

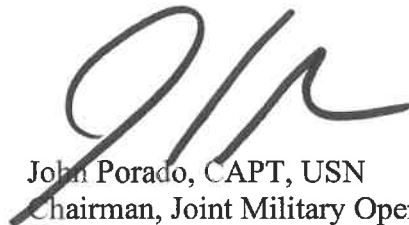
**UNITED STATES NAVAL WAR COLLEGE
COLLEGE OF NAVAL WARFARE
AND
NAVAL COMMAND COLLEGE**

**THE JOINT MILITARY OPERATIONS DEPARTMENT
SYLLABUS AND STUDY GUIDE
FOR THE
JOINT MILITARY OPERATIONS
SENIOR LEVEL WARFIGHTER'S COURSE**

AUGUST 2024

FOREWORD:

This syllabus provides a comprehensive overview of the Naval War College Joint Military Operations Department course on Joint Maritime Operations. Prepared for the College of Naval Command and Staff and the Naval Staff College, this syllabus, along with the JMO Blackboard website, provides session-by-session material to assist the student in daily seminar preparation and development of a personal plan of study. Administrative information is also included.



John Porado, CAPT, USN
Chairman, Joint Military Operations Department

Approved:



Doyle K. Hodges, Dean of Academics

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COURSE STUDY GUIDES

OPERATIONAL ART THEORY AND HISTORY

JMO-01	Course Overview (Lecture)
JMO-02	Introductory Seminar (Seminar)
JMO-03	Problem Solving and Military Decision Making (Lecture / Seminar)
JMO-04	China Panel (Panel / Seminar)
JMO-05	Research Paper (Seminar)
JMO-06	Strategic Background of the Philippines Campaign (Lecture)
JMO-07	Introduction to Operational Art (Seminar)
JMO-08	Military Objective and Levels of War (Seminar)
JMO-09	Operational Factors (Seminar)
JMO-10	Operational Functions (Seminar)
JMO-11	Principles of War (Seminar)
JMO-12	Theater Structure and Geometry (Seminar)
JMO-13	Critical Factor Analysis (Seminar)
JMO-14	Operational Design / Operational Leadership Philippines Campaign (Seminar)
JMO-15	Commanders Estimate of the Situation (CES) / Operational Idea Philippines (Seminar)
JMO-16	Wargame Philippines (Wargame)
JMO-17	Naval Power and the Role of Naval Forces (Seminar)
JMO-18	Struggle for Sea Control (Seminar)
JMO-19	Chinese Maritime Strategy (Lecture / Seminar)
JMO-20	Operational Design: Falklands Malvinas Conflict (Lecture / Seminar)
JMO-21	CES Falklands / Malvinas (Seminar)
JMO-22	Wargame Falklands / Malvinas (Wargame)
JMO-23	Operational Art Examination (Individual Effort)

CONTEMPORARY DOCTRINE AND PLANNING

JMO-24	Policy Aims to Strategic Guidance (Seminar)
JMO-25	Strategic Guidance to Operational Plans (Classified Seminar)
JMO-26	Conceptual Planning and Design Methodology (Seminar)
JMO-27	The Joint Planning Process (Lecture / Seminar)
JMO-28	Operational Command and Control (Seminar)
JMO-29	Operational Intelligence (Seminar)
JMO-30	Joint Logistics and Campaigning (Lecture / Seminar)
JMO-31	Small Wars and Irregular Warfare (Seminar)

JOINT AND SERVICE WARFIGHTING CONCEPTS

- JMO-32 Chinese Way of War (Lecture / Seminar)
- JMO-33 Russian Way of War (Lecture / Seminar)
- JMO-34 Contemporary Challenges to Sea Control (Classified Lecture / Seminar)
- JMO-35 Joint Warfighting Concept and Component Warfighter Panel (Classified Lecture and Panel)
- JMO-36 Wargaming Lessons Learned (Classified Lectures)
- JMO-37 Operational Law and Lawfare (Panel / Seminar)
- JMO-38 Information Warfare (Seminar)
- JMO-39 Cyber Warfare (Seminar)
- JMO-40 Space Warfare (Seminar)
- JMO-41 Interorganizational Cooperation (Seminar)
- JMO-42 The Character of Future Conflict (Lecture / Seminar)

WARFIGHTING CAPSTONE

- JMO-43 Capstone Synthesis Event (Wargame)

THE JOINT MILITARY OPERATIONS COURSE

“The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature.”

- Carl Von Clausewitz, On War

1. Mission

The Joint Military Operations (JMO) course is designed to provide current, rigorous, and relevant senior Joint Professional Military Education (JPME) supporting the Chairman of the Joint Chiefs of Staff (CJCS) Officer Professional Military Education Program (OPMEP) and the Navy’s PME Continuum with a primary focus at the theater-strategic level. Graduates will be skilled naval and joint warfighters prepared to meet the operational and strategic challenges of great power competition across the continuum of competition, conflict, and war.

2. Course Learning Outcomes

The Joint Military Operations (JMO) Senior Level Course (SLC) aims to produce graduates who will have achieved the following learning outcomes. These skills are expected of a military and government leader in today’s national security context.

- Apply Operational Art and critical thinking to complex problems in operating environments across the competition continuum with an emphasis on warfighting.
- Analyze campaigns and operations in order to understand operational objectives and identify lessons learned.
- Evaluate a theater-strategic military decision or course of action and make and defend judgements based on evidence or external criteria.
- Create a plan that proposes a military response to changes in the theater-strategic environment or in strategic guidance.
- Communicate how to effectively employ military power to achieve campaign and operational military objectives.

3. Course Objectives

The objectives below are derived from CJCS and Chief of Naval Operations (CNO) guidance, NWC Mission, and the above learning outcomes. Each seminar or lecture has tailored session objectives that support these course objectives.

- Enhance a student’s ability to develop theater strategic concepts, apply problem-solving techniques, and operate within a Joint, Interagency, Intergovernmental, and Multinational Environment (JIIM).

- Hone those senior leadership skills essential for success in Joint Staff and other joint headquarters leadership positions, and for providing sound military advice to policy makers.
- Develop thoughtful senior warfighters, able to function in volatile, uncertain, complex, and ambiguous operating environments.
- Refine critical strategic thinking skills essential for evaluating a range of potential solutions to ill-structured problems at the theater-strategic level and recognizing the implications of disruptive and future technologies for adversaries and ourselves.

4. Course Overview

The Joint Military Operations course is an in-depth study of the theater-strategic and operational levels of war and strategic competition across the competition continuum. As a graduate program, the curriculum emphasizes critical thinking and reasoning skills rather than the absorption of facts. The course is primarily delivered through seminar discussion based on the Socratic Method, with a significant component of experiential learning during practical exercises. Time is also provided for students to read and think on the subject matter.

This is a Joint Professional Military Education (JPME) phase II course that builds on the foundation of prior JPME I education and complements the College's other senior level core courses. Where National Security Affairs (NSA) and Strategy and Policy (S&P) emphasize the national imperative to select a strategy appropriate to our policy goals, the JMO course prepares students for the operational arena by emphasizing problem solving in order to recommend viable military options within the overarching frameworks of globally integrated operations.

5. CJCS Officer Professional Military Education Policy

Title 10 of U.S. Code, §668 identifies joint matters as “relating to the development or achievement of strategic objectives through the synchronization, coordination, and organization of integrated forces in operations conducted across domains, such as land, sea, or air, in space, or in the information environment, including matters related to any of the following:

- (i) National military strategy.
- (ii) Strategic planning and contingency planning.
- (iii) Command and control, intelligence, fires, movement and maneuver, protection or sustainment of operations under unified command.
- (iv) National security planning with other departments and agencies of the United States.
- (v) Combined operations with military forces of allied nations.

6. Course Organization.

This course is organized into four blocks, or lines of academic effort, which are complimentary and cumulative. The four lines of effort are:

- Operational Art Theory and History
- Contemporary Doctrine and Planning
- Joint and Service Warfighting Concepts
- Warfighting Capstone

In the Operational Art Theory and History portion of the course, we examine the theory and practice of high intensity state-on-state warfare. Operational Art is defined as the component of military art concerned with the theory and practice of planning, preparing, conducting, and sustaining campaigns and major operations aimed at accomplishing operational or strategic objectives in a given theater. We explore Operational Art, and to a lesser degree naval warfare theory, through the study of historical case studies of the Philippines Campaign during WWII in the Pacific, and the 1982 Falklands/Malvinas war, employing active learning techniques, including wargaming.

The second block, Contemporary Doctrine and Planning, exposes students to current joint force practice. This block leverages the theory from the first block to give students an appreciation for historical context that has shaped the joint force's current outlook on warfighting. This historical understanding also encourages students to be critical consumers of modern-day joint doctrine, and to evaluate its suitability in the context of the character of war expected in conflict against a peer adversary. The block includes a classified session aimed at providing students with awareness of the current strategic guidance provided in the relevant national strategies and strategic guidance documents. With this strategic context, students are then introduced to conceptual and detailed planning and problem-solving frameworks used to address complex military problems in the current national security environment. Finally, the block provides a deeper focus on the Joint Functions of Command and Control, Intelligence, and Sustainment. While all seven joint functions are critical to warfighting, these three carry the preponderance of risk when considering the character of war against a contemporary peer adversary. Thus, these three functions require focused attention to ensure warfighters understand how to employ them effectively in combat.

Block three brings everything together by focusing the students on our nations' most consequential threats, the Peoples Republic of China and the Russian Federation. This block begins with an overview of each threat's respective way of war. Armed with an understanding of our nation's threats, students will receive exposure to the United States military response to these threats by way of the Joint Warfighting Concept and the family of warfighting concepts developed by each respective component of the joint force. Specifically, students will gain an in depth understanding of the Navy's Distributed Maritime Operations, the Marine Corps' Expeditionary Advanced Base Operations, the Air Force's Agile Combat Employment, and the Army's Multi-domain Operations. Students will be encouraged to analyze these concepts through the lens of operational art and reflect on their suitability for the application of military power in a high-end war. Additionally, this block will expose students to the necessity of U.S. interagency and ally/partner cooperation both leading up to and during wartime. Specifically, students should gain an appreciation for how activity in the competition space below the threshold of armed conflict is directly linked to improving the chances of success in wartime. Additionally, students will gain an appreciation for how all national instruments of power must be integrated in the context of the whole competition continuum, from cooperation through conflict.

The final block of the course is the multi-day Capstone Synthesis Event. Students will engage with a plausible current day-warfighting scenario against a peer-adversary. The exercise culminates with a presentation of the students' theater level conceptual plans, oriented to providing advice and options to national command authority and informing follow on planning guidance. This capstone will draw on all facets of the course and require students to synthesize the knowledge from the entirety of the JMO Course.

7. Syllabus Organization

This syllabus establishes the basis for required coursework and provides an intellectual roadmap for the trimester. In each session, the *Focus* specifies the general context of the topic. The *Objectives* cite the session goals and provide an intellectual line of departure and focus to the readings. The *Background* aids in framing the individual session, that is, how it fits into the course flow, and the interrelationships of the various sessions. The *Questions* are designed to generate critical thinking, both during individual preparation, and in seminar. Finally, the *Readings* enhance student understanding of each session's topic, and facilitate seminar discussion.

8. Methods of Instruction

A. *The Socratic Method.* The seminar is the fundamental learning forum for this course with student expertise providing a significant part of the learning process. For a seminar to succeed, there must be open and candid sharing of ideas and experiences, tempered with necessary military decorum. Students will discover that even the most unconventional idea may have some merit. Successful seminars—that is, seminars whose members leave with the greatest knowledge and personal satisfaction—are those made up of students who come to each session equipped with questions based on thorough preparation. Most students leave the seminar with new insights or even more thought-provoking questions. Student preparation, free and open discussion, and the open-minded consideration of other students' ideas all contribute to a valuable seminar experience.

The “one-third” rule is the keystone of the seminar approach. The first third is a well-constructed, relevant curriculum. The second third is a quality JMO faculty to present the material and guide the discussion, and the most important third is the participation of the individual students. Only by preparing thoroughly for seminar sessions can students become active catalysts who generate positive seminar interaction and refine critical and creative thinking skills.

B. *The Case Study Method.* This method of instruction provides intellectual stimulation for students and is designed to develop analytical and problem-solving abilities using the knowledge, concepts, and skills honed during the trimester. Through analysis of past great captains of war or specific geographic areas, the case study method provides students an expanded set of experiences from which to test the applicability of theory and doctrine. Some of the cases and problems stress individual effort and planning, while others require a team or staff approach. Cases may consist of historical events, analyzed for operational and theater strategic sessions, or postulated crisis situations that demonstrate the application of concepts

such as presence, deterrence, international law, and self-defense. Case studies sometimes will be narrowly focused to illustrate a specific force, and its capabilities and limitations, or to highlight explicit concepts involving an aspect of operational warfare. The Case Study method of instruction allows students to achieve a higher level of learning while providing them with many more data points relevant to problem solving in volatile, uncertain, complex, and ambiguous environments. Students will be tasked with analyzing the case study material, synthesizing information, and evaluating recommended courses of action.

C. The Lecture-Seminar Method. In order to equitably share the vast experience of some of our faculty members and guest speakers, lectures are typically scheduled to be followed immediately by seminar discussion. Students are encouraged to critically analyze the information presented by speakers and engage in post-speaker seminar discussions. JMO lectures are intended to generate questions that the students may discuss in seminar and are not focused solely on the transmission of knowledge.

D. The Practical Exercise Method. The opportunity for students to apply information presented in the various sessions is important. Practical exercises and wargames allow students time to critically analyze information in order to develop viable solutions to ill-structured problems. Students may be assigned to practical exercises as individuals, small groups, or as an entire seminar.

9. Readings

All JMO seminars are supported by readings. The purpose of these readings is to assist in understanding the topics being presented. For the most part, the readings are intended to convey to the student basic information, the mastery of which will facilitate in-class discussions. Many of the readings also provide divergent points of view and are intended to foster both critical thinking and discussion. Students are reminded, however, that as critical thinkers, they should adopt a questioning attitude toward all readings, with attention to the relationship of these to the concepts associated with the topic, to other readings, and to the personal experience of the student. A thorough understanding of the following information will assist the student in using the course readings to their best advantage:

- a. Each session lists a number of readings. *Required Readings* must be read prior to the session; most are digitally available and downloadable. Required Readings are arranged in priority order. *References and Supplemental Readings* are optional and are provided to facilitate deeper study into the session material. Moderators may offer additional guidance on the readings, based on the specific needs of the individual seminar.
- b. *Finding Specific Readings.* Required Readings are typically accessed via hyperlinks located on respective syllabus pages within the Blackboard site for the JMO course. Some readings are annotated as **(Issued)**. “Issued” means that the readings are found in the JMO reading material provided to each student at the beginning of the trimester.

- c. *Management of the Reading Load.* The amount of preparatory reading required for each session depends on a variety of factors, to include topic complexity and session objectives. Students are advised to review session reading requirements at least one week in advance of the session presentation date to plan preparation time accurately. Be ready to address queries on the content of the assigned readings and to question the contents vis-à-vis the subject under discussion.

NOTE: The Joint Maritime Operations course does not assign any classified readings preparatory to seminar sessions. However, students may pursue classified material during individual research or professional development. In these cases, in which students have the appropriate security clearance, they are cautioned that classified readings and documents must be read on the college's premises. These materials must be properly safeguarded at all times and may not be left unattended.

10. Research Paper

The JMO Research Paper presents the opportunity to examine a problem relevant to joint/maritime operational warfare, and to demonstrate critical thinking and writing skills essential for leaders and staff officers in the profession of arms. Amplifying information and guidance will be discussed in an introductory seminar session, *The JMO Research Paper*, with details and guidance provided in NWC 2062, an assigned reading for JMO-05.

This assignment requires independent thought and graduate-level writing; the final product is a 3,000 - 3,500 word paper that attains graduate-level standards of writing and analysis. Students select their topic, focused on an operational or theater-strategic level issue, conduct research and analysis, and prepare a paper that advances the literature and expands the body of knowledge. The paper also serves as practice in providing clear and concisely written recommendations about employing military force.

11. Plagiarism, Misrepresentation, and Cheating

Student attention is directed to the Naval War College Faculty Handbook which discusses the academic honor code and specifically prohibits plagiarism, cheating, and misrepresentation. The Naval War College diligently enforces a strict academic code requiring authors to properly attribute the source of materials directly cited to any written work submitted in fulfillment of diploma/degree requirements. Simply put: plagiarism is prohibited. Likewise, this academic code prohibits cheating and the misrepresentation of a paper as an author's original thought. Plagiarism, cheating, and misrepresentation are inconsistent with the professional standards required of all military personnel and government employees. Furthermore, in the case of U.S. military officers, such conduct clearly violates the "Exemplary Conduct Standards" delineated in Title 10, U.S. Code, Sections 3583 (U.S. Army), 5947 (U.S. Naval Service), and 9233 (U.S. Air Force and U.S. Space Force).

A. *Plagiarism* is the use of someone else's work without giving proper credit to the author or creator of the work. It is passing off as one's own another's words, ideas, analysis, or other products. Whether intentional or unintentional, plagiarism is a serious violation of

academic integrity and will be treated as such by the command. Plagiarism includes but is not limited to the following actions:

- 1) The verbatim use of others' words without quotation marks (or block quotation) and citation.
- 2) The paraphrasing of others' words or ideas without citation.
- 3) Any use of others' work (other than facts that are widely accepted as common knowledge) found in books, journals, newspapers, websites, interviews, government documents, course materials, lecture notes, films, and so forth without giving credit.

Authors are expected to give full credit in their written submissions when using another's words or ideas. Such use, with proper attribution, is not prohibited by this code. However, a substantially borrowed but attributed paper may lack the originality expected of graduate-level work; submission of such a paper may merit a low or failing grade but is not plagiarism.

B. *Cheating* is defined as the giving, receiving, or use of unauthorized aid in support of one's own efforts, or the efforts of another student. (Note: NWC Reference Librarians are an authorized source of aid in the preparation of class assignments but not on exams). Cheating includes the following:

- 1) Gaining unauthorized access to exams.
- 2) Assisting or receiving assistance from other students or other individuals in the preparation of written assignments or during tests (unless specifically permitted).
- 3) Using unauthorized materials (notes, texts, crib sheets, and the like, in paper or electronic form) during tests.

C. *Misrepresentation* is defined as reusing a single paper for more than one purpose without permission or acknowledgement. Misrepresentation includes the following:

- 1) Submitting a single paper or substantially the same paper for more than one course at the NWC without permission of the JMO faculty.
- 2) Submitting a paper or substantially the same paper previously prepared for some other purpose outside the NWC without acknowledging that it is an earlier work.

12. Requirements

Students are expected to prepare fully for each seminar and to participate in classroom discussions and exercises. An objective and open attitude, and a willingness to enter into rigorous but disciplined discussion, are central to the success of the course.

A. *Workload*. Some peaks in the workload will occur. Planning and careful allocation of time will help mitigate these peaks; this is particularly true of the research paper. This course of study confers a Master's Degree after ten months of exceptionally rigorous study. As such, expect to commit significant time to reading and reflection. Student experience indicates that the total course requirements will involve a weekly average workload of approximately 9-12

hours of in-class and 18-24 hours of out-of-class work. Additionally, students should expect to dedicate 60-80 hours (6-8 hours per week) to researching, drafting, and producing an acceptable graduate-level research paper. Time management is a critical aspect of a student's success in mastering the multiple requirements of the Joint Maritime Operations course. This syllabus is a powerful tool in that it allows students to develop a personal plan of study that leads to efficient time management and a deeper understanding of the syllabus material.

B. Oral and Written Requirements. The JMO Department has oral and written requirements that provide the opportunity for the student to demonstrate analysis, synthesis, and progress. In addition, these requirements provide a means for feedback and interaction between the faculty and members of the seminar. The following is a composite listing of these course requirements, type of activity, relative weights, and the key dates of graded events:

Requirement	Type Effort	Weight	Date
Op Art Examination	Written/Individual	30%	19-20 Sep
JMO Research Paper	Written/Individual	35%	18 Oct
Seminar Contribution	Daily Assessment	35%	8 Aug – 8 Nov

C. Assignment Submissions. Research papers and exams for JMO will be submitted to their respective professors electronically through Turnitin Assignments (via the tab titled, "Assignment Submission") within their JMO seminar course in Blackboard. Prior to final paper or exam submission, students may assess their papers through the Turnitin Student Workbook Course in Blackboard to benefit from Turnitin's Similarity Report. This will highlight for students any areas that may require additional citation, as appropriate. As students review the Turnitin report, it is important to note there is no percentage that means "all clear" and no percentage that means "big trouble." Papers with as low as a 10% similarity score may have serious plagiarism concerns while a 50% similarity score could be fine (an example is a large portion of an official document attached as an appendix). Turnitin requires students to go through the markup line by line to identify and correct any problems.

13. JMO Department Grading Criteria

A course average grade of B- or higher is required for successful completion of master's degree requirements. A minimum grade of C- is required for successful completion of the JMO course and to earn JPME Phase I certification. Guidance for grading students is contained in this syllabus and the Naval War College Faculty Handbook. Any grade may be appealed in writing within seven calendar days after receiving the grade. Grades will be appealed to the student's seminar senior moderator and then to the Department Chairman. If deemed necessary, the Chairman may assign an additional grader who will review the assignment and provide an independent grade. Grade appeals may ultimately be taken to the Dean of Academics, whose decision will be final. Note that the review may sustain, lower, or raise the grade. The Academic Coordinator (Room C-417) can assist in preparing an appeal.

Student work that is not completed will receive a numeric grade of zero (0). Unexcused tardy student work, that is, work turned in past the deadline without previous permission by

the moderator, will receive a grade not greater than C+ (78). Student work determined to be in violation of the honor code will receive a grade of F with a corresponding numeric grade between 0 and 59 assigned. The College's Academic Integrity Review Committee, per final adjudication by the President of the Naval War College, will assign this accompanying numeric grade to the F.

Four sets of general grading criteria help in the determination of the letter grades that will be assigned during the JMO trimester. The criteria below offer the student a suggestion of the standards and requirements by which faculty assess performance. Using the Naval War College Faculty Handbook as basic guidance, the procedures below amplify the criteria as established within the Joint Military Operations Department.

A. **Criteria for the Research Paper Proposal:** While not a graded event, students are required to submit a formal research paper proposal for moderator approval. The proposal is developed from guidance in *JMO Research Paper Guidance for Students* (NWC 2062) initial literature review, development of a working thesis, and discussions with the paper advisors and subject matter experts in the student's chosen field of study. In the proposal students will present a hypothesis, describe how they will make their argument, provide a research methodology, and conclude with an annotated bibliography for consideration by the moderator team.

B. **Grading criteria for the Research Paper:** The research paper must have a valid thesis. It must also provide sufficient background research and analysis to support the thesis, consider arguments and counter-arguments to compare conflicting points of view, present logical conclusions drawn from the material presented, and provide recommendations or lessons learned based on the conclusions. Certain research papers, because of the nature of the approved research question, may follow a slightly different flow. Students are reminded that their moderators serve as their research paper advisors, and different methodologies may be approved by the moderator team. In addition to the examples of substantive criteria specified below, the paper must be mechanically correct (spelling, punctuation, grammar, syntax, format, and so forth) or the grade will be negatively affected.

A+ (97-100): Offers a genuinely new understanding of the subject. Especially deserving of distribution to appropriate authorities and submission for prize competition. Thesis is definitive, research is extensive, subject is treated completely, and the conclusions and recommendations are logical and justified.

A (94-<97): Work of superior quality that demonstrates a high degree of original thought. Suitable for distribution and submission to Defense Technical Institute Center (DTIC) and prize competition. Thesis is clearly articulated and focused, research is significant, arguments are comprehensive, balanced and persuasive. Conclusions and recommendations are supported.

A- (90-<94): Above the average expected of graduate work. Contains original thought. Thesis is clearly defined, research is purposeful, arguments are balanced and persuasive. Conclusions and recommendations are valid.

- B+ (87-<90):** A solid paper. Above the average of graduate work. Thesis is articulated, research has strong points, subject is well-presented and constructed, and conclusions and recommendations are substantiated by the material.
- B (84-<87):** Average graduate-level performance. Thesis is presented, research is appropriate for the majority of the subject, analysis of the subject is valid with minor omissions and conclusions and recommendations are presented with few inconsistencies.
- B- (80-<84):** Below the average graduate-level performance. Thesis is presented, but the research does not fully support it; the analysis, conclusions, and recommendations are not fully developed. The paper may not be balanced, and the logic may be flawed.
- C+ (77-<80):** Below the standards required of graduate work. Portions of the criteria are lacking or missing, the thesis may be unclear, research may be inadequate, analysis may be incomplete, and the conclusions and recommendations may be lacking or not supported by the material.
- C (74-<77):** Fails to meet the standards of graduate work. Thesis is present, but support, analysis, conclusions, and recommendations are either missing or illogically presented. Paper has significant flaws in construction and development.
- C- (70-<74):** Well below standards. Thesis poorly stated with minimal evidence of research and/or several missing requirements. Subject is presented in an incoherent manner that does not warrant serious consideration.
- D (60-<70):** Considerably below graduate-level performance and lacking in any evidence of effort or understanding of the subject matter. In some measures, fails to address the entire question.
- F (0-<60):** Fails to meet graduate-level standards. Unsatisfactory work. Paper has no thesis. Paper has significant flaws in respect to structure, grammar, and logic. Paper displays an apparent lack of effort to achieve the course requirements. Gross errors in construction and development detract from readability of the paper. Paper displays evidence of plagiarism or misrepresentation.

C. Grading criteria for the Operational Art Exam: The exam requires students to apply their knowledge key concepts presented during the first half of the course, principally Operational Art and Naval Warfare Theory. The exam is open-book, mandates individual work, and requires responses in essay format. Grading will be assessed using the following criteria:

- A+ (97-100):** Organized, coherent and well-written response. Completely addresses the question. Covers all applicable major and key minor points. Demonstrates total grasp and comprehension of the topic.

- A (94-<97):** Demonstrates an excellent grasp of the topic, addressing all major issues and key minor points. Organized, coherent, and well-written.
- A- (90-<94):** Above the average expected of graduate work. Demonstrates an exceptionally good grasp of the topic. Addresses all major and at least some minor points in a clear, coherent manner.
- B+ (87-<90):** Well-crafted answer that discusses all relevant important concepts with supporting rationale for analysis.
- B (84-<87):** Average graduate performance. A successful consideration of the topic overall, but either lacking depth or containing statements for which the supporting rationale is not sufficiently argued.
- B- (80-<84):** Addresses the question and demonstrates a fair understanding of the topic but does not address all key concepts and is weak in rationale and clarity.
- C+ (77-<80):** Demonstrates some grasp of topic but provides insufficient rationale for response and misses major elements or concepts. Does not merit graduate credit
- C (74-<77):** Demonstrates poor understanding of the topic. Provides marginal support for response. Misses major elements or concepts.
- C- (70-<74):** Addresses the question but does not provide sufficient discussion to demonstrate adequate understanding of the topic.
- D (60-<70):** Considerably below graduate-level performance and lacking in any evidence of effort or understanding of the subject matter. In some measures, fails to address the entire question.
- F (0-<60):** Unsatisfactory work. Fails to address the questions or paper displays evidence of cheating.

D. Grading criteria for Seminar and Final Exercise contributions: The seminar and final exercise contribution grades are determined by moderator evaluation of the quality of a student's contributions to sessions (seminar discussions, exercises, and wargames). All students are expected to contribute to each seminar or exercise session, and to listen and respond respectfully when seminar mates or moderators offer their ideas. This overall expectation underlies all criteria described below:

- A+ (97-100):** Peerless demonstration of wholly thorough preparation for individual sessions. Consistently involved, and contributes original and highly insightful thought. Exceptional team player and leader.
- A (94-<97):** Superior demonstration of complete preparation for individual sessions. Consistently involved, and frequently offers original and well thought-out insights. Routinely takes the lead to accomplish team projects.

