen their understanding of the Joint Planning Process (JPP) in joint and combined operations involving whole of government approaches. They will apply these fundamentals in planning exercises focused on developing effective military solutions to real-world operational planning problems, where conditions of complexity, volatility, ambiguity, and uncertainty prevail.

COURSE OBJECTIVES

Through the study and analysis of historical operations, the operational environment, strategic guidance, and joint and service doctrine, the JC course will enable students to:

1. Understand how the Joint Planning Process is used to solve operational problems in a volatile, uncertain, complex or ambiguous environment.
2. Apply operational art, operational design, and the Joint Planning Process.
3. Apply agile thinking to operational environments and current joint doctrine.
4. Apply knowledge about how the U.S. joint force is organized, employed, and sustained through the framework of joint operations across the continuum of competition, conflict, and war.

COURSE QUESTIONS

The JC course captures multiple themes related to operational art and design, all-domain operations across the competition continuum, and military planning at the operational level of war. However, it centers on the examination of “*how we fight*” how, at the operational level, we derive plans to apply the ‘DIME’s’ ‘**M**’ in pursuit of national interests. The following questions 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 configurations, 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 what is the chance of mission failure or other unacceptable results in performing these actions? (**Risk**)

COURSE ORGANIZATION AND NARRATIVE

The JC course centers on **campaigning** in an era of strategic competition, when operations don’t really *end* so much as *transition*, and when influence and narrative are centrally important. Strategic competitors like the People’s Republic of China (PRC) continue to blur the line between competition and conflict, waging insurgency, gray zone, economic, and informational warfare in pursuit of revisionist aims. As the U.S. seeks to counter these challenges, it must also prepare for the possibility of major combat operations (MCOs) and signal its preparations for deterrent purposes. This requires that military professionals understand and ensure that operations across the competition continuum nest within a hierarchical family of plans, from the globally-integrated, down through combatant-commander campaign and contingency plans.

Joint Campaigning is structured in three phases:

Phase 1: Problem Framing: Phase I will familiarize 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. This phase will focus on the

Phase 2: Problem Solving: Phase 2 focuses on the *ways* and *means* that may be applied in utilizing the military instrument of power, jointly and in all domains, toward solving national security problems. This phase will acquaint students with operational art as applied across the five domains (air, maritime, land, cyber, space) and across the range of military operations as it enables the development of potential solutions (courses of action) Given the realities of U.S. power projection, it also examines concepts of deployment and sustainment, and their pertinence to planning joint military operations. Phase 2 emphasizes the operational domains within and through which military capabilities are arranged and applied; it further explores how valid courses of action (COAs) are derived, analyzed, and compared to provide the maximum chance of success within acceptable risk parameters.

[illegible]

COURSE REQUIREMENTS AND METHODS OF EVALUATION

1. **READINGS.** Before the lecture and seminar, students are expected to complete all assigned readings for the day. Some books and articles are marked for reading by all students, while others are marked “split.” The instructor will assign the split readings to small groups of students; each small group will lead the day’s discussion of its assigned reading. Please note that some of the split readings are marked as “optional.”

Students are *strongly* encouraged to review the syllabus explanations for assigned books and articles before reading the books and articles themselves. Students should come to seminar with reading-related questions and observations to support informed discussion and active contribution.

2. **LECTURES.** Students will attend or view* lectures relating to assigned readings and seminar topics. These 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 stimulate and enhance seminar learning. Remember: lectures are not for attribution.
3. **SEMINAR & WORKSHOP CONTRIBUTION.** Due to the “applied art and science” nature of the *Joint Campaigning* course, student contribution in seminar discussions is vital to success. Students must prepare for each seminar by completing **all** the assigned readings. Each seminar member is expected to regularly and meaningfully contribute to discussions.

In workshops, students must pull together as a team, organizing to digest all elements of ambiguous and uncertain problem-sets, analyzing and synthesizing to understand the problem, and proposing creative solutions that meet the stated and unstated facets of the commander’s intent.

4. **WRITTEN ASSIGNMENTS.** There is one graded written assignment, in the form of a four-to-five-page take-home position paper, which must be completed as a group project. The position paper must include, in the first citation, an acknowledgement of colleagues who made an intellectual contribution to the work. The submission will be modeled on the Point Paper format.
5. **ORAL BRIEFING ASSIGNMENTS.** There are three oral briefings during the course. For the Operational Art presentation, each student will be assigned to a group and follow directions in the 600E assignment. For the two briefings that take place during JC planning exercise PACIFIC ENDEAVOR (Mission Analysis and COA Decision Briefs), specific information regarding PACIFIC ENDEAVOR-briefings will be provided by the start of the exercise. All students will participate in the oral briefing assignments.
6. **PEER REVIEWS.** Given the collaborative nature of JC, two peer reviews will be completed during the course. The first, covering Phases 1 and 2, will be turned in on 1 May. The second, covering PACIFIC ENDEAVOR, will be turned in to the seminar instructor on 11 May. Peer reviews do not constitute student-assigned participation grades but provide insight

* Lecture format will be based on the current public health conditions.

into the collaboration efforts in the seminar. The reviews also provide a leadership opportunity as part of the culmination of the ACSC experience. Detailed instructions will be provided by the instructor.

7. **METHODS OF EVALUATION.** The evaluations for the course consist of an in-class presentation (JC 600E during JC-514), one written essay (JC 601E), Phase I and Phase II individual class contribution (JC 602E), and PACIFIC ENDEAVOR (JC 603E) which consists of two group briefings and the individual's contribution during the entire exercise. All JC concepts and the application of the JPP will be assessed during the two PACIFIC ENDEAVOR briefings.

<u>Assignment</u>	<u>Type Grading</u>	<u>Weight (%)</u>	<u>Due Date</u>
In-class group presentations (JC 600E)	Individual	15%	17 April
Written Group Position Paper (JC 601E)	Group	20%	21 April
Daily Class Contribution (JC 602E)	Individual	20%	27 March - 28 Apr
**PACIFIC ENDEAVOR (JC 603E) Group Briefings	Individual	45%	1-12 May

* The JC course calendar includes the evaluation due dates. The dates listed above are the due date for each assignment.

** The two briefings evaluated for PACIFIC ENDEAVOR, a Mission Analysis brief and a COA Decision brief, constitute a single graded event. The flight will work as a group during PACIFIC ENDEAVOR, but the PACIFIC ENDEAVOR grade will be an individual grade accounting for the individual's contribution during the exercise and performance in the briefings. Peer reviews will assist the instructor in assessing individual contributions.

COURSE ADMINISTRATION

The majority of assigned JC readings are provided in Canvas and/or in Teams, including assigned selections from current Joint Publications (JPs). Readings that are not available in Canvas/Teams will appear in course-issued books. Complete versions of JPs and other doctrinal resources are available (and recommended) 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+) link: <https://jdeis.js.mil/jdeis/generic.jsp>. It is recommended that, at a minimum, students download JP 1-0, JP 3-0, JP 5-0, and the *DOD Dictionary of Military and Associated Terms* (<http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf?ver=2018-07-25-091749-087>) for personal and in-class reference. The full text of these publications is also available in CANVAS/Teams.

The following are publications produced for the students. Students may KEEP the following:

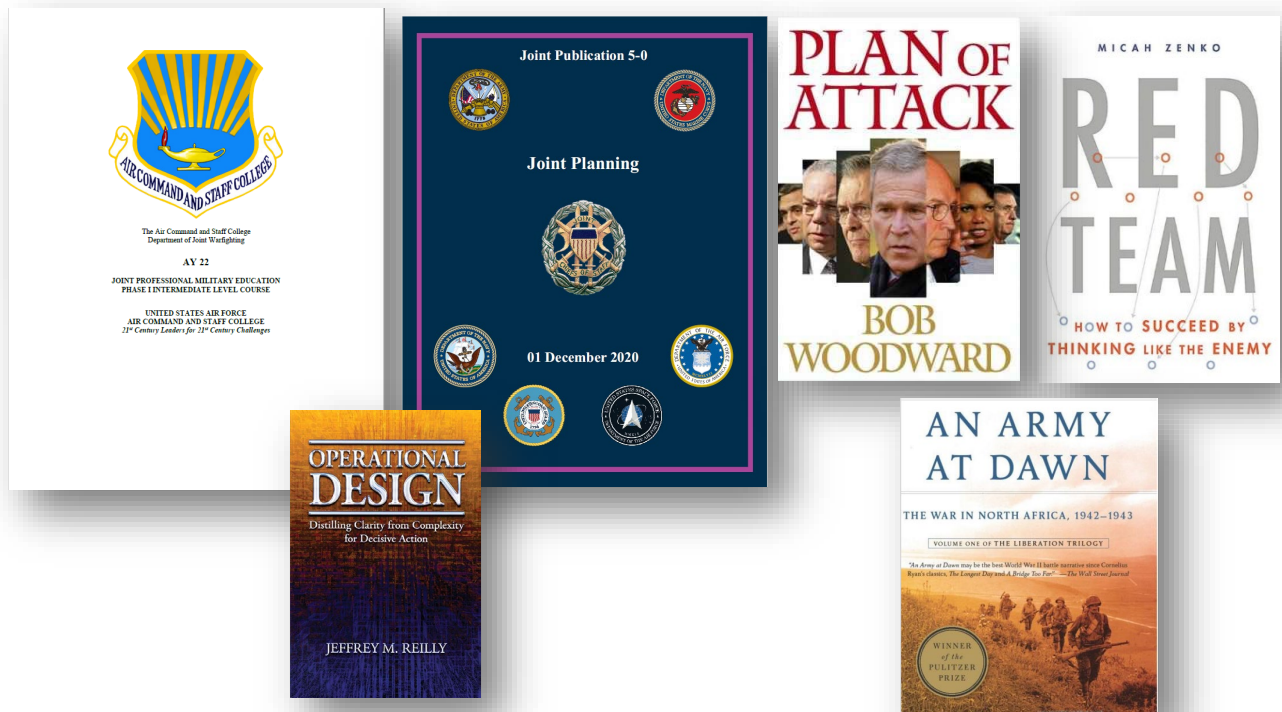
- a. **ACSC – DEW Joint Warfighting Capabilities Primer, AY22.** This is a useful compendium of American joint force capabilities. Electronic additions will also be posted in Canvas; in particular, a revised section on Electronic Warfare (EW), and briefing templates that can be used as starting points for describing information, cyber, space, and EW priorities at the operational level of war.

- b. **ACSC – DEW Staff Officer’s Guide, AY22.** This is a useful collection of templates, worksheets, checklists, and descriptions. As with the Joint Capabilities Primer, updates will be available on TEAMS and within Canvas.
- c. Jeffrey M. Reilly, **Operational Design: Distilling Clarity from Complexity for Decisive Action**, Maxwell AFB: AU Press, first printed 2012; fourth printing 2020. The founder of ACSC’s own Joint All-Domain Strategist concentration, Dr. Reilly’s Operational Design book is much used in our course and continues to receive praise beyond ACSC.

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

- b. Rick Atkinson, *An Army at Dawn: The War in North Africa, 1942-1943* (New York: Henry Holt and Company, 2002).
- c. Bob Woodward, *Plan of Attack* (New York: Simon and Schuster, 2004).
- d. Micah Zenko, *Red Team: How to Succeed by Thinking Like the Enemy* (Basic Books, 2015).

Please refer any questions to your seminar instructor or one of the course team members.
 Course Director – Dr. Brian R. Price, brian.price.18@au.af.edu, Office 140, Deputy Course Director LTC LaFran Marks, lafran.marks.1@au.af.edu, Office 144.



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.

Cases:

TORCH
OIF / OEF
Nigeria (scenario)
China in Africa
Russia/Ukraine

Major Concepts:

Campaigning / Competition Continuum / Great Power Competition
Strategic guidance documents/National planning systems
Globally Integrated Operations | Planning Community
Joint Planning Process (JPP)
Operational Art
REVIEW: Elements of Design & Joint Functions
Complexity/Operational Design Methodology
JIPOE/PMESII/COG analysis

Structure:

12 course days
3 lectures
7 seminars
4 seminar/workshops

Practical Application:

2-day (6 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 that may be applied in 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 previous in the curriculum, emphasizing command and control, synchronization and how valid COAs are derived, analyzed, and compared to provide the maximum chance of success within the parameters of acceptable risk.

Cases:

JTF-Philippines
MINCEMEAT
ODS
OIF / OEF
French-Indochina
Nigeria (scenario)
China in Africa
Russia - Ukraine
ISIS

Major Concepts:

Operational Art
COA Development
Joint All-Domain Operations (JADO)
Information, Cyber, and Electromagnetic Spectrum (EMS) Operations
Command and Control / Command Relationships & Authorities
Integrated Joint Force
Global Integrated Operations and the Competition Continuum
Great Power Competition
Military Operations in the Homeland
Wargaming/Red cell
Applying: Deployment/Sustainment/Operational Contract Support
Joint Force Capabilities/Services

Structure:

8 course days
3 lectures
4 seminars
4 seminar/workshops

Evaluations:

Research/Presentation
Group position paper
Contribution

Practical Application:

2-day (6-hour) COA Development Workshop
1-day (3-hour) COA Analysis & Wargaming Workshop
1-day (3 hour) COA Comparison Workshop

Joint Campaigning Phase 3

Practical Application: PACIFIC ENDEAVOR

Case:

China/Taiwan

Major Concepts:

CHINA – Great Power Competition
Campaigning | Joint Planning | Globally Integrated Operations
Applying concepts across the ACSC curriculum

Structure:

10 course days
1 lecture
8 workshops

Evaluations:

Mission Analysis Brief
Course of Action Brief

Practical Application:

7-day (6 hour) student planning
1-day (2.5 hour) Final briefing and debrief

JOINT CAMPAIGNING COURSE SCHEDULE

Day 0: JC-500 | Thurs. 16 March, 2023 Introduction to the Joint Campaigning Course

LESSON OBJECTIVES

1. Understand the objectives, organization, and methods of evaluation for the *Joint Campaigning* course, and its linkages to the overall ACSC curriculum.
2. Review the relationship of the joint planning process to component planning, as introduced in the Joint Air Operations Planning Course (JAOPC).
3. Understand the foundations for the concepts of *campaigning* and *globally integrated operations* (JP 5-0, V-1 – V-17).
4. Understand the linkage between doctrine and operational art.

LESSON OVERVIEW

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

Overview: The JC course is the capstone of joint professional military education at ACSC, and it is built upon concepts developed throughout the academic year, starting with JAOPC. It relies heavily on knowledge about how the joint force fights established in the *Airpower Strategy & Operations* and *Contemporary & Emerging Warfare* courses.

The lecture introduces students to how we fight as a joint military force and includes multiple concepts that provide the framework for understanding and solving complex, operational-level military problems. While driven by joint and service doctrine – the science of military operations. However, the study of history and current events will be crucial to course outcomes, providing the context through which doctrinal elements have been derived, and how those elements are applied across the range of military operations. To that end, this lecture will provide students with an overview of the course objectives, themes, structure and calendar, and evaluation instruments.

CONTACT HOURS: 0.75-hour lecture

REQUIRED READINGS

Course Syllabus and Course Calendar.

A careful review of the course's syllabus and calendar will provide the student with overarching course objectives and expectations along with key deliverables and their respective weightings toward computation of a final course grade.

LESSON INTEGRATION AND RATIONALE

This lesson provides an overview of the Joint Campaigning course. It presents the students with a roadmap of the course to include course methodology, course objectives, evaluations, and desired outcomes. The lecture will also describe the broad themes of the course and how the material integrates with the broader ACSC curriculum.

PHASE 1: PROBLEM FRAMING

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

Day 1: JC-501 | Mon. 27 March, 2023
Joint Planning: Campaigning and Fighting

LESSON OBJECTIVES

1. Comprehend the context for JC course concepts, campaigning, joint and service doctrine, and the requirements and considerations that a power projection nation has for deploying, employing, and sustaining a joint force.
2. Comprehend the relationship between the formulation of national security objectives and the development of military objectives, and the ends-ways-means-risk analysis required for operations in a complex operational environment (OE) across all levels of warfare.
3. Comprehend how the military planning process is guided by national strategic interests, guidance, and how geopolitics and geostrategy and other joint, interagency, intergovernmental and multinational (JIIM) considerations may impact the planning and execution of military operations.
4. Comprehend the fundamentals of theory and the principles of joint operations enable operational art and design through the analysis of an historical operation for the planning and employment of joint and multinational forces as the operational level of war.

LESSON OVERVIEW

JC-501 (L): Joint Planning: “Operational Art & Operational Design”

Overview: [Dr. Brent Lawniczak, Assistant Professor of Military & Strategic Studies.](#)

Operation TORCH was the first major Allied operation in the European theater involving U.S. forces during WWII. As an example of the final “product” of military operation planning activities, this operation presents several timeless military planning and operational considerations and concepts that remain relevant to current joint and service doctrine. This lecture assesses the plan for operation TORCH, demonstrating how planners today use a similar construct for analyzing problems and developing military solutions in a complex operational environment. The example will aid students in gaining familiarity with planning concepts and JC course themes. Operation TORCH highlights many of the difficulties of long-distance power projection, multinational military operations and command relationships, and the necessity for operational military adaptation and innovation. TORCH also reveals elements of operational design found in doctrine, particularly JP 5-0 *Joint Planning* – the U.S. Joint Force’s guide to planning military operations. A solid understanding of these concepts, and their connections, within ends-ways-means-risk analysis framework, is key to the military professional’s capacity to solve complex problems in conflict or during campaign planning.

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. *An Army at Dawn* 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 operation plan (Operation TORCH). Atkinson's book reminds the reader that seemingly clinical doctrinal approaches to operation 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 risks inherent in great power conflict, introduces operational planning concepts regarding the use of the military instrument of power in pursuit of national interests, and surveys a critical example of a joint and combined operation. Thus, it 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-502 | Mon. 27 March, 2023
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.”
—JP 3-0, 18 June 2022, IV-9

“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.”
—Sec. Def. Lloyd Austin
--NDS 2022, iv

LESSON OBJECTIVES

1. **Threat Informed:** Consider how changes in the nature of threats from China, Russia, Iran, ISIS, or other actors or circumstances, are driving changes in how we plan for the use of military force across the competition continuum.
2. Through the concepts of **campaigning** and **globally integrated operations**, understand how elements of operational art, operational design, and the joint functions are integrated throughout the planning process, and how they apply across the competition continuum at all levels of warfare, within a joint, all-domain, interorganizational, or multinational force structure.
3. Understand how the JPP structures a shared vocabulary that enables joint operations, and how it relates to the production of the five-paragraph order format.
4. Comprehend the roles, missions and functions of Joint Force Commanders (JFCs) as outlined in the Unified Command Plan (UCP) and how they differ from the roles, missions and functions of the military services.

LESSON OVERVIEW

JC-502 (S): Campaigning, Joint Military Operations, Planning, Orders

Overview: The most recent versions of JP 3-0 and JP 5-0 recognize fundamental shifts in the operating environment. Operations and information flows are now inherently all-domain. China and Russia act with open and rising levels of aggression, generating instability and spiking demand for American and partner forces around the globe, at the very same time that those forces are in short supply.

These changes demand a shift in the way military commanders and staff planners see the environment as an integrated whole. “**Campaigning**” recognizes continuous operations across the **competition continuum**, from cooperation through competition and conflict; it accounts

for the challenges that competitors like China and Russia pose to the international order and the conventional geographic combatant command structure.

To meet these challenges, the DoD has implemented a new level of planning with Globally Integrated Operations, seeking to load-balance forces where they might have the greatest effect. This global perspective represents a fundamental shift from the regional perspective dominant during the wars in Iraq, Afghanistan, and Syria. While the levels of *warfare*—strategic, operational, tactical—remain operant, the current force must grasp this new level of *planning*.

The JPP remains the primary toolset and language for planning and executing military operations. It enables the commander and planning team(s) to infuse military science with creative art, jointly and across all domains. Cognizance of the JPP and the joint functions ensures that commanders and planners can best identify the major aspects of an operational concept and define clear objectives in support of national policy.

The JPP is a tested and proven method of arranging problem solving activities in a complex environment (in which cooperation, competition, and conflict may coexist). The JPP, in conjunction with operational art and operational design, enables the derivation of actionable tasks from broad strategy (strategy-to-task). The JPP allows the planner to successfully integrate military options into ends-ways-means-risk calculations in pursuit of national interests. This seminar sets the baseline for concepts recurring throughout the JC course: levels of warfare, the conflict continuum, campaigning, the ends-ways-means-risk model, the roles of various actors – in the national security system (President, SECDEF, CJCS, CCDRs, JFCs, and inter-organizational stakeholders), and the process which guides planning for military operations at all levels and across the competition continuum.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. **SPLIT:** (short) articles on the emerging threat:
 - a. David Brennan & 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 July, 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 Sept., 2022 <https://www.theatlantic.com/international/archive/2022/09/xi-jinping-china-us-mistakes/671544/>. [EL]
2. 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.