- A- (90-<94):** Excellent demonstration of preparation for individual sessions. Regularly involved, and contributes original, well-developed insights in the majority of sessions. Often takes the lead to accomplish team projects.
- B+ (87-<90):** Above-average graduate level preparation for individual sessions. Involved and occasionally contributes original and well-developed insights. Obvious team player who sometimes takes the lead for team projects.
- B (84-<87):** Average graduate level preparation for individual sessions. Participates and occasionally contributes original and insightful thought. Acceptable team player who takes effective lead on team projects when assigned.
- B- (80-<84):** Minimally acceptable graduate level preparation for individual sessions. Infrequently participates or contributes well-developed insights; may sometimes speak out without having thought through an issue. Requires prodding to take lead on team projects.
- C+ (77-<80):** Generally prepared, but not to minimum acceptable graduate level. Requires encouragement to participate or contribute; contributions do not include original thinking or insights. Routinely allows others to take the lead in team projects.
- C (74-<77):** Preparation for individual sessions is only displayed when student is called upon to contribute. Elicited contributions reflect at best a basic understanding of session material. Consistently requires encouragement or prodding to take on fair share of team project workload. Only occasionally engages in seminar dialogue with peers and moderators.
- C- (70-<74):** Barely acceptable preparation. Contributions are extremely limited, rarely voluntary, and reflect minimal grasp of session material. Displays little interest in contributing to team projects.
- D (60-<70):** Considerably below graduate-level performance and lacking in any evidence of effort or understanding of the subject matter. In some measures, fails to address the entire question.
- F (0-<60):** Unacceptable preparation. Displays no interest in contributing to team projects; cannot be relied on to accomplish assigned project work. At times may be seen by peers as disruptive.

14. Seminar Assignments

The principal criteria in assigning students to a seminar are a balanced distribution among services and agencies, essentially creating a ‘joint force,’ as well as student specialties and operational expertise. The Chairman of the JMO Department will assign a minimum of two faculty members to each seminar.

15. Schedule

JMO Seminars normally meet in the mornings and S and W seminars in the afternoons. Depending on the work assigned, students may meet for scheduled periods in seminar as a group, in smaller teams depending on tasking, or conduct individual study and research. Classes are normally scheduled from 0830–1145 hours, however, some sessions may require additional time based on exercise/wargame requirements. Moderators may adjust these times to facilitate the learning objectives for each segment of instruction.

16. Key Personnel

For any additional information on the course, or if problems develop that cannot be resolved by your moderators, contact the Chairman or the Executive Assistant. Key departmental personnel are:

Chairman	CAPT John Porado, USN Room C-421, 856-5421 john.porado@usnwc.edu
Executive Assistant / Deputy Chairman	PROF F. B. Horne, (USN (Ret)) Room C-420, 856-5422 fred.horne@usnwc.edu
Academic Coordinator	Ms. Susan Soderlund Room C-417, 856-5424 susan.soderlund@usnwc.edu
Course Coordinator	PROF Carol Prather, (USN (Ret)) Room C-409, 856-5441 carol.prather@usnwc.edu
Operational Warfare	PROF Ivan Luke, (USCG (Ret)) Room C-431, 856-5472 ivan.luke@usnwc.edu
Joint Planning	PROF Sean Sullivan, (USN (Ret)) Room C-406, 856-6438 sean.sullivan@usnwc.edu
Joint Operations in the Competition Continuum	PROF Don Chisolm Room C-422, 856-5454 chisolm@usnwc.edu
Capstone Synthesis Event	PROF Jeff Allison, (USAF (Ret)) Room C-429, 856-5467 jeffrey.allison@usnwc.edu

17. Faculty Assistance

Faculty members are available to assist students with course material, to review a student's progress, and to provide counseling as required or requested. Students with individual concerns are encouraged to discuss them as early as possible so that faculty moderators can render assistance in a timely manner. We strongly urge students to make use of this non-classroom time with the faculty. During in progress reviews, scheduled in conjunction with the research paper, moderators may take the opportunity to discuss student progress as well as to solicit student input on the course to date. The JMO faculty is located on the fourth deck of Connolly Hall.

18. Student Critiques

The Joint Military Operations Department strives to continuously improve this course. A key part of continuous improvement is constructive feedback from students. For this purpose, from early in the course students have available an anonymous online course survey. This survey allows students to contribute timely feedback on the course on a session-by-session basis while the experience is fresh, rather than waiting until the end of the trimester. The survey includes questions on session content, execution, and individual assigned readings, but all questions are optional to make the best use of student time. Students can contribute on just those topics where they have value to add.

Students are highly encouraged to contribute feedback on a regular basis, ideally daily, but at a minimum weekly. Constructive student comments will help JMO keep the course relevant and effective in the future.

19. Lectures by Senior Leaders

Enrichment lectures by senior military and interagency leaders occur periodically during the course, as scheduled by NWC leadership. Most of these presentations feature the chiefs of service or combatant commanders. These speakers are invited to discuss their views and ideas from their perspective as operational and theater-strategic commanders, service chiefs, or agency directors. The weekly academic schedule will specify the final date and time of each enrichment lecture. Last minute changes will be disseminated by the Dean of Students office and/or seminar moderators.

20. Non-attribution Policy

The College's educational mission requires a climate conducive to the free and open exchange of ideas and opinions by students, faculty, and guest speakers. To this end and unless otherwise announced by the College or someone with authority to speak for the College, all lectures, seminars and similar academic or policy discussions (to include conferences, workshops, roundtables, etc.) at the College are subject to the Chatham House Rule (CHR). The CHR states: "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

To support this policy, no student, faculty, staff member, or guest of the College may, without the express permission of the College, use any electronic device or other method to record any lecture, seminar or similar event at the College, whether live, streamed, stored on any NWC network or on any removable storage device, or in any other manner.

The effect of the CHR is to separate statements from their source. For example, a student may not publicly ask a guest lecturer a question prefaced by, “Last week General Clausewitz stated that....” Similarly, statements made by faculty or students in a seminar cannot be reported and attributed outside of the seminar. Thus students, faculty, or guests cannot claim orally on a blog, or any other way, “CAPT Mahan is being hypocritical in advocating the use of mines, because in seminar he argued that they were inhumane.” Specific quotations are also to be avoided if they are likely to be traceable to specific individuals. A professor should not say, for example, “one of my [students from a demographic category in which we have few] students said that while deployed....”

The CHR is relaxed in settings such as classroom discussions that are themselves subject to the Rule. Also, the use of quotations in academic papers, professional articles or other works is allowed when the author has secured the explicit permission of the source individual. These policies apply to all students, faculty, staff and visitors. They apply not only to events on the grounds of the College but also to the College of Distance Education, remote classrooms, seminar off-sites, and other meetings run by the College. These policies are designed to support the free exchange of ideas and opinion without fear of retaliation and to encourage visiting dignitaries to speak freely. They should encourage the discussion in both formal and informal settings of ideas and concepts central to an education in JPME at the Master’s Degree level. The policies do not protect any individual against improper speech, discussion, or behavior.

21. Use of Artificial Intelligence Software

The President of the U.S. Naval War College memo NWC 12271, Ser N002/0087: INTERIM GUIDANCE ON PERMISSIBLE AND IMPERMISSIBLE USES OF CHATGPT AND SIMILAR ARTIFICIAL INTELLIGENCE SOFTWARE, dated 19 February 2023 provides policy on the use of Artificial Intelligence Software. The Joint Military Operations Department policy is the same as outlined in the memo and will be updated at such time that the War College Policy is updated.



JMO-01

COURSE OVERVIEW

OBJECTIVES

- Understand the objectives and requirements of the Joint Military Operations course.

We will be confronted by further challenges driven by developments in artificial intelligence, quantum computing, hypersonics [and] space-based capabilities, not to mention the developments that we can't even imagine yet.

There will be no substitute for leadership that encourages critical thinking. There will be no substitute for leaders that recognize the implications of new ideas, new approaches and new technologies. There will be no substitute for leaders that take action to effect change.

- General Joseph Dunford, CJCS
June 13, 2019

● Focus

The Chairman of the Joint Military Operations Department will provide an overview of the objectives and requirements of the Joint Military Operations course.

≡ Background

War remains a clash of wills: one party trying to gain influence over an enemy. The use of military power and its interrelationships with the diplomatic, informational, and economic instruments of national power will remain essential to achieving desired end states. During this trimester we will examine how to wield the military instrument of power to achieve national policy goals. Operational art allows us to adapt national strategy to the theater-strategic and operational levels through campaigns and major operations.

By thinking through problems of space, time, and force you will be taking a similar mental journey as your predecessors, including some of World War II's titans of naval leadership: King, Nimitz, and Spruance. Much like the previous generations of students, we will review the theory of operational art, compare it to the doctrinal basis for the contemporary application of military power, and begin to distill the next generation of doctrine for our armed forces. We will use historical cases to attempt to discern "why" a commander took a certain course of action. Through the prism of the past, we will examine the nation's near-term challenges and the tenets of future warfare, and better consider what is possible today, and in the "adjacent possible" tomorrow.

The goal of this trimester is to provide you with some new perspectives – gained from history, from various frameworks, and from each other – with which to think about the issues and adversaries that face us tomorrow. Abraham Lincoln captured this very issue best: "The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise – with the occasion. As our case is new, so we must think anew, and act anew."

?? Questions

None.

☰ Required Reading (19 Pages)

[U.S. Naval War College, Joint Military Operations Department. College of Naval Warfare and Naval Command College Joint Military Operations Department Syllabus and Study Guide for August 2024. Newport, RI: August 2024. Read syllabus front matter.](#)





INTRODUCTORY SEMINAR

General Marshall's advice on dealing with the rival service branch was basic Dale Carnegie: Listen to the other fellow's story. Don't get mad. And let the other fellow tell his story first.

- James D. Hornfischer,
Neptune's Inferno: The U.S. Navy at Guadalcanal (2012)

OBJECTIVES

- Comprehend course expectations, seminar guidelines, grading policy, reading and writing requirements, the schedule, and the student feedback mechanism (critique).
- Meet and begin to develop a relationship with your seminar mates.

🔍 Focus

This session is devoted to the introduction of faculty and students, a review of the administrative requirements and procedures for the trimester, and an overview of the general ground rules of seminar conduct.

≡ Background

This session provides students an opportunity to introduce themselves and to share relevant professional background and areas of expertise with their peers. Furthermore, this forum allows moderators and students to discuss appropriate social and administrative matters pertaining to the seminar's conduct. The research paper writing requirement is briefly introduced but will be discussed in more detail in a subsequent session.

?? Questions

Chisholm traces the evolution of planning for war by the U.S. military. He asserts that "one of the striking aspects of war plans is the degree to which they have historically erred in assumptions and projections about enemy intent, capabilities, and plans." To what degree is the consistent with your experience? Also, what, if any, methodologies, processes, or frameworks that you have encountered offer promise in avoiding such errors?

The ability to apply critical thinking comprises one of the learning outcomes for this course. In her TED talk, "On being wrong," Schultz speaks of the liberating effect of being open to being wrong. To what degree is openness to being wrong necessary for one to apply critical thinking? To what degree are you open to questioning what you believe to be true?

☰ Required Reading (18 Pages)

[Chisholm, Donald. "U.S. War Planning: Changing Preferences and the Evolution of Capabilities." Newport, RI: Joint Military Operations Department, July 2019. \(NWC 4203\). Read.](#)

Schultz, Kathryn. "On being wrong." Filmed February 2011. TED video, 17:35.
https://www.ted.com/talks/kathryn_schulz_on_being_wrong **Watch.**

Scan your JMO Seminar and Shared BlackBoard Courses at: <https://navalwarcollege.blackboard.com>





PROBLEM SOLVING AND MILITARY DECISION MAKING

OBJECTIVES

- Comprehend the character of human problem-solving.
- Comprehend limits on human rationality.
- Comprehend military decision-making and planning approaches such as the Joint Planning Process and the Design Methodology.
- Appreciate the applicability of such approaches to different kinds of problems.

Whenever we find ourselves confronted by a situation which calls for something to be done, we pass from recognition of the necessity for action to the action itself by mental processes which, often without deliberate consciousness on our part, follow a certain clearly defined course. We see the something to be accomplished, evaluate and balance the factors entering into its accomplishment, and decide upon the way of going about it. In many, perhaps in most, cases, the something to be done is rather vaguely seen, the evaluation of factors involved is incomplete, and the decision is hasty; but the process, however superficial, is inevitably logical to the extent that some sort of a decision precedes the action, some sort of an estimate precedes the decision, and some recognition of the end to be attained precedes the estimate.

– Rear Admiral Austin M. Knight, President, U. S. Naval War College (1915)

🔍 Focus

This session considers military planning and decision-making as specialized processes of more general human problem-solving behavior. In so doing, it addresses the origins, components, and important assumptions (along with strengths and limitations) embedded in the Service and Joint Planning Processes as specialized, formalized, and complementary forms of problem-solving adapted to the increasing range of problems the military is called upon to address.

It is organized as a lecture followed by seminar discussion.

≡ Background

The problem-solving approach to rational decision-making was first given systematic expression in John Dewey's pathbreaking and widely influential *How We Think* in 1915. Dewey *described* how humans *actually make decisions* as they attempt to solve problems they experience. His work was the genesis of what today we know through the work of Herbert Simon and many others as cognitive science, which in turn has led to artificial intelligence.

At about the same time the U.S. Navy and Army had begun developing their own versions of problem-solving processes at the tactical level, based on work done by the German army. The Navy's resulting tactical *Estimate of the Situation* provided the basis for the written order, commander's guidance, and decentralized execution by subordinates – what we now call mission command – all taught at the Naval War College.

In the face of the rapidly increasing scale, complexity, and duration of warfare, it became clear that problem-solving through planning at the *strategic* level (and what would become known as the *operational* level) was essential to effective military support of national strategic objectives. War planning by the U.S. Navy began in the run up to the Spanish-American War of 1898. Following the 1905 Russo-Japanese War, the U.S. Navy and Army each began developing their own strategic plans for possible war with Japan. World War I experience further highlighted the practical importance and viability of formal planning for success in military operations, especially within the context of coalitions. In consequence, during the interwar period, the Naval War College developed *Sound Military Decision* out of the *Estimate of the Situation* as its first version of a formal planning process. World War II proved a watershed for strategic and operational planning and the beginnings of the formal Service planning processes and Joint Planning Process (JPP) practiced today. During his post-war tenure as Naval War College President, Admiral Spruance had a manual for





PROBLEM SOLVING AND MILITARY DECISION MAKING

Navy operational planning written to reflect his hard-won experience both as Admiral Nimitz's chief of staff and Commander Fifth Fleet.

This was accompanied by incremental integration into planning processes of what we now know as the operational art, which provides the technical language (Herbert Simon's "chunks") by which we organize memory, make sense of problems, and find solutions to them.

In the decades since World War II, the U.S. military has expanded the number of considerations taken into account in planning and sought to better integrate its actions vertically – from tactical to operational to strategic levels – and horizontally – across Services, Federal civilian agencies, coalition partners and allies, nongovernmental organizations, and contractors – further out in time, and across all domains, all in pursuit of a seamless, integrated set of actions consistent with and in support of national strategic objectives. In this pursuit, the individual military Services have greatly adapted and elaborated their planning processes and the JPP has become *the way* by which the United States, and increasingly, its friends and foes alike, engage in military problem-solving.

It may be said that in war, each side attempts to present the other with problems that it cannot structure and solve in the space, time, and force available. Service and Joint Planning Processes have proven well-adapted for conventional operations against other nation-states (e.g., Desert Storm, Operation Iraqi Freedom I), but have proven somewhat less effective for the expanded set of operations the military has increasingly been called to conduct (e.g., peace operations, stability operations). The military planning processes have been substantially challenged by both state and non-state actors waging irregular warfare (e.g., Vietnam, Somalia, Afghanistan, Iraq, Iran, al Qaeda, Hezbollah, Daesh), and latterly by the People's Republic of China (and Russia) seeking to prevail against the United States and its partners through a complex combination of Diplomatic, Informational, Military, and Economic (DIME) actions across the competition continuum, to include so-called "gray zone activities" but also high-end state-on-state warfare.

One response to these challenges has been the development of the Design Methodology, which, like the Joint Planning Process, resides squarely within the problem-solving approach. It is intended to aid deeper understanding of operating environments and underlying problems in order to better develop military options integrated into a whole-of government approach for those problems whose solution extends well beyond conventional military operations.

These planning processes share the dual assumptions that it is both *possible* and *desirable* to attempt to control the future proactively. They typically, but not always, confer an advantage on the side that uses them over the side that does not. They are subject to the same limitations on rationality that describe other areas of human endeavor, to include the challenges involved prioritizing values and objectives, structuring problems, developing courses of action for their solution, and adapting to unexpected consequences.

?? Questions

Does the problem-solving approach comprise a linear method for making decisions? Why or why not? So what?

Where does the weight of effort usually reside in problem-solving? So what?

What is the role of intuition in decision making?

How do humans adapt to limitations on rationality to make good decisions? Or can they?

What are the strengths and limitations of the Service and Joint Planning Processes? Against what kinds of problems are they most applicable?

How does the Design Methodology complement Service and Joint Planning Processes? What assumptions does it share with those processes?





PROBLEM SOLVING AND MILITARY DECISION MAKING

☰ Required Reading (46 Pages and 4:44 video)

[Simon, Herbert A. "Decision Making: Rational, Nonrational, and Irrational." *Educational Administration Quarterly* Vol. 29, No. 3 \(August 1993\): 392-411. **Read.**](#)

Simon, Herbert A. "Why Decision Making is so Difficult." <https://www.youtube.com/watch?v=eTXkZURBq7k> (2:19 min.) **Watch video.**

Simon, Herbert A. "What is Intuition?" <https://www.youtube.com/watch?v=1UqekPMfNk4> (2:25 min.) **Watch video.**

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Planning*. Joint Publication \(JP\) 5-0. Washington, DC: CJCS, 01 DEC 2020. **Read pp. xi-xxx.**](#)

[Rauch, Daniel E., and Matthew Tackett. "Design Thinking." *Joint Force Quarterly*, 101, 2nd Quarter, April 2021, 11-17. **Read.**](#)

This session begins with a lecture, with seminar discussion to follow. Resources to support the lecture:

[Slides Associated with the Lecture](#)

[Lexicon Used in the Lecture](#)

☰ Supplementary Reading

[Chisholm, Donald. "Problem-Solving and Institutional Design." *Journal of Public Administration Research and Theory* V. 5, No. 4 \(October 1995\): 451-491.](#)

[Dewey, John. *How We Think*. Boston: D.C. Heath, 1910.](#)

[Rittell, Horst and Melvin M. Webber. "Dilemmas in a General Theory of Planning." *Policy Sciences* V. 4 \(1973\): 155-169.](#)

[Simon, Herbert A. "Problem Forming, Problem Finding, and Problem Solving in Design." In A. Collen & W. W. Gasparski \(Eds.\), *Design and Systems: General Applications of Methodology* \(V. 3, pp. 245-257\). New Brunswick, NJ: Transaction Publishers, 1995. Text of a lecture delivered to the First International Congress on Planning and Design Theory, Boston, MA, 1987.](#)

[U.S. Army. *Army Design Methodology*. *Army Techniques Publication* \(ATP\) 5-0.1. Washington, DC: Headquarters, Department of the Army, July 2015.](#)

[Wildavsky, Aaron. "If Planning is Everything, Maybe It's Nothing." *Policy Sciences* V. 4 \(1973\): 127-153.](#)





JMO-04

CHINA PANEL

The PRC is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to do it. Beijing has ambitions to create an enhanced sphere of influence in the Indo-Pacific and to become the world's leading power.

-National Security Strategy, OCT 22

OBJECTIVES

- Gain an understanding of Communist China's civilian, military, and citizen relationship.
- Comprehend where and how the CCP uses the PLA for geopolitical security problems.
- Identify INDOPACOM campaign priorities and concerns of the CCDR.

🔍 Focus

This session is the first in a series of sessions intended to address the only competitor the United States is facing that has the intent and ability to reshape the rules-based international order. Remembering the previous session on problem solving and military decision making, we start addressing the military problems the Chinese Communist Party (CCP) and People's Liberation Army (PLA) are creating for Indo-Pacific region nations. This panel will serve as a theatre level discussion of how the PLA is being employed by the CCP, and the methods by which INDOPACOM is campaigning. The readings and panelists will identify potential problems faced by the Combatant Commander, Component Commanders, and Country Teams. These, in turn, may serve to inform the JMO Research Paper discussion in the next session.

≡ Background

The PLA-Navy and PLA Rocket Force have been engaged in an unprecedented buildup such as the world has not seen since World War II or the height of the Cold War. The PLAN consists of over 350 ships and is looking to expand that to 440 by 2030 and the Rocket Force has built thousands of DF-17, -21, and -27 rockets to deny the United States Navy (USN) the freedom of maneuver inside the second island chain. Before we can discuss the problems, these capabilities present for the USN and our global allies, we first need to discuss PLA command and control at the national level.

The greater the cultural distance between belligerents the more careful one must be to avoid "mirror imaging". Mirror imaging is a cognitive bias where decision makers project their own beliefs and bias onto others assuming they would think and act in a similar manner. The first panelist will discuss the relationship between the CCP, the PLA, and the Chinese citizens. Where are their loyalties? What are their obligations? How do command relationships work in a low-trust society? To assume the Chinese political-military structure operates in a manner like the U.S. is dangerous, so we will address some of the unique challenges and characteristics of the ever-evolving CCP, PLA, citizen relationship. The second panelist will discuss how China's perspective as a continental power has influenced the way the CCP views the maritime domain and international order. The speaker will discuss how a country that used to build great walls to protect itself from northern invaders is attempting to use the PLA to manage and dispute maritime and continental claims to protect national interests from regional nations. The third and final speaker of the day comes to us from INDOPACOM where he serves on the Commander's Action Group as the J2 representative. He will be discussing unclassified aspects of the Combatant Commander's Campaign plan to include its ways, means, and the Commander's perspective on the operational environment.

?? Questions

How does the Civ-Mil relationship between the CCP, PLA, and civilian society work in Communist China?

What are the strengths and weaknesses of the CCP Civ-Mil relationship relative to the U.S. and its allies, and what opportunities exist for the Joint Force when planning for conflict?

Where are the current CCP geopolitical disputes? How is the PLA utilized by the CCP to manage them?





JMO-04

CHINA PANEL

How is INDOPACOM campaigning in the AOR? What are the CCDR's concerns over the next five years?

☰ Required Reading (61 Pages)

[Phillip C. Saunders and Joel Wuthnow, "Large and In Charge: Civil-Military Relations under Xi Jinping," in *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, ed. Joel Wuthnow, Phillip C. Saunders, et al., \(Washington, DC: NDU Press, 2019\). Read pp. 519-528](#)

["Xi Jinping is obsessed with political loyalty in the PLA," *The Economist*, Nov. 6, 2023.](#)

[Dutton, Peter \(2016\) "A Maritime or Continental Order for Southeast Asia and the South China Sea?" *Naval War College Review*: Vol. 69: No. 3, Article 2.](#)

[Dutton, Peter, Testimony before the House Foreign Affairs Committee Hearing on China's Maritime Disputes in the East and South China Seas, Jan. 14, 2014.](#)

[Commander, U.S. INDO-PACIFIC Command Adm. John C. Aquilino, "House Armed Services Committee \(HASC\) Opening Remarks", Apr. 18, 2023. Read pp. 1-14 and 26](#)

☰ Supplementary Reading

[Peter A. Dutton and Peter Jones, "AUKUS and the PRC: Assessing Maritime Strengths and Weaknesses", May 13, 2024. *Awaiting to be Published*.](#)

[Commander, U.S. INDO-PACIFIC Command Adm. John C. Aquilino, "Reflecting on a Changing Indo-Pacific with Mary Boies", Council on Foreign Relations, Apr. 25, 2024.](#)





JMO-05

RESEARCH PAPER

... in today's turbulent security environment, we will succeed and defeat our enemies by out-thinking them. To do that, and to be successful senior officers, you need to read, think, and write.

- ADM James G. Stavridis
(2011)

OBJECTIVES

- Understand the research paper requirements.
- Comprehend research and writing resources.
- Understand how the research paper supports the Capstone.

🔍 Focus

This session addresses the research paper requirements, including guidance on research, writing, and due dates. The research paper provides an opportunity to demonstrate critical thinking and persuasive written communication skills that are essential for senior leaders in the profession of arms. Research and writing on challenging contemporary warfighting topics can contribute to professional discourse and enhance student's perspectives on complex military problems and their solutions.

≡ Background

During the first nine weeks of the course, students will research and write an *argumentative* research paper, which is one of the three graded elements of the course. The most successful research papers are written in a succinct, logical style. It is well-structured with a clear thesis statement and strong supporting evidence. It contains original critical thought and leverages purposeful research and the author's analysis to support conclusions, and, ultimately, the thesis statement. JMO guidance for the research paper is provided in this syllabus page and in NWC 2062. Research and Reflection days are provided throughout the trimester to provide students time to focus on their research paper.

Topic Area, Research Question, and Working Thesis. Students will choose a topic area for their research paper pertinent to joint operational warfare. The topic should be one of interest to the Chairman, Joint Chiefs of Staff or Combatant Commanders, Joint Force Commanders, or equivalent multinational level command. Ideally, the topic and its associated research question would relate to the JMO Capstone Exercise, focused on campaigning and potential high-end warfare in the Western Pacific. After selecting a topic area and initial research question, students will continue their research to build a research argument – a claim – that becomes the working thesis, examine available literature, analyze evidence, and refine the analysis to construct an argumentative paper. Students must ensure their working thesis has narrowed their topic sufficiently to be able to effectively address it within the paper length requirements.

Paper Proposal. After identifying the working thesis and building a plan to support it, students will submit a paper proposal to their moderators using the format posted to Blackboard and contained in NWC 2062. The proposal will present the student's thesis, brief research plan, and an annotated bibliography. By reviewing the paper proposal, moderators can confirm that the proposed paper satisfies JMO course requirements and that the approach is feasible based on those requirements. Once the moderator team approves a proposal, this constitutes an understanding between the student and their moderators; students should discuss any changes to this plan with their moderators.

Paper Advisor. Seminar moderators will serve as faculty paper advisors for the students in their own seminar. Paper advisors are available to help students focus and scope the thesis, assess the research plan, and critique outlines and drafts. Students are encouraged to also seek advice and critiques from the NWC Writing Center. Advisors may recommend resident subject matter experts to provide expertise on a case-by-case basis. Ultimately, however, the research approach, argument development, and paper progress are in the hands of the author/student. The most successful student writers are those that take ownership of the research process early in the trimester, using Research and Reflection days wisely.





JMO-05

RESEARCH PAPER

In-Progress Reviews. Students will have in-progress reviews with their seminar moderators to discuss progress on their research and writing. During the first review, moderators will discuss the student's initial research topic, question, and working thesis. After completion of the first review, students will continue preliminary research and refine their theses. After submitting the paper proposal, each student will participate in a second in-progress review to discuss their paper proposal as outlined above. In-progress reviews will be arranged by the seminar moderators during the timeframes listed in the schedule provided in this study guide.

Length and Format. The paper must be 3,000 to 3,500 words (the equivalent to approximately 12-15 pages of text double spaced). The word requirement applies to the body of the paper and does not include: the cover page; table of contents; abstract; charts, maps, graphs, photos, diagrams, etc.; footnotes or endnotes; annexes; and the bibliography. The paper should follow the format guidelines provided in NWC 2062 and the Chicago Manual of Style (CMS) format, including notes and bibliography. Turabian's *A Manual for Writer's* provides both writing advice and CMS format guidance. The "JMO Research Paper Guidance for Students" (NWC 2062A) provides the detailed guidance on topic, formatting, and sources of additional writing tips. Guidance for classified papers is available from the moderators. Refer to DoD 5200.01 Vol 1-3 for the DoD Information Security Program. A pre-formatted research paper template (MS Word) is available on Blackboard. Use of the template is intended to aid in formatting of pages numbers, section breaks, and other mechanics.

Grading. The research paper represents a substantial portion of the JMO Course grade. Grades will be based on the criteria specified in the Grading Criteria section of this syllabus.

Prizes and Awards. Student research papers may compete for the prizes and awards bestowed annually for the academic year. Students are encouraged to prepare their papers with the additional purpose of competing for these honors, if applicable. The Writing Center publishes award category descriptions and submission guidance yearly. Students may choose to submit their works for consideration; faculty are proscribed from submitting a paper on a student's behalf.

Schedule. The schedule below spreads the research and writing of the paper throughout the first nine weeks of the course and designates touch points for moderators/paper advisors to provide students with guidance and feedback.

20 Aug, 0830:	Research Topic Idea Proposed
26 Aug, 0830:	Research Question and Working Draft Thesis Proposed
27 – 30 Aug	In-Progress Review #1
6 Sep, 0830:	Research Paper Proposal Due
10 - 13 Sep:	In Progress Review #2
27 Sep - 4 Oct:	Submit Drafts for Review to Paper Advisor
18 Oct 1600:	Research Paper Due

Per Dean of Academics Policy Letter, the JMO Research Paper will be submitted to professors electronically through *Turnitin Assignments* (the Assignment Submission tab) in each seminar Blackboard course.

??Questions

None.

☰ Required Reading (30 Pages)

[U.S. Naval War College, Joint Military Operations Department. "The JMO Research Paper Guidance for Students." Newport, RI: July 2023. \(NWC 2062\) Read.](#)

Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations*, 9th ed. Chicago: University of Chicago Press, 2018. **(Issued). Scan Ch. 1-5**





RESEARCH PAPER

U.S. Naval War College. *Naval War College Pocket Writing and Style Guide*. Newport, RI: Naval War College, August 2018. **Scan**.

Joint Military Operations Department. *JMO Paper Template*. **Scan**.

University of North Carolina at Chapel Hill Writing Center. "Argument." <https://writingcenter.unc.edu/tips-and-tools/argument/>.

References

The *Chicago Manual of Style* Online. "Home." Accessed June 1, 2022.
<https://www.chicagomanualofstyle.org/home.html>.

U.S. Naval War College "Research 101" Guide online. Accessed 24 April 2023.
<https://usnwc.libguides.com/c.php?g=419748&p=2862958>.

"Interim Guidance on Permissible and Impermissible Uses of ChatGPT and other similar Artificial Intelligence Software." Newport, RI: Naval War College, 19 Feb 2023.





STRATEGIC BACKGROUND OF THE PHILIPPINES CAMPAIGN

I must say that during phases there, I thought it was not possible in such a broad theater to plan so far in advance, when so much depended on the success of certain of the local operations as to whether they should be continued, whether we should continue along that course.

- General of the Army George C. Marshall
On strategic planning for the Pacific Theater of War (1956)

OBJECTIVES

- Comprehend the broad contours of the pre-war and wartime strategic and operational events and decision-making that led to the U.S. decision to conduct the 1944-1945 campaign to retake the Philippines from the Japanese.
- Analyze the enduring complexities and challenges of theater-level campaign planning.
- Comprehend the enduring characteristics of the Pacific operating environment.

🔍 Focus

This session, organized as a lecture, provides the strategic background for the 1944-1945 Philippines Campaign, the primary historical case study used for understanding the operational art.

≡ Background

At the distance now of eight decades there is a tendency among both professional military and academics to reduce the events of World War II in the Pacific Theater of War to a straightforward linear narrative, to overplay the influence of inter-war planning and plans on actual operations, and to caricature the service differences and personalities involved. Unfortunately, so doing undercuts our ability to draw relevant practical lessons for contemporary theater-level campaign planning and execution.

This session frames the operating environment for the Pacific Theater of War by reconstructing the decision-making processes, in all their glorious messiness, including the roads considered but not travelled, that led to war between the United States and Japan and the 1944-1945 Philippines Campaign. This, in order to place that vast campaign in proper context and set the stage for its use in exploring the theory and concepts of operational art. It addresses the challenges of civil-military dynamics, coalitions, differences of interest and perspective among and within the several services, the structure and evolution of command and control and planning (especially its contingent character), the pivotal role of personalities, and the great uncertainties and surprises of the Pacific War, all set against the vast international stage on which World War II played out. In so doing, both Allied and Japanese perspectives and decision-making are considered.

?? Questions

Why did Japan initiate a hot war with the United States, Great Britain, and the Netherlands?

What assumptions did Japan make about what that war would look like? Did U.S. assumptions about that war mirror those of Japan? Why or why not? What difference did this make in each side's conduct of the war?

If the United States did not plan pre-war for the vast, lengthy, and complex Philippines campaign, how did it end up conducting one?

What can we learn from this case about planning and decision-making for future large-scale state-on-state conflicts?



STRATEGIC BACKGROUND OF THE PHILIPPINES CAMPAIGN

☰ Required Reading (42 Pages + Lecture Slides)

[Hime, Douglas N. "The Philippines Campaign, 1944-45: A Case Study." Newport, RI: U.S. Naval War College, Joint Military Operations Department, December 2013. \(NWC 1093\) Read pp. 1-40, scan Appendices A and B.](#)

[Lecture Slides](#) are provided as a reading to be completed prior to the lecture.

☰ Supplementary Reading

[Cline, Ray S. *The United States Army in World War II, The War Department, Washington Command Post: The Operations Division*. Washington, D.C.: U.S. Army Center of Military History, 1951.](#)

[Cannon, M. Hamlin. *The United States Army in World War II, The War in the Pacific, Leyte: The Return to the Philippines*. Washington, D.C.: U.S. Army Center of Military History, 1954.](#)

[Morison, Samuel Eliot. *History of United States Naval Operations in World War II, Volume XIII, The Liberation of the Philippines: Luzon, Mindanao, the Visayas, 1944-1945*. Boston: Little, Brown, 1965.](#)

[. *History of United States Naval Operations in World War II, Volume XII, Leyte, June 1944-January 1945*. Boston, Little, Brown, 1958.](#)

[. *Strategy and Compromise*. Boston: Little, Brown, 1958.](#)

[Smith, Robert Ross. *The United States Army in World War II, The War in the Pacific, Triumph in the Philippines*. Washington, D.C.: U.S. Army Center of Military History, 1963.](#)

[. *The United States Army in World War II, The War in the Pacific, The Approach to the Philippines*. Washington, D.C.: U.S. Army Center of Military History, 1953.](#)



INTRODUCTION TO OPERATIONAL ART

OBJECTIVES

- Comprehend the meaning of the term "operational art."
- Comprehend how the operational art links strategy to tactics.

Throughout the hierarchy of enlightenment, from Truth, which the epistemologists say exists but is never known with certainty, to principles, which express our contemporary vision of Truth, to policy and doctrine, which are programs for concerted action based on principles, and finally to strategic or tactical decisions, which are individual actions guided by policy and doctrine--throughout this hierarchy, error creeps in.

- Captain Wayne Hughes, USN (2018)

🔍 Focus

This session introduces the body of military theory known as Operational Art. We examine the historical roots of operational art and the linkages between operational art, strategy, and tactics. Operational art is presented in the context of conventional force-on-force combat because that is where operational art is most directly relevant. That is not to say, however, that operational art does not apply to lower intensity combat scenarios, as we shall see later in the course.

⚖️ Background

In modern war, neither sound strategy nor good tactics alone are sufficient to ensure victory. An effective combination of strategy and tactics must exist to achieve victory. The need to integrate tactics and strategy led to the emergence of the intermediate area of theory and practice called operational art. Operational art provides the fundamental conceptual structure to link military tactical actions to national security and military strategies. Effectively applied, operational art allows commanders to arrange and synchronize forces in time, space, and purpose.

Operational art, as defined by Dr. Milan Vego in *Joint Operational Warfare: Theory and Practice*, is "a component of military art concerned with the theory and practice of planning, preparing, conducting, and sustaining campaigns and major operations aimed at accomplishing operational or strategic objectives in a given theater." Operational art emerged in the nexus of societal change and advancements embodied by industrialization and technology. As the size of military forces and the resultant complexity of their movement and sustainment grew, military leaders and theoreticians, both on land and at sea, sought effective methods for conducting war on a greater scale. The interaction among study, theory, and practice continues today.

The application of operational art is a cognitive process; the conduct of warfare at the operational level preceded the emergence of formal operational art. Operational art is not strategy; strategy is developed and implemented at the national and theater level. Operational art helps commanders make sound decisions and use resources efficiently and effectively to achieve strategic objectives. It requires broad vision—the ability to anticipate—and effective joint and multinational cooperation. Finally, operational art is practiced not only by Joint Force Commanders, but also by their senior staff officers and subordinate commanders.

?? Questions

Is operational art a matter of pure theory or practical experience? Or both?

What is the relationship between operational art, strategy, and tactics?

Can a force prevail in war without employing operational art? If so, at what cost or risk?

What is the significance of the return to great power competition in terms of operational art's relevance?





INTRODUCTION TO OPERATIONAL ART

Required Reading (16 Pages)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprint, 2009. **Read** [“On Operational Art,” I-3 to I-11](#).

[Buckel, Chad. “A New Look at Operational Art: How We View War Dictates How We Fight It.” *Joint Force Quarterly* 100, no. 1 \(2021\): 94–100. \(NWC 1234\).](#)

Supplemental Reading

Op Art Workbook, Philippines Campaign. A PowerPoint note-taking guide, available for download at: [OP ART Workbook- Philippine Campaign.pptx](#).

Op Art Primer. A concise overview of some key aspects of the topic. Available here: [Op Art Primer.pdf](#).





THE MILITARY OBJECTIVE AND LEVELS OF WAR

What do you want to achieve or avoid? The answers to this question are objectives. How will you go about achieving your desired results? The answer to this you can call strategy.

- William E. Rothschild,
Strategic Alternatives (1979)

OBJECTIVES

- Analyze the process for translating political aims into military-strategic objectives.
- Understand the relationship between the strategic, operational and tactical levels of war
- Examine the concept of regressive planning and operational-level planning.

🔍 Focus

This session focuses on strategic objectives and how they must drive military thinking and actions throughout the entire range of military operations. This session will address the relationship between national strategic and operational objectives, and the concept of regressive planning. It will also consider the relationship among the four instruments of national power (diplomatic, information, military, and economic) and how the strategic objective relates to the desired end state. Discussions will also briefly address policy documents that provide strategic direction to the military, such as the National Security Strategy, the National Defense Strategy, and the National Military Strategy.

≡ Background

As a starting point, we will briefly discuss the primary policy documents that provide strategic direction to the military, recognizing that entire seminar sessions will be dedicated to each of these guidance documents during the National Security Decision Making (NSDM) trimester: the Interim National Security Strategic Guidance, the National Defense Strategy (NDS), and the National Military Strategy (NMS). The NMS and the NDS support the aims of the President's National Security Strategic Guidance, which provides a broad strategic context for employing military capabilities in concert with other instruments of national power. The seminar will examine the inter-relationship among the four main instruments of national power as they relate to the operational commander.

The NMS provides focus for military activities by defining a set of interrelated military objectives and joint operating concepts from which the service chiefs and Combatant Commanders identify desired capabilities and against which the Chairman of the Joint Chiefs of Staff assesses risks. Operational art promotes unified action by helping Joint Force Commanders and their staffs facilitate the integration of other agencies and multinational partners in achieving the national strategic end state. Among the tools that will assist military commanders with that challenge is a set of four operational art questions:

1. What are the objectives and desired military end state? (Ends)
2. What sequence of actions is most likely to achieve those objectives and military end state? (Ways)
3. What resources are required to accomplish that sequence of actions? (Means)
4. What is the likely chance of failure or unacceptable results in performing that sequence of actions? (Risk)

The theater-strategic and operational commanders must ensure that the responses to the “four questions” (the essence of the plan) remain in line with strategic guidance. While some situations allow for clear military answers to these questions, in other cases there may be no military condition that will contribute to the stated or implied strategic objective(s). Often, the appropriate action may be diplomatic or economic with the military instrument of power in a supporting role. When conflict appears necessary, the Joint Force Commander must also anticipate and plan for conflict termination and post-conflict activities, which may include both military and civilian elements. Without considering these aspects from the outset of planning, there is little chance that even the best planned military operation can achieve the desired end state.





THE MILITARY OBJECTIVE AND LEVELS OF WAR

?? Questions

Why is it important to differentiate between different levels of war? How do levels of war and levels of command differ?

How can the “four questions” help an operational commander respond to strategic guidance?

What is the concept of regressive planning and how is it applied at the operational level?

To what extent were the strategic and operational objectives of each side nested during the 1944-45 Philippines Campaign?

Why does it matter when you do this planning? What other government agencies should be involved in this process?

☰ Required Readings (40 Pages)

[Vego, Milan. “Converting a Political to a Military-Strategic Objective.” *Joint Force Quarterly* 112, 1st Quarter 2024, 100-112. Read.](#)

[Yarger, Harry R. Extract from *Strategic Theory for the 21st Century: The Little Book on Big Strategy*. Carlisle Barracks, PA: Strategic Studies Institute \(February 2006\): Read 47-55. \(NWC 4012\).](#)

[Hime, Douglas N. “The Philippines Campaign, 1944-45: A Case Study.” Newport, RI: U.S. Naval War College, Joint Military Operations Department, December 2013. Read pages 41-58, Scan Appendix A-F. \(NWC 1093\).](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Warfighting*. Joint Publication \(JP\) 1, Volume 1. Washington, DC: CJCS, 27 August 2023. Read “Levels of War”, II-8 to II-11.](#)

Video: [Strategic Objectives and Regressive Planning](#). Watch.





OPERATIONAL FACTORS

I intend, if possible, to deny the enemy a chance to outrange me in an air duel and also to deny him an opportunity to employ an air shuttle against me. If I am to prevent his gaining that advantage, I must have early information and I must move smartly.

- Admiral William F. "Bull" Halsey
Letter to Admiral Chester W. Nimitz (October 3, 1944)

OBJECTIVES

- Analyze how the operational factors of time, space and force impact planning and execution of major operations and campaigns.
- Apply an analytical framework that addresses operational factors in shaping the desired outcomes of strategies, campaigns, and operations.

🔍 Focus

This session addresses the foundational aspect of operational art—the operational factors of time, space, and force and the interrelationship of these factors in achieving operational and campaign objectives. In this session, we will discuss operational factors from a theoretical perspective by studying the relevant aspects of the Philippines Campaign to deepen our understanding of operational art.

📖 Background

The essential *art* of warfare is to obtain and maintain freedom of action—the ability to carry out critically important, multiple, and diverse decisions to accomplish military objectives. This requires having the factors of time, space, and force in harmony. Maintaining freedom of action towards the accomplishment of an objective—and limiting the enemy's freedom of action—requires evaluation of one's own forces as well as the enemy's, the space in which they must operate, and the time available to apply the right force to achieve an objective. Assessing these factors in relation to achieving ultimate objectives is the core of operational warfare and the chief prerequisite for success in the planning and execution of any military action.

The objective first determines the necessary forces, and force is a challenging factor to evaluate. Properly evaluating force requires assessing one's force's ability to convert combat potential into combat power over the course of accomplishing a mission against an enemy force in a specific environment. The factor of force is composed of tangible elements that can be "used," and of intangible elements such as leadership, morale, fatigue, and fear. Force can be regenerated, added, or replaced.

The factor of space is comprised of such variables as geography, weather, religion and culture. Space is the simplest factor to quantify with some measure of certainty. The requirements of force employment determine the space in which it will be employed. Any major mismatch between the space to be gained and controlled and the force available will require the operational commander to assume greater risks.

Perhaps the most critical factor is the factor of time, which once lost can never be recovered. If the duration of a major campaign or operation is longer than anticipated, additional disharmonies in operational factors will likely assert themselves, normally with fatal consequences. Knowledge and understanding of operational factors are necessary to plan and conduct major operations or campaigns successfully.

?? Questions

What are the difficulties in evaluating force capabilities beyond quantifiable military formations?

How does time impact each level of war differently? How can a theater-strategic commander or an operational commander influence the time required for a major operation or campaign?

How do the several domains (air, sea, land, cyber, and space) impact operational freedom of action?





OPERATIONAL FACTORS

What are the theoretical relationships between the operational factors space/time, space/force, and time/force as they relate to a given objective?

How can the ability to achieve objectives be influenced by tradeoffs in the factors?

How do critical factors emerge from an analysis of operational factors in relation to an Objective?

Philippines Case Study:

What were the time-space-force challenges identified by Japanese and U.S. planners regarding the Philippines Campaign in 1944? What emerged as critical factors in relation to the respective objectives?

What tradeoffs did the Japanese have to consider in balancing the factors of space, time, and force in developing the SHO 1 Plan (defense of the Philippines)?

How did the Allied assessment of Japanese forces affect plans for the Philippines Campaign in regard to factor time?

Why the island of Leyte? Discuss, using the factors, why the island of Leyte was chosen for the start of the U.S. Philippines Campaign and why the Japanese chose to contest the U.S. landing at Leyte Gulf instead of Luzon.

Evaluate how well the United States and Japan each attempted to manipulate the operational factors during the planning phase of the Philippine/SHO One campaign plans. What would you have done differently?

Required Reading (46 Pages)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprint, 2009. **Read Part III, “Operational Factors” III-3 to III-60.**

Video: [Operational Factors](#). **Watch.**





JMO-10

OPERATIONAL FUNCTIONS

The commander must exercise all the joint functions to effectively operate the force and generate combat power. Inadequate integration and balancing of these functions can undermine the cohesion, effectiveness, and adaptability of the force.

- Joint Publication 1-0 (2020)

OBJECTIVES

- Analyze the role and importance of operational and joint functions in major operational planning and execution.
- Evaluate the process by which the operational commander exploits opportunities and mitigates risks through the resourcing and arrangement of functions.

🔍 Focus

This session addresses the various capabilities, structures and activities that allow the operational commander to integrate the disparate efforts of a force toward a common objective. Generically called “operational functions,” these are a foundational concept of operational art. The previous session explored how the operational factors of time, space and force present the operational commander who is determining how to achieve the objective at the least cost of blood and treasure with both risks and opportunities. Operational functions provide the commander with levers to manipulate in order to integrate efforts effectively, synchronize action, and direct joint operations to exploit opportunities while minimizing risks.

⚙️ Background

The complexity of warfare at the operational level demands that the commander take advantage of an array of “supporting structures, capabilities and procedures”—referred to here as operational functions—to effectively integrate and synchronize the actions of the joint force toward a common objective. Over time, such activities and capabilities have been grouped together into functional areas and called different things, including battlefield operating systems, battlefield functions, warfighting functions, and elements of operational support. The seven Joint Functions contained in current U.S. Doctrine correlate closely with the theoretical concept of operational functions but differ in that they span the levels of war, including the tactical. While the nomenclature has changed over time, and continues to evolve, the purpose of these capabilities and activities remains constant: to enable the operational commander to balance the factors of time, space and force to his or her advantage toward accomplishing the objective. At the operational level of war, it can be said that commanders rarely attack enemy forces directly; rather they deliberately disrupt enemy functions in order to create exploitable vulnerabilities. At the same time, one of the major jobs of the operational commander is to “arrange” or “harmonize” friendly operational functions in ways that take advantage of opportunities and mitigate risks associated with the operational factors of the given situation. It should be noted that this is an ongoing process from planning through execution.

?? Questions

How can operational functions contribute to the achievement of the objective in view of the advantages, disadvantages, risks and opportunities presented by factors time, space and force?

Joint Doctrine recently added Information as a joint function. Was this appropriate? What does incorporating information into the joint functions do for the commander and staff?

Philippines Case Study:

Given the operational objectives for your assigned team (Allies or Japan), identify and assess the commander’s planned use of functions at the operational level of war to balance space, time and force to achieve their objectives. Topics to consider include the following:

- To what degree were functions managed to offset disadvantages in space, time, or force?
- To what degree were functions managed to exploit advantages in space, time, or force?





JMO-10

OPERATIONAL FUNCTIONS

- What was the impact on combat power of function logistics at that point in the war?
- Assess their C2 Structure (Command Organization) and its impact on success or failure to achieve objectives?

Required Reading (61 Pages plus a 9-minute video)

[U.S. Office of the Chairman, Joint Chiefs of Staff. Joint Operations. Joint Publication \(JP\) 3-0. Washington, DC: CJCS, 18 June 2022. Read: Chapter III, “Joint Functions.”](#)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprint, 2009. Read [“Operational Functions,” VIII–3 to VIII–4.](#)

[Crosbie, Thomas. “Getting the Joint Functions Right.” *Joint Forces Quarterly* 94, no. 3 \(2019\): 96-100. \(NWC 2190\). Read.](#)

Video: [Operational Functions](#). Watch.





JMO-11

THE PRINCIPLES OF WAR

Mere knowledge of the principles of war will certainly not provide us with the solution to a problem of war, but it will lend order and guidance to a mind trained to analyze and form conclusions from an objective study of the problem. It will allow us to translate an incoherent and shapeless mass of truth into a sharpened weapon ready to our hands.

-- Rear Admiral C.R. Brown
"The Principles of War" (1949)

OBJECTIVES

- Comprehend the origins and development of the principles of war.
- Analyze the strengths and limitations of the principles of war for imposing structure on military problems and developing courses of action.
- Value the utility of the principles of war for planning and conducting campaigns and operations.

🔍 Focus

This session considers the origins, development, and enduring practical value of the "Principles of War" for structuring and solving the problems the military is called upon to address.

≡ Background

The search for constants – such as the Principles of War -- by which to guide military action is probably as old as organized warfare and no doubt began long before the advent of written language. In the western European context, efforts to distill and define principles of war were given impetus by Isaac Newton's *Principia Mathematica* (1687) which revealed the laws governing the physical world. If such laws were obtained for the physical realm, it was reasoned, why could not the same be derived for all aspects of human endeavor, to include warfare? Taken to their logical conclusion, such principles, it was believed, might reduce war to a science based upon mathematical calculation.

More than a few learned treatises of the 18th and 19th centuries were written based on this optimistic belief, to include the influential work of Jomini (1779-1869). Notably, although influenced by Newton, Clausewitz (1780-1831) took a more measured view of the possibility of deriving such constants than his contemporaries. The Principles of War were given renewed attention at the time of World War I and subsequently taught at the Naval War College during the interwar period. Common to all, however, was the belief that cumulative experience could be distilled and moved from strictly intuitive to something coherent and clearly stated.

Although presented without background or context, the Principles of War (and of Joint operations) delineated in the current JP 3-0 *Joint Campaigns and Operations* derive from this lineage of the Western European study of warfare. As such they are embedded in and are the product of cultural norms and historical experience. Early efforts to develop constants of warfare in the Western tradition are found in Machiavelli, and in the Eastern tradition, the work of Sun Tzu. Some cross-fertilization between these two intellectual traditions was obtained during the 18th and 19th centuries. Events following World War II, to include the Cold War and establishment of the People's Republic of China (PRC), renewed efforts by the opposing sides to understand the other's perspectives. This session focuses on the Western view of the Principles of War, while the upcoming session on The Chinese Way of War considers the PRC perspective on constants and principles.

Episodically, based on perceived changes in technology, geopolitical context, predominant types of operations and campaigns, the character of war, and the like some students of war have argued for adding new principles, eliminating some, or modifying others. In light of its World War II experience, immediately after, the U.S. military engaged in a serious, extended discussion of their practical value, and concluded that, combined with historical knowledge and imagination, the Principles of War retained their practical value. Following the "end" of the Cold War and Peace Operations in the Balkans and elsewhere, for example, the U.S. military developed the "Principles of Military Operations Other than War" (MOOTW) outlined in 1995's JP 3-0, reflecting the predominant types of operations then being conducted by the military, and the sense that the existing Principles of War were not entirely applicable to them, or perhaps even antithetical to success if followed. Of the six principles of MOOTW, three were in common with the





JMO-11

THE PRINCIPLES OF WAR

Principles of War, and three were unique. By 2017, however, and renewed attention to war with state actors, JP 3-0 promulgated the Principles of War, which, combined with the three unique MOOTW principles, constitute the “Principles of Joint Operations.”

Irrespective the specific principles of war accepted at any given point, carefully qualified, as with the other terms of the operational art, they provide analytic leverage – a form of Herbert Simon’s “chunks” – for organizing military experience and structuring the complex problems the military is called upon to structure and solve. They are especially useful as points of departure for developing the operational idea. This holds true even when the commander knowingly and explicitly elects to depart from one or more of them -- concentration, for example – in the event.

?? Questions

Some students and practitioners of war have asserted that the Principles of War are sacred and immutable while others contend that no such universality is possible. Who is correct? Why do you think so?

Are the Principles of War merely academic abstractions, or can they serve as practical guides for understanding history, and for shaping action for commanders and planners, especially in structuring problems and developing operational designs?

How might the Principles of War be time and culturally bound to the specific historical and geo-political context in which they were developed? How does this affect their applicability more broadly?

Why were the Principles of MOOTW developed? How did/do they differ from the Principles of War?

Even if the nature of war has remained constant, has the character of warfare changed so much that the principles of war no longer apply and must be either dismissed or radically modified to be of use? Why or why not?

To what extent do the Principles of War remain valid for guiding action against non-Western opponents with very different strategic and operational cultures?

☰ Required Reading (33 Pages)

[Vego, Milan. “Science vs. the Art of War.” *Joint Forces Quarterly* Issue 66 3rd Qtr. 2012, pp. 62-69. **Read.**](#)

[Brown, Charles R. “The Principles of War.” *U.S. Naval Institute Proceedings* V. 75, No. 6 \(June 1949\): 621-633. **Read.**](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Campaigns and Operations* Joint Publication \(JP\) 3-0, Washington, DC: CJCS, 18 January 2022. **Read Appendix A1-A4.**](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Doctrine for Military Operations Other Than War* Joint Publication \(JP\) 3-07. Washington, DC: CJCS, 16 June 1995. **Read pp. II-1 – II-8.**](#)

Note: This is an historic file and no longer exists in U.S. Joint Doctrine.

☰ Supplementary Reading

[Ageton, Arthur A. “Are the Lessons of History No Longer Valid?” *U.S. Naval Institute Proceedings* V. 78 No. 6 \(June 1952\): 40-53.](#)

[Brodie, Bernard. “The Worth of Principles of War.” From a lecture delivered on 1 March 1957 to the U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas. Santa Monica, CA: RAND: 21 May 1957.](#)

[Carmichael, G.K. “Principles of War and Their Application to Strategy and Tactics.” *Naval War College Review* \(October 1950\): pp. 23 -43.](#)

[Connoly, Richard L. “The Principles of War.” *U.S. Naval Institute Proceedings* V. 79 No. 1 \(January 1953\): 1-9.](#)





THE PRINCIPLES OF WAR

[Echevarria, Antulio J. "Toward an American Way of War." Monograph. Carlisle, PA: Army War College Press, 2004.](#)

[Fallwell, Marshall L. "The Principles of War and the Solution of Military Problems." *Military Review* V. 35, No. 2 \(May 1955\): 48-62.](#)

[Keegan, John D. "On the Principles of War." *Military Review* V. 41 \(December 1961\): 61-72.](#)

[McIvor, Anthony D. Editor. *Rethinking the Principles of War*. Annapolis, MD: Naval Institute Press, 2005.](#)

[Sleevi, Nola M. "Applying the Principles of War." *Military Review* V. 78 \(May-June 1998\): 47-52.](#)

[Swain, Richard M. "Bringing Back the Principles of War." *Military Review* V. 60 \(November 1980\): 40-46.](#)





JMO-12

THEATER STRUCTURE AND GEOMETRY

General MacArthur will liberate Luzon, starting 20 December, and establish bases there to support later operations. Admiral Nimitz will provide fleet cover and support, occupy one or more positions in the Bonin-Volcano Island group 20 January 1945, and invade the Ryukyus, target date 1 March 1945.

- U.S. Joint Chiefs of Staff Directive
(3 October 1944)

OBJECTIVES

- Analyze how geometry and theater structure allow operational commanders to plan, organize, prepare, conduct, and assess operations.
- Evaluate the theater-strategic and operational options available in constructing a joint, interagency, and multinational theater of operations or theater of war.

🔍 Focus

The objective determines the method of force employment which, in turn, determines the space required to employ said force in that manner. To employ force and manipulate functions effectively within a space, the commander must first organize a theater. This session explores the principal elements of theater geometry for establishing and maintaining tactical, operational, and strategic levels of command within a theater structure.

⚙️ Background

Theater and operational commanders must often determine the size of the physical space required for basing, deployment, combat employment, and logistical support and sustainment of the forces assigned to accomplish respective military objectives; this is among the first and most important organizational decisions to be made by the commander. At the operational and theater-strategic levels of war, the organization of physical space ranges from combat zones/sectors and areas of operation to theaters of operation and theaters of war.