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, xi-xxx; 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 JP 5-0 Executive Summary and Chs. I-II reading selections briefly preview operational planning and 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. JP 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] *The new JP 3-0 emphasizes the cornerstone concepts of the competition continuum and campaigning as the U.S.’s intended approaches to strategic competition. It recognizes that the growing demand signal and span of roles for American forces is problematized by the rising cost and decreasing availability of those forces. Thus, the doctrinal concepts of globally integrated operations and dynamic force employment (DFE) support the pre-doctrinal idea of integrated deterrence.*

SUGGESTED ADDITIONAL MATERIAL

1. Bob Woodward, *Plan of Attack*, (Simon and Schuster, New York, 2004), 1-138. *Offers a powerful overview on modern approaches to planning, focused on the invasion of Iraq. Woodward provides historical background that illuminates how operations are actually planned.*
2. Jeffrey W. Meieser, “Ends + Ways + Means = (Bad) Strategy: Are our Strategic Models Flawed?” *Parameters* 46 (4), Winter 2016-17, 81-91 [EL]. *Meister critiques the Lykke Model and similar models; this article yields insights for students who may have reservations about the ends-ways-means-risk model.*
3. 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] *JP 3-08 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 the strategic competition challenges, covered across the AY 23 curriculum, facing the U.S. and its partners. China, termed the “pacing threat” by senior DOD leadership, poses a potent set of long-term challenges. Russia, likewise, challenges the American-led international order in Europe, the Middle East, and Africa. In addition, VEOs such as ISIS, and states like North Korea, and Iran threaten regional stability and

global threats represented by. This lesson drives the discussion towards recent DoD changes conceived as responses to these threats: campaigning, globally integrated operations, dynamic force employment, and the like.

The JPP remains the common problem-solving toolset and the vocabulary the DoD employs for use-of-force discussions; it benefits Air Force officers to build fluency in this language.

This lesson introduces doctrinal planning concepts foundational to the course, building on the classical theoretical principles of war covered in Military Theory (MT), and incorporating geopolitical and strategic concepts addressed in International Security and Military Strategy (ISMS). Narrowing the scope to the operational level of war, the lesson draws focus to planning concepts for the use of the military instrument of power in pursuit of national interests and provides the background for future lessons centering on operational art and design.

ASSIGNMENT

JC600E handed out – SEE DAY 13 for objectives; APPENDIX 1 for assignment details.

KEY VOCABULARY

PRIMARY

Campaigning (NDS 12-13; JP 5-0 V-1 to V16; JP 3-0 V-1 to V-8).

Competition Continuum

Dynamic Force Employment (DFE)

Globally Integrated Operations

Great Power Competition

Joint Force Commander (JFC)

Joint Planning Process (JPP)

Levels of Warfare: Strategic – Operational – Tactical

Lykke Model of Strategy: Ends – Ways – Means – Risk

SECONDARY

Combatant Command (DoD dictionary, 38)

Combatant Commander (CCDR)

Commander's Campaign Plan (CCP)

Contingency Planning

Joint Planning & Execution Community (JPEC)

Unified Campaign Plan (UCP)

Day 2: JC-503 | Tues. 28 March, 2023

Introduction to Operational Design: Complexity in Operational Planning

The operational level of war involved “the movement of corps and divisions, [and] it might be described as the analysis of the campaign (rather than of the battle or war). Nowhere else is creativity (or lack thereof) of the higher commander so important to the outcome.”²

—Dr. Robert M. Citino

“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.”

—JP 5-0, III-75

LESSON OBJECTIVES

1. Comprehend the concepts associated with **complexity** as they pertain to campaigning, military operations and operation planning, across the competition continuum.
2. Comprehend **operational art, operational design**, and their relationship in joint doctrine to campaigning, military operations and operation planning.
3. Comprehend the purpose and content of the commander’s **operational approach, commander’s planning guidance, and commander’s intent**.
4. Comprehend the **doctrinal elements of operational design**, the interrelation of those elements in framing complex problems, and their utility in outlining comprehensive, whole of government approaches for applying potential military solutions through the commander’s operational approach.
5. Reconsider how our adversaries like **Russia and China employ ambiguity, espionage, and actions in the cyber domain** within their own approaches to the complexities of military planning, and how such plans relate to competition and potential conflicts.

LESSON OVERVIEW

JC-503 (S): Operational Art and Design: Complexity and Problem Solving

Overview:

Planning at the operational level requires grappling with uncertainty, fog, friction, deception, and intelligences designed to counter our strategic objectives. As Carl von Clausewitz and John Boyd both asserted, war is the ultimate realm ruled by complexity, chance, and uncertainty. We conceive of competitors and opponents as complex, adaptive systems that respond uniquely when pressured, confounding predictability. To avoid the paralysis that can accompany overwhelming complexity, commanders and planners employ **operational design** in support of **operational art**.

Operational design provides structure for complex problem-solving. It enables us to capture what is *known* (and identify what is *unknown* and what is desired versus observed). JP 5-0 defines operational design as, “the analytical framework that underpins planning.”³ ACSC’s Dr. Jeffrey M. Reilly argues that “the principal purpose is to distill clarity

² Robert M. Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare*, (University Press of Kansas, 2004), 8.

³ Joint Staff, JP 5-0, Dec. 2020, xxi.

from complexity for decisive action.”⁴ Design frameworks may vary from the JP 5-0 foundation, but their purpose is the same: to provide a common structure for understanding, anchored in the known, that will enable communication, creativity, and ultimately, decisiveness. The elements of operational design ensure that the commander and staff have considered the key aspects common to military operations, enabling shared understanding and creating clarity.

Modern military operations must account for many sources of complexity: cultural, religious, and multinational, and other. Operational design helps the commander sufficiently frame complex and ill-structured problems so that planning leads to effective action; it links military objectives to strategic national security objectives, and ultimately, to decision. 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.

Operational art is the application of *the intangible* to create new approaches. It harnesses experience, knowledge, skill, judgment, and especially, creativity; it leverages the shared understanding created in the operational design. The U.S. Army defines operational art as “the pursuit of strategic objectives, in whole or in part, through the arrangement of tactics operations in time, space, and purpose.”⁵ This definition lacks reference to the crucial roles of creativity (to create surprise) and decisiveness (to enable tempo). A more comprehensive definition may be warranted: *the harnessing of experience, knowledge, skill, judgment, and creativity to produce solutions to emerging problems within a campaign.*

JP 5-0 adds 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.”

As JP 5-0 notes, “planning for conflict and war is best based upon operational art and the broad knowledge of commanders and planners that are not easily categorized.”⁶ Dr. Robert M. Citino, an authority on the operational level of war, notes, “nowhere else is creativity (or lack thereof) so important to the outcome.” Commander and staff agility and creativity—fed by the shared humanitarian and scientific understanding of the operating environment—is crucial to meeting the challenges posed by thinking competitor-opponents.

Operational art interacts with operational design to produce a unique synthesis of creativity and structure; this interaction yields the analysis necessary for developing an effective campaign or operational approach.

This module requires consideration of an additional change in the operating environment: the quickening pace of change and operational tempo of the modern battlefield, which is expected to stress our existing systems and approaches. According to David Kilcullen, Russia seeks to

⁴ Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012), 1.

⁵ William J. Denn, “Operational Art: How Clausewitz and Isserson turn American Strategy into Tactical Action,” West Point: Modern War Institute, 30 Dec. 2016, <https://mwi.usma.edu/operational-art-clausewitz-isserson-turn-american-strategy-tactical-action/>.

⁶ JP 5-0, Dec. 2020, I-3.

inject informational ambiguity to complicate Western decision-making, while China and Russia both seek informational advantage via espionage and cyber penetration to further slow it down. Emerging technology (i.e., AI, edge and quantum computing) can be harnessed to make our planning, decision, and execution cycles shorter and faster, pushing us from an OODA-loop model towards something closer to an OODA-point.⁷

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (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 will underlie and enable the application of the operational art.*

SPLIT

- a. Bob Woodward, *Plan of Attack*, (Simon and Schuster, New York, 2004), 52-66 AND Benjamin Jensen, "How the Taliban did it: inside the "operational art" of its military victory," *New Atlanticist* (15 Aug 2021) [EL]. *This selection from Plan of Attack provides an example of an initial operational approach derived by General Frank's, considered to be an early precursor to the current doctrinal approach to operational design. It also provides an introduction to the complexity of the joint, interagency, intergovernmental, and multinational (JIIM) environment.*
- b. US 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 types of complexity and the characteristics of complex problem sets that military planners may encounter. Understanding different forms of complexity, and the characteristics of "wicked problems" is essential in military operations.*
- c. Dale C. Eikmeier, "Design for Napoleon's Corporal," *Small Wars Journal*, September 2010, 27(7), 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 and 200-210. *Pay close attention to the operational designs Kilcullen presents on pages 158, and 205 which encapsulate how they use ambiguity and something very much like our competition continuum.* [EL]

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*, vol. 2 no. 3 (Summer 2012) 4-10.

⁷ Jeffrey M. Reilly, "OODA Point: The Need for an Airman's Approach to Operational Design," draft paper, updated 2020.

3. Horst W. J. Rittel and Melvin M. Webber, "Dilemmas in a General Theory of Planning," *Policy Sciences*, 4(2), 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, 30 Dec. 2016, <https://mwi.usma.edu/operational-art-clausewitz-isserson-turn-american-strategy-tactical-action/>.

Want to Dig Deeper?

7. Robert M. Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare*, (University Press of Kansas, 2004). *This text is recommended as background that captures the changes in technology and practice between the World War I and the First Gulf War. This is especially interesting since we are now in a period similar to the post-Vietnam era, struggling to modernize and maintain readiness in the face of emerging threats and new technologies.*
8. Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity*, 3rd ed., Elsevier, (London: Morgan Kaufmann, 2011). *Provides an extremely useful set of analysis tools with an emphasis on complex adaptive systems, feedback, etc.*

LESSON INTEGRATION AND RATIONALE

This lesson addresses how complex problem sets challenge solution-sets and decision-making, and how Russia and China employ complexity and ambiguity to delay or destroy the clarity needed for effective responses. The lesson provides essential background on the concepts of complex problems, operational art, and operational design, which will be used throughout the JC course. Ensuing JC lessons discuss, analyze, and apply the methodology for devising the operational approach to complex national security problems.

KEY VOCABULARY

PRIMARY

Art v. Science

Commander's Intent

Elements of Operational Design

Operational Approach

Operational Art

Operational Design

Planning Guidance

SECONDARY

Objectives | Military End State | Center of Gravity | Effects | Culmination | Lines of Operation | Lines of Effort | Decisive Points | Direct and Indirect Approach | Operational Reach | Arranging Operations | Anticipation | Forces and Functions

Synchronization | All-Domain

Joint Functions | **Optional: OODA Loop; Decision Advantage; Initiative; Tempo**

Day 3: JC-504 | Thurs. 30 March, 2023

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.”⁸ —Cols. Qiao & Wang,

LESSON OBJECTIVES

1. Comprehend the various sources of **strategic direction** and guidance and their impact on joint planning, including the gap between the role ambiguity plays in politics and the drive for clarity by military leadership.
2. Comprehend the tools and processes used to **analyze the current and potential joint operational environment (OE)**, to include understanding the human, physical, and information aspects of the environment and the implications of the OE on the training, equipping, and employing (capabilities and limitations of) the joint force.
3. Comprehend the need to incorporate multiple aspects of the OE and **all elements of national power** into planning and how this contributes to a staff’s understanding of the OE, problem sets, and potential solutions.
4. Comprehend how incomplete information on the OE drives doctrinal concepts such as **assumptions, commander’s critical information requirements (CCIRs)**, and **risk analysis** during operation planning.
5. Comprehend the relationship between the “**observed system**” and the “**desired system**” as it relates to planning and operational design and the **pitfalls of “mirror imaging”** when operating in complex multinational environments.
6. Comprehend the doctrinal methodology for **defining the problem** during operational design, and how a correctly defined problem leads to the identification of potential **defeat and/or stability mechanisms**, as well as moving from current conditions to desired conditions within the OE and ultimately the national security environment.

LESSON OVERVIEW

JC-504 (S): Strategic Guidance, Understanding the Operational Environment and Defining the Problem

Overview: Planning initiation starts with strategic guidance, which is the first major component of joint doctrine methodology for developing an operational approach. This seminar asks: “what are the strategic goals to be achieved and the military objectives that support their attainment?” This links military objectives to national security objectives, and ultimately, national interests. This seminar will discuss the forms and sources of strategic

⁸ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, (Beijing: PLA Literature and Arts Publishing House, Feb. 1999), 191.

guidance and direction, how they influence (and are influenced by) operation planning and how the planning process conversely influences international geopolitics. Understanding political goals enables description of the “desired system,” or the set of conditions military operations are intended to achieve.

The military conceives of the operating environment (OE) as Clausewitz did: interlocked, complex, and adaptive systems characterized by uncertainty and unpredictability. These systems interact and respond to stimuli in subtle ways. This complexity leaves commanders and planners at risk of “paralysis by analysis.” The JPP enables senior leader decision-making, accounting for political objectives, military realities, second- and third-order effects, and the assessment and mitigation of risk.

The ability to develop a shared and sufficiently accurate understanding of the OE, and communicate it to senior decision makers, is a critical component of military art. This continuous process includes understanding the human, physical, and informational aspects of the environment that constitute the “observed system.” When compared to the “desired system,” key variables that need to change can be identified, and operational-level “decisive points” can be derived.

The seminar employs popular tools for creating a common operating picture of the observed and desired environment, including PMESII (Political, Military, Economic, Social, Information, Infrastructure) and ASCOPE (Areas, Structures, Capabilities, Organization, People, Events). These tools provide a starting point for understanding the OE; the planner must also employ active judgment to capture its relevant elements.

Finally, a common understanding the problem or problem set, an aspect of the OE, is pivotal for the development of appropriate solutions and the focused application of military capabilities (linking tactical actions to operational objectives in support of strategic goals).

The problem statement is the key output of this step. Identifying and framing the problem are essential for determining the correct Center(s) of Gravity (introduced in the next lesson) and developing the 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-8 (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-13 (stop at “Identify Assumptions”). **[EL]** *This section of JP 5-0 provides the doctrinal underpinning for the operational design processes and products that contribute to understanding of the operational environment. It also introduces the use of a problem statement for clearly defining the problem.*
2. Joint Staff J7, *Planner’s Handbook for Operational Design*, Suffolk, VA, 2011, V-9 (Understanding the Problem) to V-16. **[EL]**

SPLIT

- a. Bob Woodward, *Plan of Attack*, (Simon and Schuster, New York, 2004), 1-23, 31-38, 85-95, 130-133, 177-179. *The first part of Plan of Attack tells the real-world story of how strategic guidance came about and the functioning of the joint planning community and the iterative dialogue that occurs between the military and civilian leadership. Plan of Attack points to the various forms of strategic and operational guidance that exist outside of formal documents. Guidance is informed by political decisions, and includes joint, interagency, intergovernmental, and multinational considerations.*
- b. Joint Publication 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, 21 May 2014, Skim xi-xviii; Skim Appendix B, D, and E. *JP 2-01.3 demonstrates the many facets addressed in understanding the OE. The Joint Intelligence Preparation of the Operational Environment (JIPOE) Somalia Case Study (Appendix B) provides an excellent description of JIPOE in support of stability and irregular warfare operations and will be useful in preparing for future JC seminars. Appendix D and Appendix E provide excellent examples of analysis (PMESII) and visual depictions/products of analysis that will be useful in JC exercises.*
- c. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Maxwell AFB: Air University Press, 2012), 8-19; AND Joint Publication 2-0, *Joint Intelligence*, 22 October 2013 [EL], ix-xvi; AND Joint Publication 3-16, *Multinational Operations*, 1 March 2019, Ch. III [EL].
- d. Special Inspector General for Afghanistan Reconstruction. “What We Need to Learn: Lessons from 20 Years of Afghanistan Reconstruction – Chapter 7 Context”. August 2021. <https://www.sigar.mil/pdf/lessonslearned/SIGAR-21-46-LL.pdf>. [EL] AND Whitlock, Craig. “Stranded without a Strategy,” Washington Post, 9 December 2009. <https://www.washingtonpost.com/graphics/2019/investigations/afghanistan-papers/afghanistan-war-strategy/> [EL]

SUGGESTED ADDITIONAL MATERIAL

1. Joint Publication 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, 21 May 2014, Ch. I, Ch. II, Ch. III (covers operating domains), and Ch. IV.
2. Joint Staff J7, *Planner’s Handbook for Operational Design*, (Suffolk, VA, 2011), Read 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

The goal of this seminar is to facilitate the planner’s ability to focus on the most meaningful facets of a system as a comprehensive whole – including its human, physical, and informational aspects – while avoiding undue distraction by the extraneous. The lesson’s focus on the OE also addresses inter-organizational and multinational stakeholder integration, since this norm in the joint force planning process will likely continue to influence the OE. This lesson sets up Center of Gravity Analysis (JC-505), which will examine the purpose and approaches for addressing a specific aspect of the problem to enable focused planning and employment of military capabilities.

KEY VOCABULARY

PRIMARY

Strategic Direction / Guidance

Operational Environment

JIPOE – “Joint Intelligence Preparation of the Operational Environment”

PMESII

ASCOPE

Observed System

Desired System

Problem Statement

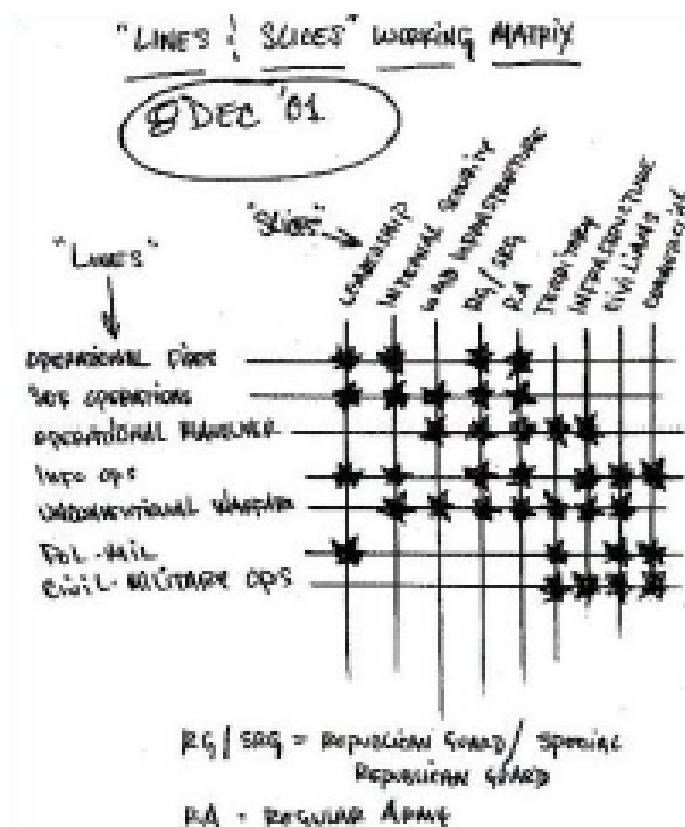
Problem Set

SECONDARY

CCIR – Commander’s Critical Information Requirements

PIR – Priority Intelligence Requirements

DSM - Decision Support Matrix



The now-famous “lines and slices” diagram by Gen. Tommy Franks, where the lines might be described as “lines of operation” and the “slices” detailed COGs or target-sets.

There is no defined standard for an operational design; the idea is to create an aide to communication that captures the whole of an operation.