Specific geographic locations can afford significant tactical, operational, and strategic advantages to either side, and can provide bases from which to operate within the theater. After analyzing combat potential with respect to factor space, lines of communication, operation, and effort begin to emerge across the several domains. These theater elements also include positions, distances, bases of operation (BOO), physical objectives, decisive points (DP), lines of operation (LOO), and lines of communication (LOC)—any of which may have tactical, operational, or even strategic significance. Key to evaluating the military importance of these features is not only their number and characteristics, but also their relative position and distance from each other—the geometry of the situation. Therefore, operational commanders and their staff must know and understand the advantages and disadvantages of these elements to ensure the most effective employment of their forces: converting combat potential into combat power. In short, factor analysis articulates what is possible for the operational commander. However, it is not enough to ensure a balance of time, space, and force against an objective; rather, the commander must also structure the theater and analyze and articulate what is possible given the space, combat potential, and anticipated duration of the campaign or major operation.

?? Questions

How does an operational commander use operational factors, functions, and objectives to structure a theater?

How do theater elements impact how the operational commander visualizes future operations?

How do time, space, force and operational functions inform the identification and selection of Decisive Points?

How does the concept of physical lines of operation compare with lines of effort? To what extent are LOOs still a valid concept in the information age?

To what extent have technology and information changed individual factors and/or their interrelationships? How?





THEATER STRUCTURE AND GEOMETRY

Is the concept of the theater of operation and elements of theater geometry outdated in the contemporary environment? Defend your position.

Philippines Case Study:

What were the relative advantages and disadvantages of the geostrategic position for the Japanese forces on land, at sea, and in the air in their defense of the Philippines in early September 1944 using the language of theater geometry?

How did each side classify their respective theaters of operations and to what extent did each side support accomplishment of their theater and operational objectives? What were the strategic and political constraints on the respective theater structures?

What were the U.S. decisive points before and after landing on Leyte?

What was the impact of theater geometry on operations between October 1944 and March 1945? How well did the United States and Japan re-balance time, space, and force against their respective objectives as the geometry of the situation evolved?

Required Reading (40 Pages)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprinted 2009. (Issued). Read [“The Theater and Its Structure,” IV-3 to IV-10](#), and [“Theater Geometry,” IV-49 to IV-74](#).

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Planning. Joint Publication \(JP\) 5-0. Washington, DC: CJCS, 1 December 2020. Read IV-29 - IV-35.](#)

[Hime, Douglas N. “The Philippines Campaign, 1944-45: A Case Study.” Newport, RI: U.S. Naval War College, Joint Military Operations Department, December 2013. \(NWC 1093\) Review 9-17.](#)

Video: [Theater Structure and Geometry](#). Watch.





JMO-13

CRITICAL FACTOR ANALYSIS

The Japanese in the Philippines were ill prepared to withstand invasion. Indeed, the Japanese forces as a whole were now suffering the consequences of their own earlier success. Having passed what Clausewitz calls 'the culminating point of the offensive', they found themselves in possession of more territory than they could closely defend and were confronted by an enemy who was on the rampage and whose resources were growing by the month.

- John Keegan,
The Second World War (2005)

OBJECTIVES

- Analyze enemy and friendly critical factors and centers of gravity through the lens of the objective.
- Examine the concept of defeat mechanism as it relates to translating critical factor analysis into an operational idea.
- Deduce the operational ideas developed by opposing commanders during planning for the Philippines and "SHO One" Campaigns.

🔍 Focus

Having previously discussed the fundamentals of operational art, this session examines how a commander analyzes critical factors to determine the friendly and enemy centers of gravity *for their respective specific objectives*, and then develop an operational idea to defeat the enemy's center of gravity and protect one's own. The session also examines the concept of culmination, specifically avoiding one's own and hastening that of the enemy. The practical exercise will focus on deducing and describing the operational ideas developed during planning by the opposing commanders in historical case study.

Background

Understanding the theory of the concept of center of gravity (COG) is crucial if commanders and their staff intend to employ all sources of power to achieve success in the shortest time and with the least losses for friendly forces. Combat power is normally limited—even during World War II, General MacArthur and Admiral Nimitz rarely had all the forces they thought were required given their theater objectives, available time, and the incredible space in which their operations were conducted. Because of this, these theater commanders knew that they had to focus a major part of their efforts against the strongest source of the enemy's power—the enemy COG. Scarce resources are often wasted when they are applied to sources of power that do not create the conditions for achievement of the objective. MacArthur and Nimitz focused their efforts to maintain freedom of action and avoid operational culmination in time and resource-constrained theaters of war. They observed principles of war such as objective, mass, and economy of effort to guide the articulation of their operational idea. Therefore, the "idea" for a major campaign or operation includes the identification of the enemy's center of gravity.

Identifying the enemy's center of gravity is only the first part of the commander's analysis. Commanders and their staff want to degrade, neutralize, or destroy this center of gravity—it stands in the way of accomplishing the objective. How to go about doing this is the essence of the operational idea. The operational idea is normally developed during the operational Commander's Estimate of the Situation, and the decision should be further elaborated and refined during the planning process. The operational idea is the very essence of any operational design. In general, it should describe in broad terms, concisely and clearly, what each functional/service component force will do to accomplish the ultimate objective of a campaign. The operational idea represents the commander's vision of what he intends to do and how he intends to accomplish the assigned strategic objective. It should include the sequence of major events and actions of the principal subordinate forces, and it should be detailed enough to allow subordinate component commanders to draw their operational scheme for their respective forces. The initial operational idea should be reviewed and, if necessary, modified or altered if changes in the strategic situation warrant.

?? Questions

What is the relationship between the theater-strategic objectives, operational objectives and the COG? Is there ever more than one COG at any one time? Can the COG change? Explain.





JMO-13

CRITICAL FACTOR ANALYSIS

How does one derive an enemy center of gravity?

What are critical capabilities and critical requirements, and how does their analysis contribute to defeating the enemy COG?

What determines whether something is a critical vulnerability?

What is an operational idea, and how does the operational idea relate to the operational design?

What are defeat mechanisms and how does this concept contribute to a commander developing an operational idea?
How can deception potentially weaken a critical strength?

What is physical culmination? What is cognitive culmination? What factors lead to culmination?

Philippines Case Study:

What were the U.S. and Japanese COGs during the Philippines Campaign? Did the respective commanders correctly identify their friendly and enemy COG for the objectives in play? To what degree did each identify and exploit critical factors?

Did either the Japanese or the U.S. forces reach a culmination point in the Philippines Campaign? If so, what were the indications?

Articulate the U.S. and Japanese operational ideas for the invasion and defense of the Philippines as developed during planning. To what extent did the operational ideas properly focus on the objective and on defeating the enemy COG?

☰ Required Reading (79 Pages)

[U.S. Naval War College, Joint Military Operations Department, "Joint Planning Process Workbook," Newport, RI: Naval War College, January 2022. \(NWC 4111K\). \(Issued\). Read: "Methods of Defeat" and "Operational Maneuver," pp. 3-9 to 3-14, and "Center of Gravity Determination," pp. D-1 to D-22.](#)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprint, 2009. (Issued). Read: ["Concept of Critical Factors and Center of Gravity," VII-13 to VII-26](#), ["Misconceptions on Center of Gravity" VII-29 to VII-33](#), and ["Operational Idea" IX-103 to IX-129](#).

[Vego, Milan. "Logic of the Commander's Estimate of the Situation." Newport, RI: Naval War College, Joint Military Operations Department, June 2016. \(NWC 2158\). Read.](#)

Video: [COG and Related Concepts](#) and [Butch Cassidy COG Example](#). Watch.

☰ Supplemental Reading

[Strange, Joseph L. "Centers of Gravity & Critical Vulnerabilities: Building on the Clausewitzian Foundation So That We All Speak the Same Language." *Marine Corps University Perspectives on Warfighting Number Four Second Edition*. Quantico, VA: Marine Corps University, 2005.](#)





OPERATIONAL DESIGN/LEADERSHIP PHILIPPINES CAMPAIGN

It is still somewhat of a mystery how and whence... MacArthur derived his authority to use United States Forces to liberate one Philippines island after another. He had no specific directive for anything subsequent to Luzon...

- Samuel Eliot Morison,
The Liberation of the Philippines (1965)

OBJECTIVES

- Critique the opposing commanders use of operational art in executing their operational designs for the 1944 assault and defense of the Philippines.
- Assess the combat leadership demonstrated by the historical commanders for insights of use today.
- Derive operational lessons learned from the case study that have utility today.

🔍 Focus

This session serves as a synthesis of the previously discussed operational art concepts plus a discussion of operational level military combat leadership. This seminar will focus on the development of a conceptual operational idea into a full operational design with emphasis on the use of functions to exploit advantages and mitigate disadvantages in time, space, and force. In a practical exercise, students will examine the operational designs and key decisions made by the opposing commanders as conditions on the battlefield changed during the 1944-45 fight for the Philippines.

🔧 Background

The basis of any campaign plan is the operational design. An operational design includes several interrelated elements that collectively achieves unity of effort toward the ultimate objective. The main elements of an operational design include the desired strategic end state; ultimate and intermediate objectives; force requirements; balancing of operational factors against the ultimate objective; identification of critical factors and centers of gravity; initial positions and lines of operations; directions/axes; and operational sustainment.

Warfare, by its very nature, is a series of trade-offs. In each instance, the operational commander and staff should properly balance competing demands for scarce resources while still accomplishing assigned operational or strategic objectives. Designing a campaign is not a simple job amenable to a few hours of discussion. It requires time, imagination, hard work, and, above all, sound military thinking and common sense on the part of both operational commanders and their staffs. The main purpose of operational design is to make this exhaustive effort a coherent one.

Military leadership is a common experience for officers but, how individual leaders think about and exercise leadership can differ significantly. Individual approaches to leadership are informed by many factors. Chief among them are training and education, personality traits, and experience, particularly combat experience. Few officers today will have the opportunity to learn through the kind of experience that their WWII predecessors had. Learning vicariously through the experiences of others, through the study of history, can partially fill this gap.

?? Questions

How does a commander's conceptual operational idea lead to the development of an executable operational design for a major operation or campaign?

U.S. military leaders have long stated the importance of mission command. What challenges in implementation and execution does mission command pose to military leaders?

Historical commanders had months or years of warfare in which to grow into outstanding theater-strategic leaders. How can senior leaders today prepare for the challenges of combat leadership?





JMO-14

OPERATIONAL DESIGN/LEADERSHIP PHILIPPINES CAMPAIGN

Philippines Case Study:

What were the major elements of the Allied and Japanese campaigns as they developed during execution?

Where did the conduct of each campaign diverge from the commander's operational idea developed in planning? Explain why.

Derive two operational lessons learned from the Philippines Campaign case study that are independent of the circumstances of the case and are of value today. First state the lesson learned in a single declarative sentence. Then provide a short rationale using evidence from the case.

Evaluate the combat leadership demonstrated in the following decisions:

- The Japanese decision to fight a decisive battle on Leyte vs. Luzon as originally planned.
- The Japanese decision not to use land-based air power to protect Kurita's forces during the approach to Leyte.
- VADM Kurita's decision to break off the engagement and withdraw during the Battle off Samar.
- General MacArthur's decision to conduct Operation Montclair, diverting forces toward a secondary objective before the primary objective was assured.
- General MacArthur's misinterpretation that the enemy was evacuating rather than reinforcing Leyte.
- General MacArthur's decision to land at Leyte, beyond range of his land-based air, rather than one of the southern islands within range.
- ADM Halsey's decision to uncover the San Bernardino strait.

Required Reading (32 Pages)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprint, 2009. **Issued. Read:** ["Methods of Combat Force Employment" and "Campaigns", V-3 to V-9.](#)

[Deployable Training Division, Joint Staff J-7, Insights and Best Practices Focus Paper: Mission Command, 2nd ed. January 2020.](#) **Read.**

[Vego, Milan. "Operational Commander's Intent." *Joint Force Quarterly* 57, no. 2 \(2010\): 138-143.](#) **Read.**

[Hime, Douglas N. "The Philippines Campaign, 1944-45: A Case Study." Newport, RI: U.S. Naval War College, Joint Military Operations Department, December 2013. \(NWC 1093\).](#) **Read pages 112-116 "OP MONTCLAIR".**

[Vego, Milan. "A Guide for Deriving Operational Lessons Learned." Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006. \(NWC 1159\)](#) **Read.**

Video: [Op Design.](#) **Watch.**





JMO-15

COMMANDER'S ESTIMATE PHILIPPINES

...all too often it is forgotten that the main-in fact, the sole-purpose of the estimate is to reach a quick and good, not the best, decision.

- Milan Vego
"The Logic of the Commander's Estimate of the Situation"
(2016)

OBJECTIVES

- Apply the logic of the Commander's Estimate of the Situation and operational art concepts to balance ends, ways, means and risk during conceptual planning for a military operation.
- Create an original Operational Idea for employing forces and capabilities to accomplish assigned objectives during a wargame.
- Understand the wargame rules, materials, and game mechanics sufficiently to play and achieve the game's learning objectives.

Q Focus

The focus of this session is the application of the previously studied "Commander's Estimate of the Situation" (CES) approach to military problem solving and decision making. Students will leverage their just-completed analysis and critique of the 1944 Battle of Leyte Gulf to take a prospective view of the same military situation in preparation for an upcoming wargame. Given the same military problems as the historical commanders, but unconstrained by their historical decisions, students will estimate the friendly and enemy situations through the lens of factors time, space, and force, then evaluate options, decide, and create an original operational idea to be tested in simulated combat against a thinking enemy.

This session is also preparation for the upcoming two-sided educational wargame. An additional focus is establishing a working understanding of the game rules, materials, and mechanics sufficient to achieve the game's educational objectives.

Background

The "Commander's Estimate of the Situation" is the logical reasoning process by which a military commander considers all factors that affect a military situation to make sound decisions about how to accomplish a given mission. The commander assesses the friendly and enemy military situations, the various factors of the operating environment that constrain or enable action, and then generates and evaluates various alternatives to achieve the objective. Properly done, the CES leads to a sound, timely decision.

The CES is related to, but not the same as, the various formal planning processes such as the Naval Planning Process, Joint Planning Process, or Military Decision-Making Process. Because the CES mental process is at the heart of any properly done planning effort, the CES is often conducted at the conceptual level before the formal planning process is initiated. It is a common mental trap to put too much faith in formatted, step-by-step planning processes and discount the importance of the underlying disciplined, logical reasoning. No format alone, no matter how well executed, will result in a sound decision without the reasoned judgment of an experienced commander.

Note: During the periods scheduled for JMO-15 and JMO-16, Seminars using the OWS wargaming platform will use a traditional tabletop exercise as the method for conducting a prospective analysis of the Battle of Leyte Gulf while Seminars 6-15 execute this analysis as a wargame. The objectives and discussion questions for JMO-15 and JMO-16 are applicable to all seminars. All seminars will wargame the Falklands / Malvinas conflict during JMO-22.

?? Questions

What is the logic that underpins the Commander's Estimate of the Situation?





JMO-15

COMMANDER'S ESTIMATE PHILIPPINES

How is the Commander's Estimate of the Situation related to the various doctrinal planning processes (JPP, MDMP, MCPP, NPP)?

In what way do factors time, space and force constrain or enable your side's options for achieving your assigned objectives? In other words, what T-S-F advantages or disadvantages do you face?

Same question for the enemy. What are the enemy's options and T-S-F advantages and disadvantages?

Given the same military situation as your team's historical commander (objectives, factors time, space and force), but unconstrained by their decisions, how would you employ your forces to accomplish your assigned objectives?

How would you defeat the enemy COG while protecting your own? Keep in mind that your enemy is not constrained by their historical counterpart's decisions, either.

Required Reading (15 Pages)

[Vego, Milan. "Logic of the Commander's Estimate of the Situation." Newport, RI: Naval War College, Joint Military Operations Department, June 2016. \(NWC 2158\). Review.](#)

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College. \(NWC 2204\). \(Issued in seminar\). Read Appendix C, "Quick Start Guide – Leyte."](#)

War at Sea Team Specific Objectives and Forces document. **(Issued in seminar). Read.**

War at Sea Instructional videos. Available at: [War at Sea - YouTube](#) **Watch or review as appropriate:** "Introduction" (3 min), "Game Components" (6 min), "Turn Overview" (6 min), "Basics of Movement" (8 min), "Basics of ISR" (12 min), "Basics of Fires" (13 min), "Trip-over Example" (5 min).

Supplemental Reading

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College. \(NWC 2204\). \(Issued in seminar\).](#) This is the full rules document for the War at Sea wargame. While the QuickStart Guide (Appx C, assigned above) is adequate for initial gameplay, students may wish to reference the body of this document for more detail. Only the text in black font applies to this scenario. Text in blue and red can be ignored at this point because it applies to later, more advanced games.





JMO-16

WARGAME PHILIPPINES

Wargames are extremely valuable means for enhancing training of commanders and their staffs in decision making and writing plans and orders. This is especially the case in an era of shrinking forces and resources. Wargames greatly help to focus the minds of the participants on all aspects of warfare. They are excellent tools to enhance tactical or operational thinking of future commanders and their staffs.

- Milan Vego

OBJECTIVES

- Apply operational art concepts to balance ends, ways, means and risk during simulated naval combat.
- Make sound time-constrained military decisions that support commander's intent based on ambiguous and incomplete information.
- Assess simulated combat actions against a thinking enemy and adjust as necessary to accomplish assigned objectives.
- Evaluate the results of simulated combat and draw lessons learned of future value.

Q Focus

This session is a two-sided educational wargame based on the 1944 Battle of Leyte Gulf. The focus is active military decision-making in the presence of a thinking enemy in order to reinforce and synthesize theoretical concepts studied to date. Students play the roles of the Allied and Japanese commanders and engage in simulated combat in a realistic, time-constrained context. Students begin with the historical military situation, including the same objectives and factors of time, space, and force that the commanders faced in 1944, but are not constrained by the historical actions or outcomes. Instead, based on a clean-sheet commander's estimate of the situation conducted in the prior session, students employ forces in accordance with their own original operational idea. They must deal with ambiguous and incomplete information as well as the element of chance and luck inherent in combat as they assess and adjust as necessary. At the conclusion of the simulation, students will evaluate the results of the game during a moderated self-critique to draw lessons learned of future value.

Background

This session is a follow-on to the Commander's Estimate of the Situation (CES) conceptual planning exercise in JMO-15. In that session, students took a fresh look at the historical case and developed their own approach to applying force to achieve the objectives, unconstrained by historical decisions or outcomes. Here, students test their operational ideas in simulated combat, making decisions in a time-constrained environment against a thinking enemy.

There are many kinds of wargames, each serving a different purpose. Some wargames are predictive, aiming to foreshadow how certain weapons or tactics will perform against a specific enemy. Other wargames are developmental, intended to test and refine operational or strategic concepts. This game is educational. Its purpose is to provide an opportunity for active learning—learning through the experience of making decisions and seeing their effects in real time.

Active learning has become increasingly important in post-secondary education in recent years because it is particularly effective for adult learners. The U.S. Joint Force is moving toward greater use of wargaming and other active learning techniques. For example, one of the policy recommendations of the Department of the Navy's 2018 *Education for Seapower* final report was for the Navy to "institute naval wargaming and competitive team learning as a necessary part of a continuum of learning." This wargame aims to do exactly that: provide students with the opportunity to apply theory in an active learning, competitive, simulated combat environment.

Note: During the periods scheduled for JMO-15 and JMO-16, Seminars using the OWS wargaming platform will use a traditional tabletop exercise as the method for conducting a prospective analysis of the Battle of Leyte Gulf while Seminars 6-15 execute this analysis as a wargame. The objectives and discussion questions for JMO-15 and JMO-16 are applicable to all seminars. All seminars will wargame the Falklands / Malvinas conflict during JMO-22.





WARGAME PHILIPPINES

?? Questions

Questions prior to playing the wargame:

- What is your team's operational idea for achieving your assigned objectives in this wargame?
- What is your commander's intent regarding prioritization of functions, defeat mechanism, sequencing and synchronization, and main vs. supporting efforts?
- Where does your team's greatest risk lie and how will you mitigate it?

Questions after gameplay:

- To what degree did your team follow the operational idea developed beforehand? If you deviated from the plan, why, and was it justified?
- What key decisions had the most decisive impact on the wargame outcome?
- To what degree did your team follow the precepts of mission command during the wargame?
- What one lesson learned would you want to remember from this wargame for the future?

☰ Required Reading (15 Pages)

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College. Review Appendix C, "Quick Start Guide – Leyte." \(NWC 2204\). \(Issued in seminar\).](#)

War at Sea Team Specific Objectives and Forces document. **(Issued in seminar). Review.**

War at Sea Instructional videos. Available at: [War at Sea - YouTube](#) **Review:** "Introduction" (3 min), "Game Components" (6 min), "Building a Dice Cup" (7 min), "Turn Overview" (6 min), "Basics of Movement" (8 min), "Movement Planning" (16 min), "Basics of ISR" (12 min), "ISR Planning" (16 min), "Basics of Fires" (13 min), "Fires Planning" (12 min), "Trip-over Example" (5 min).

☰ Supplemental Reading

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College. \(NWC 2204\). \(Issued in seminar\).](#) This is the full rules document for the War at Sea wargame. While the QuickStart Guide (Appx C) is adequate for initial gameplay, students may wish to reference the body of this document for more detail. Only the text in black font applies to this scenario. Text in blue and red can be ignored at this point because it applies to later, more advanced games.





NAVAL POWER AND THE ROLE OF NAVAL FORCES

A Navy performs one or more of four functions and no others: At sea it (1) assures that our own goods and services are safe and (2) that the enemies are not. From the sea, it (3) guarantees safe delivery of goods and services ashore, and (4) prevents delivery ashore by an enemy navy.

- Captain Wayne Hughes, USN,
Fleet Tactics (1999)

OBJECTIVES

- Comprehend the roles and functions of navies and naval forces.
- Analyze how the performance of naval missions and accomplishment of naval objectives contribute to theater and national strategic objectives across the Continuum of Cooperation, Competition, Conflict, and War.

🔍 Focus

This session focuses on the role naval forces play in achieving national objectives across the competition-conflict spectrum from cooperation to conflict. In this session we will consider the range of functions and tasks which naval forces accomplish, and the objectives those tasks aim to achieve. We also examine how the objectives achieved by naval forces contribute to the accomplishment of higher theater or strategic objectives. Sea control, a condition that facilitates naval forces' ability to achieve military objectives in wartime, will be explored more deeply in the following session.

≡ Background

Naval forces play an important role in supporting and achieving objectives across the range of military operations. Admiral Alfred Thayer Mahan believed the proper objective of a navy was command of the sea, and that command was achieved through destruction of the enemy fleet. British naval theorist Julian Corbett saw command of the sea as more of a means to an end than an end unto itself, emphasizing the use of naval power in achieving political objectives and supporting the army ashore. Naval forces are unique in that they tend to operate constantly in the global commons, performing a variety of missions and tasks, regardless of whether or not a nation is at war. This means that naval forces must be ready to respond to hostile threats at all times. It also means that naval forces are uniquely postured to contribute to both national security and prosperity interests on a daily basis across the entire competition-conflict spectrum.

In today's complex and interconnected maritime operating environment naval forces support an array of national interests through a diverse range of tasks and activities. Naval theorists Geoffrey Till, Milan Vego, and Ivan Luke have slightly different ways of conceptualizing various naval activities. Thorough consideration of what navies and naval forces contribute to national security and other national interests, and how they do it, is important if commanders and planners are to make the best use of naval assets to support major operations, campaigns, and campaigning.

?? Questions

Why do nations build and maintain navies?

What activities or functions might naval forces be expected to perform? How do these activities relate to higher objectives? To national interests?

Which of these functions or activities are associated with war? Which are relevant beyond the realm of war (i.e. relevant below the threshold of conflict?)

What distinguishes a modern navy from a post-modern Navy? Is such a distinction relevant? Why, or why not?





NAVAL POWER AND THE ROLE OF NAVAL FORCES

Required Reading (32 Pages)

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 4th ed. London and New York: Routledge, 2018. (Issued). Read Ch. 2, Sec. 2.2 - 2.4.

[Vego, Milan. "On Naval Power." *Joint Force Quarterly*, 3rd Quarter 2008: 8-17. \(NWC 4072\). Read.](#)

[U.S. Coast Guard, U.S. Marine Corps, and U.S. Navy. *Naval Warfare, Naval Doctrine Publication 1 \(NDP-1\)*. Washington, DC. Commandant USCG, Commandant USMC, CNO, April 2020. Read: 21-25.](#)

[Luke, Ivan T. "Legitimacy in the Use of Seapower." Newport, RI: U.S. Naval War College, Joint Military Operations Department, February 2020. \(NWC 2133A\). Read.](#)





JMO-18

THE STRUGGLE FOR SEA CONTROL

Control of the seas means security. Control of the seas means peace. Control of the seas can mean victory. The United States must control the sea if it is to protect our security.

- President John F. Kennedy

OBJECTIVES

- Comprehend the concepts of sea control and sea denial.
- Analyze various methods of obtaining, maintaining, exploiting, and denying sea control.
- Critique the sea control efforts of the opposing sides during the Philippines Campaign.

🔍 Focus

This session focuses on the struggle for sea control, a concept relevant to armed conflict. Sea control facilitates freedom of action for naval forces to use the sea to support and achieve military objectives against an enemy combatant. This session examines sea control as a theoretical construct, as well as the practical methods to achieve it.

≡ Background

The previous session examined the roles of naval forces across the Continuum of Cooperation, Competition, Conflict, and War. This session focuses on obtaining, maintaining and exercising sea control, an aspirational wartime condition, bounded in time and space, where a naval force has gained greater freedom of action in order to use the sea for desired purposes. Although it is a primary objective of naval warfare, sea control should not be regarded as an end in itself, as its attainment sets conditions for the accomplishment of other objectives.

Historically, the objective of a fleet was to establish command of the sea. The concept associated with this term evolved significantly with the changing character of warfare, to include advent of submarines, aircraft, and anti-ship missiles. The theoretical concept we teach, sea control, more accurately conveys the true state of affairs in a modern war at sea: freedom of action at sea, to some degree at specific times and places. Having sea control essentially means the ability for one's fleet (or portions of it) to operate with a high degree of freedom in a sea or ocean area for some period of time. A related objective is sea denial, where a belligerent precludes or hinders an enemy's ability to conduct operations at sea.

Sea control is not analogous to occupying or capturing territory on land where one side or the other holds territory. Sea Control involves neutralizing aspects of the enemy force which can inhibit one's intended use of the sea, and it is not a static condition. Once obtained, effort must always be expended to maintain sea control. As long as an enemy has some ability to contest sea control or hinder operations at sea, control remains a tentative condition

?? Questions

What does it mean to have sea control? Why would a combatant aspire to obtain it?

How does the concept of "sea denial" relate to sea control? Why might a belligerent pursue sea denial as an objective?

How can sea control be achieved? What are possible methods for obtaining and maintaining sea control?

How does the concept of sea control relate to the Joint Force Commander's need to assess and balance risk?

What does it mean to "exercise sea control"?





THE STRUGGLE FOR SEA CONTROL

Required Readings (39 Pages)

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 4th ed. London and New York: Routledge, 2018. Read Chapter 6 (pages 183-197) and pages 200-207 (sections 7.1 through 7.4) and 218-229 (sections 7.8 and 7.9) of Chapter 7. **(Issued)**.

Vego, Milan. *Maritime Strategy and Sea Control: Theory and Practice*. London and New York: Routledge, 2016. Read: 72-76 from Chapter 3, "Obtaining and Maintaining Sea Control." [This item available via Leganto.](#)





CHINESE MARITIME STRATEGY

Just as the IJN and the U.S. Navy inflicted heavy losses on each other in single encounters, it is conceivable that a future engagement involving the PLA could be decided in an afternoon.

--Toshi Yoshihara

OBJECTIVES

- Comprehend the Chinese Communist Party's approach to the use of maritime power in pursuit of policy aims.
- Understand the components of contemporary Chinese maritime power.
- Evaluate the threat to U.S. national interests posed by the Chinese Communist Party's approach to the use of maritime power.

🔍 Focus

This is the second in a series of sessions intended to address the People's Republic of China (PRC), the United States' peer competitor in the INDOPACOM region. In the previous China Panel, we examined how the People's Liberation Army (PLA) and its components are being employed to reshape the international order in China's favor. This session builds on the previous panel and examines the People's Republic of China's strategy for using maritime power to achieve its foreign policy aims.