Day 4: JC-505 | Fri. 31 March, 2023
Center of Gravity Analysis

“One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all of our energies should be directed.”
—Carl von Clausewitz, *On War*, 585-586

“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.”
—JP 5-0, Dec. 2020, IV-22

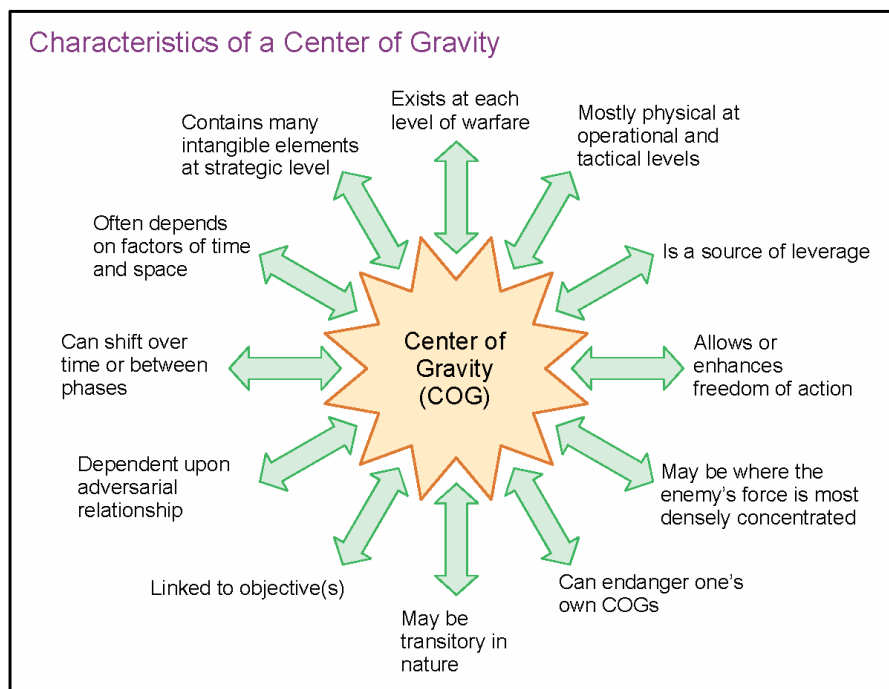


Figure IV-7. Characteristics of a Center of Gravity

LESSON OBJECTIVES

1. Comprehend the joint doctrinal concepts of center of gravity (COG) and critical factors. Understand how these concepts are utilized in the operational design process and in focusing the understanding of the operating environment (OE).
2. Comprehend how the linkages between end states, COGs, objectives, effects, decisive points, and lines of operation contribute to the development of the commander's operational approach, and provide focus for subsequent/subordinate planning.
3. Comprehend how COG analysis is continually refined during the JPP, and how this refinement impacts the planning and execution of military operations.
4. Comprehend how COGs, and the associated critical factor analyses are influenced by the levels of war, and how nesting of COGs and objectives assist in providing clarity in complex operational environments.

LESSON OVERVIEW

JC-505 (S): Center of Gravity Analysis

Overview: COG analysis is broadly regarded as the most important aspect of joint planning as it aids further understanding of the security environment and provides a detailed examination of the capabilities and vulnerabilities of friendly and adversary actors identified in the problem statement. However, the COG concept is also subject to heavy criticism. Regardless of the context and criticism, COG analysis remains an integral component for understanding of the OE and operational design framework, aiding focusing planning efforts and the application of combat power during execution. This seminar provides a basic understanding of joint doctrinal concepts and their application during the JPP, focusing on COG identification and analysis in a historical operation.

NOTE: The concept of “center of gravity” is debated within the professional literature. JP 5-0 does not clearly identify a process for deriving COGs and different staffs have different approaches to discerning COGs. This course, however, employs RAND’s “Vulnerability Assessment Pocket Guide” (VAM) as a touchstone, which offers a commonly used method and bridges academic COG discussions to functional COG analysis via a historical case study.

CONTACT HOURS: 3-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*, (RAND Corporation, 2014), Skim 1-6; Read 7-32; 33-81 sugg. [EL]

SPLIT

- a. Carl von Clausewitz, *On War*, trans. Peter Paret & Michael Howard, 485-487 and 585-587 [EL]; AND Dale C. Eikmeier, “The Center of Gravity, Still Relevant After All These Years,” *Military Review Online Exclusive*, (May 2017), 1-8 [EL].
- b. D. Kornatz, “The Primacy of COG in Planning: Getting Back to Basics,” *Joint Forces Quarterly* 82, (3rd 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 (1st Quarter 2017), 86-92 [EL].

SUGGESTED ADDITIONAL MATERIAL

- e. Jan L. Rueschhoff and Jonathan P. Dunne, “Centers of Gravity from the ‘InsideOut,’” *Joint Forces Quarterly* 60 (1st Quarter 2011), 120-125.
- f. Milan Vego, *Joint Operational Warfare: Theory and Practice*, Naval War College Press, 2009, VII-13 to VII-27; VII-29 to VII-35. [EL]
- a. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 6-8, (COGs). [EL]

- b. Dale C. Eikmeier - Center of Gravity videos 3-4.
<https://www.youtube.com/watch?v=9WnmVIybFG0>

LESSON INTEGRATION AND RATIONALE

The COG construct is a useful analytical tool to help JFCs and staffs analyze friendly and adversary sources of strength, weakness, and vulnerability. It is integral to operational design and operational art, enabling the commander to apply combat power with more precision and focus. Critical factor analysis helps structure otherwise ill-structured problems, covered in lesson JC-503. Within the context of the defined problem, COG identification and analysis helps link national security objectives to military objectives and termination and provides insight into the ends-ways-means-risk calculus. This lesson builds on MT's coverage of Clausewitzian and Jominian principles of war, as well as JAOPC's COG analysis.

KEY VOCABULARY

PRIMARY

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

SECONDARY

Five Rings Model

Day 5: JC-506 | Mon. 3 April, 2023

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 (p. 32).”

“Strategy provides a crucial mechanism for integrating operational design and art into the [JPP]. This methodology uses operational design to begin structuring the operational approach in an un-biased environment during the [JPPs] initiation and mission analysis steps. Once the initial operational approach is framed, the JFC can introduce strategy to integrate operational art into the structure established by the elements of operational design (p. 25).”

“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 13 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 (p. 25).”

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

LESSON OBJECTIVES

1. Comprehend the three distinct but interrelated aspects of the operational design methodology (understand the strategic direction, understand the operational environment, and define the problem) that combine to assist the development of an operational approach.
2. Comprehend how conceptual planning during the development of an initial operational approach assists in determining the arrangement of operations.
3. Building on concepts presented in objectives one and two, analyze an operational approach and its utility in the planning and execution of joint military operations.

LESSON OVERVIEW

JC-506 (S): Developing the Operational Approach

Overview: The operational approach is a commander’s description of the broad actions the force must take to achieve the desired military end state. It is the commander’s visualization of how the operation should transform current conditions into the desired conditions at end state – the way the commander wants the operational environment to look at the conclusion of operations. The operational approach is based largely on an understanding of the operational environment and the problem facing the JFC. However – as always – the approach must account for whole of government (DIME) and multinational considerations. Once the JFC approves the approach, it provides the basis for beginning, continuing, or completing detailed planning. The JFC and staff should continually review, update, and modify the approach as guidance, the OE, end states, or the problem change. Though it lays the framework for detailed planning, the operational approach is iterative and should allow for adaptation and innovation throughout planning and execution of military operations.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Air University Press, 2012), 21-29, 31-40 and 49-58. [EL] *Chapter 2 provides a useful schema for incorporating the elements of operational design into an operational approach. Chapter 3 details the historical basis and critical steps of design methodology, including the use of the “cognitive map” (operational approach).*
2. Joint Publication 5-0, Joint Planning, 01 Dec 2020. III-22 (1 page); review IV-14 to IV-21 (stop at “COG”). [EL]
3. Joint Staff J7, *Planner’s Handbook for Operational Design*, (Suffolk, VA, 2011), VI-1 to VI-7. [EL] *While the entire J-7 Handbook is useful, Chapters 4 and 5 provide particular insights on developing an operational approach.*

SPLIT

- a. Wright, P. Donald with the US Army Combined Arms Center Contemporary Operations Study Team, “The American Response to Terror: Planning Operations ENDURING FREEDOM,” in *A Different Kind of War: The United States Army in Operation ENDURING FREEDOM October 2001-September 2005*. Combat Studies Institute Press, 2010. pp 27-40. [EL]
- b. Wright, 40-51 [EL].
- c. Reliefweb, “Ukraine Concept of Operations,” Sept. 2022, <https://reliefweb.int/report/ukraine/ukraine-concept-operations-september-2022> [EL].
- d. James Holmes, “China is Rapidly Training for Joint Military Operations,” *The National Interest*, 19 Jan. 2022 [EL]. *This article argues for a clear-eyed view of China’s operational approach.*

SUGGESTED ADDITIONAL MATERIAL

1. (Review) Joint Publication 5-0, *Joint Planning*, 01 December 2020, IV-2 through IV-18 (Design Methodology) and IV-18 through IV-46 (Elements of Operational Design).
2. Edmund J. Burke, Kristen Gunness, Cortez A. Cooper III, Mark Cozad, “People’s Liberation Army Operational Concepts,” Santa Monica, CA: RAND, 2000 [E].
3. Jeffrey Engstrom, “Systems Confrontation and System Destruction Warfare,” Santa Monica: RAND, 2018.

LESSON INTEGRATION AND RATIONALE

This lesson provides the framework for understanding the doctrinal elements of design and the practical relationships between them. The visual depiction of the operational approach (the cognitive map) is a comprehensive starting point from which to begin applying operational art. Enhanced understanding of the elements of operational design supports detailed analysis of operations, in the JC planning workshops, and PACIFIC ENDEAVOR.

KEY VOCABULARY

PRIMARY

Cognitive Map

Defining the Problem / Problem Statement

Operational Approach

Operational Art

Operational Design

Strategic Direction

Understanding the Operational Environment

Day 5: JC-507 | Mon. 3 April, 2023
Nigeria Background Brief and Commander's Guidance

“China’s embrace of MOOTW [Military Operations Other Than War] has coincided with its ascendance as a world power. Its increasingly global economic interests have necessitated the adoption of operational concepts that align with its need to conduct military operations abroad to protect and promote those interests, while remaining consistent with its principled aversion to waging war overseas. Further, China’s contributions to international peacekeeping operations, humanitarian assistance and disaster relief, and its participation in international military exercises have helped strengthen China’s diplomatic relations with some of its neighbors and promoted China’s image as a responsible great power and a strong contributor to international order. In addition to non-combatant evacuations, these operations in particular have provided Chinese forces with opportunities to gain practical field experience in areas vital to conducting a variety of overseas missions, especially logistical support and sustainment. MOOTW thus provide a valuable framework for the role of China’s military in advancing its foreign policy priorities and upholding national security.”⁹

—Stebens & Lucas, 2022

LESSON OBJECTIVES

1. Comprehend the historical background, current actors, and events involved with a realistic planning scenario in a joint, interagency, intergovernmental and multinational environment.
2. Comprehend aspects of the **competition continuum**, considering key factors in the strategic, operational, and informational environments – including geopolitics, economics, region, religion, and culture – which potentially inform operational design and detailed joint planning.
3. Comprehend the nature of **strategic competition within the competition continuum, including the roles of Russia and China in Africa**, that inform the operating environment and operational design.

LESSON OVERVIEW

JC-507 (L): Nigeria Background Brief and Commanders Initial Planning Guidance:

Overview: Strategic competition largely comprises actions below the level of armed conflict that blend elements of cooperation, competition, and conflict. Competition for influence and economic reach involves myriad local, regional, and global entities interwoven in a complex web of constant change and significant ambiguity.

In this scenario, students will grapple with the realities of campaigning in Nigeria, an African state of immense importance, against a backdrop mirroring challenges common to many parts of the world: intractable insurgency coupled with ethnic, religious, cultural, and political divisions.

In this scenario, fault lines fracturing Nigerian and regional unity breathe life into an old insurgency in the north, now strengthened by the presence and narrative energy of ISIS/ISIL. At the same time, Russian private military companies (PMCs) including the Wagner Group, seek to exploit the insurgency and tie down American and Western forces in a bid to capture

⁹ James Stebens and Ryan Lucas, “Military Operations Other Than War in China’s Foreign Policy,” (Washington, D.C.: The Stimson Center), 2022, 63.

Nigeria's vast resource wealth for themselves. As in other African states, China poses a more worrisome challenge, seeking to establish itself as the foreign patron/partner of choice; it offers development and political assistance, as well as direct inducements to Nigerian individuals, in an effort to access Nigeria's resource wealth. China presents an alternative to Western-style democracy, offering elites political and economic security free from the "meddling" of liberal Western states. Finally, an impending water crisis threatens to ignite ethnic, religious, cultural, and political tensions.

Working under a campaign plan jointly created by the country team and AFRICOM, the Commander seeks to craft a contingency plan that delivers humanitarian aid, reduces the influence and appeal of the Chinese, and positions the United States to compete effectively as the preferred partner of choice once the crisis has passed. In other words, the contingency plan should reinforce the goals of the campaign plan, leveraging the crisis to the United States' advantage.

Understanding the background, current situation, and underlying tensions and issues will be essential for successful execution of the JC planning workshops. The scenario overview lecture will be followed by the Commander's Initial Planning Guidance Brief, which will outline national strategic objectives and priorities for the Nigeria scenario workshop.

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 & 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 Nigeria scenario lecture and the CC Initial Planning Guidance provide the *starting point* for student directed study in preparation for the first two days of the JC planning workshops. Students are expected to arrive to ensuing workshop seminars with the appropriate level of knowledge, insight, and analysis pertaining to the problem set for Nigeria and the surrounding region. This will enable the planning group to apply operational art, operational design, and the planning process to propose solutions (to the commander) involving military and whole-of-government participation alongside partners, allies, NGOs, and potentially, competitors. The Nigeria scenario mirrors real-world situations of immense importance, in which myriad sensitivities and considerations form a "witch's brew" of complexity and uncertainty.

Lecture: 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
Special Operations (2020)

LESSON OBJECTIVES

1. Comprehend the roles that the special operations community play in campaigning and warfighting.
2. Comprehend the fundamentals of special operations command and control organization.

LESSON OVERVIEW

JC-514 (L): Joint Special Operations: Campaigning Across the Continuum

Dr. Joseph Osborne, Dept. of Joint Warfighting

Overview: The lecture will cover three main topic areas to include an overview of the **missions**, the **service components** and the **personnel** that make up the force. 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, Dr. Osborne will talk about how SOF fits in the conventional / interagency / SOF approach to Irregular Warfare.

Day 6: Directed Study | Tues. 4 April, 2023

“Pride is the Fuel of Human Achievement”

—Gen. Wilbur “Bill” Creech
USAF CMDR Tactical Air Command
1978-1984

OVERVIEW

Most of day six is dedicated to group study on the Nigeria problem set. It is not a “free” day, but is unstructured time set aside so that the planning team can digest the intelligence and organize.

The course team has provided scenario and background material and worksheets to help guide the process. Your instructor will define specific expectations, but all teams are expected to work to complete all assigned tasks so that planning may commence on day seven.

Day 7: JC-508 | Thurs. 6 April, 2023
Operational Design Workshop Day 1

“Operations invariably occur in multi-faceted environments. No commander ever has the perfect information, all of the resources he or she desires, or enough time. 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” (p. 1).

--Reilly, *Operational Design*

“Unlike contingency plans, JSCP-directed CCMD campaigns do not end with the achievement of military objectives. Campaign plan objectives neither affirm nor imply military victories but instead focus CCMD operations, activities, and investments to further U.S. national security by supporting U.S. national security objectives. It helps to identify desired OE conditions to focus campaign planning (the purpose of the CDR’s vision), with the understanding that campaign objectives and U.S. interests may change as the OE evolves and policies change.”

“Contingency plans identify how the command might respond in the event of a crisis or inability to achieve objectives. Contingency plans specifically seek to favorably resolve a crisis that either was not or could not be deterred or avoided by directing operations towards achieving specified objectives...Contingency plans have end-states that seek to reestablish conditions favorable to the United States...[and] have identified military objectives and end-states. Upon achieving the military objective(s) or attaining the military end-state, operations transition back to campaigning through competition under new conditions, possibly with new objectives.”

—JP 5-0, V-4

LESSON OBJECTIVES

1. Demonstrate the use of operational art and design in joint planning, and how military planning considers all elements of national power and an interorganizational/whole of government approach to achieve national strategic goals, while campaigning through the competition continuum.
2. Apply elements of operational art and design (per joint doctrine) to understand the observed and desired operational environments, through a complex military planning problem focused on campaigning during strategic competition.
3. Analyze strategic guidance documents, the commander’s initial planning guidance, and the operational environment to develop military end states, objectives, and desired effects for the application of the military instrument of power.
4. Analyze the operational environment, the multiple actors (including China and Russia), and their relationships in that environment to understand and isolate root causes of the issues at hand, define the problem/problem set, and determine how these operational variables may inhibit or facilitate preferred change toward the desired military end state while also advancing the campaign plan.

LESSON OVERVIEW

JC-508 (S): Operational Design Workshop Day 1

Overview: Day 1 of the two-day Operational Design Workshop will focus on the elements of operational design and the development of an *initial* operational approach. The first day of the Workshop will concentrate on “understanding strategic direction,” “understanding the operational environment,” and “framing the problem.” This will allow planners to answer the question: “*what are the strategic goals and the military objectives that support their attainment?*” The seminar’s practical application will include review of national strategic guidance documents, JIPOE, the ASCOPE/PMESII constructs, and defining the problem. This is the first of eight JC course workshops that will 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 staff support to the commander’s development of an operational approach, which enables focused mission analysis and COA development in JPP Steps 2 and 3. Based on current understanding of the operational environment, the problem, and the initial operational approach for the campaign or operation, the JFC will typically provide initial planning guidance prior to conducting mission analysis. ACSC suggests capturing the operational approach in a cognitive map, which will support the remainder of the planning activities, including COA creation, comparison, and selection.

The product for this lesson is the problem statement, the list of strategic and operational end states, military objectives, and effects needed to achieve those objectives. Note that mission analysis broadly maps to the five-paragraph operations, providing the analysis and synthesis to support the SITUATION section.

CONTACT HOURS: 3.0-hour seminar

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] *JP 3-08 provides concepts and considerations of interorganizational cooperation and how the military contributes to unified effort within the U.S. Government.*
2. JC Nigeria scenario planning guidance, research materials, and other research materials as required. [EL] *Students must read the scenario guide prior to the start of the workshop. Students will not have the time to “spin-up” on the scenario during seminar. This seminar marks the first of several instructor-led experiential learning days designed for synthesis and practical application of JC course concepts. Students must review the scenario materials and conduct their own research to facilitate seminar analysis and application of the elements of operational design. Student research will aid the practical application of doctrinal concepts and the discernment of appropriate questions and information sources to enable military planning activities.*
3. 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 their instructor’s directions.*

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* (Air University Press, 2012), 1-14; 21-29; 31-38 (stop at first full paragraph); 40-58.

LESSON INTEGRATION AND RATIONALE

This seminar is the first of eight scenario-based workshops in which students will “walk” through Operational Design and the JPP. While instructor guidance will be key to the workshops, students should be familiar with similar scenario materials from the JAOPC and CW courses; this should enable students to work more independently than they did in previous course workshops.

This seminar will directly support concept analysis and application in subsequent JC Mission Analysis, COA Development, COA Analysis and COA Comparison Workshops. In these workshops, planning groups will continue to apply operational art and design during detailed planning through use of the JPP. Experience gained during this seminar will foster critical-analytical thinking and preparations for student-led planning during PACIFIC ENDEAVOR, a more complex contingency scenario.

Day 8: JC-509 | Fri. 7 April, 2023
Operational Design Workshop Day 2

“Operational art and operational design enable **understanding**. Understanding is more than just knowledge of the capabilities and capacities of the relevant actors or the scope and nature of the OE; it provides context for decision making and how the many facets of the problem are likely to interact, enabling commanders and planners to identify hazards, threats, consequences, opportunities and risk.

“Operational art is the cognitive approach used by commanders and staffs—supported by their skill, knowledge, experience, creativity and judgment—to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, means and risk. Operational art is inherent in all aspects of operational design.”

—JP 5-0, IV-1

LESSON OBJECTIVES

1. Demonstrate the use of operational art and design in joint planning, and how military planning considers all elements of national power and an interorganizational/whole of government approach to achieve national strategic goals while campaigning under/across/through the competition continuum.
2. Apply elements of operational art and design (per joint doctrine) to understand the observed and desired operational environments, examining a complex military contingency, nested within campaigning during strategic competition.
3. Analyze the operational environment, the multiple actors (including China and Russia), and their relationships in that environment to understand and isolate root causes of the issues at hand, define the problem, and determine how these operational variables may inhibit or facilitate the preferred change toward the desired operational end state.
4. Apply appropriate doctrinal elements of operational design (including, but not limited to lines of operation/lines of effort, decisive points, end state, objective, effects, and arranging operations) to analyze a complex security issue and develop an initial operational approach, commander’s planning guidance, and commander’s intent.
- 5.

LESSON OVERVIEW

JC-509 (S): Operational Design Workshop Day 2

Overview: The second day of the two-day Operational Design Workshop will further previously conducted analysis – of **end states, objectives, effects** and the **problem statement** – to enable the development of an operational approach. The planning group will continue to apply doctrinal concepts and methodology, conducting enemy and friendly **COG analysis** and identifying potential **decisive points** to aid the development of **lines of operation** and/or **lines of effort**. Based on the COG analysis, the seminar will refine military objectives and effects, as required.

This lesson underscores the importance of staff support to the commander’s development of an operational approach, which enables focused mission analysis and COA development in JPP Steps 2 and 3. Based on current understanding of the operational environment, the problem, and the initial operational approach for the campaign or operation, the JFC will typically provide initial planning guidance prior to conducting mission analysis. ACSC

suggests capturing the operational approach in a cognitive map, which will support the remainder of the planning activities, including COA development, comparison and decision.

The result of Day Two will be a “cognitive map” that captures the broad actions the force will take and to convey the staff and commander’s overall understanding of the situation prior to the start of detailed planning. The map will incorporate (but not be limited to) the following design elements: : end state, objectives, effects, COGs, decisive points, lines of operation/effort, and arranging operations. Students should also provide a draft of the proposed **Commander’s Intent** and **Commander’s Planning Guidance** for approval.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. JC Nigeria scenario planning guidance, research materials, and other open source research materials as required. **[EL]** *Students must read the scenario guide prior to the start of the workshop. Students will not have the time to “spin-up” on the scenario during seminar. This seminar marks the first of several instructor-led experiential learning days designed for synthesis and practical application of JC course concepts. Students must review the scenario materials and conduct their own research to facilitate seminar analysis and application of the elements of operational design. Student research will 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 their instructor’s directions.*

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* (Air University Press, 2012), 1-14; 21-29; 31-38 (stop at first full paragraph); 40-58.

LESSON INTEGRATION AND RATIONALE

This seminar is the second of eight scenario-based workshops in which students will “walk” through Operational Design and the JPP. Given the seminar’s advancement through Day 1 of the Operational Design Workshop, the instructor may elect to take a more passive role in the workshop process, providing guidance as needed rather than actively leading.

This seminar will directly support concept analysis and application in subsequent JC Mission Analysis, COA Development, COA Analysis and COA Comparison Workshops. In these workshops, planning groups will continue to apply operational art and design during detailed planning through use of the JPP.

Experience gained during this seminar will foster critical-analytical thinking and preparations for student-led planning during PACIFIC ENDEAVOR, a more militarily intensive and kinetic contingency scenario. Along with JC-508, JC-509 builds on JAOPC’s and LC’s foundational coverage of the JPP and MDMP; MT’s examination of the classic theories of Clausewitz, Jomini, Sun Tzu, Galula, and Mao; ISMS’s analysis of cross-DIME and combatant command options for

meeting strategic competitor and VEO challenges; and MT's and AO's dissection of irregular and gray zone warfare. Because the scenario involves distance-based considerations, it highlights the unique capabilities and limitations of airpower, including those respecting capacity, time/distance, fuel, and overflight.

Day 9: JC-510 | Mon. 10 April, 2023

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*, (1520)

A great part of the information obtained in war is contradictory, a still greater part is false, and by far the greatest part somewhat doubtful. What is required of an officer in this case is a certain power of discrimination, which only knowledge of men and things and good judgment can give.”
—Carl von Clausewitz, *On War* (1832)

LESSON OBJECTIVES

1. Comprehend the purpose, activities, and desired outputs of JPP step 2, *Mission Analysis*, including how operational art, operational design, and the commander’s initial operational approach, along with the joint functions and principles of joint operations, inform Mission Analysis activities.
2. Through analysis of a joint operation, comprehend the purpose, construct, content, and process of developing a clear mission statement.
3. Comprehend the significance of planning assumptions, commander’s critical information requirements (CCIRs), and risk assessment during the planning and execution of military operations.

LESSON OVERVIEW

JC-511 (S): Introduction to Mission Analysis

Overview:

Thorough Mission Analysis is critical to correctly framing the problem (the *correct* problem or problem set), which enables the derivation of solutions in subsequent JPP steps. 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, and particularly COA development. Factors such as **planning assumptions** and **CCIRs** also impact intelligence collection and ends-ways-means-risk assessment throughout planning and execution. The seminar will include a discussion and review of declassified USCENTCOM OPLAN 1003V Change 1, the *Combined Force Commander Operation Plan* (for combat operations in Iraq), providing insights on the elements of **mission analysis**.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Now declassified. Read pages 1-38; skim 39-90. [EL] *Upon execution, the nowdeclassified 1003V Operation Plan (OPLAN) for Operation Iraqi Freedom (OIF) became an OPORD. This document demonstrates the format and content of an OPLAN that became a planning order and illustrates how the operational approach informs detailed planning – and particularly mission analysis activities – at the designated headquarters and component 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*, 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] *JP 3-08 provides 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 1-22; 79-82 and brief the team. [EL]
- c. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 23-33; 63-70; 86-88 and brief the team. [EL]
- d. Headquarters US Central Command, USCENTCOM OPLAN 1003V CHANGE 1, 2003. Document is now declassified. Read pages 34-54 and brief the team. [EL]

LESSON INTEGRATION AND RATIONALE

This seminar's focus on the doctrinal activities of mission analysis reinforces JC Phase 1's "problem framing" theme. It facilitates subsequent JC-511 discussion of the Tora Bora operation, during which students will apply their knowledge of mission analysis inputs, outputs, and activities to analyze joint mission planning with interagency partners. It further supports the JC 512-513 Mission Analysis Workshop, which builds on the scenario and planning products referenced and developed in the JC 508-509 Operational Design Workshop.

Day 10: JC-511 | Tues. 11 April, 2023

Mission Analysis Case Study: Tora Bora

“As members of the British Special Boat Service (SBS) team listened in to conversations on a captured shortwave radio, they heard a voice they believed to be their target. Two of the team spotted a tall figure in a camouflage jacket moving with a 50-man protective detail, who went into a cave through a hidden entrance. Only a few months after the 11 September 2001 attacks, Osama Bin Laden seemed to be cornered in the mountains of Afghanistan, close to the Pakistani border....Tora Bora promised to be his final stand. So how did he escape?”¹⁰ —Gordon Corera, BBC News

LESSON OBJECTIVES

1. Building on concepts discussed in Lesson JC-510, analyze the planning of an historical operation for the doctrinal activities of mission analysis, and identify planning activities and operational design elements that lead to success or failure in military operations in a complex operational environment.
2. Comprehend how the Mission Analysis step of the JPP is integrated with the elements of operational design, the commander’s initial operational approach, the joint functions and the principles of joint operations. Understand how the *mission analysis* step relates to sections of the five paragraph operations order format.
3. Comprehend the relationship between the doctrinal levels of war, and analyze how activities and effects at one level may impact the other levels in positive or negative ways.
4. Comprehend **mission creep**, its causes and effects, as well as ways to mitigate or avoid the associated risks of expanding operational goals beyond initial guidance or mission analysis considerations.
5. Using a joint operation historical case, analyze the joint doctrinal command relationships and joint force organizational structures, their significance in operations, and their connection to the principle of **unity of command**.

LESSON OVERVIEW

JC-511 (S): Mission Analysis Case Study: Tora Bora

Overview: This seminar extends mission analysis doctrine and concepts to an analysis of the underlying logic, assumptions, and ends-ways-means-risk calculations behind the assault on Tora Bora. It also addresses the challenges of command relationships involving joint and interagency dependencies, their direct and indirect effects on military operations, and their implications for unity of command. It asks: **What are benefits of combined and interagency operations? What are the trade-offs?** (JC-515 and JC-516 will address these questions in greater detail). Finally, the seminar examines “mission creep” in relation to mission analysis, focusing on the iterative commander-planner dialogue that should occur throughout operational planning and execution.

CONTACT HOURS: 3-hour seminar

REQUIRED READINGS

¹⁰ Gordon Corera, “Bin Laden’s Tora Bora escape, just months after 9/11,” BBC News, 21 July 2011, <https://www.bbc.com/news/world-us-canada-14190032>.

1. FRONTLINE PBS Video - A look back on how OEF began: <https://youtube.com/watch?v=u-jeTXRcRCE>. This documentary investigates the beginnings of Operation Enduring Freedom, providing essential background for the subsequent seminar's application of operational art, operational design, and joint planning concepts to the Tora Bora case study.

SPLIT

- a. Perry, Walter and David Kassing, "Toppling the Taliban." In *Toppling the Taliban: Air Ground Operations in Afghanistan, October 2001-June 2002*, Santa Monica, CA: RAND Corporation, 2015. Read pages 39-40. 83-84. [EL]
- b. Runkle, Benjamin. "Tora Bora Reconsidered: Lessons From 125 Years of Strategic Manhunts". *Joint Forces Quarterly* 70, 3rd Quarters 2013: 40-46. [EL] AND Wright, P. Donald with the US Army Combined Arms Center Contemporary Operations Study Team. "The American Response to Terror: Planning Operations ENDURING FREEDOM". In *A Different Kind of War: the United States Army in Operations ENDURING FREEDOM October 2001-September 2005*. Combat Studies Institute Press, 2010. Read pages 113-121. [EL]
- c. Colonel John Mulholland Interview by PBS Frontline, 2003. Transcript. <https://www.pbs.org/wgbh/pages/frontline/shows/campaign/interviews/mulholland.html>. [EL]
- d. Lowrey, Nathan S. *U.S. Marines in Afghanistan, 2001-2002: From the Sea*. Washington D.C. History Division U.S. Marine Corps, 2011. 207-219. [EL] AND Benjamin Lambeth, *Air Power Against Terror: America's Conduct of Operation Enduring Freedom*. Santa Monica, CA: Rand Corp, 2005. 149-156. [EL] AND Andrew G. Bjelland, "How America lost its focus in Afghanistan." Special to the *Salt Lake Tribune*, Aug 27, 2021. [EL]

SUGGESTED ADDITIONAL MATERIAL

1. (Review) Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-12 through III-32.
2. (Review) Joint Publication 1 Vol. 2, *Doctrine for the Armed Forces of the United States*, June 2020, I-7 to I-9.

LESSON INTEGRATION AND RATIONALE

This seminar reinforces previous JC 511-513 coverage of mission analysis doctrine and concepts, applying them to a historical operation. Equipped with an enhanced understanding of mission analysis via the Tora Bora case study, students will be further capable of conducting their own mission in the JC-515 Workshop and the PACIFIC ENDEAVOR exercise.

Days 11 & 12: JC-512/513 | Thurs – Fri., Apr. 13-14 2023
Mission Analysis Workshop Day 1 and Day 2

“...the 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.”

—JP 5-0, III-29

“Great advantage is drawn from knowledge of your adversary, and when you know the measure of his intelligence and character you can use it to play on his weaknesses.”

—Frederick the Great

Instructions to his Generals (1747)

LESSON OBJECTIVES

Note: These objectives build on work conducted in Lessons JC-508/509

1. Integrate **operational art** and **operational design** with Joint Planning, exercising the integration of military planning at the operational level with all elements of national power, interorganizational stakeholders, NGOs, and private contractors, to achieving national strategic goals.
2. Comprehend the purpose and process for activities of JPP step 2, *Mission Analysis*, exercising and observing how operational art, operational design, and the JPP are **iterative** in nature.
3. Analyze how strategic guidance documents, commander’s intent and planning guidance, and the initial operational approach guide and inform the *Mission Analysis* step of the JPP.
4. Apply joint planning concepts across the joint functions and the principles of joint operations, conducting Joint Planning activities, to develop a **Mission Statement** and **create a Mission Analysis brief for the Joint Force Commander (CI)**.

LESSON OVERVIEW

JC-512/513 (S): Mission Analysis Workshop Day 1 and Day 2

Overview: *Mission Analysis* is an important part of the JPP “used to study the assigned tasks and to identify all other tasks necessary to accomplish the mission” (JP 5-0, V-4). This step is **iterative**, providing direction to the commander and focusing the staff on the right problem or problem set. Consideration of **how the operation will be assessed**, prior to detailed planning, reduces the risk of mission creep and better aligns **tasks to objectives**.

This workshop exercises Mission Analysis activities, building on the analysis conducted during the Operational Design Workshop (JC 508 and 509). The results will include a **refined Operational Approach** and delivery of a **Mission Analysis Brief**. The outputs of Mission Analysis will prepare the students to develop *Courses of Action* later in the JC course during the application of JPP step 3.

The staff uses the **Mission Analysis brief** to inform the commander of the operational design and planning activities through JPP step 2. The development and presentation of the brief provide an appreciation for how mission analysis activities converge to inform commander’s planning guidance and future problem-solving steps. It “[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" (JP 5-0, III-29).

CONTACT HOURS: 2x3.0-hour seminars

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 is built into all plans.*
2. JC Nigeria scenario planning guidance, research materials, and other open source research materials as required. [EL] *Students should continue to review the Nigeria scenario materials prior to the start of the Mission Analysis Workshop, as they will not have the time to "spin-up" on the scenario during seminar. Student research will facilitate seminar analysis and practical application of mission analysis doctrinal concepts and activities. It will further aid the discernment of appropriate questions and information sources to enable military planning activities.*
3. 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 their instructor's directions.*

SUGGESTED ADDITIONAL MATERIAL

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, Review III-12 through III-32 (Mission Analysis), Appendix K.
2. (Review) Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (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 "walk" (or jog!) the seminar through the activities of Mission Analysis, allowing the seminar to proceed independently, if ready, while maintaining a presence in the classroom. Ideally, students will drive the process and the CI will support them with inputs and advice.

The products of this seminar – including **assumptions**, **limitations** (restraints and constraints), **tasks**, **initial risk assessment**, **CCIRs** and a **mission statement** – will support the subsequent COA Development Workshop, in which students will develop distinct COAs to address the scenario contingency planning problem. Workshop hones critical-analytical thinking, integrates leadership decision-making and staff work skills, and prepares students to conduct student-led planning during PACIFIC ENDEAVOR. This workshop incorporates **analysis** and theory-practice **synthesis**, building on JAOPC's and LD's foundational coverage of the JPP and MDMP; MT's examination of the classic theories of Clausewitz, Jomini, Sun Tzu, Galula, and Mao; ISMS's analysis of cross-DIME and combatant command options for meeting strategic competitor and VEO challenges; and MT's and AO's dissection of irregular and gray zone warfare.

Phase 2: PROBLEM SOLVING

Developing Solutions through the Application of Military Capabilities

“Everything in war is simple, but the simplest thing is difficult. The difficulties accumulate and end by producing a kind of friction that is inconceivable unless one has experienced war...Countless minor incidents—the kind you can never really foresee—combine to lower the general level of performance, so that one always falls short of the intended goal...The military machine—the army and everything related to it—is basically very simple and therefore seems easy to manage. But we should bear in mind that none of its components is of one piece; each part is composed of individuals...the least important of whom may chance to delay things or somehow make them go wrong.... This tremendous friction, which cannot, as in mechanics, be reduced to a few points, is everyone in contact with chance, and brings about effects that cannot be measured, just because they are largely due to change.”

**—Carl von Clausewitz, *On War*
—Trans. Paret, pp. 11-12**

11Day 13: JC-514 | Mon. 17 April, 2023

Operational Art – Student Briefings

“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* (1987)

LESSON OBJECTIVES

For assignment guidelines, see APPENDIX 1

1. Analyze 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 operational 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-514 (S): COA Development: The Operational Art (Student Presentation)

Overview: Student presentations on selected commanders and battles will highlight and analyze the critical and creative thinking required for military professionals to devise appropriate COAs to solve complex security problems. This introduction to JC Phase 2, “problem solving,” bolsters appreciation for command decisions, assessing how planners and commanders elect to employ or reject doctrinal concepts and principles to successfully accomplish missions. This seminar, coupled with a solid understanding of the “tools,” capabilities, and resources used to accomplish military missions (introduced in CW)), will analysis of an operational situation and determination of the appropriate access, ways, and means for achieving the desired ends (**courses of action**). 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*, Modern War Institute at West Point, 9/10/21, 9 pages <https://mwi.usma.edu/back-to-the-future-rediscovering-operational-art-in-an-era-of-great-power-competition/>.
2. Milan Vego, "On Military Creativity," *Joint Force Quarterly*, 70, 3rd Quarter (2013), 83-90. Vego examines the military professional's "...ability to find workable, novel solutions to problems—to be innovative and adaptable in fast moving, potentially confusing situations." This theme is foundational to ACSC and the JC course.
3. Student Research and Presentation Guidance JC-514.1 (in this syllabus, APPENDIX A). This document provides detailed guidance on the timing and content requirements of the graded in-class presentation.
4. Independent research (outside of the course materials) required for the assigned in-class presentation.

LESSON INTEGRATION AND RATIONALE

This lesson examines historical case studies of significant commanders and battles. The analysis of historical operations for the application of capabilities, use of doctrine, and reliance on military principles will lay the groundwork for student problem solving via the development of valid COAs. The lesson emphasizes creative thinking and complex problem-solving through the application of military capabilities; subsequent COA development lessons highlight service capabilities, domain operations, and doctrinal COA development activities. The COA Development Workshops will leverage this analysis, and the JC course will culminate with the application of this 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

JC601E (Group Paper) handed out – SEE APPENDIX 1 for assignment details.

Day 14 JC-515 | Tues. 18 April, 2023
The Reserve Component in the Homeland

LESSON OBJECTIVES

1. Comprehend the role of the Chief, National Guard Bureau in coordination between DoD, DHS, US Northern Command, and the state and territorial Adjutants General for planning and execution of domestic military support operations.
2. Comprehend the various types of operations for which Title 10 military forces may be called upon to assist local and state governments in conjunction with the National Guard, and how the National Response Framework governs those operations.
3. Comprehend the complexities of planning for domestic military operations, including the requirements for interagency coordination, the leading role of civilian organizations and institutions, the sovereignties of local and state governments and how they relate to Federal authorities and organizations.

LESSON OVERVIEW

JC-515 (L): The Reserve Component in the Homeland

Overview: **Lt. Gen. L. Scott Rice, USAF (Ret.)** The National Guard is the primary military “first responder” for operations in the Homeland. The Chief, National Guard Bureau (NGB) is a member of the Joint Chiefs of Staff and has a joint staff in the Pentagon which is responsible for, among other things, the coordination of emergency response and National Special Security Event (NSSE) planning and execution for Defense Support of Civil Authorities (DSCA) between the state and territorial National Guard Joint Force Headquarters (JFHQ), US Northern Command (USNORTHCOM), and the Department of Homeland Security (DHS). The considerations involved in this kind of planning are complex. In many cases, they differ considerably from those involved in conventional overseas military operations.

REQUIRED READINGS

1. National Guard Bureau, *2022 National Guard Bureau Posture Statement*, Skim 1-26. [EL]
This short selection provides an overview of the purpose, organization, mission, roles, and capabilities of the National Guard as part of the military force construct.
2. David W. Giles and Arnold M. Howitt, “Defending the Homeland: The Massachusetts National Guard Responds to the 2013 Boston Marathon Bombings.” [EL]

SUGGESTED ADDITIONAL MATERIAL

1. Joint Publication 3-27, *Homeland Defense*, 2018. vi-xv, and A-1 to A-7. [EL]
2. Joint Publication 3-28, *Defense Support of Civil Authorities*, 2018. ix-xix. [EL]
3. LT GEN Jody J. Daniels, *On the 2022 Posture Statement of the United States Army Reserve*, 7 June 2022. [EL]
4. Lt. Gen Richard W. Scobee, *2020 Air Force Reserve Posture Statement*, March 2020.
5. U.S. Navy, *2015-2025 Navy Reserve Vision: Our Course for the Future*, March 2016. (No newer version of this document has yet been identified, per our U.S. Navy rep.)

LESSON INTEGRATION AND RATIONALE

This lecture provides a RC perspective on planning, coordinating, and leading military forces in a response to a complex Homeland operation. It familiarizes students with multiple JC course concepts (with emphasis on COMREL and authorities) and revisits ISMS concepts on intergovernmental and interorganizational planning and execution. The lecture will reinforce the need for careful consideration of applicable laws, authorities, policies, roles, and capabilities pertinent to planning complex military operations.