⚙️ Background

The PRC, under the control of the Chinese Communist Party (CCP), has been engaged in a decades-long expansion and modernization of its military power to better assert its influence in the region and beyond. A significant portion of this investment in the military element of Chinese national power has gone to increasing Chinese naval power, specifically in increased capability and capacity of the Chinese Navy (People's Liberation Army Navy, or PLAN). The PLAN is fast becoming a world-class navy with the ability to challenge the U.S. Joint Force, especially in the western Pacific. But Chinese maritime power is not limited to their Navy. China has the ability to exert power offshore through other means as well. For example, the People's Liberation Army Rocket Force (PLARF) fields a potent suite of long-range precision weapons with seemingly ever-increasing reach. Even more, China's ability to physically exert power and influence in the maritime domain is not limited to strictly military forces. Both the China Coast Guard (CCG) and the People's Armed Forces Maritime Militia (PAFMM) contribute to China's maritime power. In this session we examine China's capability for exerting control in the maritime domain, their strategic approach to using maritime power, and the implications for the U.S. Joint Force.

?? Questions

What are China's strategic objectives in the maritime domain, and to what degree do they conflict with U.S. interests in the region?

How is China using its maritime power to influence its neighbors and how effective are they at achieving their objectives?

What challenges does China's maritime strategy present for USINDOPACOM?

What are some possible approaches the U.S. might employ to counter China's use of the PAFMM and CCG in situations below the threshold of armed conflict?

📖 Required Reading (42 pages)

[Rice, Jennifer and Robb, Eri. CMSI China Maritime Reports no.13, 2021. Read.](#)

[Yoshihara, Toshi. Chinese Lessons from the Pacific War; Implications for PLA Warfighting. Center for Strategic and Budgetary Assessments, Washington D.C., 2023. Read: i-ii, 69-82.](#)





CHINESE MARITIME STRATEGY

[O'Rourke, Ronald. *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*. Congressional Research Service, CRS Report RL33153. Washington, DC. Updated January 30, 2024.](#)

Read: 2-7, and 47-51. Scan: 12-40.

[Department of Defense. *Military and Security Developments Involving the People's Republic of China; Annual Report to Congress*. Washington D.C., 2023.](#) Read: "China Coast Guard (CCG)" and "China's Maritime Militia," 79-82.

Supplementary Reading

[Aquilino, John C., Admiral, U.S. Navy, Commander, U.S. Indo-Pacific Command, "U.S. Indo-Pacific Command Posture", 18 April 2023.](#) In this statement before Congress, the INDOPACOM Commander lays out the U.S. strategy to counter PRC destabilizing maritime activities.

[China Maritime Studies Institute website.](#) The China Maritime Studies Institute supports the research requirements of the Department of the Navy studying China beyond the narrow study of China's military forces, to include energy, trade, science and foreign policy. Their website contains many excellent research products relevant to the topic of this session.





JMO-20

OPERATIONAL DESIGN - THE FALKLANDS/MALVINAS CONFLICT

In general terms the British victory would have to be judged anyway as a fairly close-run thing... as it was, we fought our way along a knife-edge."

- Admiral Sandy Woodward,
One Hundred Days (1992)

OBJECTIVES

Analyze a historical case study and evaluate how commanders and staffs applied operational art and naval warfare theory to achieve assigned objectives.

- Derive and evaluate operational lessons valid for the employment of modern, combined and joint forces in a maritime environment.

🔍 Focus

The Falklands / Malvinas Case Study serves as the synthesis event for the components of operational art and naval warfare theory discussed in preceding sessions. The emphasis is on the decisions and actions of operational-level commanders on both sides of this conflict, and whether they employed operational art and naval warfare theory to good effect. This case study provides collective preparation for the upcoming examination.

🔧 Background

This case study is spread over several class days, beginning with a presentation by the JMO Royal Navy Exchange Officer which covers the historical and strategic background. Following the lecture, students will be divided into two teams, one to examine the case from the Argentinian perspective, the other from the perspective of the UK. Students will then analyze the case study through the lens of the concept of Operational Design, evaluating the decisions made by the commanders on both sides, both during planning and in execution. The naval warfare theory concepts of Sea control and Sea Denial will also come into play during analysis of the case.

As the major synthesis event for the operational art portion of the syllabus, the motivations, planning, and actions of both sides in the conflict will be examined in some detail, and lessons will be drawn about the application of naval power in the current threat environment.

?? Questions

Applying the principal elements of operational design, analyze the Falklands/Malvinas conflict. How did each side use the concepts of operational design in developing their plan? Were the objectives for each side appropriate? Why?

Critique the British and Argentinian operational theater organization and the relevant command structures. Based on this, critique their operational leadership on both sides. What would you have done differently?

How well did each side employ forces relative to theater geometry to achieve their objectives?

How could the respective Commanders have used the concepts of the Operational Idea and Commander's Estimate of the Situation to improve their outcomes?

This case study relates to a conflict which occurred 41-years ago, yet many of our allies and adversaries are still studying it. What major operational lessons can you derive from this conflict?





OPERATIONAL DESIGN - THE FALKLANDS/MALVINAS CONFLICT

Required Reading (79 Pages over two days)

Day 1:

[Hime, Douglas N. "The Falklands-Malvinas Case Study." Newport, RI: U.S. Naval War College, Joint Military Operations Department, June 2010. \(NWC 1036\) Read pp. 1-47.](#)

For students assigned to Team UK:

Woodward, Sandy. *One Hundred Days – The Memoirs of the Falklands Group Commander*. Annapolis MD: Naval Institute Press, 1992. (NWC 3259). Read Ch. 4. [This item available via Leganto.](#)

For students assigned to Team Argentina:

[Rubel, Robert. "Selected Extracts: Conflicto Malvinas, Official Report of the Argentine Army, Vol II." Newport, RI: Naval War College, Joint Military Operations Department. \(NWC 1038\). Read.](#)

Day 2:

[Turner, Stansfield. "The Unobvious Lessons of the Falklands War." U.S. Naval Institute Proceedings 109, no. 4 \(April 1983\): Read pp. 50-57. This item also available via Leganto.](#)

[Vandenengel, Jeff. "Fighting Along a Knife Edge in the Falklands." U.S. Naval Institute Proceedings 145, no. 12 \(December 2019\): Read pp. 62-67. \(NWC 3248\). This item also available via Leganto.](#)

["A Guide for Deriving Operational Lessons Learned." Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006. \(NWC 1159\). Review.](#)

Vego, Milan. *Joint Operational Warfare, Theory and Practice*. Newport, RI: U.S. Naval War College, reprinted, 2009. (Issued). Review ["Operational Idea"](#), pp. IX-103 to IX-129.

Supplemental Reading

A 45-min. [video documentary](#) is available via Blackboard, within the Reference Items section, Falklands-Malvinas Items Folder.

[Freedman, Lawrence. *The Official History of the Falklands Campaign, Vol 2*. London: Routledge, Taylor and Francis Group, 2005.](#)

[Hastings, Max and Simon Jenkins. *The Battle for the Falklands*. New York: Norton, 1983.](#)





JMO-21

COMMANDER'S ESTIMATE FALKLANDS/MALVINAS

Making a decision is one of the most important responsibilities of a military commander at any level of command and is especially critical in combat.

- Milan Vego
*The Bureaucratization of the U.S. Military
Decision-making Process*

OBJECTIVES

- Apply the logic of the Commander's Estimate of the Situation and operational art concepts to balance ends, ways, means and risk during conceptual planning for a military operation.
- Create an original Operational Idea for employing forces and capabilities to accomplish assigned objectives during a wargame.
- Understand the wargame rules, materials, and game mechanics sufficiently to play and achieve the game's learning objectives.

Q Focus

The focus of this session is the application of the "Commander's Estimate of the Situation" (CES) approach to military problem solving and decision making. Students will leverage their just-completed analysis and critique of the 1982 Falklands / Malvinas conflict to take a prospective view of the same military situation in preparation for an upcoming wargame. Given the same military problems as the historical commanders, but unconstrained by their historical decisions, students will estimate the friendly and enemy situations through the lens of factors time, space, and force, then evaluate options, decide, and create an original operational idea to be tested in simulated combat against a thinking enemy.

This session is also preparation for the upcoming two-sided educational wargame. An additional focus is establishing a working understanding of the game rules, materials, and mechanics sufficient to achieve the game's educational objectives.

Background

The "Commander's Estimate of the Situation" is the logical reasoning process by which a military commander considers all factors that affect a military situation to make sound decisions about how to accomplish a given mission. The commander assesses the friendly and enemy military situations, the various factors of the operating environment that constrain or enable action, and then generates and evaluates various alternatives to achieve the objective. Properly done, the CES leads to a sound, timely decision.

The CES is related to, but not the same as, the various formal planning processes such as the NPP, JPP, or MDMP. Because the CES mental process is at the heart of any properly done planning effort, a CES is often conducted at the conceptual level before the formal planning process is initiated. It is a common mental trap to put too much faith in formatted, step-by-step planning processes and discount the importance of the underlying disciplined, logical reasoning. No format alone, no matter how well executed, will result in a sound decision without the reasoned judgment of an experienced commander

?? Questions

What is the logic underpinning the Commander's Estimate of the Situation?

How is the Commander's Estimate of the Situation related to the various doctrinal planning processes (JPP, MDMP, MCPP, NPP)?

In what way do factors time, space and force constrain or enable your side's options for achieving your assigned objectives? In other words, what T-S-F advantages or disadvantages do you face?
Same question for the enemy. What are the enemy's options and T-S-F advantages and disadvantages?





JMO-21

COMMANDER'S ESTIMATE FALKLANDS/MALVINAS

Given the same military situation as your team's historical commander (objectives, factors time, space and force), but unconstrained by their decisions, how would you employ your forces to accomplish your assigned objectives? How would you defeat the enemy COG while protecting your own? Keep in mind that your enemy is not constrained by their historical counterpart's decisions either.

Required Reading (~25 Pages)

[Vego, Milan. "Logic of the Commander's Estimate of the Situation." Newport, RI: Naval War College, Joint Military Operations Department, June 2016. \(NWC 2158\). Review.](#)

U.S. Naval War College, Joint Military Operations Department, "Operational Wargame System (OWS) Falklands-Malvinas 1982 GameBook." Newport, RI: Naval War College. (NWC 1036S). (Issued in seminar). **Seminars using the OWS wargaming platform only.**

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College.](#) Read: Appendix D, "Quick Start Guide - Falklands/Malvinas." (NWC 2204). (Issued in seminar). **Seminars using the WaS wargaming platform only.**

War at Sea Team Specific Objectives and Forces document. (Issued in seminar). **Seminars using the WaS wargaming platform only.**

War at Sea Instructional videos. Available at: [War at Sea - YouTube](#). Watch: "Fuel Points Tracking" (8 min). Review other videos as needed. **Seminars using the WaS wargaming platform only.**





WARGAME FALKLANDS/MALVINAS

In the context of training, wargaming needs to be used more broadly to fill what is arguably our greatest deficiency in the training and education of leaders: practice in decision-making against a thinking enemy.

- General David H. Berger, USMC
38th Commandant's Planning Guidance (2020)

OBJECTIVES

- Apply operational art and naval warfare concepts to balance ends, ways, means and risk during simulated naval combat.
- Make sound time-constrained military decisions that support commander's intent based on ambiguous and incomplete information.
- Assess simulated combat actions against a thinking enemy and adjust as necessary to accomplish assigned objectives.
- Evaluate the results of simulated combat and draw lessons learned of future value.

🔍 Focus

This session is a two-sided educational wargame based on the 1982 Falklands / Malvinas conflict. The focus is active military decision making in the presence of a thinking enemy in order to reinforce and synthesize theoretical concepts studied to date. Students play the roles of the UK and Argentine commanders and engage in simulated combat in a realistic, time-constrained context. Students begin with the historical military situation including the same objectives and factors of time, space, and force that the commanders faced in 1982, but are not constrained by the historical actions or outcomes. Instead, based on a clean-sheet commander's estimate of the situation conducted in a prior session, students employ forces in accordance with their own original operational idea. They must deal with ambiguous and incomplete information, as well as the element of chance and luck inherent in combat in order to assess and adjust as necessary. At the conclusion of the simulation, students will evaluate the results of the game during a moderated debrief to draw lessons learned of future value.

≡ Background

This session is a follow-on to the Commander's Estimate of the Situation (CES) conceptual planning exercise conducted in the previous session in which students took a fresh look at the historical case and developed their own operational idea about how to employ force to achieve the objectives, unconstrained by historical decisions or outcomes. Here, in the wargame, students test their operational ideas in simulated combat, making decisions in a time-constrained environment against a thinking enemy.

There are many kinds of wargames, each serving a different purpose. Some wargames are predictive, aiming to foreshadow how certain weapons or tactics will perform against a specific enemy. Other wargames are developmental, intended to test and refine operational or strategic concepts. This game is educational. Its purpose is to provide an opportunity for active learning—learning through the experience of making decisions and seeing their effects in real time.

Active learning has become increasingly important in post-secondary education in recent years because it is particularly effective for adult learners. The U.S. Joint Force is moving toward greater use of war gaming and other active learning techniques. For example, one of the policy recommendations of the Department of the Navy's 2018 *Education for Seapower* final report was for the Navy to "institute naval wargaming and competitive team learning as a necessary part of a continuum of learning." This wargame aims to do exactly that: to provide students with the opportunity to apply theory in an active learning competitive simulated combat environment.





WARGAME FALKLANDS/MALVINAS

?? Questions

Questions prior to playing the wargame:

What is your team's operational idea for achieving your assigned objectives in this wargame?

What is your commander's intent regarding prioritization of functions, defeat mechanism, sequencing and synchronization, and main vs. supporting efforts?

Where does your team's greatest risk lay and how will you mitigate it?

Questions after gameplay:

To what degree did your team follow the operational idea developed beforehand? If you deviated from the plan, why, and was it justified?

What key decisions had the most decisive impact on the wargame outcome?

To what degree did your team follow the precepts of mission command during the wargame?

What one lesson learned would you want to remember from this wargame for the future?

☰ Required Readings (15 Pages)

U.S. Naval War College, Joint Military Operations Department, "Operational Wargame System (OWS) Falklands-Malvinas 1982 GameBook." Newport, RI: Naval War College. (NWC 1036S). (Issued in seminar). Seminar using the OWS wargaming platform only.

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College.](#) Review: Appendix D, "Quick Start Guide - Falklands/Malvinas." (NWC 2204). (Issued in seminar). Seminars using the WaS wargaming platform only.

War at Sea Team Specific Objectives and Forces document. Review. (Issued in seminar). Seminars using the WaS wargaming platform only.

War at Sea Instructional videos. Available at: [War at Sea - YouTube](#). Review: "Fuel Points Tracking" (8 min) and other videos as necessary. Seminars using the WaS wargaming platform only.

☰ References and Supplemental Readings

Marine Corps University, Brute Krulak Center for Innovation and Warfare. "Operational Wargame System (OWS) Series Rules Version 1.9," Quantico, VA: Marine Corps University, December 2022. Seminars using the OWS wargame platform only.

[U.S. Naval War College, Joint Military Operations Department, "War at Sea Instruction Book," Newport, RI: Naval War College.](#) (NWC 2204). (Issued in seminar). This is the full rules document for the War at Sea wargame. While the QuickStart Guide (Appx D, assigned above) is adequate for initial gameplay, students may wish to reference the body of this reference for more detail. The text in blue font denotes the differences between this Falklands/Malvinas wargame and the previous game. Text in red applies to a later, more advanced game. Seminars using the WaS wargame platform only.





JMO-23

EXAMINATION

No wonder then, that war, though it may appear to be uncomplicated, cannot be waged with distinction except by men of outstanding intellect.

- Carl von Clausewitz,
On War (1832)

OBJECTIVES

- Synthesize operational art concepts through analysis of a historical case study.
- Create a cogent response to the examination questions that demonstrate an internalization of the various concepts of operational art.

Focus

This session is intended to permit the student to demonstrate a synthesis of the material presented to date and to demonstrate further higher order thinking skills.

Background

Written examinations serve three fundamental purposes: to evaluate student understanding of a given subject, to evaluate the student's ability to think critically and respond to a complex question, and last, to evaluate the faculty's ability to convey information and to create new knowledge. This session presents the student with the opportunity to demonstrate mastery of the first two purposes stated above, and further allows the moderators to ensure that no intellectual gaps exist in student learning to this point.

A historical case study containing sufficient information to address the exam questions will be provided early in the course, in sufficient time for students to prepare for the examination. When available, the case study will be posted on the course BlackBoard site under Exams. Students are encouraged to collaborate on analysis of the exam case study before the date of the exam, when the exam question(s) will be presented. Several old exams from previous years will be posted on the course BlackBoard site for reference, so students can anticipate the nature and scope of the exam question beforehand. On the date of the exam, 19 September, the exam question(s) will be delivered at 0830 along with any specific instructions for the exam response. Once the exam question is revealed, collaboration stops. The exam response is entirely an individual effort. Students will have until 1200 on 20 September to submit their exam response. Exam responses are to be submitted through the JMO Seminar BlackBoard site using the "Assignment Submissions" function. Exam grading criteria may be found in the Course Overview section of the printed JMO syllabus, and also on the course BlackBoard site under Syllabus Front Matter.

Questions

None.

Required Reading

The JMO Department will issue a case study far enough in advance of the exam for students to conduct a thorough analysis of the case in preparation for it.





JMO-24

POLICY AIMS TO STRATEGIC GUIDANCE

This is a 360-degree strategy grounded in the world as it is today, laying out the future we seek, and providing a roadmap for how we will achieve it. None of this will be easy or without setbacks. But I am more confident than ever that the United States has everything we need to win the competition for the 21st Century.

President Joe Biden, *National Security Strategy* (October 2022)

OBJECTIVES

- Understand how national policy aims shape the National Security Strategy (NSS) and how the President's guidance informs the SECDEF's National Defense Strategy (NDS).
- Understand how the NDS shapes the Chairman's guidance, policy, and decision making.
- Understand the purpose of the Joint Strategic Planning System (JSPS) in connecting strategy to the operational level of war.
- Evaluate how the Chairman's strategic guidance and direction for integrated operational plans and orders supports the operational level of war.

🔍 Focus

This is the first session within Block II, Contemporary Planning and Doctrine, of the JMO curriculum. This session aims to connect how military planning at the operational level and above requires an understanding of strategic guidance and how national policy shapes and informs that guidance. This session is broken into two parts. The first half connects national policy to national strategy and then national strategy to defense strategy. The National Security Strategy (NSS) shapes how the Department of Defense creates the National Defense Strategy (NDS) and supporting policies to align military power (means) toward its objectives (ends). The second half describes how the Chairman of the Joint Chiefs of Staff (CJCS) uses the SECDEF's NDS to develop his strategic guidance and direction, conveyed through the Joint Strategic Planning System (JSPS). This also provides an opportunity to evaluate the effectiveness of how strategic guidance is integrated into operational planning and decision making, and to critique the degree to which the current system is bridging the strategic and operational levels of war effectively.

📖 Background

U.S. Military planners have been forced to adapt as the Executive Branch shifted the National priorities from combating Violent Extremist Organizations and terrorism to near-peer competition, including a focus on China as the primary challenger and Russia as an acute threat. Military planners must also plan for possible use of military force with North Korea, Iran, and a myriad of other challenges around the world. Strategic guidance for the DoD is nested in two distinct documents, the NSS and NDS. Each of these plays a unique role in bridging the strategic and operational levels of war.

The NSS serves as the President's tool to try and focus all instruments of national power against his strategic priorities. This strategy includes domestic and transnational threats; health issues like COVID-19 and food insecurity; governance issues focusing on authoritative regimes; and climate change. The NSS also provides the President's lines of effort for these challenges. However, the military's role in each of these varies, and the SECDEF uses the NDS to define the strategy for the DoD. The 2022 NDS "sets forth how the U.S. military will meet growing threats to vital U.S. national security interests and to a stable and open international system."

The complexity of today's operating environment requires an integrated force. Both the NSS and NDS call for "integrated deterrence" to achieve U.S. strategic objectives. The joint force pursues global integration for the SECDEF through a top-down, CJCS-led approach to integrate planning, prioritize resources, mitigate risk, and assess joint force progress toward strategic objectives. Global integration is the arrangement of military actions in time, space, and purpose to address transregional, all-domain, and multifunctional challenges. Contingency and crisis response can no longer be thought of as solely a regional Combatant Commander's (CCDR) responsibility. Our planning and responses must be coordinated across regional boundaries to address both geographic and multi-domain problems due to the ability of state and non-state actors to pose threats that transcend borders.





JMO-24

POLICY AIMS TO STRATEGIC GUIDANCE

The Chairman relies on the Joint Strategic Planning System (JSPS) to provide military advice to the Executive Branch, SECDEF, Service Secretaries, and CCDRs. The JSPS, signed on 21 May 2021, and serves as the primary method by which the Chairman fulfills his Title 10 U.S.C., Section 153 responsibilities to provide strategic direction, maintain a global perspective, and advise global military integration. This is achieved through three primary documents: the National Military Strategy (NMS), Joint Strategic Campaign Plan (JSCP), and Global Force Management Implementation Guide (GFMIG). Furthermore, the Chairman advises on force employment, force development, and force design to achieve defense objectives outlined by the SECDEF.

?? Questions

Both the NSS and NDS call for an “Integrated Deterrence.” How is the DoD integrating: 1) internally; 2) across the other instruments of national power; and 3) with partners and allies to achieve strategic objectives?

To what degree does current doctrine facilitate planning for contingencies against threats that are trans-regional in nature, cross Unified Command Plan boundaries, and demand coordinated action from multiple Combatant Commanders?

How well does current planning doctrine and its application eliminate friction points between national level policy makers and operational planners?

Describe the planning considerations that will challenge the Joint Force and its ability to resource and integrate as the United States confronts Strategic Competition with Russia and China.

☰ Required Reading (68 Pages)

[Yarger, Harry R. Dr., “Strategic Theory for the 21st Century: The Little Book on Big Strategy” \(2006\). Monographs, Books, and Publications. 723. Read Chapter 2, pp. 5-16.](#)

[Bartholomees, J. Boone, ed. *U.S. Army War College Guide to National Security Issues, Volume II: National Security Policy and Strategy*. Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2012. Read pp. 413-418.](#)

[Reveron, Derek S., James L. Cook, and Ross M. Coffey. “Competing Regionally: Developing Theater Strategy.” *Joint Force Quarterly*, Issue 104, 1st Quarter 2022. Read pp. 48-61.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. “Strategy.” *Joint Doctrine Note 2-19*. 10 December 2019. Read pp. II-1 - IV-3.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. “Joint Strategic Planning System.” *Chairman of the Joint Chiefs of Staff Instruction \(CJCSI\) 3100.01F*. 29 January 2024. Read Enclosures A, D, E; review Figure 7.](#)

[Congressional Research Service “Great Power Competition: Implications for Defense – Issues for Congress” February 28, 2024. Read pp. 6-36.](#)





STRATEGIC GUIDANCE TO OP PLANS (CLASSIFIED SEMINAR)

Over the past two decades, the strategic landscape has changed dramatically. While the fundamental nature of war has not changed, the pace of change and modern technology, coupled with shifts in the nature of geopolitical competition, have altered the character of war in the 21st century.

- General Joseph F. Dunford, Jr.
19th Chairman of the US Joint Chiefs of Staff (2018)

OBJECTIVES

- Analyze the purpose, roles, functions, and responsibilities and relationships that translate U.S. national policy aims into operational planning guidance.
- Analyze the integration of strategic guidance documents with other instruments of power to support national policy aims.
- Evaluate the requirements of U.S. strategic planning documents for operational planners (ends, ways, means, risk) and analyze the collaboration between U.S. national level planners and U.S. Combatant Command planners.

🔍 Focus

The session provides students an opportunity to review current U.S. strategic guidance as expressed in the National Security Strategy and the National Defense Strategy. Students will be provided with copies of the classified versions of both documents for the length of the session. Moderators will lead an inspection of the documents and generate a discussion on the implication of this guidance to U.S. combatant commands and joint force operational planners.

📖 Background

Campaign planning at the operational level of war requires skilled planners who are capable of problem solving, critical thinking and creative thinking. A grounded understanding of operational art theory and operational design are foundational elements for the operational planner. Additionally, planners must possess the skills to define problems, identify objectives, align ways and means to ends, and to describe risk. Ultimately, effective campaign planning connects national policy aims to operational objectives and tactical action.

Operational Design requires an understanding of higher-level guidance throughout the design process. Campaign planners—practitioners of operational design—must understand higher-level guidance throughout the campaign design process. Planning at the operational level of war without clear understanding of national policy and strategic guidance is a recipe for strategic mismatch: tactical actions will not align with policy aims, risk assessments will be difficult for tactical leaders, and, inevitably, blood and treasure will be wasted.

The United States Government and the Department of Defense employ systems and processes to transmit policy aims and strategic guidance to operational level commanders and staffs. The National Security Strategy, and National Defense Strategy are strategic guidance documents that express aims and objectives from the national policy level to the operational level. Operational planners routinely seek additional information, updated guidance, and clarification of strategic priority to craft campaign plans that nest with and serve the strategic desired ends of national leadership.

Understanding the theory of translating strategic intent to tactical action, as well as the doctrinal and policy systems in place today, are essential skills for the effective operational planner. For tactical action to have purpose, operational planners must translate policy aims and strategic direction into coherent, concise operational plans.

?? Questions

How does the U.S. DOD plan for contingencies against threats that are trans-regional in nature, cross Unified Campaign Plan boundaries, and demand coordinated action from multiple Combatant Commanders?

Given the NDS and NMS guidance, what are the probable friction points between OSD and the Joint Staff? What are the likely friction points between OSD and operational planners? What systems are in place to reduce this friction?

To what extent do current strategic guidance documents provide sufficient direction for operational planners in the Joint Force? What options do planners have if they lack sufficient strategic guidance?





STRATEGIC GUIDANCE TO OP PLANS (CLASSIFIED SEMINAR)

☰ Required Reading (Classified Documents are provided in seminar)

[Biden, Joseph R., President of the United States, "National Security Strategy", Washington D.C. October 2022.](#) Read POTUS introduction, Part I (pages 6-10), Modernizing and Strengthening Our Military from Part II (pages 20-22) and Part III (pages 23-36).

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Planning. Joint Publication \(JP\) 5-0. Washington, D.C.: CJCS, 01 DEC 2020.](#) Read Ch. I.





CONCEPTUAL PLANNING AND DESIGN METHODOLOGY

This difficulty of accurate recognition constitutes one of the most serious sources of friction in war, by making this appear entirely different from what one had expected.

(Carl von Clausewitz, On War)

OBJECTIVES

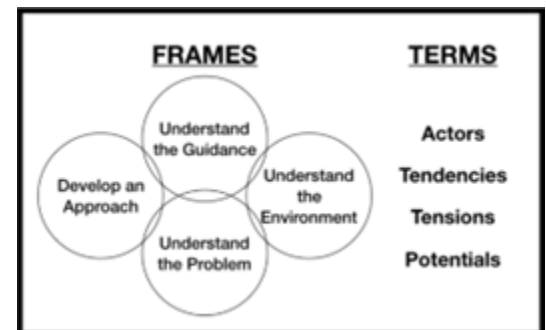
- Understand the utility of Conceptual Planning and Design Methodology for critical thinking and conceptual planning.
- Understand how Operational Design is formulated in doctrine.
- Understand how Design Methodology is used in conjunction with the Joint Planning Process.

Focus

This session is part of the Contemporary Planning and Doctrine block of the JMO curriculum. This block provides students with tools and concepts, but it also demands student *practice* throughout the term, culminating in the final Capstone Synthesis Event. In the Operational Warfare block, which focused on operational art and naval warfare theory, students practiced rudiments of operational planning during the wargame practical exercises. With that block complete, students are now called to turn their attention and talents to the challenges of planning contemporary campaigns and operations in increasingly complex environments in which the objectives that should be achieved are not necessarily easily discernable at the outset. This session introduces the doctrinal framework of Operational Design, which is influenced by Milan Vego's Operational Art framework and Design Methodology. These two models have different inspirations, different approaches, but both can be used effectively when conducting conceptual planning. This is a case where doctrine attempts to integrate two overlapping theoretical frameworks, which may create some confusion. Though Vego's Operational Design writings impact the JP 5-0, Chapter IV, the study of Design Methodology as an iterative conceptual planning process will be our focus. Design Methodology is often a precursor to, and then parallel effort with, detailed planning.