Day 14: JC-516 | Tues. 18 April, 2023
The Reserve Component in Joint Operations and Planning for Domestic Operations
Operational Contract Support

“The United States Army Reserve (USAR) had its official birth on April 23, 1908, in an act, ‘To increase the Efficiency of the Medical Department of the United States Army.’ From this modest beginning and limited mission, the Army Reserve has grown [by 1983] into a force of almost a million men and women....”¹¹

LESSON OBJECTIVES

1. Comprehend the basic structures, types of organizations, and capabilities residing in the Reserve Components (RC) of the Joint Force, the legal and operational distinctions between the RC and Active Component, and various authorities which govern the use of the RC domestically and overseas.
2. Comprehend the distinct authorities inherent in Title 10 and Title 32.
3. Comprehend operational contract support (OCS) concepts, the importance of incorporating OCS in the design and execution of campaign and contingency plans given the dependency on Private Military Contractors (PMCs), and potential pitfalls of OCS in military operations in a JIIM environment.
4. Comprehend the distinctions between Homeland Defense and Homeland Security, the various types of operations for which Title 10 military forces may be called upon to assist local and state governments in conjunction with the National Guard, and how the National Response Framework governs those operations.
5. Comprehend the complexities of planning for domestic military operations, including the requirements for interagency coordination, the lead role of civilian organizations and institutions, the sovereignties of local and state governments, and how those sovereignties relate to Federal authorities and organizations in a whole of government response to national interests.

LESSON OVERVIEW

JC-516 (S): The Reserve Component and Operational Contract Support in Joint Operations and the Reserve Component in Planning for Domestic Operations

Overview: Over half of the strength of the US military resides in the services’ Title 10 Reserves and the National Guard. The Guard and Reserve augment the joint force; it cannot fully operate in their absence. This complicates deployment plans and affects flexibility. Future senior leaders and planners should be fully aware of National Guard and reserve component distinctions, roles and missions, constraints; they should further understand how Combatant Commanders gain access to these capabilities. The defense and security of the Homeland, the DOD’s top priority, requires familiarity with the processes, laws, and structures pertinent to the deployment of military forces inside the United States (in support of civil authorities). Domestic missions involve complex planning considerations that differ greatly from planning factors for operations overseas. These considerations require understanding of interagency coordination, state and local sovereignties, statutes governing

¹¹ Richard B. Crossland and James T. Currie, *Twice the Citizen: A History of the United States Army Reserve, 1908-1983*, Washington, DC: Office of the Chief, Army Reserve, 1984.

the military in a law enforcement role, and the use of military capabilities in competition with private businesses.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. JP 1-0 part 2, I-17; IV-15 to IV-16. JP 1-0 part 2 *discusses command relationships and limitations on the use of the National Guard through title 32.*
2. Department of Homeland Security, *National Response Framework, Fourth Edition*, (Washington, DC: United States Government, Oct 28, 2019), ii-iii, 1-15 (Operational Coordination), 42 (Federal Authorities) to 46 (Federal to Federal Support). [EL] *This document outlines the specific manner in which domestic emergency response actions occur. Understanding the NRF – how local, municipal, county, state, and federal response agencies interact and perform their functions during emergencies – is key to military support to civil authorities within the United States.*
3. Headquarters US Northern Command. *Annex J to USNORTHCOM CONPLAN 3501-08, Command Relationships*. 2008. Document is now declassified.
https://www.governmentattic.org/6docs/CONPLAN_3501-08_2008.pdf. skim pages J1-J7. [EL]

SPLIT

- a. Joint Publication 3-28, *Defense Support of Civil Authorities*, 31 July 2013, Chapter I.
- b. Headquarters US Northern Command. *CDRUSNORTHCOM CONPLAN 3501-08 Defense Support of Civil Authorities (DSCA)*. 2008. Document is now declassified.
https://www.governmentattic.org/6docs/CONPLAN_3501-08_2008.pdf. Read pages v-xii, 2-16, skim pages 17-22. [EL]
- c. Headquarters US Northern Command. *CDRUSNORTHCOM CONPLAN 3501-08 Defense Support of Civil Authorities (DSCA)*. 2008. Document is now declassified.
https://www.governmentattic.org/6docs/CONPLAN_3501-08_2008.pdf. Read pages v-xii, 2-16, skim pages 23-36. [EL]
- d. Joint Publication 3-27, *Homeland Defense*, 10 April 2018, Appendix A, A-1 to A-7. [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.

4. Department of Joint Campaigning, *Joint Campaigning Capabilities Primer (JCCP) AY22*, 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 extends and refines discussion and analysis of the uses, capabilities, and limitations of the military across domains and conditions of the competition continuum. Coupled with the JC-517 lecture, JC-518 broadens understanding of the capabilities inherent to all Joint Force components and the considerations pertinent to planning and organizing forces for domestic operations.

Day 15: JC-517 and JC-518 | Thurs. 20 April 2023

COMREL & Authorities

“Joint force organization and command relationships are based on the operation or campaign CONOPS, complexity, and degree of control required. Establishing command relationships includes determining the types of subordinate commands and the degree of authority to be relegated to each. Clear definition of command relationships further clarifies the intent of the commander and contributes to decentralized execution and unity of effort.” —JP-5, III-38

“I cannot pretend at this distance to direct operations depending upon circumstances unknown to me and requiring the exercise of discretion and judgment as to time and execution.”¹² —Robert E. Lee

LESSON OBJECTIVES

1. Beginning with the principles **unity of command** and **unity of effort**, comprehend the doctrinal definitions of “command,” “control,” “authority,” and “COCOM,” noting the importance of command relationships and authorities to the planning and conduct of joint operations.
2. Analyze the risks and benefits of **centralized** versus **decentralized command and authority** in relation to traditional and emerging conceptions of “centralized command, decentralized control,” and “mission command.” Analyze how art is required for building a working system of command relationships in support of a joint operation.
3. Understand the distinctions between **supporting** and **supported** command relationships, and how emerging technologies challenge traditional roles and responsibilities.
4. Understand the major differences between command relationship (COMREL) and command and control (C2), the potential **risks** associated with executing missions using poorly defined COMREL and managing **nonmilitary** organizational relationships.
5. Comprehend the options available to the commander for the organization of a joint force, the potential **interorganizational relationships**, and the **doctrinal command relationships** (COCOM, OPCON, TACON, and support) that define the authority a commander has over assigned or attached forces, and how that leads to unity of command and unity of effort.
6. Exercise art in the design of command relationship architectures through a series of scenario-based problems.

LESSON OVERVIEW

JC-517/518 (L)/(S): COMREL & Authorities - This lesson focuses on Command Relationships (COMREL) and the **authorities** that enable Commanders to synchronize, allocate, and employ resources when pursuing operational objectives. **Gen. Joseph L. Votel, US Army (Ret.)** will recount his experiences, setting the stage for classroom discussion and exercises. It examines the differences between COMREL and Command and Control (C2), the authorities that enable

¹² Robert E. Lee, U.S. War Department, *War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, 128 vols., (Washington, D.C.: Government Printing Office, 1880-1901), Vol. 12, pt. 1, p. 14, 162, cited in Robert G. Tanner, *Stonewall in the Valley: Thomas J. ‘Stonewall’ Jackson’s Shenandoah Valley Campaign—Spring, 1862* (Mechanicsburg, PA: Stackpole Books, 1976), 248.

Commanders, the potential risks associated with poorly defined COMREL, and how COMREL impacts non-military entities. The lesson provides a working understanding of command terminology, explains why command relationships are critical to mission success, and identifies options for solving COMREL challenges when operating in volatile, uncertain, complex, and ambiguous environments.

COMREL and C2 are not synonymous. COMREL codifies how organizations interact with each other based on inherent authorities; it ensures unity of command and unity of effort when pursuing operational and strategic objectives. C2 describes how commanders exercise direction over subordinate forces. In other words, COMREL is about authorities and C2 is about directing forces.

The lesson comprises two parts: a lecture by General (R) Joseph Votel and a seminar in which students will create C2 structures of their own.

At the end of the lesson, the students should understand:

- The major differences between COMREL and C2.
- The key COMREL terms and references.
- The challenges/opportunities when executing centralized and decentralized command authority.
- How COMREL enables mission command.
- The potential risks of poorly defined COMREL.
- How COMREL relates to nonmilitary entities when pursuing objectives.

CONTACT HOURS: 1x1.0 hr. lecture + 1x 2.0 hr. seminar

REQUIRED READINGS

1. Joint Publication 3-0, Joint Campaigns and Operations, 18 June, 2022, pages III-1 to III-5 [E]. This publication *sets forth joint doctrine to govern the activities and performance of the Armed Forces of the United States in joint campaigns and operations, and it provides considerations for military interaction with governmental and non-governmental agencies, multinational forces, and other interorganizational partners.*
2. Joint Publication 1 Volume 2, The Joint Force, 19 June 2020, CH5, Joint Command & Control, pages IV-1 to IV-5; IV-7 to IV-20; and A-1, A-2. [E]
3. Joint Publication 3-30, Joint Air Operations, 25 July 2019, pages II-20 to II-22, Appendix G-1 through G-5. *Joint doctrine for the command and control of joint air operations across the range of military operation* [E].

SPLIT

- a. “Insights and Best Practices Focus Paper, JTF C2 and Organization,” Joint Staff, J7, April 2020, pages 1-15 [E]. *Discusses insights and best practices related to organizing a JTF and determining command relationships to best accomplish the mission through coherent integration of capabilities.*

- b. The Joint Team, *Airforce Purple Book*, pages 15-19 (Combatant Commands), and 24-27 (9 pages) [E]. *This publication provides insight on the Global Force Management (GFM) assignment of forces process. GFM enables proper distribution of forces among the CCMDs through the assignment of forces, provides an allocation mechanism to temporarily adjust force distribution to meet dynamic global challenges, and ensures the availability of apportioned forces (the services' estimate of the number of forces that can reasonably be made available over a general timeline should a surge of forces be required).* AND Joint Publication 3-08, *Interorganizational Control*, 12 Oct. 2016, pages I-9 – I-11. *This publication provides guidance for military coordination with other US Government departments and agencies; state, local, and tribal governments; foreign governmental agencies; international organizations, non-governmental organizations, and the private sector* [E].
- c. Alan Docauer, "Peeling the Onion Why Centralized Control / Decentralized Execution Works," *Air and Space Power Journal* (Mar.-Apr. 2014), pages 24 through 41 [E]. *Makes a strong case for the Air Force's position on the best organizational principles for the employment with respect to command relationships and the use of airpower.*
- d. George, E. Katsos, "Command Relationships," *Joint Force Quarterly* 63, (4th Q. 2011), pages 153-156, <https://ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-63/jfq-63.pdf> AND Dept. of Joint Warfighting, *Capabilities Primer*, AY 22, pages 30, 98-101, 145. *This primer familiarizes the PME student with the capabilities and requirements of the joint force; this information is critical for effective operational planners and joint force professionals.*

SUGGESTED ADDITIONAL MATERIAL

1. Joint Task Force Organization, Army University Press, video, <https://www.youtube.com/watch?v=JbFzaQQnFnM> (4:16 minutes)
2. *Chairman of the Joint Chiefs of Staff Guide 3130*, 5 March 2019" Adaptive Planning and Execution Overview and Policy Framework, Distribution: A, B, C, and S. *This guide is an executive summary of the Department of Defense's (DoD's) Adaptive Planning and Execution (APEX) enterprise. This guide, and the associated Chairman of the Joint Chiefs of Staff (CJCS) APEX family of documents, provide policy and procedures for implementing Secretary of Defense (SecDef) guidance in the Adaptive Planning Roadmaps I and II.*
3. *The Airmen's Handbook* (AF HB), 1 November 2021, page 118, ([LINK](#)) *is a great tool for structuring according to the principle, "centralized command, decentralized control," and "mission command," while illuminating some of the risks of poor design.*
4. Justin M. Redfern and Aaron M. Cornett, "The Challenging World of Command and Support Relationships," 5 Apr. 2018, https://www.army.mil/article/203331/the_challenging_world_of_command_and_support_relationships. *This article gives a clear-eyed view of the challenges planners face when designing command relationship structures. It also provides a useful reference matrix on the types of command relationships.*
5. UK Essays, "Command Principles of Operation Anaconda," Nov. 2018 <https://www.ukessays.com/essays/military/command-principles-of-operation-anaconda.php> *provides a useful distillation of U.S. Army ADRP 6-0, with the six principles of mission command highlighted.*

LESSON INTEGRATION AND RATIONALE

This lesson fuses LC's coverage of command with CW's coverage of the joint functions, and command authorities as presented by Col Coleman and Dr. Peck. It revisits scenarios from JAOPC and CW, refining or designing command structures in support of familiar joint operations. The module directly prepares students for forthcoming Nigeria scenario and PACIFIC ENDEAVOR work.

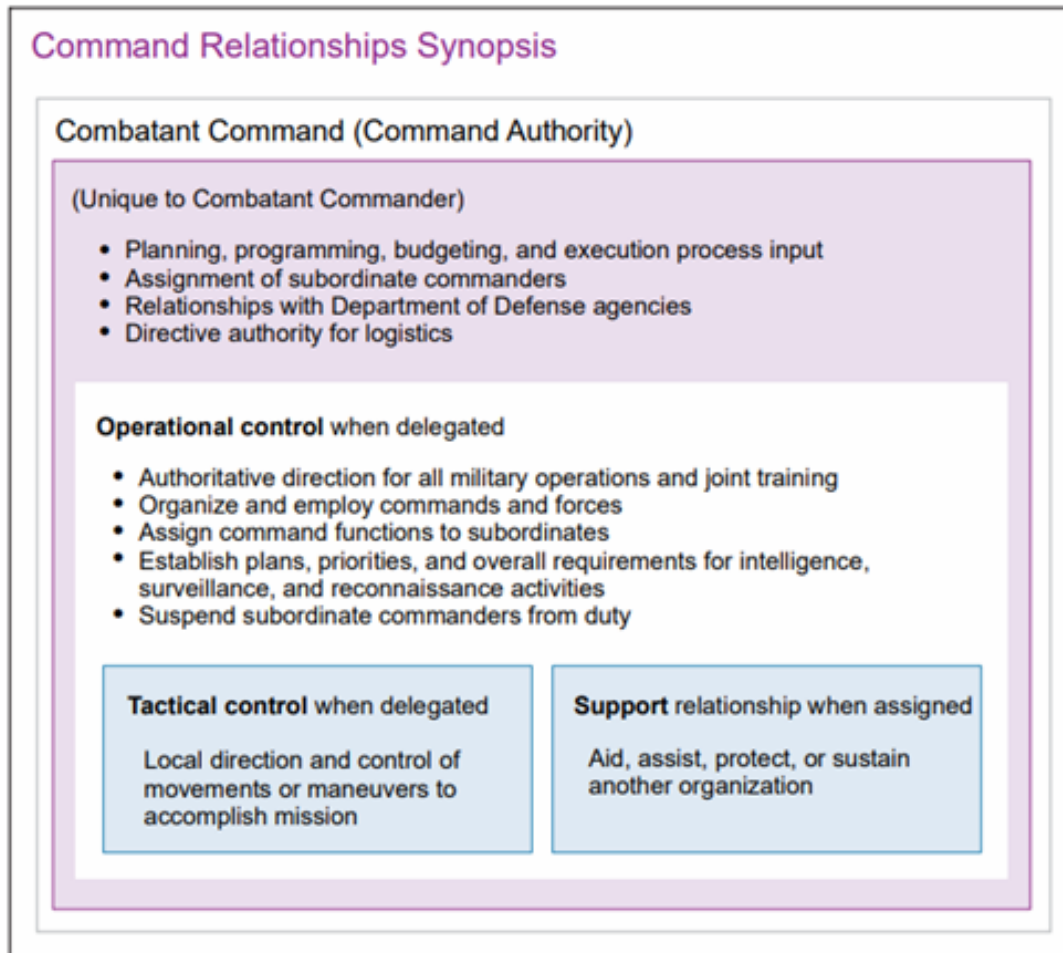


Figure IV-1. Command Relationships Synopsis

Day 16: JC-519 | Fri. 21 Apr. 2023
JTF Perspective on Problem Solving

“Since, therefore, force may at one time be repelled by force, and at another be obliged to yield to stratagem, we ought to be well acquainted with both, that we may on occasion adopt either.”¹³ —Frederick the Great

LESSON OBJECTIVES

1. Comprehend political, military, economic, social, infrastructure and informational (PMESII) factors that inform operational art, elements of operational design, and mission analysis in Joint Task Force (JTF) planning for irregular warfare.
2. Comprehend how commanders and staffs leverage operational art and design to link tactical actions to strategic objectives, answering ends-ways-means-risk questions to develop military strategy for irregular warfare.
3. Comprehend a JTF commander’s perspective and his of operational art, operational design, and unique special operations forces (SOF) capabilities to develop COAs in a multinational operation in irregular warfare.

LESSON OVERVIEW

JC-519 (L): JTF Perspective on Problem Solving

Overview: **Lt. General Donald C. Wurster (USAF Ret.)** will set the tone for the Nigeria exercise introducing his experiences with special operations command in the Philippines. In 2002, Joint Task Force (JTF) 510 executed OEF Philippines (OEF-P), a population-centered counterinsurgency effort designed to support the Government of the Philippines as it battled the Abu Sayyaf Group of radical Islamic separatists. Originally conceived as a hostage rescue operation, OEF-P evolved into a multi-pronged effort to re-establish the Philippine government’s legitimacy in regions where Abu Sayyaf was operation – the Zamboanga Peninsula and Basilan Island. This lecture highlights the development of an appropriate concept of operations, focusing on considerations such as the interconnectedness of national and military level objectives, multinational context, the criticality of information operations, and building partner capacity options. It further showcases the need for flexibility and adaptability when executing a plan.

CONTACT HOURS: 1.5-hour lecture

REQUIRED READINGS

Linda Robinson, Patrick B. Johnston, and Gillian S. Oak, *US Special Operations Forces in the Philippines, 2001–2014*, (RAND Corporation, 2016), iii-iv, 17-44. *This RAND study summarizes Special Forces Joint Task Force 510’s operations, designed to disrupt and degrade a terrorist network operating in the Philippines. The reading illuminates Operation Enduring Freedom-Philippines’ security assistance and security cooperation mission at the tactical and operational levels. The reading directly links to the JC-516 lecture on JTF CDR perspectives on mission analysis and problem solving.*

VIDEO: Considerations for the Employment of Special Operations Forces, ACSC-DEW, Dr. Osborne, 2022. *Students should review either the notes taken during the Day 0 lecture by Dr.*

¹³ Frederick the Great, *Instructions for His Generals*, trans. Thomas Foster, (London: Cruttwell), 1818, 52.

Osborne, or watch the video posted of his lecture. This provides a framework for understanding how special operations work in phase 0 with persistence to reduce the potential for conflict. This has much in common with Cyber Command's concept of "persistent presence," their operational approach designed for a very similar purpose.

SUGGESTED ADDITIONAL MATERIAL

Joint Publication 3-05, *Special Operations*, 16 July 2014, ix-xv, I-1 to I-10, II-1 to II-18. [EL]
Foundational doctrine upon which Special Operations bases its organization and conduct of operations.

Lohaus, Phillip, "Afghanistan, Iraq, and the ascendance of the US Special Operations Forces," In *A Precarious Balance*, American Enterprise Institute, 2014, 31-43. [EL]
This selection derives best practices for the employment of Joint Special Operations, based on lessons learned from the Afghanistan and Iraq conflicts. The two theaters yielded markedly different experiences – the attempt to transform SOF into a reduced-cost Army in Afghanistan yielded shortfalls, and while the employment of SOF in a traditional support role to the conventional Army met with success in Iraq.

LESSON INTEGRATION AND RATIONALE

Focusing primarily on a limited COIN operation (JTF-Philippines), this lesson presents concepts that are broadly applicable to all planning efforts (objectives, COGs, effects), and offers a concise introduction to the art of military analysis. The lecture serves as the course's transition point from "problem framing" to "problem solving," extending the analytical "science" of design to the "art" of arranging capabilities (**means**) into viable military solutions (**ways**), per strategic guidance and limitations. It further highlights the importance of developing COAs premised on flexibility, clear command relationships, integrated IO, and joint force structure.