The focus of the session is on providing students with an understanding of conceptual planning, with emphasis on Design Methodology and its utility in the overall context of Joint Planning. It should be noted that Joint Planning refers to all aspects of U.S. military planning, from the strategic level on down. Many will be familiar with the Joint Planning Process (JPP), which is a subset of Joint Planning. In the next session, JMO-27 the lecture will cover the JPP, a form of detailed planning, and will put Design Methodology and JPP into context with each other.

This session begins with a discussion of conceptual planning and its utilization in service and joint doctrine. Students will then develop an understanding of the utility of Design Methodology through a practical exercise.



Background

Operational Design, as explained in JP 5-0, CH IV, like Campaigning (JP 5-0, CH V) and the Joint Planning Process (JP 5-0, CH III), is a tool that enables the planner to solve problems. It originated and evolved in its current form through a "battle of ideas" in professional military journals that occurs alongside the development of doctrine. Design Methodology, a conceptual model that doctrine has attempted to absorb into operational design, is particularly useful for conceptual planning and solving complex problems. Remember Herbert Simon's readings and lectures on complexity and its impact on problem solving. Design Methodology is intended to aid in a deeper understanding of operating environments and underlying problems. Its purpose is to provide cognitive tools that enable better development and communication of military options integrated into a whole-of-government approach for those problems





CONCEPTUAL PLANNING AND DESIGN METHODOLOGY

demanding solutions that extend well beyond conventional military operations. In simple terms, Design Methodology requires planners to understand strategic guidance, frame the operational environment, frame the problem, and frame an operational approach. Complementary to, and increasingly integrated with the Joint Planning Process, Operational Design, with emphasis on Design Methodology, is intended to extend operational art's vision with a methodology that helps commanders and planners to answer the larger ends – ways – means – risk questions.

?? Questions

How is Operational Design incorporated in service and Joint Doctrine?

How does Design Methodology enable planners to apply Operational Art?

What is the role of the commander in the application of Design Methodology?

How did GEN Dempsey use this framework to communicate with strategic leaders?

How does Operational Design complement service or Joint Planning Processes? What assumptions does it share with those processes?

How might codified mental constructs such as Design Methodology be beneficial for an organization's internal (and external) communications?

☰ Required Readings (34 Pages)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Planning. Joint Publication \(JP\) 5-0. Washington, DC: CJCS, 01 DEC 2020. Read pp. IV 1 - IV 19.](#)

[Rauch, Daniel E. and Matthew Tackett. "Design Thinking." *Joint Forces Quarterly*, Issue 101. 2021. Review](#)

[Crabb, Andrew. "Toward Military Design: Six Ways the JP 5-0's Operational Design Falls Short. *Joint Forces Quarterly*, Issue 105, 2022. Read.](#)

[Dodds, Daniel L. Framing the Operational Environment: Insights from the Russia-Ukraine Conflict. *Small Wars Journal*, 01/11/2023. Read.](#)

[U.S. Army. Army Design Methodology. Army Techniques Publication \(ATP\) 5-0.1. Washington, DC: Headquarters, Department of the Army. July 2015. Read pp. 1-1 – 1-5, Scan 2-1 - 2-8.](#)

[Chairman, U.S. Joint Chiefs of Staff, *Letter to Senate Armed Services Committee*, 19 July 2013. \(NWC 4205\) Read.](#)

☰ Supplemental Readings

[Joint Staff, J-7 Joint and Coalition Warfighting, "Planner's Handbook for Operational Design. \(Version 1.0\)." Suffolk, VA. 7 October 2011.](#)

[United States Army War College, Department of Military Strategy, Planning, and Operations. "Campaign Planning Handbook: Academic Year 2023." Carlisle, PA. 2023.](#)





JMO-27

THE JOINT PLANNING PROCESS

That is the reason it is so important to plan, to keep yourselves steeped in the character of the problem that you may one day be called upon to solve--or to help to solve.

-President Dwight D. Eisenhower
(1957)

OBJECTIVES

- Understand how the Joint Planning Process (JPP) is used in conjunction with Design Methodology.
- Understand the role of the commander and the responsibilities of Joint Planning Group leaders in the JPP.
- Analyze the JPP as a methodology for developing plans and orders.

🔍 Focus

This session continues the Contemporary Planning and Doctrine block of the JMO curriculum. It builds on the foundation established in previous sessions on problem solving, decision-making, and Design Methodology. It provides an overview of the planning techniques employed in the Joint Planning Process (JPP) and offers differing perspectives on the effectiveness of these techniques.

⚙️ Background

Planning has two closely related components—conceptual and detailed. Design Methodology, as presented in JMO-03 *Problem Solving and Military Decision Making* and JMO-26 *Conceptual Planning and Design Methodology*, directly supports the conceptual aspect of planning by assisting the commander in their visualization of the operational environment and the nature of a problem. Conceptual planning sets the framework for the staff's detailed and functional planning which follows. As a guide for detailed planning, the JPP provides a set of logical steps that enables shared understanding while organizing the work of the commander, staff, subordinate commanders, and other partners to develop plans and orders.

The JPP is a deliberate process of determining how (ways) to use military capabilities (means) in time and space to achieve objectives (ends) while considering the associated risks. The process is commander driven and provides a common vocabulary and an organizational framework that enables effective collaboration for solving complex tasks. In crisis action planning, a Joint Planning Group (JPG) must be able to work effectively and efficiently, across diverse commands, often with vague initial guidance, to develop shared understanding and support the commander's decision-making.

Although the JPP is a well-defined process, its detailed nature can be a challenge, or even a hinderance, to a staff planning in a time-constrained environment. In practice, the JPP must be dynamic, and steps can be compressed or skipped (which can incur risk) to meet the needs of the mission. This is an outcomes-based process, in which the best output of the JPP is not the production of a plan or an order, but rather sound decisions by the commander. Developing the skills and best practices to help leaders make these decisions, as well as translate them into orders, without wasting valuable planning time for subordinates, is accomplished through experience, training, and education.

?? Questions

How does the JPP relate to Design as a methodology?

Where in the JPP can the commander have the most impact? Explain.

What are the unique considerations when leading a Joint Planning Group?

The JPP is often portrayed as a rigid, serial, step by step process. Is this a correct assessment? Explain.





THE JOINT PLANNING PROCESS

How can the JPP ensure flexibility and adaptability while providing sufficient detail to subordinate commands in orders/directives?

☰ Required Reading (49 Pages)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Planning. Joint Publication \(JP\) 5-0. Washington, DC: CJCS, 01 DEC 2020. Read pp. III-1 to III-5.](#)

[U.S. Naval War College, Joint Military Operations Department. "Joint Planning Process \(JPP\) Workbook." Newport, RI. January 2022. \(NWC 4111K\) \(Issued\). Read pp. 24-40.](#)

[Vego, Milan. "The Bureaucratization of the U.S. Military Decision Making Process." Joint Forces Quarterly 88, 1st Quarter 2018. \(NWC 5062\). Read.](#)

[Gilchrist, Mark. "It's a Journey, Not a Destination: Seven Lessons For Military Planners." *Modern War Institute*, 17 September 2019. \(NWC 3270\). Read.](#)

[Coleman, Frederick. "Getting Out of Our Tactical Comfort Zone." *Air & Space Power Journal* 34, no. 1 \(2020\). \(NWC 3271\). Read.](#)

[Piercey, Patrick. "Planning for the Next War Must Be a Mixture of Art & Science." U.S. Naval Institute Proceedings 149, no. 9 \(September 2023\). Read.
\[This item also available via Leganto.\]\(#\)](#)

☰ Supplemental Reading

[Deployable Training Division, Joint Staff J7. "Insights and Best Practices: Joint Operations, 5th Edition." Suffolk, VA: November, 2017.](#)

[Joint and Coalition Warfighting, J-7, Joint Staff. *Planner's Handbook for Operational Design Version 1.0*, Suffolk, VA: October, 2011.](#)

[Department of Military Strategy, Planning, and Operations. "Campaign Planning Handbook: Academic Year 2023." U.S. Army War College, Carlisle Barracks, PA: 2022.](#)





JMO-28

OPERATIONAL COMMAND AND CONTROL

I don't care how operationally brilliant you are; if you can't create harmony – vicious harmony – on the battlefield, based on trust across different military services, foreign allied militaries, and diplomatic lines, you need to go home, because your leadership is obsolete.

- General Jim Mattis

[Click to insert additional information here.](#)

OBJECTIVES

- Appreciate the importance of effective Command and Control (C2) to Joint Force integration and mission success, in addition to the benefits and challenges inherent in combined and interagency operations.
- Comprehend the Mission Command concept and assess its advantages and challenges given the anticipated character of future war.
- Examine the concept of Joint All Domain Command and Control (JADC2) and its utility within the context of executing Mission Command against a peer adversary in a contested environment.

🔍 Focus

This session considers what many deem the most important Joint function: Command and Control. Expanding on the concepts introduced in JMO-10 *Operational Functions*, it emphasizes C2 challenges facing the Joint Force in war against a peer adversary, including the advantages, risks, and considerations for combined and interagency operations. It also explores the Mission Command and Joint All Domain Command and Control concepts and analyzes their suitability in high-end modern warfare.

≡ Background

In the operational art sessions, we considered the cruciality of getting the C2 function correct. Effective C2 enables the joint force to translate its combat potential into combat power, directed at the right place and time. It is the primary function through which the commander sequences and synchronizes the joint force to achieve operational objectives. In this session, we delve more deeply into this Joint function to gain greater understanding on how best to organize forces to achieve unity of command and/or unity of effort via centralized direction and decentralized execution in the context of the expected character of war when fighting a modern peer adversary. This will be especially important in the added context of multinational and interagency operations, employing a whole-of-government approach to use all forms of national power.

The anticipated character of the next war suggests it will consist of at least two orthogonal attributes. First, it is likely that communication with and between friendly forward forces will be severed for some time from centralized C2 centers. This will necessitate forward forces embracing the concept of Mission Command to maintain the initiative in combat. However, once communication is restored, moving information to superior, subordinate, and lateral forces faster than the adversary will be paramount. JADC2 aims to facilitate a time advantage and information superiority, but it is early in its development and conceptualization. It is critical that Joint leaders understand what attributes JADC2 should incorporate in order to field a system that enables commanders to make decisions inside the decision cycle of our adversaries.

In short, to be effective, Command and Control (as with all Joint functions) will need to match the character of the war in which it is employed and be sufficiently flexible to meet the ever-changing circumstances of modern combat.

?? Questions

Some argue that C2 is the most important Joint function – do you agree? Why or why not?

What should a Joint Force Commander consider when determining levels of command authority and types of command relationships they establish between assigned and allocated forces?





OPERATIONAL COMMAND AND CONTROL

Multi-national forces and interagency organizations provide the Joint Force Commander with several benefits and challenges. What are they and how can the commander leverage the benefits and overcome the challenges?

To what extent will Mission Command be a critical aspect of C2 in the next war? How might a Joint Force Commander foster or enable Mission Command?

With the anticipated character of the next war in mind, do the concepts of Mission Command and JADC2 complement or contradict one another? Explain.

Required Reading (51 Pages)

[Swift, Scott H. "Wartime Command & Control." *U.S. Naval Institute Proceedings* Vol. 150, No. 1 \(January 2024\).](#)

[This item also available via Leganto.](#)

[Eisenhower, Dwight D. "Problems of Combined Command." Address to the U.S. National War College. Washington D.C. 18 June 1948. **Read pp. 2-13; scan pp. 14-20.**](#)

[Deployable Training Division, Joint Staff J7. *Insights and Best Practices Focus Paper: Interorganizational Cooperation*. 5th ed. Suffolk, VA: Joint Staff J7, April 2018.](#)

[Junguzza, Joe and Kelly Lelito. "What National Culture Teaches Us About Mission Command." *Small Wars Journal*, March 4, 2024.](#)

[Deptula, David. "Making Joint All Domain Command and Control a Reality." *War on the Rocks*, 9 December 2022.](#)

[Peters, Rob, Benjamin Miller, and Brian Hanrahan. "The Atrophy of Mission Command." *U.S. Naval Institute Proceedings* Vol. 148, No. 8 \(August 2022\).](#)

[This item also available via Leganto.](#)

Supplemental Reading

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Campaigns and Operations*. Joint Publication \(JP\) 3-0. Washington, DC: CJCS, 18 June 2022. Chapter III.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Multinational Operations*. Joint Publication \(JP\) 3-16. Washington, DC: CJCS, 1 March 2019. Chapter II and IV.](#)

[Swift, Scott H. "Master the Art of Command and Control." *U.S. Naval Institute Proceedings* Vol. 144, No. 8 \(August 2018\). **\(NWC 4181\)**.](#)

[This item also available via Leganto.](#)

[Deployable Training Division, Joint Staff J7. *Insights and Best Practices Focus Paper: JTF C2 and Organization*. 2nd ed. Suffolk, VA: Joint Staff J7, January 2020. **\(NWC 6055A\)**.](#)

[Deployable Training Division, Joint Staff J7. *Insights and Best Practices Focus Paper: Mission Command*. 2nd ed. Suffolk, VA: Joint Staff J7, January 2020. **\(NWC 2190\)**.](#)





JMO-29

OPERATIONAL INTELLIGENCE

By 'intelligence' we mean every sort of information about the enemy and his country – the basis, in short of our own plans and operations.

- Carl von Clausewitz
On War (1832)

OBJECTIVES

- Understand the intelligence process and its support to decision-making and operational planning.
- Comprehend the roles and responsibilities of the commander and the intelligence officer in the intelligence process at the joint operational level.
- Assess how intelligence has been utilized – optimally or less so – in historical context, to determine enduring lessons, and consider implications for future joint military planning and operations.

🔍 Focus

The operational function of intelligence is essential to the successful conduct of military operations in both peacetime and war. Operational intelligence provides:

- Situational awareness (inform the commander; describe the operational environment)
- Support to planning (through identifying, defining, and nominating objectives)
- Support to execution (indications and warning; counter deception and surprise; support friendly deception)
- Assessment of effectiveness (verify achievement of desired effects)

Though the purpose and process of the intelligence function remain the same at each level of war, intelligence operations vary in scope and scale dependent on level of war and the nature of Joint Task Force (JTF) operations.

This session focuses on the nature and principles of operational intelligence. It discusses the connections between the intelligence lines of effort and operations planning. Finally, it explores the critical nature of the Commander's relationship with the intelligence officer.

≡ Background

History is replete with evidence of military and political leaders' quests for detailed information regarding their enemies. From Sun Tzu and Alexander the Great to the present day, a leader's thirst for information on which to base informed decisions has only increased with the progress of information technology. Understanding the role of operational intelligence starts with understanding intelligence's strategic to tactical nature. The Navy noted in 1948 that "There is no sharp line of demarcation between operational and strategic intelligence; one flows into the other." Operational intelligence provides the operational commander with both strategic understanding and visualization of the tactical operating environment.

The intelligence process is driven from the "top down." The commander sets the information requirements and priorities. The intelligence officer (J2, or component-specific code) conducts intelligence operations for the commander. The reading from JP-2 Joint Intelligence describes the fundamentals of the intelligence process and the intelligence lines of effort. JP-2 further describes the support relationship between the strategic level's Intelligence Community (IC) down to both the Combatant Commander's Joint Intelligence Operations Center (JIOC) and the JTF's Joint Intelligence Support Element (JISE) or the JTF's Operational JIOC. The interconnecting intelligence relationships create resiliency and adaptability up and down the echelons, but only if properly coordinated.

The reading in the Joint Guide for Joint Intelligence Preparation of the Operating Environment (JIPOE) compares two essential intelligence products: the JIPOE and the Intelligence Preparation of the battlespace (IPB). The JIPOE is a foundational product supporting theatre and operational planning. It includes detailed predictive assessments of the enemy military forces, including their capabilities and intent. The JIPOE extends further and includes a wide range of





JMO-29

OPERATIONAL INTELLIGENCE

environmental, cultural, and political factors that affect all domain, joint, and multi-national operations. One must remember that the JIPOE looks holistically at the operating environment and presents the enemy's capabilities and likely courses of action (COAs) through the lens of the assessed enemy's objective. The IPB, on the other hand, leverages the JIPOE to produce a focused assessment that views the enemy's center of gravity through the lens of the JTF commander's specific mission.

Prioritizing intelligence requirements is critical to the intelligence process. The intelligence officer and the commander must collaborate in developing prioritized intelligence requirements (PIRs) relevant to the commander's operational decisions. The development of PIRs illustrates the importance of inclusion and trust between the commander and their intelligence officer. The Michael Handel reading *Intelligence and Military Operations* uses historical examples from the Second World War to reinforce the cruciality of the commander-intelligence officer relationship. He concludes that the relationship relies on credibility and trustworthiness, both in the intelligence product and the intelligence officer.

Finally, the *War on the Rocks* and *Foreign Policy* articles use the Ukraine War as a case study for examining intelligence practices, both good and bad. The two-part series from *War on the Rocks* looks at the subject from both the Western and Russian perspectives and includes consideration of warning and indication, intelligence use within information operations, and JIPOE amongst others. The *Foreign Policy* article illustrates how the relationship between commander and intelligence officer can impact operational success. Though this article focuses on Vladimir Putin and strategic decision making, the lessons carry across the levels of war and apply equally at the operational level. A short video is included to show how bad that relationship can be. Sergey Naryshkin, the Director of the Russian Foreign Intelligence Service, attempts to caution Putin against recognizing Donetsk and Luhansk independence from Ukraine, a decision that will likely lead to war. Putin, clearly having already decided, embarrassingly grills his spy chief until he gets the desired answer.

?? Questions

What is operational intelligence? How does it differ from strategic and tactical intelligence?

How does intelligence differ from information and data?

How does the intelligence officer leverage the Intelligence Community's capabilities to support military operations and tactical actions?

How is the intelligence process synchronized to support operational decision-making and joint planning?

What is the role of the military decision-maker in defining and prioritizing intelligence requirements (PIRs)? How important is the relationship between the commander and intelligence officer?

How do "intelligence failures" occur? What is their cause?

☰ Required Reading (53 pages + 2 minute video)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Intelligence. Joint Publication \(JP\) 2-0*. Washington, DC: CJCS, 26 May 2022. Read I-1 - I-6, I-16 \(only Figure I-5\), III-1 - III-5, III-6 \(only Figure III-4\). Scan II-2 - II-6 and II-26 - II-29.](#)

[Joint Intelligence Preparation of the Operating Environment \(JIPOE\). Joint Guide \(JG\). Washington, D.C.: CJCS, 26 May 2022. Read: I-1 - I-6.](#)

[Handel, Michael. *Intelligence and Military Operations*. Oxon, UK: Taylor & Francis Group, 1990. Skim 15-25, Read: 26-32. \(NWC 4218A\).](#)

[Abdalkl, Neveen Shaaban, et al. "Intelligence and the War in Ukraine: Part 1," *War on the Rocks*, May 12, 2022, <https://warontherocks.com/2022/05/intelligence-and-the-war-in-ukraine-part-1/>.](#)





OPERATIONAL INTELLIGENCE

[Abdalkl, Neveen Shaaban, et al. "Intelligence and the War in Ukraine: Part 2," *War on the Rocks*, May 19, 2022, warontherocks.com/2022/05/intelligence-and-the-war-in-ukraine-part-2/.](https://warontherocks.com/2022/05/intelligence-and-the-war-in-ukraine-part-2/)

[Gioe, David V. and Marina Miron. "Putin Should Have Known His Invasion Would Fail," *Foreign Policy*, February 24, 2023, foreignpolicy.com/2023/02/24/ukraine-russia-putin-war-invasion-military-failure/.](https://foreignpolicy.com/2023/02/24/ukraine-russia-putin-war-invasion-military-failure/)

["Speak directly!": Putin has tense exchange with his chief spy." Youtube, uploaded by Guardian News, February 22, 2022.](#)

Supplemental Reading

[Fowler, Mike. "Intelligence and Operational Warning: Lessons from Ukraine." *Journal of Policing, Intelligence and Counter Terrorism*, \(2024\), 1–18. doi:10.1080/18335330.2024.2319128.](#)

[U.S. Navy. Office of the Chief of Naval Operations. *Fleet Intelligence*. Naval Warfare Publication \(NWP\) 2. Norfolk, VA: Department of the Navy, July 2022.](#)

[U.S. Navy. Office of the Chief of Naval Operations. *Naval Intelligence*. Naval Warfare Publication \(NWP\) 2-0. Norfolk, VA: Department of the Navy, March 2014.](#)

[U.S. Navy. Office of the Chief of Naval Operations. *Intelligence Support to Naval Operations Afloat*. Naval Warfare Publication \(NWP\) 2-01. Norfolk, VA: Department of the Navy, April 2017.](#)





JMO-30

JOINT LOGISTICS AND CAMPAIGNING

A sound logistics plan is the foundation upon which a war operation should be based. If the necessary minimum of logistics support cannot be given to the combatant forces involved, the operation may fail, or at best be only partially successful.

- Admiral Raymond A. Spruance, USN
Commander, Fifth Fleet (1946)

OBJECTIVES

- Comprehend the art and science of planning, deploying, and sustaining operations to attain operational objectives.
- Analyze the tools of the Combatant Commander and staff in developing theater policies, strategies, and plans integrating joint logistics to extend operational reach.
- Understand how joint logistics concepts, in conjunction with Operational Art, set the theater for campaigns and major operations. Analyze the challenges and opportunities associated with operational contract support as a force enabler

🔍 Focus

This session continues our examination of contemporary planning and the joint doctrine, describing some of the key operational functions that concern joint force commanders. Previous sessions provided orientation to the Joint Strategic Planning System, and exposure to joint planning. No plan is strategically feasible unless it is logistically feasible. This session focuses on how joint logistics must be integrated into campaign and operation planning, and how it enables operations at the theater-strategic and operational levels of war. It offers some propositions for Commanders and their staffs to consider in framing the operational environment, logistically setting the theater to provide options to sustain and extend the commander's operational reach.

≡ Background

Joint Logistics involves many of the essential ways and means for designing and executing effective military operations. Logistics has been called an arbiter of strategic opportunity and is a critical element contributing to military success. One can't win a war with logistics, but one can lose a war without it. Joint operations in today's operational environment require a different mindset than U.S. operations over the past 20 years. The presumption of being able to deploy with impunity anywhere on the globe is no longer valid in what is described as a contested environment. The capacity of the industrial base presents concerns for the lead time and surge requirements to sustain the joint force in large scale operations and campaigns with our high-tech forces. Further, the capacity of the national industrial base and supporting supply chains can serve as a form of deterrence but can also expose critical vulnerabilities to potential adversaries.

At its core, logistics and sustainment include ways and means that provide the commander with critical capabilities and critical requirements necessary to achieve objectives at each level of war. Logistics must be conceived in force design, and concepts for supporting military operations must start at the strategic level. Ultimately, properly designed logistics provides the commander with several critical capabilities: readiness of the force, responsiveness to operational requirements, global and operational reach, freedom of action, and the endurance to prevent culmination or unplanned operational pauses. In today's environment where threats are trans-regional, all-domain, and multifunctional, joint commanders and their planners must clearly appreciate the logistics implications and apply creative approaches to solving complex problems.

This session commences with a brief lecture to describe some of the primary questions that inform campaign and operational planning concepts of logistics support. The session follows with a seminar discussion of logistics principles and planning imperatives within operational design. The readings serve as a baseline to discuss, analyze and critique the execution of theater and operational logistics in support of contemporary warfare.

?? Questions

What are the key questions that Joint Force Commanders should consider regarding logistics and sustaining campaigns and major operations? How can the Commander influence logistics planning and execution?





JOINT LOGISTICS AND CAMPAIGNING

What are implications for command and control of logistics at the theater and operational levels? What are the driving factors for organizing logistics commands, supporting efforts, and staff coordination?

How do Joint Force Commanders balance tactical and operational effectiveness with strategic/theater efficiency in campaign planning? What are some of the tradeoffs?

What are considerations for integrating Operational Contract Support (OCS) within a major operation or campaign? What are some “costs” and benefits of including OCS in operations?

What specific operational requirements should operational planners consider when conducting deployment planning and sustaining operations? Why?

☰ Required Reading (58 Pages)

[Gray, Colin S. *Fighting Talk: Forty Maxims on War, Peace, and Strategy*. Westport, Conn: Praeger Security International, 2007. Read pp. 115-118 within Part III: Military Power and Warfare of the e-book. \[This reading is also available via Leganto.\]\(#\)](#)

[Green, Michael, Center for Strategic & International Studies \(CSIS\), *Moving Pieces on the Chessboard*, “Strategy and Logistics in the Indo-Pacific.” Podcast audio. November 30th, 2021. \[Listen / Watch 8:44 to 38:40.\]\(#\)](#)

[Beaumont, David. “Logistics, Strategy and Tactics, Balancing the Art of War.” *Australian Army Journal*, Volume 11, no 2, \(Summer 2014\). \(NWC 2199\). Read pp. 48-63.](#)

[Newell, Clayton R. “Logistical Art,” 1989.](#)

[Ti, Ronald and Christopher Kinsey. “Lessons from the Russo-Ukrainian Conflict: The Primacy of Logistics over Strategy” *Defense Studies* 23, no. 3 \(31 July 2023\).](#)

[Department of Military Strategy, Planning, and Operations. “Campaign Planning Handbook: Academic Year 2024.” U.S. Army War College, Carlisle Barracks, PA: 2023. **Scan pp. 154-160; read pp. 177-184.**](#)

[Dalton, Christopher. U.S. Naval War College, Joint Military Operations Department. “Operational Contract Support: A Primer for Commanders.” Newport, RI: Naval War College, January 2020. \(NWC 4215\). Read pp. 1-7 & 13-15.](#)

☰ Supplemental Reading

[Jones, Seth. “Empty Bins in a Wartime Environment: The Challenge to the U.S. Defense Industrial Base.” January, 2023, accessed 27 April 2023.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Deployment and Redeployment Operations*. Joint Publication \(JP\) 3-35. Washington, DC: CJCS, 10 January 2018. Scan: Executive Summary.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Logistics*. Joint Publication \(JP\) 4-0. Washington, DC: CJCS, 20 July 2023.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. “Insights and Best Practices Focus Paper: Sustainment, Sixth Edition.” Suffolk, VA: Deployable Training Division, Deputy Director Joint Staff J7, May 2022.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *The Defense Transportation System*. Joint Publication \(JP\) 4-01. Washington, DC: CJCS, 18 July 2017.](#)





SMALL WARS & IRREGULAR WARFARE

A revolutionary war is never confined within the bounds of military action. Because its purpose is to destroy an existing society and its institutions and to replace them with a completely new state structure, any revolutionary war is a unity of which the constituent parts, in varying importance, are military, political, economic, social, and psychological.

- Brigadier General Samuel B. Griffiths, USMC
Introduction to Mao Tse-Tung, *On Guerrilla Warfare* (1961)

OBJECTIVES

- Evaluate how states and non-state actors use small wars and irregular warfare to achieve their political ends.
- Assess what has changed and what remains the same with the use of small wars and irregular warfare in the 21st century.
- Assess the implications of small wars and irregular warfare on operational planning and execution across the competition continuum.

Focus

This session addresses the changing character of war, focusing on the social and political phenomena of what have been historically described as "small wars" and the use of irregular warfare to achieve military objectives and political ends. General Samuel Griffith highlights that these types of war are never limited to military action alone, and that their objective is to change the existing society into a new one. The latter portion of the Joint Military Operations trimester considers the various ways and means by which belligerents are likely to conduct war in the future. These ways and means are often characterized by the asymmetric methods that weaker sides choose to fight great powers. Understanding small wars and irregular warfare is not about how we might want to fight future wars but about the enemy having a vote in how they will fight us.

Background

The idea of small war is almost as incomprehensible to many U.S. forces in the 21st century as it was to Napoleon's Grand Army in the early 19th century. General James Mattis observes that while the U.S. has fought four big wars it has fought more than 60 small wars or "irregular" and intrastate conflicts. Small wars are the norm, and this probably will continue into the future. Mattis adds that in these types of war we may be forced to fight on terms far removed from our preferred way of war, in which precision firepower and mass production trump all other capabilities.

Although war remains a violent clash of political wills, the U.S. Marine Corps *Small Wars/21st Century* advises that these wars are not about conventional or nuclear warfare. Rather, they are about that area in which violent military actions take place, but where the terms of engagement are more complex and subtle than in state-on-state warfare between conventional military forces. *Small Wars/21st Century* adds that these types of war differ from larger conventional ones in both frequency (significant events separated by long periods of time) and amplitude (the degree of power employed by a system, which is not entirely related to the amount of destruction caused).

Small wars and irregular warfare are population-centric, typically characterized by a combination of physical violence and non-lethal forms of influence requiring the tightly integrated application of all levers of national power (diplomatic, informational, military, and economic). While actions may be labeled irregular, hybrid, asymmetric, etc., they are simply terms used to capture multiple and evolving patterns of conflict. They are in fact, as Clausewitz tells us, a broadening and intensification of the fermentation process known as war.

The *Irregular Warfare Annex* to the 2020 U.S. National Defense Strategy asserts that state adversaries and their proxies increasingly seek to prevail by using irregular warfare, pursuing national objectives in the competitive space deliberately below the threshold likely to provoke a U.S. conventional military response. China, Russia, and Iran are willing practitioners of campaigns of disinformation, deception, sabotage, and economic coercion, as well as proxy, guerrilla, and covert operations.

Richard Crowell asserts that Operations ENDURING FREEDOM and IRAQI FREEDOM (OEF & OIF) began as big wars where the objectives were to defeat the Taliban (acting as a land army) and the Iraqi Army. U.S. civilian decision makers and military commanders failed to grasp how these wars would change once conventional military forces were





SMALL WARS & IRREGULAR WARFARE

defeated. The result was a significant loss of blood and treasure over nearly two decades. Robert Cassidy tells us that historically, great powers have not always had success at fighting small wars and irregular warfare. Their failures may be attributed to the need to maintain large conventional forces that can successfully win against a large conventional foe, an inability to adapt these large forces to compete with smaller hybrid forces, and the protracted nature of these wars often diminishes the political will to fight and win. These factors make it challenging at best to achieve a clear political end state with consistent supporting national and military objectives. Large conventional nation state armies do not necessarily lose these wars; they simply fail to win them.

Viewing most wars of the 20th and early 21st centuries through the lens of small wars and irregular warfare will aid commanders and planners in understanding future conflicts. It is essential for professional military officers and civilian leaders to understand how present and future opponents, state and non-state, use small wars and irregular warfare in pursuit of their objectives and ends.

?? Questions

What are small wars, how do they differ from big wars and why is the study of them important to our understanding of the art of war?

What is irregular warfare and how is it manifested?

What is the relationship between guerrilla warfare and revolutionary warfare?

Discuss how small wars and the use of irregular warfare may be used to achieve military objectives and political ends.

Describe the relationship between small wars and complex problems.

Describe the types of problems the PRC and PLA/N present to the U.S. and its allies through ongoing warfare activities now. What might the US do in response?

Analyze how irregulars use the political/social/information environments in pursuit of their objectives. How do these concepts differ?

Assess the use of the traditional instruments of national power to prosecute small wars.

Describe the challenges theater strategic commanders and staffs face in effectively integrating ideas on prosecuting Small Wars into planning and executing trans regional, all domain, multi-function campaigns and operations across the competition continuum.

☰ Required Reading (73 Pages)

[Cassidy, Robert M. "Why Great Powers Fight Small Wars Badly." *Military Review* \(Sept/Oct 2002\): 41-53. Read.](#)

[Crowell, Richard M. "Saving Blood and Treasure: The Evolving Art of War and the Application of Design Methodology to Complex Problems of 21st Century Small Wars." *Small Wars Journal*, 9 August 2019. \(NWC 3234\) Read.](#)

[U.S. Department of Defense. *Irregular Warfare Annex to the 2020 National Defense Strategy*. Washington, DC, 2020. Read pp. 2-7.](#)

[U.S. Marine Corps Combat Development Command. *Small Wars/21st Century*. Quantico, VA, 2005. \(NWC 3193\) Read Ch. 1, 2, 6.](#)

[Fall, Bernard B. "The Theory and Practice of Insurgency and Counterinsurgency." *Naval War College Review* V. 18, No. 3 \(1965\): 21-38. <https://digital-commons.usnwc.edu/nwc-review/vol18/iss3/4> Read.](#)





THE CHINESE WAY OF WAR

...we have been handicapped... by a popular attachment to the concept of a basic difference between peace and war, by a tendency to view war as a sort of sporting context outside of all political context... and by a reluctance to recognize the realities of international relations, the perpetual rhythm of [struggle, in and out of war].

-- George F. Kennan (1948)

OBJECTIVES

- Understand how a country's culture and historical experience influence how it fights its wars.
- Evaluate the differences between the Chinese Way of War and the American Way of War.
- Understand select PRC concepts for modern warfare.
- Value understanding the Chinese Way of War as a way of assessing the PRC's strengths, weaknesses, and vulnerabilities.

• Focus

This session considers the influence of historical experience of the People's Republic of China (PRC) and its People's Liberation Army (PLA) along with their practical implications for how the PRC is likely to fight in any future war. Additionally, it explores the intellectual underpinnings of current Chinese thinking on warfare, as well as several of the major concepts the PRC and PLA are using to think about and plan for war. It is a companion session to JMO-33 The Russian Way of War. This session may also serve as a companion to the course's Final Exercise; the capstone event's fictitious scenario provides significant freedom to practice application of major course concepts without being overly constrained by real world political considerations or classification issues. Students could be well served by combining insights from this session with what they draw from the Final Exercise in terms of how to prevail at the operational level of war in maritime and joint operations.

Background

The propensity to "mirror image" one's opponents is ever present. This obstructs clear thinking about the adversary's likely and actual behavior and may profoundly affect the odds of success. Even when adversaries are equipped almost identically, their employment of those capabilities is still likely to differ markedly.

The greater the cultural distance between adversaries, the more challenging it becomes for each to grasp how the other intends to fight and to realize in the event how it actually is fighting. It is imperative, therefore, to study systematically not only a nation's military doctrine, organization, and capabilities, but the strategic and operational cultures that inform them. Those cultures comprise both explicit and implicit beliefs and assumptions which shape thinking and action. Sometimes the factors that influenced the development of these cultures and their current incarnations are not well understood or even forgotten.

Antagonists who are relatively more effective at adapting during a war and doing so more expeditiously than their opponents are those more likely to prevail in that war, other things being equal. Those actors able to reduce the extent of that inevitable adaptation by prior study and planning, to include their adversary's "way of war," will be more likely to prevail. Although in the post-World War II era the U.S. military invested heavily in understanding the Soviet Union's military, following the end of the Cold War and a more or less unipolar world, it tended to focus, without some justification given the paucity of peer adversaries, on its own way of war, while tending to leave deeper understanding of its probable foes to its intelligence professionals and academics.

During World War II, the United States implicitly understood its German foe, with whom it shared certain commonalities, but struggled to do the same for Japan. Even though the U.S. military had commenced planning for a future conflict with Japan shortly after the latter's victory in the Russo-Japanese war, it focused primarily on the conventional military problems of defending the Philippines and defeating the Japanese fleet in a decisive Mahanian sea battle. In 1941, there were few Japanese language speakers in the U.S. government and military service, and insight into Japan's culture and the implications for its way of war remained both shallow and narrow.





THE CHINESE WAY OF WAR

Notwithstanding strenuous wartime U.S. efforts to establish a cadre of “Japan Hands” and the eventual integration of Japanese Americans into the military, it continued to play catch-up until the war’s end. For example, American forces had a particularly hard time grasping the rationale for and threat of the aerial Kamikaze. This weapon was based on manipulating Japanese cultural values and intended to provide an asymmetric counter against overwhelming American forces that would impose costs (casualties, primarily) to bring the United States and its allies to the negotiating table.

Western understanding of the PRC today no doubt exceeds its understanding of Japan then. It remains, however, challenging. We cannot draw a perfectly straight line of development from Sun Tzu through Mao Tse-tung, to the two PLAAF colonels who wrote *Unrestricted Warfare*, and the present. Each responded uniquely to the actors and events of their time. Moreover, there is no “Great Wall” between Chinese and Western thought; just as Jomini read Sun Tzu in an 18th century French translation, Mao was well-versed in and influenced by Western writers on warfare, to include Clausewitz. Over the past two decades, the PRC has increasingly published formal national security and defense documents and there has been significant open-source discussion of PLA operational concepts. However, while published doctrine provides insights into an adversary’s possible ways of war, it rarely determines actual behavior. Nevertheless, given the cultural and experiential divide between U.S. and PLA forces, it is imperative to make a deliberate effort for all mid and senior level military officers (not just the intel codes) to gain understanding of the opposite numbers’ view of one’s own force and way of war, what lessons the adversaries may have learned from history, and some specifics of the theory and concepts they are working to develop as a result. Work produced by Chinese military thinkers is the most direct source of insights into the Chinese way of war, augmented where practical by non-Chinese analysts who have been watching rapid Chinese military evolution over the last couple of decades.

?? Questions

What are the primary factors that have shaped the PRC’s approach to warfare?

What are the principal components of the present PRC perspective on war at the operational level?

How are these components the same as those of the United States and its allies and where do they differ?

Could the PRC believe it is at war with the United States even now? If so, what are the implications for the United States and what it does?

What critical strengths, critical capabilities, centers of gravity, and critical vulnerabilities emerge from our understanding of the PRC’s military and national security apparatus?

☰ Required Reading (65 Pages)

[Babb, Geof. “China’s Military History and Way of War A Backgrounder.” Carlisle, PA: Army University Press, March 2023. Read.](#)

[Cozad, Mark, Jeffrey Engstrom, Scott W. Harold, Timothy R. Heath, Dale Lilly, Edmund J. Burkes, Julia Brackup, and Derek Grossman. *Gaining Victory in Systems Warfare: China’s Perspective on the U.S.-China Military Balance*. Santa Monica, CA: RAND, 2022. Read pp. v-viii, 70-89.](#)

[Liang, Qiao and Wang Xiangsui. “Do We Advocate Terrorism?” Originally published in March 2000 in *Jianchuan Zhishi*. \(NWC 3254A\) Read.](#)

[Lee, Sangkuk. “China’s ‘Three Warfares’: Origins, Applications, and Organizations.” *Journal of Strategic Studies*, 37 no. 2 \(2014\): 198-221. Read.](#)

[Kennedy, Conor. “China Is Preparing Merchant Ro-Ro Ferries for Amphibious Warfare.” *The Maritime Executive*, 30 March 2023. Read.](#)





THE CHINESE WAY OF WAR

[RAND Research Brief. "A New Framework for Understanding and Countering China's Gray Zone Tactics." Santa Monica, CA: RAND, 2022. Read.](#)

■ Supplemental Reading

[Ambrose, Stephen E. When Americans Go to War, Review of *The American Way of War: A History of United States Military Strategy and Policy*. by Russell F. Weigley. *Reviews in American History*, V. 1, No. 4 \(Dec 1973\): 475-480.](#)

[Boorman, Howard L. "Mao Tse-Tung as Historian." *The China Quarterly*, No. 28 \(Oct.-Dec. 1966\): 82-105.](#)

[Boorman, Howard L. and Scott A. Boorman. "Chinese Communist Insurgent Warfare, 1935-49." *Political Science Quarterly*, V. 81, No. 2 \(Jun. 1966\): 171-195.](#)

[Clarke, Michael. "China's Application of the 'Three Warfares' in the South China Sea and Xinjiang." *Orbis* \(Spring 2019\): 187-208.](#)

[Cordesman, Anthony H. "China's New 2019 Defense White Paper: An Open Strategic Challenge to the United States." Center for Strategic and International Studies. Working Draft: July 24, 2019.](#)

[Di, He. "The Most Respected Enemy: Mao Zedong's Perception of the United States." *The China Quarterly*, No. 137 \(Mar. 1994\): 144-158.](#)

[Gershaneck, Kerry K. "To Win without Fighting: Defining China's Political Warfare." *Journal of Advanced Military Studies*, Vol. 11.](#)

[Liang, Qiao and Wang Xiangsui. *Unrestricted Warfare: Scenarios for War and the Operational Art in an Era of Globalization*. People's Liberation Army Literature and Arts Publishing House. \(February 1999\).](#)

[Marks, Thomas. "Mao Tse-tung and the Search for 21st Century Counterinsurgency." *Combating Terrorism Center Sentinel*, Vol. 2 Issue 10 \(October 2009\).](#)

[Meyer, Andrew and Andrew Wilson. "Sunzi Bingfa as History and Theory." pp. 99-118 in Bradford A. Lee and Karl F. Walling \(Eds.\), *Strategic Logic and Political Rationality: Essays in Honor of Michael I. Handel*. London: Frank Cass, 2003.](#)

[Yoshihara, Toshi. *Chinese Lessons from the Pacific War: Implications for PLA Warfighting*. Washington, DC: Center for Strategic and Budgetary Assessments, 2023.](#)

[. *Dragon Against the Sun: Chinese Views of Japanese Seapower*. Washington, DC: Center for Strategic and Budgetary Assessments, 2020.](#)

[U.S. Joint Chiefs of Staff. *Strategic Paper: Joint Concept for Competing*. 10 February 2023.](#)

[Weigley, Russell F. *The American Way of War: A History of United States Military Strategy and Policy*. Bloomington, IN: Indiana University Press, 1973.](#)





JMO-33

THE RUSSIAN WAY OF WAR

OBJECTIVES

All our responses will be asymmetric, but they will be highly effective.

~ Vladimir Putin, 18 May 2007

- Understand how a country's culture and historical experience influence how it fights its wars.
- Evaluate the differences between the Russian Way of War and the American Way of War.
- Value understanding the Russian Way of War as a way of assessing Russia's strengths, weaknesses, and vulnerabilities.

🔍 Focus

This session addresses Russian strategic and operational cultures and their practical implications for how Russia is likely to fight in any future war. It serves as a companion session to JMO-32, The Chinese Way of War, and provides foundation and context for subsequent sessions on operational law, information, cyber, space operations, and small wars.

It is organized as a lecture followed by seminar discussion.

≡ Background

The propensity to “mirror image” one's opponents is ever present and obstructs clear thinking about the adversary's likely and actual behavior, all of which may profoundly affect the odds of success. Even when adversaries are equipped almost identically, their employment of those capabilities is still likely to differ markedly. In *The American Way of War* (1973), Russell Weigley showed that how a nation fights its wars results from the complex interaction of its perceived interests, geopolitical situation, resources available, historical experience (especially perceived successes and failures), and its broader culture.

From Raymond L. Garthoff's definitive work of *The Soviet Image of Future War* (1959) to Jack L. Synder on Soviet strategic culture and how “historical, institutional, and political factors had given rise to a uniquely Soviet approach to strategic thought” (1977), successive incarnations of the Russian empire have grounded their military thought and operations in a distinct concept of warfare. This distinctness necessitates the systematic study of Russia's military culture and conduct, in addition to its organization.

With the end of the Cold War, the U.S. military has since tended to focus on its own way of war rather than the Russian (and Chinese) Way of War, while leaving deeper understanding of its probable foes to its intelligence professionals. Russia's recent military modernization, challenges to the international order, and global military campaigns have stimulated a renewed interest in the Russian Way of War. Notwithstanding the dissolution of the Soviet Union and its rebirth as the Russian Federation, there has proven to be remarkable continuity in Moscow's military and strategic cultures and how the Kremlin pursues competition and conflict with their adversaries, including economic and information warfare, agitation and subversion, undisguised attacks against civilian infrastructure, and an apparent willingness to incur massive military casualties.

Russian doctrine, authoritative and widely published, has likewise elicited considerable interest in the West. Published doctrine provides insights into possible ways of war but is rarely determinative of actual behavior. How the Russians say they will fight and how they actually do fight have often turned out to be substantially





THE RUSSIAN WAY OF WAR

different, as appears to be the case in Moscow's invasion of Ukraine, which will serve as a core case study here. Irrespective of the outcome of the Kremlin's ongoing war on Ukraine, Russia's way of war will almost certainly remain relevant and of concern to the U.S. - and to Russia's neighbors.

In sum, close study of one's foe's way of war also facilitates better understanding of one's own way of war by comparison, helping render important implicit assumptions explicit, as well as revealing one's own strengths, weaknesses, and vulnerabilities.

?? Questions

Is there a distinctively Russian Way of War? Does this conception clarify how Moscow wages war, or does it essentialize Russian operations and strategy? How might this differ from the American or other ways of war?

Do Russia's generals fight the way they write? In other words, do Russia's operations resemble its doctrine? What does Russia's ongoing war on Ukraine tell us about possible differences? How do we explain these differences?

Are there lessons to be gained from reading Russian military thought? What can we gain from comparing Russian texts and Russian operations in Ukraine?

How does Russia's military and national security apparatus differ from that of the Soviet Union, and to which extent is this significant to us?

What critical strengths, weaknesses, capabilities, and vulnerabilities emerge from our understanding of Russia's military and national security apparatus?

☰ Required Reading (70 Pages)

[Foster, Noel. "The Russian Way of War." Newport, RI: U.S. Naval War College, Joint Military Operations Department, February 2024. \(NWC 1250\). Read.](#)

☰ Supplemental Reading

[Boston, Scott and Dara Massicot. "The Russian Way of Warfare: A Primer." Santa Monica, CA: RAND, 2017.](#)

[Cassidy, Robert. *Russia in Afghanistan and Chechnya: Military Strategic Culture and the Paradoxes of Asymmetric Conflict.* Carlisle, PA: Army War College Press, 2003.](#)

[Gerasimov, Valery V. "The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations." *Military Review*, January-February 2016, first published in the *Military-Industrial Kurier*, 27 February 2013; Translated from the Russian 21 June 2014 by Robert Coalson, Radio Free Europe/Radio Liberty.](#)

[Grau, Lester W. and Charles K. Bartles. "The Russian Way of War: Force Structure, Tactics, and Modernization of the Russian Ground Forces." Fort Leavenworth, KS: Foreign Military Studies Office \(FMSO\): 2016.](#)

[U.S. Joint Chiefs of Staff. *Strategic Paper: Joint Concept for Competing.* 10 February 2023.](#)





U.S. NAVAL WAR COLLEGE
Est. 1884
NEWPORT, RHODE ISLAND

JMO-33

THE RUSSIAN WAY OF WAR

[Weigley, Russell F. *The American Way of War: A History of United States Military Strategy and Policy*.
Bloomington, IN: Indiana University Press, 1973.](#)





CONTEMPORARY CHALLENGES TO SEA CONTROL

We need to do more to take interests in the sea, understand the sea, and strategically manage the sea, and continually do more to promote China's efforts to become a maritime power.

- Xi Jinping,
General Secretary of the Communist Party of China, President of the People's Republic of China, and Chairman of the Central Military Commission (2013)

OBJECTIVES

- Synthesize operational art concepts and naval warfare theory through the analysis of a current situation.
- Analyze the operational lessons valid for the employment of modern, multinational, and Joint forces.

Q Focus

This session facilitates synthesis of the JMO sessions executed to date. Students are asked to demonstrate higher order thinking skills as they examine operational art and maritime warfare theory in light of current developments in the Western Pacific.

≡ Background

For over two thousand years, the ability of a navy to achieve sea control in a particular area heavily depended on the capabilities of surface ships. Whether powered by oar, sail, or steam, or armed with ram or gun, surface ships were essentially the only military units able to seek out and destroy the enemy's maritime forces. Weaker navies might attempt to conduct sea denial against a stronger adversary by using land fortifications or lighter forces, but these actions were still constrained by the surface of the sea. In rare cases, non-naval forces could destroy an adversary's maritime forces. Triremes could be seized on land when a besieged city was sacked, or audacious cavalry could capture ice bound ships of the line, but to compete at sea against a proficient enemy, a similar surface force was required.

Just over a hundred years ago, advances in technology began to destroy this paradigm. While the large-gun armed dreadnought of the First World War was the capital ship of its era, other weapon systems began to nip at its heels. Submarines, sea-based mines, dirigibles, and even aircraft began to erode the primacy of the surface ship for obtaining sea control. During the Second World War, these technologies matured into war-winning weapons. Control of the surface of the ocean became more dependent on dominating the air above it and the water space below it. Aircraft achieved primacy over gun-armed warships as the speed, maneuverability, and longer-range lethality of the airplane overmatched the defensive capabilities of the surface ship. Submarines made independent surface ship operations outside the range of protective air cover perilous. Mastering the electromagnetic spectrum for communicating and detecting enemy forces, while denying its use to the enemy, became increasingly important. The effective synchronization of these new technologies was crucial in attaining, maintaining, and exploiting sea control and/or denying the use of the sea to the enemy.

The acceleration of weapons technology since the last major fleet engagement in the Second World War has made obtaining sea control more challenging. In the 21st century, not only does sea control continue to depend on air and subsurface operations, but activities in the electromagnetic spectrum, space, and cyberspace have become crucial. Instead of a surface battle line engaging the enemy in a symmetric force-on-force fight with enemy warships, technicians operating complex weapons systems from thousands of miles away, perhaps on land, underground, and out of sight of the enemy fleet, may render enemy maritime forces open to devastating attack. How this might be accomplished is still being determined. However, they are no longer the science fiction dreams of frenzied theorists. Wooden Ships and Iron Men may be replaced by Plastic Autonomous Vessels directed by Silicon Artificial Intelligence.

These concerns may come to resolution in the struggle for mastery of the western Pacific. The rising power of Beijing and the concern it raises in Washington has led to a possible great power military confrontation. The expanding capabilities of the People's Republic of China's People's Liberation Army (Navy) (PRC PLA(N)), supported by other PLA capabilities from all domains, are being arrayed against the U.S. Joint Force's pivot to the Pacific. If war occurs between the United States and a modern, capable enemy navy, both adversaries will need to integrate and use the





CONTEMPORARY CHALLENGES TO SEA CONTROL

most modern technology, the most current doctrine, and the most compelling desire to win in order to attack effectively first and achieve their objectives.

??Questions

What would a future maritime conflict between the United States and PRC look like? A volley of anti-ship ballistic missiles aimed at a carrier strike group? A single major operation around Taiwan? A campaign in the western Pacific Ocean? A global conflict? Does it matter? Why?

How does theater geometry affect a possible conflict in the Western Pacific Ocean between the United States and China?

How do the several domains (air, sea, land, cyber, space) affect gaining, maintaining, and exploiting sea control?

How might land-based forces become more important than maritime-based ones in gaining sea control, or conducting sea denial operations?

How might sea denial become a more achievable objective than sea control for both the United States and China?

☰ Required Reading (57 Pages)

[U.S. Office of the Secretary of Defense. *Military and Security Developments Involving the People's Republic of China, 2023*. Washington, DC: Department of Defense, October 19, 2023. Read pp. 47-103.](#)





JOINT WARFIGHTING CONCEPT AND COMPONENT WARFIGHTER PANEL

Victory smiles upon those who anticipate the change in the character of war, not upon those who wait to adapt themselves after the change occurs.

- General Giulio Douhet (No date)

OBJECTIVES

- Understand current U.S. (Joint and Service) Warfighting Concepts
- Analyze U.S. Warfighting concepts through the lens of Operational Art
- Evaluate U.S. Warfighting Concepts and their operational strengths/weaknesses against expected adversary ways of war

🔍 Focus

This session focuses on the U.S. joint force's emerging Joint Warfighting Concept (JWC) and each service warfighting concept that feeds the Joint Concept (Distributed Maritime Operations, Expeditionary Advanced Base Operations, Agile Combat Employment, and Multidomain Operations). The session follows the "adversary way of war" sessions to facilitate comparative analysis of peer adversaries and how the United States plans to fight in a high-end war. In doing so, students will become conversant on each service's warfighting concept and critically assess operational art considerations in the JWC relative to peer adversaries.

≡ Background

Between 1989 and 1991 when the Cold War ended, the world entered a period commonly referred to as the Unipolar Moment. This unipolar characterization describes the moment in time when global power transitioned from a bipolar world led by two superpowers (the United States and Soviet Union) to a unipolar world predominantly influenced by the United States and the institutions it helped establish after World War II. This shift in global power gave the United States unprecedented freedom of action to engage globally on matters of strategic interests, as demonstrated when responding to the Iraqi invasion of Kuwait in 1991. The combination of the United States' accumulation of global power along with a demonstrated willingness to use it for global intervention ignited a chain of events which motivated rising powers to build militaries capable of defending against the type of prowess the United States demonstrated in Operation DESERT STORM.

In 1991, the United States executed Operation DESERT STORM, a decisive major operation that resulted in the defeat of the Iraqi Military and liberated Kuwait from Iraqi occupation. This operation, the first major U.S. operation after the Goldwater-Nichols Act, validated several key lessons in U.S. Joint Warfighting Doctrine. Specifically, DESERT STORM demonstrated the United States' ability to overcome relative disadvantages in time and space by quickly mobilizing and securing regional access, basing, and overflight agreements from other nations. This then facilitated the ability for the U.S. to exploit its overwhelming force advantage by massing military power within the theater of interest and effectively employing combined arms against an adversary.

While DESERT STORM is viewed by the U.S. as having been extremely successful, it also represents a watershed moment for the Peoples Republic of China (PRC). The PRC realized that to achieve its national strategic objectives, it would need to find a way to exploit its own time/space advantages while thwarting the U.S. ability to overcome time/space disadvantages. This led to the People's Liberation Army's (PLA) pursuit of a modernization effort aimed at developing a "world class" military on par with the U.S. joint force.

In this modernization effort, the PLA has developed an Anti-Access/Area Denial (A2/AD) system capable of saturating any target with cruise and ballistic missiles to ranges beyond the second island chain. In addition, the PLA Navy (PLAN) and PLA Air Force (PLAAF) have developed weapons systems comparable to the U.S. joint forces' latest weapons systems. Finally, in addition to these modernizations, the PRC has given focused attention to the development of combined arms as well as re-organization into five theater commands. The combination of PLA modernization, integration, and organization creates realities that will shape the character of war should the U.S. find itself at odds with the PRC. In response, the United States has developed warfighting concepts that match the anticipated character of a





JOINT WARFIGHTING CONCEPT AND COMPONENT WARFIGHTER PANEL

war against such an adversary. This session will explore these concepts and assess their suitability for use against a peer adversary.

?? Questions

How do the Joint and Service Warfighting Concepts leverage operational art? Explain how these warfighting concepts impact the time/space/force calculus of an operational level commander.

Does the Joint Warfighting Concept (JWC) nest appropriately with national strategic objectives? Why or why not?

Do the Service Warfighting Concepts nest with the JWC? Do the objectives between the services adequately align? Explain why you do, or do not think the objectives are nested/aligned.

What elements of operational art do you see in each of the Service Warfighting Concepts? How well do each of the concepts consider time/space/force challenges? Explain.

Do the Service Warfighting Concepts leverage combined arms, or is each service focused on challenges within its own domain of interest?

☰ Required Reading (44 Pages)

[Filipoff, Dmitry. "Fighting DMO, Pt. 1: Defining Distributed Maritime Operations and The Future of Naval Warfare". Center for International Maritime Security. February 2023.](#)

[U.S. Department of the Navy. Tentative Manual for Expeditionary Advanced Base Operations 2nd Edition. February 2023. Read Forward, Ch. 1, and Sec. 2.1 - 2.4.](#)

[U.S. Department of the Air Force. Air Force Doctrine Note 1-21: Agile Combat Employment \(ACE\). Read.](#)

[U.S. Department of the Army. Field Manual 3-0: Operations. October 2022. Read pp. 1-2 to 1-3, 3-1 to 3-2, and 7-1 to 7-15.](#)

☰ Supplemental Reading

Joint Operating Environment 2040. Full Classified version. Hard copies printed and available for access in the Classified Library (U.S. Students Only).

[Expeditionary Advanced Base Operations \(EABO\). News Display \(marines.mil\).](#)

[Clarity, Tom. "Distribute DMO to Tactical Commanders". Proceedings Vol.149/1/1,439. January 2023.](#)

[This item also available via Leganto](#)

[Congressional Research Service. Defense Primer: Army Multi-Domain Operations \(MDO\). November 2022.](#)

[U.S. Department of the Navy, United States Marine Corps. A Concept for Stand In Forces. December 2021.](#)





WARGAMING LESSONS LEARNED

"Flawed Oracle"

"The war with Japan had been re-enacted in the game rooms here by so many people and in so many different ways, that nothing that happened during the war was a surprise—absolutely nothing except the kamikaze tactics towards the end of the war; we had not visualized those."