Day 16: JC-520 | Fri. 21 April, 2023
Operational Art and Problem Solving: Course of Action Development

“A COA is a potential way (solution, method) to accomplish the assigned mission.”
—JP 5-0, III-32

LESSON OBJECTIVES

1. Comprehend how operational art, operational design, the initial operational approach and mission analysis guide and inform the development of potential solutions and the application of military capabilities.
2. Comprehend the purpose and processes of JPP Step 3 (COA Development), COA development considerations and activities, and what constitutes a valid and complete COA.
3. Comprehend operational art and design, the information aspects of military activities key to operational art and design, the joint functions, the principles of joint operations and their relationship to joint planning, and how military planning considers all elements of national power and a whole of government approach to achieving national strategic goals.

LESSON OVERVIEW

JC-520 (S): Operational Art and Problem Solving: Course of Action Development

Overview: This seminar describes the COA development process and the use of the COA sketch to aid commander development of the entire operation (COA). During JPP Step 3, the staff develops unique COAs to achieve the commander’s military end state. These COAs adhere to the commander’s guidance and intent, build on the results of mission analysis, and introduce additional elements of operational design. Ideal COAs account for various factors (culture, religion, geopolitics, and key participants) to achieve the desired end state within the commander’s guidance, while maintaining the flexibility to react to unforeseen challenges (i.e., Mission Command). In other words, effective COAs balance requisite detail with flexibility of execution, enabling real-time adaptation to and exploitation of situations on the ground.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-32 through III-44 (Course of Action Development); VII-6 paragraph 5(a)(b)(c)(d) and Appendix E (FDOs/FROs); (Review) IV-41 through IV-44 (Defeat & Stability Mechanisms). *This selection provides joint doctrinal guidance for COA development, including methods and criteria for validating a COA. It also introduces flexible deterrent options (FDOs) and flexible response options (FROs), which enhance flexibility in military operations.*

SPLIT

- a. Bob Woodward, *Plan of Attack*, (Simon and Schuster, New York, 2004), 75-84
- b. Bob Woodward, *Plan of Attack*, 96-103, 105-106.
This reading illustrates the iterative nature of COA development in relation to strategic guidance, assumptions, end state, objective, and effects. It links detailed (JPP) COA

development back to operational design concepts that inform COA development and selection.

- c. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Air University Press, 2012), 21-29.
- d. B.A. Friedman, *On Operations: Operational Art and Military Disciplines*, Ch. 6, “A Theory of Operational Art,” Annapolis: Naval Institute Press, 52-59 [E]. This chapter addresses a theoretical attempt to synthesize strategy, operations, and tactics.

SUGGESTED ADDITIONAL MATERIAL

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

Suggested for alternate split:

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

LESSON INTEGRATION AND RATIONALE

This seminar links operational design and mission analysis – including the commander’s operational approach, guidance, and intent – to COA development. It introduces defeat and stability mechanisms relevant to COA development, illustrating with examples from OIF planning. The lesson fosters discussion on the iterative nature of COA development, COA validity, and commander and staff visualization of options (COAs) for solving complex problems. The seminar introduces concepts relevant to forthcoming course content, leveraging case studies to further comprehension of domains and service capabilities and establishing considerations key to COA Analysis and Wargaming.

Days 17 & 18: JC-521/522 | Mon. & Tues., 24-25 April, 2023
COA Development Workshop Day 1 & 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.**”

—JP 5-0, III-32

LESSON OBJECTIVES

Note: These objectives build on work conducted in Lessons JC-508, JC-512/513 and presented in Lessons JC-516 through 528.

1. Integrate operational art and operational design through the Joint Planning Process (JPP), and assess how all-domain military planning interweaves with other elements of national power and a whole of government (or even whole of *nation*) approach to achieving national strategic goals.
2. Comprehend the purpose and process of JPP step 3, *Course of Action or COA Development*, including several considerations for developing COAs, and what constitutes a **valid** and **complete COA**.
3. Analyze how operational art and design, the initial operational approach, and mission analysis guide and inform the development of potential solutions and the application of military capabilities.
4. Apply joint planning concepts while conducting Joint Planning activities as described in JP 5-0 for JPP Step 3, *Course of Action Development*; and develop two valid COAs for the Joint Force Commander (CI) that provide options for solving the given scenario problem(s) as identified in previous JC planning workshops.

LESSON OVERVIEW

JC-521/522 (S): COA Development Workshop Day 1 & Day 2

Overview: Though the derivation of solutions begins with problem-framing (operational design and mission analysis), the joint planning framework for problem-solving begins in earnest with COA development. Equipped with a comprehension of the innovation, insight, tools, and domains pertinent to the development of valid COAs to address complex problems, students will apply that knowledge toward the development of two original COAs in the given scenario.

Conceiving of and deciding upon COAs are key to campaign planning. An operation can take myriad paths, but the commander must decide on a particular COA. During JPP Step 3, the staff develops unique COAs to achieve the commander’s military end state. These COAs adhere to the commander’s guidance, build on the results of mission analysis, and introduce additional elements of operational design. Ideal COAs are sufficiently detailed to achieve the desired end state within the commander’s guidance, but maintain the flexibility to react to

unforeseen challenges. “Mission command” is essential for balancing requisite planning detail with flexibility for execution.

CONTACT HOURS: 2 x 3.0-hour seminar

REQUIRED READINGS

1. JC Nigeria scenario planning guidance, research materials, and other open-source research materials as required. **(EL)** *Students must review previous workshop planning products, as well as conduct their own research, before the start of the workshop. Student research will aid the practical application of doctrinal concepts and the discernment of appropriate questions and information sources to enable military planning activities. This seminar extends JC’s instructor-led experiential learning workshops, and their emphases on the synthesis and practical application of course concepts, to the development of potential solutions to complex problems.*
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 their instructor’s directions.*

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>
provides a useful distillation of U.S. Army ADRP 6-0, with the six principles of mission command highlighted.
2. Joint Publication 5-0, Joint Planning, December 2020, Review III-32 through III-44 (Course of Action 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*, (Air University Press, 2012), Review 50-54 (“The Arrangement of Operations”).
4. The U.S. Army in Multi-Domain Operations 2028. TRADOC Pamphlet 525-3-1, 6 December 2018, 15-46.

LESSON INTEGRATION AND RATIONALE

This two-day COA Development Workshop builds on the previous Operational Design and Mission Analysis workshops (focused on the elements of operational design, framing the problem, developing the operational approach, defining the mission, and refining guidance). The COA Development workshop provides the opportunity to practice and apply JPP Step 3 in the ongoing JC scenario. This lesson synthesizes various JC course concepts: elements of operational design, operational art, all-domain operations, joint force capabilities, command relationships, and joint force structures (also essential for the successful completion of the forthcoming PACIFIC ENDEAVOR exercise). This lesson builds on MT’s coverage of classic military theories, Combatant Command options for meeting the challenges posed by strategic competitors and VEOs MT and CW lessons on irregular and gray zone warfare, and LP’s discussion of ethical military leadership.

Day 19: JC-523 | Thurs. 27 April, 2023

COA Analysis and Wargaming Workshop

“This is not [exactly] the enemy we war-gamed against....The enemy we’re fighting is a bit different than the one we war-gamed against because of these paramilitary forces. We knew they were here, but we did not know how they would fight.”¹⁴

—Lt. Gen. William S. Wallace
Operation IRAQI FREEDOM

“The U.S. National Command Authority overlooked the insights from General Anthony Zinni’s 1999 Desert Crossing wargame.... Not knowing how the paramilitary forces in Iraq would fight was a failure of planners to understand the culture and the motivation of those who took up arms as General Wallace’s forces approached Baghdad, and it points to one of the worst practices we continue to see in planning wargames today: a failure to play a culturally correct, active adversary.”¹⁵

—Col. Jeff Appleget et al.
The Craft of Wargaming, 2020

“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.” —JP 5-0, III-45

“Red Teaming is about alternate perspectives; Wargaming is about alternative outcomes.”¹⁶

—Tom Longland, UK MOD

LESSON OBJECTIVES

1. Integrate operational art and operational design with Joint Planning, and assess how all-domain military planning considers all elements of national power and a whole of government approach to achieving national strategic goals.
2. Comprehend the concepts of Red Teaming and Wargaming, including how commanders and staffs use red-teaming and Decision Support Matrices (DSMs) to refine plans.
3. Comprehend COA Analysis purposes and processes, including the use of wargaming to enable COA testing and improvement.
4. Apply joint planning concepts while conducting *COA Analysis and War-gaming* (JPP Step 4), and develop planning tools to capture results of COA Analysis (including but not limited to: a synchronization matrix, decision support matrix, and decision support template).

LESSON OVERVIEW

JC-530 (S): COA Analysis and Wargaming Workshop

Overview: *COA Analysis and Wargaming* enable critical COA examination and refinement, while red teaming helps avoid the problem of mirror imaging (assuming that an opponent will respond as we would under similar circumstances).

¹⁴ Cited in 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, 156.

¹⁵ Ibid.

¹⁶ Tom Longland, briefing, “Red Teaming and Course of Action Wargaming,” UK MOD Development, Concepts & Doctrine Centre, undated.

This lesson provides the opportunity to analyze and wargame the COAs developed in previous workshops to facilitate COA insights, COA improvements, operational decision-making. The close examination of potential COAs should reveal details pertinent to the tentative identification of valid COAs. Once the commander and staff establish COA validity, they will compare the COAs to evaluation criteria in JPP Step 5 (*COA Comparison*).

CONTACT HOURS: 3.0-hour seminar

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 through wargaming* [E].
2. Micah Zenko, *Red Teaming: How to Succeed by Thinking Like the Enemy*, New York: A Council on Foreign Relations book, 2015, ix-xxxii, (introduction) [E].
3. Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action*, (Air University Press, 2012), 65-81. *This reading details the wargaming methodology and surveys wargaming products that inform the commander's decision making, including the Decision Support Matrix (DSM).*
4. JC scenario planning guidance, research materials, and other open-source research sources as required. [EL]

*Students must review products from previous JC planning workshops and **refine them per instructor direction** in preparation for this workshop. They should also conduct their own research before the start of the workshop to facilitate the analysis and application of COA analysis and wargaming processes and tools. 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. This seminar extends JC's instructor-led experiential learning workshops, and their emphases on the synthesis and practical application of course concepts, to the critical examination of COAs via wargaming and red-teaming.*

5. 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 their instructor's directions.*

SPLIT

- a. Micah Zenko, *Red Teaming*, CH 1 (1-23, "Best Practices in Red Teaming"), [E]
- b. Micah Zenko, *Red Teaming*, CH 2 (25-69, "Modern Military Red Teaming"), [E]
- c. Applegate et. al., *The Craft of Wargaming*, CH 9 (132-137, "Conduct"), [E]
- d. Applegate et. al., *The Craft of Wargaming*, CH 12 (156-167, "Course of Action Wargaming"), [E]

SUGGESTED ADDITIONAL MATERIAL

Decision Support Matrix (DSM) sample products, CANVAS [E].

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.

LESSON INTEGRATION AND RATIONALE

This practicum constitutes the seventh of eight instructor-led JC workshops that guide students through the planning process using a scenario-driven planning exercise. The workshop builds on previous JC lessons, establishing the foundations for JPP Step 5, COA Comparison. Student analysis of developed COAs facilitates critical-analytical thinking and sets the stage for the PACIFIC ENDEAVOR exercise.

Day 20: JC-524 | Fri. 28 April, 2023
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.”¹⁷

—Rep. Tulsi Gabbard (D-HI)

LESSON OBJECTIVES

1. Integrate operational art and operational design with Joint Planning, assessing how military planning considers all elements of national power and a whole of government approach to achieving national strategic goals.
2. Comprehend *COA Comparison* purposes and process, as well as the doctrinal methodologies for conducting and presenting the staff’s COA comparison..
3. Apply joint planning concepts while conducting *Course of Action Comparison* (JPP Step 5), analyzing a plan for the deployment, employment, sustainment of joint military forces at the operational level of war and recommending the COA that best accomplishes the mission to the JFC.
4. Comprehend the actions a commander may take upon receiving the planning staff’s COA recommendation in JPP step 6, *COA Approval*.

LESSON OVERVIEW

JC-524 (S): COA Comparison and Approval Workshop

Overview: This seminar covers JPP Steps 5 and 6 (COA Comparison and COA Approval). The workshop addresses the techniques and potential pitfalls of COA comparison, illustrating how properly conducted COA comparison enables the staff’s recommendation of (and rationale for) the COA best suited to achieving the commander’s desired ends. Planners must clearly understand the COA comparison process, tools, and presentation options, given the commander’s considerable reliance on staff inputs at this point in the planning process. The careful selection and thorough definition of evaluation criteria (against which the COAs will be assessed) are key to effective COA comparison. They facilitate the staff’s ability to evaluate each COA’s ends-ways-means-risk factors and aid commander decision-making during COA approval. Given the staff’s recommended COA, the commander’s decision informs the commander’s estimate. Once reviewed by the appropriate authority, the estimate becomes the concept of operation (CONOPS), allowing for detailed *Plan* or *Order Development* (JPP Step 7).

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Joint Publication 5-0, *Joint Planning*, 01 December 2020, III-55 through III-58, Appendix F, and (Review) VI-24 to VI-41. *This doctrinal guidance for conducting COA Comparison offers methodologies and matrices for presenting the staff’s rationale for the recommended COA. Chapter VI reviews the importance of operation assessment.*

¹⁷ Rep. Tulsi Gabbard (HI), quoted by Greg Richter, “Rep. Tulsi Gabbard Quits DNC, Endorses Sanders for ‘Military Mindset,’” Newsmax, 28 Feb. 2016, <https://www.newsmax.com/Headline/tusi-gabbard-quit-democratic-national-committee-endorse/2016/02/28/id/716500/>. Quoted when she was a member of Congress and a Democrat.

2. JC scenario planning guidance, research materials, and other open source research sources as required. **[Canvas]** *Students must review products from previous JC planning Workshops and refine them per instructor 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 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 their instructor's directions.

SUGGESTED ADDITIONAL MATERIAL

1. Joint Publication 5-0, Joint Planning, 01 December 2020, Ch VI.

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 the PACIFIC ENDEAVOR exercise.

Phase 3: PRACTICAL APPLICATION

Joint Planning Exercise (PACIFIC ENDEAVOR)

“By thinking that the interests of the two commanders are opposed in equal measure to each other, we have assumed a genuine polarity...[which] does not lie in attack or defense, but in the object both seek to achieve: the decision.”

**Carl von Clausewitz
On War, Book I, 84.**

Day 20: JC-525 | Fri. 28 April, 2023
PACIFIC ENDEAVOR Road to Conflict in an era of Great Power Competition

“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
Testimony to SASC, Apr. 2018

LESSON OBJECTIVES

1. Comprehend the historical and strategic setting for PACIFIC ENDEAVOR in preparation for the JC planning exercise’s directed study day.

LESSON OVERVIEW

JC-525 (L): PACIFIC ENDEAVOR Road to Conflict

Overview: This lecture takes the form of a joint staff overview of the strategic setting in the Western Pacific, providing the basis for student directed study and preparation for PACIFIC ENDEAVOR. This brief surveys historical and ongoing 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 enable PACIFIC ENDEAVOR planning and briefing activities.

CONTACT HOURS: 1.0-hour lecture

REQUIRED READINGS

Office of the Secretary of Defense Annual Report to Congress 2022, *Military and Security Developments Involving the People’s Republic of China*. pp. i-xiv, 1-64 (skim) [EL]

LESSON INTEGRATION AND RATIONALE

This lecture sets up the student directed study day for PACIFIC ENDEAVOR, during which students and/or seminars will be expected to thoroughly analyze scenario products and other relevant open-source information to enable detailed discussion and planning throughout PACIFIC ENDEAVOR.

Day 21: JC Directed Study | 1 May, 2023

“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.”¹⁸

—Taiwan Affairs Office of the State Council, PRC

“The Taiwan Question and China’s Reunification in the New Era”
August, 2022



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

¹⁸ The Taiwan Affairs Office of the State Council and the State Council Information Office, People's Republic of China, August, 2022, https://english.www.gov.cn/archive/whitepaper/202208/10/content_WS62f34f46c6d02e533532f0ac.html.

Day 22 – Day 29: JC-527-533
Tues. 2 May – Fri. 12 May, 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.’”¹⁹

—Cols. Qiao Liang and Wang Xiangsui
Unrestricted Warfare

LESSON OBJECTIVES

1. Apply Joint Planning concepts to develop an initial operational approach based on planning directives and guidance provided, conducting appropriate JPP activities to develop solutions to operational problems in a volatile, uncertain, complex, and ambiguous environment characterized by strategic competition.
2. Construct mission analysis and COAs that demonstrate how the military instrument of power may be used to further national interests against a near-peer and nuclear capable 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 military operations and operational domains (including space and cyber) in pursuit of national interests.
4. Analyze the developed plan for validity and efficacy, demonstrating proficiency with the Joint Planning Process and relevant joint and service doctrine.

LESSON OVERVIEW

JC-533 (S): Joint Planning Exercise

Overview: PACIFIC ENDEAVOR is JC’s capstone event – it requires the application of cross-course concepts in a scenario involving the defense of Taiwan against an invasion by China. Note: The majority of the PACIFIC ENDEAVOR seminars are FULL SIX-HOUR DAYS, and students are expected to participate through the entirety of those days.

As potential future members of a unified command or component planning staff, officers 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 8-day exercise requires the completion of JFC tasking on a specific timeline. Seminar members 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 operational environment and strategic guidance, developing two COAs, and presenting a Mission Analysis Briefing and a Course of Action Decision Briefing to the Commander (Course Instructor).

¹⁹ *Unrestricted Warfare*, op. cit., 182.

Student performance will be evaluated on the development and presentation of two briefs. The Mission Analysis Brief will be conducted on PACIFIC ENDEAVOR Day 4. The Course of Action Decision Brief will be conducted on PACIFIC ENDEAVOR Day 8. Together, the two PACIFIC ENDEAVOR briefings constitute JC 603E, a graded evaluation totaling 50% of the JC course grade. Evaluated briefings should be regarded as in-class examinations; they will occur *only* at the times scheduled on the official ACSC calendar. Student planning groups should devise their own daily itinerary based on the following breakdown of PACIFIC ENDEAVOR daily activities.

Day 1 (6 hours):

PACIFIC ENDEAVOR Introduction, 0.5-hour
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 required

Day 4 (6 hours):

Deliver Mission Analysis Brief 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 Course of Action Decision Brief (homework)

Day 8 (2.5 hours):

Deliver Course of Action Decision Brief (*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 China, 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 their instructor’s directions.*
4. 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 Chinese 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 AY23 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 ISMS’s examination of China’s 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. It also builds on LP’s examination of creativity and ethical leadership.

Appendix 1
ASSIGNMENT JC-600E – OPERATIONAL ART
STUDENT PRESENTATIONS

STUDENT RESEARCH AND PRESENTATION GUIDANCE

This assignment constitutes 15% of the Joint Warfighting 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 analytical methods and the critical and creative thinking required of the military professional to devise appropriate courses of action (COAs) to solve complex security problems in environments of uncertainty. As an introduction to the JW “problem solving” phase (Phase 2), this activity helps students appreciate command decisions. It also provides insight into how planners and commanders elect to adhere to or reject certain principles or doctrinal concepts to accomplish missions. This seminar, coupled with a solid understanding of the “tools,” capabilities, and resources used in accomplishing military missions (introduced in upcoming lessons), will enable students to analyze a situation and determine appropriate ways and means for achieving desired ends – known in U.S. joint doctrine as developing COAs. The student presentation constitutes 15% of the Joint Warfighting course grade.

During JC-502, Course Instructors will assign students to one of four research groups. Each group will be assigned a specific commander and related battle/operation from the list below to research and present to the seminar during JC-516. While this is a group assignment, all students in each group 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**. 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 utilized or did not utilize, and the impact they had on the operation, particularly in the commander’s decision making.
 - 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** (Note: Please include **Surprise** as one of the 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 in spite of 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 COG's 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 of the 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. Research as required for assigned in-class presentation. This will require going outside of the course materials to conduct the research.

SUGGESTED ADDITIONAL MATERIAL

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

This lesson allows for a brief look at a few historical case studies of commanders and battles that are significant for many reasons. The ability to research and critically analyze historical operations in terms of application of capabilities and the use of doctrine and other accepted principles will lay the groundwork for student application of creative thinking to develop valid COAs for solving complex problems, in uncertain environments, through the application of military capabilities. This lesson is an early part of this course's building block approach to problem-solving. Future lessons will add service capabilities, domain operations, and doctrinal activities of course of action development. The JC COA Development Workshops will leverage this analysis, and the JC course will culminate with applying 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.

The commander/battle assignments are as follows (CI/seminar will select 4):

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

* At least one of these two will be selected in the list of four.

Appendix 2

ASSIGNMENT JC-601E – FORCE MODULE POINT PAPER

STUDENT ANALYSIS AND WRITING GUIDANCE

This assignment constitutes 20% of the Joint Warfighting course grade (JC-601E).

Overview: Phase one of the JC course introduced you to the concept of complex problems, operational art and operational design. The class learned about and crafted a Mission Analysis, seeking to define the problem based on a shared understanding.

In the CW course, you were introduced to the concept of domains and their unique characteristics. These unique aspects drive equally unique service cultures, which in turn present as capabilities within our modern force. You learned about how each service forms schemes of maneuver to achieve access, maneuver and effects through multiple domains.

This paper asks the group to synthesize this understanding through the analysis, selection and augmentation of one of two force modules for the Nigeria scenario. Using your Mission Analysis, and the force modules that will be presented by the instructor, and organized into three groups, each group will produce a single point paper, advocating one of the modules and discussing remaining force requirements. It will test your ability to analyze your previous work, to collaborate as a team and to develop cogent and thoughtful written work, under some time pressure.

As a seminar during the Nigeria scenario Workshops, you have developed an initial operational approach (including a cognitive map) and have conducted most of the activities of mission analysis listed in JP 5-0. You have developed a military end state, objectives, a list of tasks, and a mission statement. You will use (but not repeat) this information in the crafting of your response. You will only use information as analyzed and derived by your **own** seminar for this assignment.

DESCRIPTION

One of the activities of mission analysis – “Conduct Initial Force and Resource Analysis” – was **not** accomplished during the JC Mission Analysis Workshop (see JP 5-0, p. III-20). (Note: this is an *initial* force analysis. The iterative process will continue throughout the JC Workshops.)

Based on the analysis and outputs from the JC Operational Design and Mission Analysis Workshops, analyze the force modules provided in class by your instructors. Select ONE (1) force module that you assess as being the best suited to accomplish the set of tasks (and ultimately the objectives and end state) that were derived in your Operational Design and Mission Analysis Workshops. Clearly and completely address the following:

1. Align specific capabilities listed in force module that you selected to specific tasks that you derived during the Mission Analysis Workshop. Justify why that force/capability is appropriate for that task. In your justification, please consider counterarguments and logic as to why they are unwarranted.
 - 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.
 - **You must address a minimum of eight (8) tasks.**
 - You must address **all** essential tasks that were identified by the seminar in the Mission Analysis Workshop.
2. Based on the analysis in part 1 and your flight's operational approach and mission analysis, you will then identify capability gaps or shortfalls in your selected force module.
 - Identify 2-4 capabilities that will be required from outside of the selected force module. (i.e. not 1, not 5.)
 - Ensure that the capability is directly related to the shortfall that was identified.
 - State why this cannot be accomplished with capabilities resident within the selected force module.
 - State from where the outside capability would come. It is not required to discuss the request for force/capability process. Simply identify the command or agency from which the capability would be requested.
3. Using the selected force module and your 2-4 additional capabilities, re-assess the "ends-ways-means-risk" of your operational approach.
 - Using the original module, you selected and including the additional (no more than 4) capabilities that you identified in part 2, what adjustments to the tasks, mission, objectives, or military end state would you advise?
 - You are not required to identify an adjustment to each item (tasks, mission, objectives, military end state). Determine if any adjustments are required for any or all of them and recommend what the changes should be and why.
 - Alternately, if you do not see the need for any adjustments, so state and justify your assessment.
4. Based on your flight's operational design, mission analysis, and the capability-to-task alignment (in part 1 and 2 herein), describe the task organization for the units in the module (reinforced) (i.e. the original module + the 2-4 additional capabilities identified in part 2 should be included.)
 - In the text of the paper, briefly describe the **organization** that you would build and why you would build it that way. You should discuss **command relationships**, and why those command authorities are appropriate for the tasks/mission/objectives and the types of forces aligned to them.

- Clearly state “who” will command any joint force, Service, and/or functional components. By “who” it is meant that an actual capability to carry out that command assignment is determined. (i.e. “who” will fulfill the role of a JFMCC, should you determine the force organization requires one?)
- **You will develop a complete task organization chart** (not part of the 5-page count).
- Clearly depict the command relationships and the units/components.
- Clearly depict “who” will be a JFC, Service, or functional commander.

This chart will be attached at the end of the paper and does not count against the 5-page limit but will be assessed as part of the paper grade.

****DO NOT DEVELOP COURSES OF ACTION FOR THIS ASSIGNMENT****

Note: Your position paper should be written in paragraph style (prose), not bullet or list form. Do not review and discuss at length the operational approach or mission analysis. Briefly describe tasks and match/justify the capabilities to the task. Consider the joint functions and the requirements for all-domain operations in the formulation of your paper.

ADMINISTRATION AND LOGISTICS

This paper is a **group** assignment. There will be **single grade** for each paper. All students assigned to a group will receive the same grade on this assignment. This paper constitutes **20% of the JC course grade**.

- A flight of 14 students will make groups of 5, 5, and 4 students.
- A flight of 15 students will make groups of 5, 5, and 5 students.
- No more than one international officer will be assigned to any group.

Flight members will be split into groups as evenly constituted as possible. Each flight will produce EXACTLY three (3) position papers. The response should answer **all** parts of the given prompt.

The paper will be assigned on **17 April, Day 13** of the JC course. The paper is due to the seminar instructor on Friday, **21 April 2023**, by 1600 CST, via electronic submission. Graded papers will be returned to students on 10May 2022

The page limit is five (5) single-spaced pages formatted per Air Force *Tongue and Quill* Position Paper format (p. 228 for an example). Citations are not required for information from the *Joint Warfighting Capabilities Primer*, *ACSC Staff Planning Guide*, and seminar developed products. Appropriate citations **are** required for other sources, including doctrinal publications. They do not count against the five-page limit. Graphics, tables, or charts should be placed at the end of the document, do not count against the five-page limit, and will be assessed as part of the graded evaluation. The group’s Mission Analysis slides should be included as an appendix, reinforcing good staff practice.

Appendix 3

ASSIGNMENT JC-602E – PEER REVIEW REQUIREMENTS

STUDENT PARTICIPATION & ASSESSMENT GUIDANCE

THIS ASSIGNMENT CONSTITUTES 20% OF THE JOINT WARFIGHTING COURSE GRADE (JC-602E).

Overview: Based on the collaborative nature of the course, there are two peer reviews that will be completed. The first is worth 20% of the course grade, while the second factors into the individual grades received for PACIFIC ENDEAVOR. The form of the peer review will be revealed by the instructor in class on 1 May.

- The first will be turned in on **1 May**, on the last day of Phase II, before starting the PEX.
- The second will be turned in on **11 May**, on the last day of Phase III, the final day of the PEX.

Military staff work is a team activity, but leadership of the team—from above and when necessary from below—is crucial to success.

The way to succeed, in the course as on a staff, is by contributing activity and productively. When it is your time to follow the leader, contribute as an active peer, but defer to the leader's authority. When it is your time to lead, work to empower the team in order to harness their best work, but also provide vision and direction.

During the lecture/seminar portions of the course, read all assigned material.

- For **required readings**, students are expected to read all of the shared material. This should NOT be divided among the flight members, and the expectation by each instructor is that it will NOT be shared—we have sharply reduced the required readings in favor of SPLIT readings divided into four groups, which the course team believes will lighten the load on the whole team. This is a practice sometimes seen in civilian graduate courses.
- In the **SPLIT readings**, each group is expected to cover down on the material assigned and concisely brief the group, also leading the discussion. This need not involve slides (it must be kept within time and other parameters set by the instructor!), but shared notes are a good practice. Failing to “do one's part” on the SPLIT readings means the team will miss out on potentially important approaches or knowledge.
- For the **workshops**, the expectation is that ALL students will participate actively and constructively. All students are expected to brief at least during the 600E Operational Art assignment, in the Mission Analysis and COA Decision briefs for PACIFIC ENDEAVOR.

We will work hard to make sure that students have leadership opportunities, but there is limited time. The team should work to enable everyone on the team to have at least one opportunity to lead at least a small team. **Peer reviews do not constitute student-assigned participation grades but provide insight into the collaboration efforts in the seminar. The reviews also**

provide a leadership opportunity as part of the culmination of the ACSC experience. Detailed instructions will be provided by the instructor.

Appendix 4

ASSIGNMENT JC-603E – PACIFIC ENDEAVOR

STUDENT PARTICIPATION & ASSESSMENT GUIDANCE

THIS ASSIGNMENT CONSTITUTES 45% OF THE JOINT WARFIGHTING COURSE GRADE (JC-603E).

OVERVIEW: The PACIFIC ENDEAVOR planning exercise (PEX) is designed to synthesize the whole of your ACSC experience. As in the Nigerian Crisis, you will develop a Mission Analysis and conduct a formal Mission Analysis briefing with your Commander, played either by your instructor or, potentially by a retired 3- or 4-star general officer. You will receive feedback, and then you will go back to work building at least two Courses of Action, culminating in a Decision Brief.

During this time, your instructor will be largely absent from the team room(s), but will be available to act as Chief of Staff, DCO, or a similar aide to the commander. They will expect IPRs on a schedule you will be informed about.

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**, pay attention especially to:

- PMESII or other Op Environment Analysis
- Problem Statement / Problem Set
- Operational Approach
- Mission Statement
- Assumptions, CCIRs & Risk
- Teamwork, Leadership & Collaboration
- Briefing Coherence, Depth and Quality

To succeed in the **COA DEV portion**, pay attention especially do:

- Intent / Purpose (make it clear and compelling)
- Action/Phasing/Sync (it must make sense and flow logically)
- Timing/Forces (consider time, initiative, and op tempo; convey with clarity)
- Information Operations (what is the narrative? How does it weave into the whole?)
- Branches/Sequels (Identified, but not necessarily filled out)
- Teamwork, Leadership & Collaboration
- Briefing Coherence, Depth and Quality

Appendix 5

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 Joint Planning Process, focused on competition and conflict with the People's Republic of China**. 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 AY23 supports the following ACSC Program Learning Outcomes, listed below.

AY 2023 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 JW principles to plan for all-domain, globally integrated operations

All four course learning objectives work to fulfill PLO 3 and PLO 5: 1) Understanding how the JPP is used to solve complex operational problems in a volatile, uncertain, complex or ambiguous environment; 2) apply operational art, operational design, and the joint planning process; 3) apply agile thinking to operational environments and current joint doctrine; 4) apply how the joint U.S. force is organized, deployed, employed, and sustained through the framework of joint operations across the continuum of competition, conflict, and cooperation.

AY 2023 JOINT LEARNING AREAS FOR JPME-1

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

JLA 1 – Strategic Thinking and Communication

The strategic environment is taken into account through the Joint Planning Process both through the receipt of guidance and analyses of the operating environment 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 AY23.

- Planning Techniques: JC-500, JC-501, JC-502, JC-503, JC-504, JC-505, JC-506
- NIGERIA campaigning/contingency/competition w/PRC scenario, JC-508, JC-509, JC-519, JC-520, JC-521-524
- PACIFIC ENDEAVOR (CHINA) PEX, JC-525-533

JLA 2 – The Profession of Arms

Specific officer and staff skills, including critical thinking, professional writing, staff work and leadership are incorporated not only into the workshops listed below, but into most seminars, as practical exercises are used to build specific skills and toolsets.

- JC-500
- Staff Work: JC-508-9; JC-512-13; JC-521-33
- Professional Point 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” from “Joint Warfighting” AY22.

- JC-500; JC-501
- NIGERIA EX, JC-508-9; JC JC-512-13; JC-521-24 (w/China as competitor)
- PACIFIC ENDEAVOR, JC-525-533

JLA 4 – The Security Environment

While large segments of the course are focused on the security environment, it is done chiefly through the analysis of two quasi-fictional, but realistic scenarios. In the first, taking place in 2028-9, the U.S. faces a significant challenge in global competition with China and to a lesser extent with Russia, in this case focused on the Nigeria area of operations. The students must address a potential contingency arising within a defined campaign plan that seeks to position the U.S. as the “partner of choice” across a spectrum of economic, informational, diplomatic and military fronts, through a blended humanitarian/security crisis (the rise of ISIS in the region).

In the second exercise, taking place in the same “world,” it is 2029 and events within China have propelled the regime into an aggressive assertion of power both in the South China Sea and to recapture Taiwan. The students plan a mission analysis at the theater level to counter both threats, which exercises simultaneously JLAs 4, 5 and 6.

- NIGERIA EX, JC-508-9; JC JC-512-13; JC-521-24 (w/China as competitor)
- PACIFIC ENDEAVOR, JC-525-533
(China as primary belligerent; Japan & Australia as allies)

JLA 5 – Strategy and Joint Planning.

- NIGERIA EX, JC-508-9; JC JC-512-13; JC-521-24 (w/China as competitor)
- PACIFIC ENDEAVOR, JC-525-533

JLA 6 – Globally Integrated Operations. The course demonstrates this JLA in JW-536 to JW-543.

- NIGERIA EX, JC-508-9; JC JC-512-13; JC-521-24 (w/China as competitor)
- PACIFIC ENDEAVOR, JC-525-533

AY 2023 SPECIAL AREAS OF EMPHASIS FOR JPME-1

SAE 1 – Irregular Warfare.

JC-508-509, JC-519, JC-521, 522, 523, and JC-524 discuss irregular warfare as part of the analysis and application of activities for Operation Design, Mission Analysis and COA workshops. JC-511 discusses irregular warfare as part of the Tora Bora mission analysis case study.

SAE 2 – Nuclear Capabilities and Concepts.

Nuclear considerations, capabilities and the risk of escalation are core elements of the PACIFIC ENDEAVOR great power conflict with China, including lessons JC-525-533. 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 – The Return to Great Power Competition.

The environment in which the entire course is situated and its exercises emphasizes campaigning and the competition continuum. Through the NIGERIA-EX, students work towards meeting campaign plan goals through the building of a contingency plan. China and Russia are both major players in the scenario, seeking to position themselves for competitive advantage within the region. In the final PACIFIC ENDEAVOR, China will reach out to aggressively assert regional hegemony through action in Taiwan and in the South China Sea. These scenarios build on coursework throughout the ACSC curriculum, in particular in International Security (IS) and Contemporary Warfare (CW), but also leveraging conceptual work done in Military Theory, Airpower Operations and the Joint Air Operations Planning Course (JAOPC).

SAE 4 – Globally Integrated Operations in the Information Environment.

Starting with the very first lesson, JC-500, the idea of campaigning builds on changes in the operating environment, notably the rise of great power competition and the interconnected information environment. The crucial centrality of multiple, competing narratives infuses the entire course through the exercises, through the Information element and its accompanying Human Domain was moved to the Contemporary Warfare (CW) course. However, the methods and considerations for global force balancing is a key component of campaigning and major contingency actions, and is thus also a central part of both exercises, NIGERIA-EX and PACIFIC ENDEAVOR (PEX). In these exercises, all-domain approaches are expected to be accounted for in both Mission Analysis and COA DEV, and we have asked instructors to expect coverage of cyber and information environment components in the student briefings.

SAE 5 – Strategic Deterrence in the 21st Century.

This year, the concept of strategic deterrence takes a more central place in both exercises, since the NIGERIA-EX has been enlarged and retooled to take place against a campaigning environment, and with an importance that is both regional and strategic. The scenario campaign plan emphasizes competition and deterrence across the DIME, what we now call “Integrated Deterrence.” Thus, in the NIGERIA-EX, students exercise integrated or strategic deterrence, while in the capstone PEX, they act in the shadow of what failed deterrence can mean.

SAE 6 – Modern Electromagnetic Spectrum (EMS) Battlefield.

While the “capability” lessons have moved to Contemporary Warfighting, we have provided new course material in the JOINT WARFIGHTING PRIMER, in electronic format, to guide students in preparing the electronic warfare aspects of their Mission Analysis and Course of Action Development

products. Therefore, EW and the control over the EMS are a consideration in both exercises and are expected to be included in student briefing products. To support this effort, the Department of Joint Warfighting has created a new faculty development module led by an EW-expert on the faculty, created a EW slide template, and additional educational support materials in the PRIMER noted above.

SAE 7 – Space as a Warfighting Domain.

Space as a warfighting domain is indeed crucial, and the course includes it in both exercises, though more through risk mitigation than through the direction of offensive operations, since most crucial capabilities are SAP classified. However, the concept is discussed in the NIGERIA-EX Mission Analysis and COA DEV workshops, and it is an expected component of the final MA and COA DEV briefings.

SAE 8 – Ability to Write Clear, Concise, Military Advice Recommendations.

Assignment JC-601E (writing assignment) - Students will provide military advice through clear and concise writing for mission analysis activities in the format of a Position Paper – This assignment serves as the summative assessment for Program Learning Objective #3. They will understand and evaluate the capabilities and limitations of military force by conducting an initial force and resource analysis and justify why the aligned force/capabilities selected for specific tasks are appropriate or not. Further, students will reassess the “ends-ways-means-risk” of the operational approach and the C2 / task organization relationship for the units identified for planning and provide recommended updates, if necessary.

SAE 9 – People’s Republic of China.

JC-508/509, JC-512/513, JC-521 to 524 (Nigeria Workshop) students must address Chinese interests and activities in Nigeria as they use the JPP to build COAs in support of national interests. In JC-525 through JW-533 (PACIFIC ENDEAVOR), students use the JPP to build COAs that address an aggressive China. Students comprehend strategic guidance and direction, the operating environment (political, military, economic, social, information, infrastructure, networks) understand and analyze China’s military capabilities, command and control structures and potential enemy COAs. Students build and defend COAs that produce desired effects and objectives that support national interests and objectives.

SAE 10 – Inter-Agency Cooperation.

JC-502, JC-508 through JC-515 (NIGERIA-EX), JC-525 through JW-533 (PACIFIC ENDEAVOR). Students will comprehend the inter-agency role, and command and control structures when supporting and integrating interagency activities into DoD Joint Planning. Students will also analyze and apply interagency solutions to support the attainment of national objectives through the Joint Planning Process for the Nigeria workshop and PACIFIC ENDEAVOR exercise.

Appendix 6

People's Republic of China Requirements

The following is drawn from the Office of the Secretary of Defense Guidance on the inclusion of PRC-related topics in intermediate-level PME.

“Graduates of intermediate-level education will understand the relationship between the PRC’s political system and its military. Graduates will be able to analyze PRC military capabilities, systems, and doctrine and develop operational plans and approaches that counter Chinese aggression against the United States, its allies, partners, and/or interests.”

- **JC days 0-1;** students re-examine China as a campaigning competitor driving the shift to a campaigning approach.
- **JC days 6-8; 13-14; 17-20** NIGERIA scenario leads students through analysis of a contingency taking place against an ongoing campaigning/competition with China to be the partner of choice in a humanitarian and security challenge.
- **JC days 20-29,** PACIFIC ENDEAVOR requires students to conduct a high-quality mission analysis and COA dev against Chinese action against Taiwan and in the South China Sea.
- **Nine days exclusively dealing with the China threat; Nine days dealing with China as a campaigning competitor in a security/humanitarian contingency; one day dealing with China as driver of the U.S.’s campaigning approach. (19 of 29 days thus focused on China).**

JC Course	M.E. Outcome ID	Description
		Identified ILE China Learning Outcomes
5	1.d	PRC leadership threat perceptions and conditions under which they may be prepared to use force to protect or advance national objectives
3	2.a	The basic structure and history of the CCP and the PRC state
4	2.b	The PRC State's role in managing the PRC economy
3	3.a	The history and basic roles, missions and organizational structure of the PLA PLA approach to military strategy and military science, the role of the military, strategic guidelines and other strategic documents, resource planning, and the influence of PLA expert institutions (e.g. the Academy of Military Sciences) on military strategy and the development of campaigns and capability.
3	3.b	
4	3.d	Understand PLA thought pertaining to the character of future warfare, including the role and importance of nuclear weapons, cyber, space, information intelligence and integrated joint operations.
3	4.b	CCP use of propaganda and information control
3	4.c	CCP narrative of the PRC political system and economic model as a viable alternative to liberal democracy
5	4.e	PRC use of military power as a foreign policy instrument, including its use of military force, gray zone tactics in territorial disputes, coercion to assert PRC interests, and

		military diplomacy to engage other countries and seek to dispel concerns about growing PRC power.
5	1. Strategy	Conditions under which PRC leaders are prepared to fight to protect or advance national objectives.
3	2. Gov't	The basic structure of the PRC
3	2. Gov't	The PRC State's role in managing the PRC economy
4	3. Military	History and basic organizational structure of the PLA
5	3. Military	PLA thinking about the character of future warfare, including the importance and role of nuclear weapons, cyber, space, information, intelligence and integrated joint operations.
4	3. Military	The key dimensions of PLA modernization, including equipment modernization, anti-access/area denial capabilities, power projection, jointness, and information.
4	4. Inst. Of Nat. Power	CCP use of propaganda and information control.
3	4. Inst. Of Nat. Power	CCP narrative of the PRC political system and economic model as a viable alternative to liberal democracy
5	4. Inst. Of Nat. Power	PRC use of military power as a foreign policy instrument, including its use of force, gray zone tactics in territorial disputes, coercion to assert PRC interests, and military diplomacy to engage other countries and seek to dispel concerns about rising PRC power
3	4. Inst. Of Nat. Power	The sources of PRC economic power and the State's efforts to use industrial policy, technology acquisition, innovation, trade, and investment to help build the PRC into an innovative, technologically advanced, and less dependent economy.
5	Is a course topic (included as a daily objective or reading)	
4	Is a secondary course topic (included but does not rise to the level of a daily objective or reading)	
3	Is an element of previous learning important as background	
2	Is an element of previous learning as a lesser consideration	
1	Is not a part of the course or lesson	

Appendix 7

Instructor Biographies

COURSE TEAM

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

Dr. Brian R. Price is an Associate Professor in the Department of Warfighting at the Air Command and Staff College. He is a graduate of the University of California, Los Angeles (UCLA) in political science, and holds a doctorate from the University of North Texas in military history. He is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College. He has conducted research for the POW-MIA Accounting Agency, served as a Social Science SME serving special operations in Afghanistan, and has served a double tour as Senior Social Scientist in RC East, Afghanistan, 2011-12. 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 between 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 a number of senior officers. He is published in a number of journals, and has several books in his second field, medieval and early modern warfare. In his spare time, he teaches historical swordsmanship and has been inducted into the Martial Arts Hall of Fame.

LTC Fran Marks (US Army) | Deputy Course Director

LTC Fran Marks is an instructor of Joint Warfighting at Air Command and Staff College. Lt Col Marks earned his undergraduate degree from Miles College (Political Science) and his graduate degrees from Troy University (Public Administration) and the Army War College (Strategic Studies). He has Commanded multiple Infantry Companies and a Light Infantry Battalion. Lt Col Marks has held numerous multi-echelon Staff positions and served as a Deputy Commander during peace and wartime. Lt Col Marks is a Senior Service College Graduate and contributing author of Mission Command of Multi-Domain Operations.

Dr. Bradley F. Podliska (CIV) | Deputy Course Director

Dr. Bradley F. Podliska is an Assistant Professor of Military and Security Studies in the Department of Joint Warfighting at Air University's Air Command and Staff College. He has a Ph.D. in Political Science (International Relations major) from Texas A&M University, a M.A. in National Security Studies from Georgetown University, and a B.A. (with honors) in International Relations from the University of Wisconsin-Madison. Dr. Podliska is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College. Prior to arriving at ACSC, Dr. Podliska worked as an intelligence analyst for the Department of Defense and as an investigator for the U.S. House of Representatives Select Committee on Benghazi. His publications include a book, *Acting Alone: A Scientific Study of American Hegemony and Unilateral Use-of-Force Decision Making* (Lexington Books) and a book chapter, "Security and the Surveillance State: Bureaucratic Politics, the Intelligence Community, and Congressional Oversight" (Campus Verlag). He recently retired as an intelligence officer in the US Air Force Reserves and has served on the J2 staff with US Joint Forces Command and US European Command.

MAJ Kaylee “Beast” Bazzell | JC Course Team

Maj Kaylee Bazzell is an instructor of Joint Warfighting at the Air Command and Staff College at Maxwell AFB in Montgomery, Alabama. As an AF Intelligence Officer, she has served in support of multiple AF platforms both operationally and for test. She is a qualified instructor and security specialist with experience in electronic warfare. She has served as a National Security Agency liaison and has deployed twice in support of Operation Iraqi Freedom and Operation Enduring Freedom as an Air Advisor. Maj Bazzell received a Bachelor of Science in Humanities from the United States Air Force Academy in 2008 and has a Masters in Strategic Communications from National University as well as a Masters from Air Command and Staff College. Her most recent assignment was as the Senior Intelligence Officer for the 53rd Wing, Eglin AFB, Fl.

MAJ Brian Carpenter | JC Course Team

Major Brian Carpenter is an Air University Instructor in the Joint Warfighting Department. Major Carpenter is a Senior Navigator with more than 2000 flight hours. His operational experience includes evaluating and instructing in the MC-130J, MC-130H, and C-130H in support of Operations Enduring Freedom and numerous contingency deployments in the European and Pacific theaters. Major Carpenter graduated with a BA in History from the University of Oklahoma and holds a Masters degrees from American Military University and Air University. Prior to this assignment he was an Assistant Operations Officer, 67th Special Operations Squadron, RAF Mildenhall, UK.

MAJ Adam Pohl (USAF) | JC Course Team

Maj Adam Pohl is an instructor in the Department of Joint Warfighting at the Air Command and Staff College. Maj Pohl is a career intelligence officer with experience supporting mobility operations, intelligence exploitation and dissemination missions, and space operations. He has deployed three times to the Middle East supporting the fielding of new intelligence aircraft, space effects integration, and as a combat air advisor to the Iraqi Air Force. Maj Pohl has led intelligence missions at the squadron, numbered air force and combatant command levels. He graduated with a BA in Political Science from the University of Iowa in 2008 and holds a MA from Air University. Prior to this assignment, Maj Pohl was the executive officer to the Director of Intelligence, United States Space Command, Schriever AFB, CO.

INSTRUCTORS**LTC Steven E. Alsop (USMC)**

LtCol Steven E. Alsop is the Senior Marine Corps Advisor at the Air Command and Staff College. A U.S. Marine Corps Infantry Officer and Expeditionary Reconnaissance Officer, he completed the Air Command and Staff College at Maxwell AFB in 2016. Major Alsop has served in a variety of positions from Platoon Commander, Company Commander, Battalion Operations Officer, and Battalion Executive Officer throughout his 16-year career. His assignments include 1st Battalion, 1st Marines, 3d Battalion, 2d Marines, 5th ANGLICO, Marine Corps Det. Ft Benning GA, 3d Force Reconnaissance Company, and 2d Reconnaissance Battalion. He has multiple operational deployments in command positions across the CENTCOM and PACOM

AOR. LtCol Alsop is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

MAJ Karan “Blitz” Bansal (USAF)

Major Karan Bansal is an instructor of Joint Warfighting at the Air Command and Staff College. Major Bansal is a Senior Pilot with more than 2,500 flight hours. His operational experience includes evaluating, instructing, and commanding missions in the MC-12, C-130H and the KC-135R in support of numerous military missions around the world. Major Bansal graduated with a B.S. in Aeronautical Engineering from the Air Force Academy and holds a master’s degree in Military Operational Art and Science from the Air University. His most recent assignment was as the Wing Weapons Officer at the 92d Air Refueling Wing, Fairchild AFB, WA.

LTC D.J. Benzig (USAF)

Lt Col DJ Benzing is an Air University Instructor and Deputy Department Chair in the Joint Warfighting Department. Lt Col Benzing is a Command Pilot with more than 3500 flight hours. His operational experience includes evaluating, instructing, 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 BS in Biology from the Air Force Academy and holds Masters degrees from American Military University and Air University. Prior to this assignment he commanded the 31st Student Squadron, Squadron Officer School, Maxwell AFB, AL.

Dr. James D. Campbell (CIV)

Dr. James D. Campbell is the Chair of the Joint Warfighting Department at the Air Command and Staff College. A retired US Army brigadier general, Dr. Campbell served as an Infantryman and Strategic Plans and Policy Officer for 30 years, with assignments at all levels of command and staff, in both the Regular Army and the National Guard. Most recently he served as the Deputy Chief, Operations Plans Division at US Central Command, and prior to his retirement served as the 39th Adjutant General of Maine with the state cabinet-level position of Commissioner of the Maine Department of Defense, Veterans and Emergency Management. Dr. Campbell holds a M.A. in European History and a PhD in British History from the University of Maine. He is a graduate of the CAPSTONE course at the National Defense University, the US Army War College, and was an International Security Studies Fellow at the Fletcher School of Law and Diplomacy, Tufts University. Dr. Campbell has published works on subjects ranging from Homeland Defense to Irregular Warfare, and 19th and early 20th century British Military History. His current research interests focus on British Imperial military operations and the Army in India.

LTC Jonathan Hawkins (US Army)

LTC Jonathan Hawkins is the Senior Army Advisor at the Air Command and Staff College. LTC Hawkins is a 2004 graduate of Western Kentucky University where he graduated with a BA in History. As a Field Artilleryman, he has served at all levels from platoon to division staff, including multiple combat and operational deployments. LTC Hawkins most recently served as the DIVARTY Operations Officer in the 25th Infantry Division, at Schofield Barracks, Hawaii. LTC Hawkins is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

CDR Keith A. Henderson (USN)

CDR Keith A. Henderson is an instructor of Joint Warfighting at Air Command and Staff College at Maxwell AFB in Montgomery, Alabama. Commander Henderson is a 1998 graduate of the U.S. Naval Academy where he received a BS in Political Science. He also has an MA in Military Operational Art and Science from Air Command and Staff College and an MS in Joint Campaign Planning from National Defense University. A career Naval Aviator, he 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 ACSC 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 US 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.

LTC Walter L. Ivory, Jr. (US Army)

LTC Walter L. Ivory Jr. is an instructor of Joint Warfighting at the Air Command and Staff College at Maxwell AFB in Montgomery, Alabama. He is a 2005 graduate of Southern University at New Orleans where he received a BS in Business Administration. He also has an MBA from Trident University International. LTC Ivory completed US Army Command and General Staff College in 2016. An Army Logistics Officer, he has served in multiple command and staff assignments from the Tactical to Strategic echelons. He has deployed three times in support of Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn. In his most recent assignment was as the Executive Officer for the Headquarters Department of the Army, Deputy G-4 at the Pentagon in Washington, D.C.

LTC Andrew Jasso (US Army)

LTC Andrew Jasso is an instructor of Joint Warfighting at the Air Command and Staff College. Lieutenant Colonel Jasso is a 1998 graduate of the University of Texas Rio Grande Valley where he received a BS in Criminal Justice, and is a 2009 graduate of the US 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 US 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. Robert M. Kerr (CIV)

Dr. Robert M. Kerr is an Associate Professor in the Joint Warfighting Department. He also previously served as Course Director for International Security 2: The Use of Armed Force. He holds a PhD in Political Geography from the University of Oregon, and an MA in Geosciences from the University of South Carolina. His BA is in History with an emphasis on the Islamic World from Grand Valley State University. In addition to teaching at ACSC, Dr. Kerr has worked at the Air Force Culture and Language Center, and taught courses at the US Air Force Special Operations School, the Senior NCO Academy, and the Air Advisor Academy. In 2008-2009 he spent 15 months in NE Baghdad with the 3rd Brigade, 4th Infantry Division and 1st Brigade, 1st Cavalry Division as an embedded political/cultural advisor. Dr. Kerr is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College.

Lt. Col. Tyronda “Ty” Kelly (USAF)

Lt Col Tyronda “Ty” Kelly is a Joint Warfighting Instructor at Air Command and Staff College, responsible for training 500+ operational and air-minded officers and interagency professionals per year. Ty is a 2008 Kent State University graduate where she earned both her Bachelor's and Master of Architecture and Environmental Design degrees. She also holds an additional Master's degree in Military Operational Art and Science from Air University. Ty has served at the tactical and operational levels as a Civil Engineer (CE) Operations Flight Commander x2, Squadron Section Commander, HQ USAFE-AFAFRICA A4 Operational Planner and CE Functional Area Manager, and USAFCENT Air Advisor. Additionally, she has completed USCENTCOM deployments in support of Operations Enduring Freedom, Freedom's Sentinel, Inherent Resolve, and Resolute Support. Prior to her current assignment, she served as an Officer Training School Instructor with the 217th Training Squadron at Maxwell AFB, Alabama, responsible for educating, training, and commissioning 2.4K officers of character per year.

Dr. Brent Lawniczak (CIV)

Dr. Brent Lawniczak is an Assistant Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). A retired Marine aviator (UH-1N/UC-12), he has served in multiple theaters in various capacities. 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) (FAC(A)), Forward Air Controller (FAC)/Joint Terminal Attack Controller (JTAC), and Weapons and Tactics Instructor. He holds a Ph.D. in Public Administration from Auburn University, and his interests and expertise include joint planning, operational design, joint fires, maritime and amphibious operations, aviation operations, policy formulation, American politics, and international relations. His first book, *Confronting the Myth of Soft Power in US Foreign Policy*, has just been released by Lexington Books.

Christopher “M. ‘Preacher” Marcell, Col. USAF (Ret.)

Col Marcell is an Assistant Professor at the Global College of Professional Military Education. He retired from Active Duty as the Director of Student Operations (Dean of Students equivalent) at the Air War College, where he also served as the Combat Air Forces Chair to Air University, a Professor of Warfighting and Leadership and the Lead Instructor for the Joint Land, Air and Sea Simulation Exercise elective.

Prior to his assignment to the Air War College, Preacher served as the Chief of Combat Operations for Central Command's Combined Force Air Component Commander, executing the Air Tasking Orders for Afghanistan, Iraq, the Horn of Africa and the Gulfs of Aden and Oman as well as CENTCOM's Area

Air Defense Plan. He executed numerous Dynamic Targeting attacks in CENTCOM and the Air Force's first-ever successful Dynamic Targeting kill, two MiGs, during Operation ALLIED FORCE in Serbia.

Recently, Preacher has presented his analysis of Airpower in the Russo-Ukrainian War to the Global College of PME, the Air War College and Air Command and Staff College Total Force faculty and students, select Air University faculty and analysts and Air Command and Staff College students. Preacher is the Joint Air Operations Planning Course and Joint Campaigning instructor for Seminar 40, ACSC's best seminar.

A Command F-15E Strike Eagle Pilot with 3000 flight hours, Preacher commanded at the Group and Squadron levels, served as Mission Commander numerous times for up to 70 aircraft from as many as six nations and has flown in combat several numerous times in Iraq, Serbia and Bosnia. He has one Surface-to-Air Missile and dozens of High-Value Individual kills.

Dr. Ann Mezzell (CIV)

Dr. Ann Mezzell is an Associate Professor in the Department of Joint Warfighting at the Air Command and Staff College. She earned her PhD in Political Science from the University of Georgia as well as an MA 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.

Dr. Joseph E. Osborne (CIV)

Joe Osborne is an Assistant Professor of Military and Security Studies in the Department of Space Power at the Air Command and Staff College. He is also a retired Army Special Forces Colonel who has served in Command and Staff positions at every level. His culminating assignment was as the J3, Director of Operations, at Special Operations Command Central (SOCCENT) where he also served as the J5, Director of Plans, Policy and Strategy. He has a PhD in International Conflict Management from Kennesaw State University and a Master's in National Security Affairs from the Naval Post Graduate School. He also has a Bachelor's in Criminology from Florida State University where he was a Distinguished Military Graduate. He was also the Distinguished Officer Graduate from the Special Forces Qualification Course. His recent publications include an examination of the 2014 Syria Train and Equip initiative, and a case study on the Rojava Kurds and the Battle of Kobani. His military assignments have included operations and deployments throughout Africa, South and Central America, Asia, and the Middle East. He has served as an A- Team Commander and Company Commander in 1st Special Forces Group and as a Company Commander, Battalion S3 and Deputy Group Commander in the 3d Special Forces Group.

LTC Brad Pogue (USAF)

Lt Col Bradley J. Pogue is an Instructor and Academic Advisor in the Department of Joint Warfighting at the Air Command and Staff College. Within ACSC 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 USAF Force Support Officer with Space Operations experience. His space operations experience is in Intelligence, Surveillance, and Reconnaissance and satellite command and control. He was commissioned in 2004 after receiving his B.A. in History from

Berry College, and he subsequently earned a M.A. in Government/International Politics from Regent University in 2009. Lt Col Pogue is an ACSC in-residence graduate, where he earned a Master of Military Operational Art and Science in 2016. Prior to his arrival at ACSC, he was the Director of Operations for the National Reconnaissance Office Space Operations Squadron located in Las Cruces, New Mexico.

LTC Blair Schaefer (USAF)

Lt Col Blair Schaefer is assigned to Air Command & Staff College, Department of Joint Warfighting, as Director of Staff. In this capacity, he orchestrates department staff and program actions while instructing joint force personnel on campaign planning. Lt Col Schaefer commissioned through Officer Training School. He has operational experience in the E-8C Joint Surveillance Target Attack Radar System (JSTARS) and E-3A NATO Airborne Warning and Control System (AWACS) aircraft. He served two formative deployments in Afghanistan at the tactical end of policy decisions, culminating in duty as an air advisor at the Ministry of Defense. Before his current assignment, Lt Col Schaefer served as Director, Commander's Action Group, E-3A Component Headquarters, and was tasked with supporting the E-3A Component's early warning mandate across continental Europe. He has more than 2,200 flying hours including over 900 combat hours in support of numerous named operations.

Dr. Christopher M. Stamper (CIV)

Dr. Christopher M. Stamper is an Assistant Professor of Military and Security Studies in the Department of Joint Warfighting at the Air Command and Staff College. A retired U.S. Navy Commander, he has a Bachelor of Science Degree in Oceanography from the United States Naval Academy, and a Master of Arts in National Security and Strategic Studies from the U.S. Naval War College. He holds a Doctorate in Public Administration from Capella University, specializing in East African Affairs. He has been a flight instructor and taught at the US Naval Academy and the Air War College.

Lt Col Thomas A. Smicklas (USAF)

Lt Col Thomas A. Smicklas is an instructor of Joint Warfighting at Air Command and Staff College at Maxwell AFB in Montgomery, Alabama. Lieutenant Colonel Smicklas is a 1998 graduate of the University of Cincinnati where he received a BS in Hospital Administration. He also has an MBA from the University of Maryland and a MS in Military Operational Art and Science from Air Command and Staff College, and is a graduate of the Joint Combined Warfighting School, Joint Forces Staff College. A space and missile operator and financial manager, he has served in a variety of operational assignments to include squadron command and deployed to Amman, Jordan in support of Operation Enduring Freedom. He served two staff tours at Air Force Space Command and most recently served as a Course Director in the Department of Military and Strategic Studies and Deputy Director of the Department of Homeland Security Center of Innovation at the US Air Force Academy.

Dr. Joseph "Jay" L. Varuolo (CIV)

Dr. Joseph L. Varuolo, is a Professor of Warfare Studies at Air University's Global College of Professional Military Education (PME). Dr Varuolo is a retired USAF combat aviator (B-1) and Weapon School Graduate with significant combat time including Airborne Mission Commander in combat multiple times. Additionally, he has an explicit strategy background in two distinct

theaters including Section Chief in the CFACC's Strategy Division during Operation Iraqi Freedom and architect of the Russian sections of the Theater Security Cooperation Plan for EUCOM from 2004 – 2007. Dr. Varuolo served as a senior diplomat at the US Embassy in Moscow, Russia and his expertise has been sought by US Presidential delegations, US Congressional delegations, Council on Foreign Relations, World Affairs Council, American Council on Germany, and academic institutions. Dr. Varuolo's policy expertise extends across international, national, state, and local government and transverses the spectrum from advice to final written form. His policy experience encompasses multiple US government agencies and has ranged contentious issues such as US military overflight of Russian territory and Russian/NATO interoperability. He has a PhD in Political Science, Comparative Politics, from the University at Albany's Rockefeller College of Public Affairs and Policy. Research Interest/Expertise: Centered on Eastern Europe, Dr. Varuolo's research is concentrated in the fields of comparative politics and international relations. His qualitative and quantitative analysis emphasizes the cultural, structural, and rational choice perspectives of secession, Russian nationalism, ethnic minorities of the Russian sphere, non-state entities, and political violence.

Dr. Christopher Weimar (CIV)

Dr. Christopher Weimar is an Assistant Professor of National Security Studies in the Joint Warfighting Department at the 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 in Active and Reserve status in Communications-Information Systems Management, Cyberspace Operations, and Logistics Readiness. He has performed 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 ACSC and AWC by correspondence and completed the Joint and Combined Warfighting School-Hybrid Program.