-Admiral Chester W. Nimitz (1960)

OBJECTIVES

- Understand the historical background of wargaming and how it is used to help commanders make decisions.
- Comprehend the types of wargames that are used at NWC.
- Analyze lessons learned from recently executed wargames and their impact on solving current military problems.
- Assess the degree to which wargames are an effective tool at helping solve complex problems.

Q Focus

This session is the third in a series of classified sessions. The first lecture, Contemporary Challenges to Sea Control, helped shape understanding of the current problem in the South China Sea with respect to capabilities. The second lecture, Joint Warfighting Concepts, along with the accompanying panel on supporting Service concepts, provided the latest joint force vision for solutions to the problems the United States might face. Extending examination of how the US military thinks through military problems, this session will first provide an historical look at wargaming, specifically during the interwar period, and then a current look at what the Naval War College War Gaming Department has done to test some of the concepts that have been developed, as well as provide a background for what commanders have been focused on during recent wargames.

This session is organized as two lectures with a question-and-answer period after each lecture.

Background

Retired US Navy lieutenant William McCarty Little is credited with bringing wargaming to the US Naval War College in 1887 after delivering six lectures on it. By 1894 all NWC students received course instruction on wargaming. Although he gets credit for wargaming's introduction to the NWC curriculum, ultimate credit for its creation rest with Major W.R. Livermore, US Army, who is widely considered the father of American wargaming. In a datapoint supporting the benefits of making opportunities for intellectual "cross pollination" among the service, Livermore shared his concept with McCarty Little while he was stationed in Newport. Admiral Stephen B. Luce would later write that the naval wargame was McCarty Little's special contribution to the work of the college, and that it was he (McCarty Little) who perceived and demonstrated all its possibilities.

During the interwar period, most games at the Naval War College were educational games that focused on providing students with decision making experience. The college prioritized wargaming with the most realistic and educational fleet battle experience for the war the senior leadership envisioned. During two decades of wargaming, War Plan Orange was run again and again, constantly being evaluated against new threats. These games helped develop a successful War Plan Orange, and the conceptual underpinnings for the island-hopping campaign required to execute it.

Today, parallels can be drawn between the historical interwar problem-solving effort leading up to the war and the current effort going into the thinking and planning for the anticipated problems that we may find in the next war that will face the joint effort, with wargaming playing a key role in both. In support of this effort in the present day, the War Gaming Department conducts high-quality applied gaming, research, analysis, and education. Simulating complex war scenarios builds analytical, decision-making, and risk assessment skills.

?? Questions

What role does wargaming play in military planning and how might it be used in the future?





WARGAMING LESSONS LEARNED

How did wargaming during the interwar period help shape War Plan Orange and provide solutions to the problem of war in the Pacific?

What Lessons Learned can be drawn from the most recent wargames, and have the Joint Warfare Concepts provided proved to be effective?

During the most recently held wargames at NWC, what have been the highest priorities for the commanders who have been in attendance?

Required Reading (45 pages)

Miller, Edward S. *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945*. Annapolis, Md: Naval Institute Press, 1991. **Read Introduction and Chapters 1 thru 4.**

[This item available via Leganto](#)

Perla, Peter P. *The Art of Wargaming: A Guide for Professionals and Hobbyists*. Annapolis, Md: Naval Institute Press, 1990. **Read p. 70-78, "Flawed Oracle".**

[This item available via Leganto.](#)





OPERATIONAL LAW AND LAWFARE

Law is a strategic partner for military commanders when it increases the perception of outsiders that what the military is doing is legitimate.

- David Kennedy, *Of War and Law* (2006)

OBJECTIVES

- Value the integration of operational law into the planning and execution of all military operations.
- Examine the relationship between legitimacy, national policy, ROE, *jus ad bellum* and *jus in bello*.
- Analyze the application of operational law (LOS, use of force, LOAC, law of neutrality) to achieve military and strategic objectives in war and operations short of war.
- Evaluate the use of lawfare to achieve both strategic and operational objectives.

🔍 Focus

This session considers the practical value of integrating international law and authorities into the planning and execution of all military operations – during both competition and violent conflict. It examines the application of operational law to warfare by analyzing the Falklands/Malvinas Conflict of 1982, United States and Chinese operations in the South and East China Seas, the ongoing Russia/Ukraine War, and the Hamas/Israel War. The session also considers difficulties applying existing law of armed conflict to new domains, such as cyber and space, and the effectiveness and consequences of using lawfare to achieve operational and/or strategic objectives.

≡ Background

Operational law broadly encompasses those aspects of international law, U.S. domestic law, military regulations, and foreign domestic law affecting military planning and operations. When planning and conducting military operations, commanders and their subordinates must ensure that they have the appropriate authorities to accomplish the mission.

International law governing the use of military force in war comprises two parts: (1) *jus ad bellum* (when and under what circumstances a nation has a right to use military force or go to war) and (2) *jus in bello* (the use of military force during war - the law of armed conflict (LOAC)). The Department of Defense mandates that all members comply with the law of war during all armed conflicts, and in all other military operations, especially those with the potential for use of force. All military commanders, planners, and operators must thoroughly understand the application of LOAC regardless of type of operation. Bear in mind that LOAC has historically been variously called the Law of War, and the international community often refers to LOAC as International Humanitarian Law (IHL).

States authorize and limit the use of military force through Rules of Engagement (ROE). A state may use ROE or other policy measures (e.g., civilian casualty limits) to restrict the use of force beyond that required by LOAC. Strategic objectives and policy of the state shape the restrictions contained in ROE more than the law. Military requirements for mission accomplishment are often in tension with the policy limits reflected in the ROE.

The international community, including allies and partners, and our own and their domestic populations largely judges the use of military force based on whether it is perceived to accord with international law. Perceived compliance with international law conveys legitimacy. Given the speed at which information is passed in the digital age, failure to comply with the law at the tactical, operational, or strategic level can be immediately exploited by one's adversaries and may jeopardize the achievement of both operational and strategic objectives through loss of legitimacy.

While the armed conflicts of the last few decades have been primarily on land, a future U.S. armed conflict will likely involve maritime warfare. Because of advantages associated with operating in or from the global common of the ocean, naval forces of states in competition often operate in proximity, with a correspondingly continuing potential risk of escalation into violent conflict. As violent naval conflicts in the age of surface-to-surface missiles, jet aircraft, and





OPERATIONAL LAW AND LAWFARE

nuclear-powered submarines, the 1982 Falklands/Malvinas conflict, the current Russia/Ukraine War, and the Houthis' attacks in the Red Sea provide useful cases for considering operational law in modern naval warfare.

Freedom of movement in international waters and airspace remains fundamental to implementing national and military strategies. The legal bases for these navigational freedoms are customary international law of the sea (LOS) and the United Nations Convention on the Law of the Sea (UNCLOS). Navigational freedom allows access to strategic areas of the world, facilitates support and reinforcement of forward-deployed forces, enables military forces to operate worldwide, and ensures uninterrupted global commerce.

Maritime disputes and conflicting interpretations of the law of the sea (which some might call lawfare) must be considered when asserting freedom of navigation and protection of commerce. Such contested environments have a higher potential for maritime conflict (e.g., East/South China Seas, Baltic Sea, Black Sea, Arctic Ocean, Red Sea, and Arabian Gulf). The legal aspects of military operations in such environments must be evaluated during the planning phase and re-evaluated during execution, as the enemy has a vote.

At the same time, because States strive for the perception of legitimacy when they use force, there has been a recognition that the law itself can be used as a weapon of strategy and war. The term "lawfare" has been defined in various ways. We will use the following definition: "using – or misusing – law as a substitute for traditional military means to achieve an operational or strategic objective." States (as well as non-state actors) increasingly and explicitly employ "lawfare" across the conflict spectrum from competition to war to achieve both operational and strategic objectives. Notably, China has taken strategic approaches leveraging its interpretation of international law to further its national objectives. In some cases, lawfare has achieved national objectives without resorting to force, or at least not armed conflict, while in other cases, lawfare has furthered objectives during armed conflict.

?? Questions

What are the connections across state use of force, international law, the United Nations Security Council Resolutions (UNSCRs), and legitimacy? What was the legal basis for UK military operations in the Falklands/Malvinas conflict? Are UNSCRs likely to be irrelevant in great power competition?

Why do the principles of LOAC apply to all belligerents regardless if one party had illegally attacked the other? What is the purpose of the principles of LOAC?

What is the relationship between the law and legitimacy? How does the desire for legitimacy impact military operations? Why should the United States comply with international law when our adversaries may not?

How do policy, the law, and military requirements shape ROE? What influenced the restrictive UK ROE? Who on the Staff is responsible for ROE?

Compare and contrast how Maritime Zones were utilized in Falklands/Malvinas Conflict and the Russia/Ukraine War. What is the impact on merchant shipping? What is the difference between maritime zones and naval blockades?

How do different interpretations of UNCLOS and national interests affect actions by China and the United States in the South China Sea? What are the risks and benefits of the United States (and its allies) continuing to conduct freedom of navigation operations in disputed maritime areas claimed by China? At what point do Chinese incursions over the centerline of the Taiwan Straits amount to an "armed attack?"

How do Russia and China use "lawfare" to achieve their strategic and/or operational objectives? What can a Joint Task Force do to combat competitors using "lawfare?"

How do international law and "lawfare" impact the Commander's Estimate?





OPERATIONAL LAW AND LAWFARE

☰ Required Reading (70 pages)

[Harvison, Melissa. "Operational Law Primer." Newport, RI: U.S. Naval War College: Joint Military Operations Department. September 2023. \(NWC 2147B\) Read pp. 1-3. Scan pp. 4-17, 31-72. \(Issued\).](#)

Kittrie, Orde E. "The Chinese Government Adopts and Implements a Lawfare Strategy." In *Lawfare: Law as a Weapon of War*, edited by Orde F. Kittrie, New York: Oxford University Press, 2016. (NWC 2146) Read pp. 161-173, 186-195. [Available via Leganto, accessed through BlackBoard.](#)

[Mosquera, T Andres B. and Bachmann, Sascha D. "Lawfare in Hybrid Wars: The 21st Century Warfare." *Journal of International Humanitarian Legal Studies*, 7 \(2016\). Read pp. 72-75, 86-87.](#)

[Goldenziel, Jill I. "Law as a Battlefield: The U.S., China, and the Global Escalation of Lawfare." *Cornell Law Review*, vol. 106, 5 \(2021\). Read pp. 1156-1164, 1168-1170.](#)

[Dunlap, Charlie. "Five Ideas to Counter Hamas' Lawfare Strategy...and Why." Lawfire \(blog\), Duke University, 16 October 2023. Read.](#)

[Pedrozo, Raul. "China's Threat of Force in the Taiwan Strait." Lawfare Blog. 29 September 2020. Read.](#)

[Dunlap, Charlie. "Is Attacking the Electricity Infrastructure Used by Civilians a War Crime? Lawfire Blog, Duke University. 27 October 2022. Read.](#)

[Fink, Martin. "The War at Sea: Is There a Naval Blockade in the Sea of Azov?" Lieber Institute West Point. 24 March 2022. Read.](#)

[Harvison, Melissa. "USNWC JMO Law of the Sea Reference for Naval Operations." Newport, RI: U.S. Naval War College: Joint Military Operations Department. January 2019. \(Handout\)](#)

☰ Supplemental Reading

[U.S. Department of Defense, Office of General Counsel. *Department of Defense Law of War Manual*, June 2015. Updated July 2023.](#)

[U.S. Department of the Navy. *The Commander's Handbook on the Law of Naval Operations*. Naval Warfare Publication 1-14M, March 2022.](#)

U.S. Chairman Joint Chief of Staff. *CJCS Standing Rules of Engagement and Rules for the Use of Force*, CJCS Instruction 3121.01B. 13 Jun 2005.

[United Nations Security Council. *Security Council Resolution 502 \(1982\)*. \(NWC 1109\).](#)

Harvison, Melissa. [Operational Law Lecture Video](#).





JMO-38

INFORMATION WARFARE

The profoundest truth of war is that the issue of battle is usually decided in the minds of the opposing commanders, not the bodies of their men.

- Captain Sir Basil Liddell Hart
British Army (1929)

OBJECTIVES

- Comprehend information as a joint function and its role in human and automated decision-making across the competition continuum.
- Examine the role and perspective of the joint force commander and staff in integrating information in joint operations to achieve an information advantage.
- Understand the relationship between the operating environment (OE), the information environment (IE) and cyberspace.

Focus

This session builds on what we learned earlier about information as a Joint/Operational Function. It presents the concept of Information Warfare (IW) while taking a broader look at Information in Joint Operations (IJO), and the Information Environment (IE). Here, we consider how information warfare is conducted across the competition continuum, how the joint force may achieve an information advantage, and how that advantage may be used to achieve objectives.

Background

Warfare is the conduct of war, how it is fought. The changing character of war is largely based on the era in which we live. With the ever-increasing role information plays in modern warfare, our understanding of information warfare is integral to contemporary war. The convergence of information connectivity, content, and cognition forms the Information Environment (IE), a term of art in U.S. Joint doctrine. Broadly speaking, all operations, short of annihilation aim to influence an adversary to make a decision favorable to larger U.S. objectives.

While the U.S. military has recently evolved its ideas on the role information plays in warfare, curiously, the concept of IW remains undefined U.S. Joint Doctrine. This is not true for our adversaries and potential enemies. Sergey Rastorguyev, a senior Russian information warfare theorist defines it as, "A battle between states involving the use of exclusively information weapons in the sphere of information models. The final objective of an information weapon's effect is the knowledge of a specific information system and the purposeful use of that knowledge to distort the model of the victim's world." Chinese theorist, Shen Weiguang, contends, the main task of Chinese information warfare is disrupting the enemy's cognitive system and its trust system.

The U.S. Navy was the first Service to clearly define Information Warfare (IW) and develop a warfare community of officer and enlisted members. Other Services have functional areas and military occupational specialties (MOSs) that deal with the role information plays in war writ large. The U.S. Navy defines IW as the integrated employment of Navy's information-based capabilities (communications, networks, intelligence, oceanography, meteorology, cryptology, electronic warfare, cyberspace operations, and space) to degrade, deny, deceive, or destroy an enemy's information environment or to enhance the effectiveness of friendly operations.

How information is sent, received, perceived, and acted upon are all fundamental to information age warfare. Richard Crowell tells us that data is collected and analyzed in pursuit of meaning. Once humans (and now machines) assign data meaning it becomes information that is understood. Information can then be synthesized into knowledge that humans and machines leverage to make decisions. In the hyper-connected world in which we live, data moves around the world at near light speed and is easily manipulated to deliver specific content. When that information (code operating a machine or content displayed on an electronic screen) is curated and delivered to a receiver it can influence humans to act in desired ways or cause machines to operate independent of their owners. This may be seen as an information advantage.

Operations in the Information Environment (OIE) inform, persuade, and influence decision-makers in conflicts around the globe today. The forces involved often use information instead of physical power to compel adversaries and decision-makers to act. According to the Joint Concept for Operating in the Information Environment (JCOIE) "To





JMO-38

INFORMATION WARFARE

address this challenge and achieve enduring strategic outcomes, the Joint Force must build information into operational art to design operations that deliberately leverage the inherent informational aspects of military activities.”

In support of this approach, *Information in Joint Operations* (JP 3-04) provides fundamental principles and guidance for Joint Force Commanders (JFCs) to plan, coordinate, execute, and assess the use of information during Joint operations. It describes operations in the information environment (OIE) as military actions involving the integrated employment of multiple information forces to affect drivers of behavior by informing audiences; influencing foreign actors; attacking and exploiting actor information, information networks, and information systems. Such operations also include protecting friendly information, information networks, and information systems. It also notes that OIE leverages information to affect the will, awareness, and understanding of adversaries and other actors and deny them the ability to act in and through the IE to negatively affect the joint force.

This session is closely tied to JMO-36 Cyber Warfare.

?? Questions

Describe your personal or work information environment. How do you send and receive information necessary to make decisions in your family or work ecosystem?

Why is information considered a Joint function and how does it differ from the Joint function of intelligence?

Describe some of the challenges the joint force faces in integrating physical and information power.

Describe the role data science (DS), machine learning (ML), artificial narrow intelligence (ANI), and artificial general intelligence (AGI) play across the competition continuum. How might these capabilities impact future wars?

Describe how China integrates information across the cooperation and competition levels of the competition continuum. How might China use its information power to conduct IW in future armed conflict?

What lessons for future operations can be drawn from China's use of Informationized [sic] Warfare and its integration into combined arms in support of their military objectives and political ends?

How can joint force commanders and planners integrate information in Joint operations into operational art to inform, persuade, and influence decision makers across the competition continuum?

Discuss the relationship between the operating environment (OE), the information environment (IE) and domains of war?

☰ Required Readings (31 Pages)

[Crowell, Richard M. "Great Power Competition — China's Use of Guerrilla Warfare and Information Power in Pursuit of Its Epochal World Order." *Small Wars Journal* \(July 2022\). \(NWC 2195A\) Read.](#)

[U. S. Office of the Chairman of the Joint Chiefs of Staff. *Information in Joint Operations*. Joint Publication \(JP\) 3-04, Washington, D.C.: CJCS, 14 September 2022. Read pp. II-1 to II-7.](#)

[Wang Xueping. "Chinese Military Informationized Warfare – Integrating New Combined Arms," *Red Dragon* 1949, 12 September 2018. Read.](#)





INFORMATION WARFARE

☰ Supplemental Reading

[U. S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Concept for Operations in the Information Environment*. Washington, D.C.: CJCS, July 25, 2018.](#)

[Crowell, Richard M. "War in the Information Age: A Primer for Information Operations and Cyberspace Operations in 21st Century Warfare." Newport, RI: U.S. Naval War College, Joint Military Operations Department, January 2019. \(NWC 2021E\).](#)





JMO-39

CYBER WARFARE

We can thus only say that the aims a belligerent adopts, and the resources he employs, must be governed by the particular characteristics of his own position; but they will also conform to the spirit of the age and to its general character.

-- Carl von Clausewitz,
On War (1832)

OBJECTIVES

- Assess the role and perspective of the combatant commander in integrating cyberspace operations into theater policies, strategies, and plans across the spectrum of conflict.
- Examine the use of cyberspace operations in the pursuit of military objectives and political ends.
- Assess the role that cyberspace plays in integrating trans-regional, all-domain, multi-function (TAM) operations in across the competition continuum.

🔍 Focus

This session focuses on the use of cyber warfare in contemporary conflict to achieve military objectives and political ends. Much public interest in cyberspace and cyber warfare is rooted in general misunderstanding of what the domain is and how various actors use it in pursuit of their interests. Many of the actions described as cyber warfare are more accurately understood as cyber-enabled Information Warfare. Daniel T. Kuehl, former director of the Information Strategies Concentration Program at the U. S. National Defense University, offers the following definition, "Cyberspace is a global domain within the information environment whose distinctive and unique character is framed by the use of electronics and the electromagnetic spectrum to create, store, modify, exchange, and exploit information via interdependent and interconnected networks using information communication technologies (ICT)." A theory of cyber warfare is presented to begin normalizing the many and varied aspects of this new domain and form of warfare. It treats code and content as cyber forces that move through the domain. In the first two decades of this century these forces have been increasingly used to control machines independent of their owners and influence human decision-making across the competition continuum, particularly in competition below armed conflict through armed conflict.

🔧 Background

Some of the most significant changes in contemporary conflict are the speed at which information moves around the world, its depth of penetration into society, and the ways in which machines of war rely on precise information to operate. The speed, depth and precision movement of information are made possible by the connectivity of the largely man-made domain of cyberspace. Cyberspace, much like the sea, is a domain in which humans maneuver in and through to achieve objectives in the physical spaces where they live. The parallels between the naturally uncontrolled maritime domain and the deliberately uncontrolled cyberspace domain are highlighted in the human use of the two spheres. Both provide the means for the transportation of information, ideas, and trade.

In what can be seen as the intertwining of cyberspace and human activity, the number of humans utilizing cyberspace for commonplace activities (communication, navigation, news, shopping, banking, entertainment, etc.) is accelerating. Examples of the scope of global activity in cyberspace in the early 21st century include approximately 4.6 billion internet users, or 59 percent of people on Earth, and more than 2.2 billion Facebook users. In fact, the U.S. Department of Defense (DOD) operates over 15,000 networks and more than seven million edge devices (electronic computing devices that provide entry points to move content and code around the internet). Additionally, DOD weapons systems are more connected than at any time in our history. This increased connectivity creates opportunities and vulnerabilities that the DOD has only recently begun to address.

To bring together the concepts of cyberspace operations and warfare in the physical domains, the DOD has moved the lexicon of cyberspace operations towards terminology that is recognizable to warfighters in all domains. Cyberspace operations, defined in U. S. Joint doctrine, are the employment of cyberspace capabilities whose primary purpose is to achieve objectives in or through cyberspace. Cyberspace operations include Offensive Cyberspace Operations (OCO), Defensive Cyberspace Operations (DCO), and DOD Information Network (DODIN) Operations. DCO and OCO lexicon standardize warfighting terminology and allow warfighters to better communicate actions and objectives across multiple warfare areas. Not surprisingly, as the competition continuum evolves with the changing character of war, it now





JMO-39

CYBER WARFARE

encompasses the struggle for control and denial of cyberspace. This session presents both a definition of cyber warfare and the theoretical construct of cyber control and cyber denial as ways of maneuvering in cyberspace in support of objectives in all domains.

The interconnectedness of humans and machines has significantly changed the character of war. The CJCS Joint Concept for Integrated Campaigning (JCIC) calls for integrated campaigning across geographic boundaries and in multiple domains. To begin understanding the complexity associated with integrated campaigning this session looks at JTF ARES and Operation GLOWING SYMPHONY actions against ISIS and the implications of cyberspace operations for controlling, denying, and disputing the movement of information had on various combatant commanders and the enemy across multiple domains of war.

?? Questions

Can cyberspace be controlled? If so, what impact does that control have on operations in the traditional domains of war? Can cyber control be disputed or denied? If so, describe how denial or dispute supports military operations.

Describe the vulnerabilities to modern weapon systems created by networking machines of war.

Describe the impact that cyberspace operations can have on the operational factors of time, space, and force.

How does cyberspace impact a commander's ability to sequence joint / operational support functions across regions and domains of war?

Describe the events that went into the United States hacking ISIS. Which geographic and functional combatant commands were involved? What was the command organization / structure and how did that impact command and control?

Describe the domains of war that JTF ARES used in Operation GLOWING SYMPHONY and the impact that cyberspace operations had on the joint / operational support functions of Command Organization, C2, Intelligence, Movement & Maneuver, Fires, Sustainment, Protection, and Information for both the United States and ISIS.

☰ Required Reading (60 Pages)

This session is conducted over two days. For day one, all students will read NWC 2137, NWC 4219 and NWC 4222. Students will read NWC 4179 or NWC 2021E as assigned.

[Crowell, Richard M. "Some Principles of Cyber Warfare Using Corbett to Understand War in the Early Twenty-First Century." London: King's College London, The Corbett Centre for Maritime Policy Studies, January 2017. \(NWC 2137\). Read.](#)

[Temple-Raston, Dina. "How the US Hacked ISIS," National Public Radio, September 26, 2019. \(NWC 4219\). Read or listen to the audio version included in the hyperlink.](#)

[Cox, Matthew. "US, Coalition Forces Used Cyberattacks to Hunt Down ISIS Command Posts." Military.com, DODBuzz, 25 May 2018. \(NWC 4222\). Read.](#)

[U. S. Government Accountability Office. "Weapon Systems Cyber Security DOD Just Beginning to Grapple with Scale of Vulnerabilities." Report to the Committee on Armed Services, U. S. Senate. Washington, DC: GAO, October 2018. \(NWC 4179\). Read pp. 5-28.](#)

[Crowell, Richard M. "War in the Information Age: A Primer for Information Operations and Cyberspace Operations in 21st Century Warfare." Newport, RI: U.S. Naval War College, Joint Military Operations Department, January 2019. \(NWC 2021E\) Read pp. 39-51.](#)





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JMO-39

CYBER WARFARE

☰ Supplemental Reading

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Cyberspace Operations*. Joint Publication \(JP\) 3-12. Washington, DC: CJCS, June 8, 2018.](#)





JMO-40

SPACE WARFARE

Space and counterspace capabilities — like missile forces, advanced air and sea power, and cyber capabilities — are critical for China to fight and win modern military engagements. To support various requirements, China has built a vast ground and maritime infrastructure enabling spacecraft and space launch vehicle (SLV) manufacture, launch, C2, and data downlink.

- China Military Power (2019)

OBJECTIVES

- Understand how states use the space domain for cooperation, competition, and armed conflict.
- Comprehend how warfare in space will compare to and differ from warfare in other domains of war.
- Assess the implications of space warfare on operational planning and execution across the competition continuum.

🔍 Focus

This session focuses on how warfare in the space domain can be used in contemporary conflict to achieve military objectives and political ends. Like the maritime domain, space is naturally uncontrolled. To control it, satellites (machines) and humans are placed in the domain which often leads to competition, resulting in the need to control, deny, or dispute human use of those machines. In war the control and denial of those machines will affect events in all domains. Despite the nearly seventy years humans have used space for their objectives, as yet there is little theory and doctrine on how to conduct warfare in it. This session is intended as an initial exposure to how warfare in space might take place.

📖 Background

Mankind's interest in space dates to antiquity with human use of astronomy to make sense of the world. Interest increased in the late nineteenth and early 20th centuries with science fiction novels and movies. Examples include the books and subsequent movies, "The Time Machine" and "War of the Worlds" by H.G. Wells, "Starship Troopers" by former naval officer Robert Heinlein and "2001: A Space Odyssey" by Arthur C. Clarke. Following World War II, the victors took advantage of German advancements in rocket technology, and the Space Race took off. Space competition became a reality in 1957 when the Soviet Union launched Sputnik. The Soviets were the first to put a man in space with Yuri Gagarin in April 1961. The United States responded with the televised launch of Alan Shepard, a U.S. Navy Test Pilot, in May 1961 as the first American in space. Many believe the space race peaked with Apollo 11 when Neil Armstrong (originally a U.S. Navy Test Pilot) walked on the moon on July 20, 1969.

Space operations are vital for research as well as many of mankind's daily activities in developed and developing nations across all domains; from communications, banking, and navigation to national defense. Space warfare, how war will be fought in the domain, is necessarily expensive and related to the character of the age. Today more than 16 nations have space agencies capable of launching space vehicles, and there are several civilian corporations capable of manned and unmanned space operations. While much of the interaction between these nations and corporations happens in the cooperation and competition levels of the *Competition Continuum* discussed in Joint Doctrine note 1-19, some are preparing for armed conflict in space. Russia, China, India, and the United States have all weaponized the domain by developing various forms of counterspace or anti-satellite capabilities. Because so much data and information move through the satellites in space it is likely that future wars will include attempts to control, deny, and dispute use of the domain, particularly for military and national security decision making.

This session asks students to contemplate an example of space warfare theory, U.S. *Joint Doctrine on Space Operations*, in conjunction with works by Chinese strategists to understand how space warfare might be used in pursuit of national and combatant commander objectives.





JMO-40

SPACE WARFARE

?? Questions

Describe the space domain and define space operations.

Discuss the similarities and differences between the theories of warfare in the naturally uncontrolled maritime and space domains. Describe the similarities and differences between warfare in space and the deliberately uncontrolled cyberspace.

Describe the weapons and tools that may be used to control, deny or dispute the use of the space domain.

Describe the effects created by the control, denial or dispute of space assets. What impact might those effects have on warfare in the other domains of war?

Describe China's views on military conflict in space.

Discuss how space warfare may be used to achieve military objectives and political ends.

Describe the command organization and command and control of U.S. space forces.

Describe the challenges theater strategic commanders and staffs face in effectively integrating space warfare into planning and executing trans-regional, multi-domain, multi-function (TMM) campaigns and operations.

☰ Required Reading (55 Pages)

[Klein, John J. "Corbett in Orbit." *Naval War College Review* V. LVII, No. 1 \(Winter 2004\): 1-16. Read.](#)

[U. S. Office of the Chairman of the Joint Chiefs of Staff. *Space Operations*. Joint Publication \(JP\) 3-14. Washington, DC: CJCS, 10 April 2018 Incorporating Change 1, 26 October 2020. Read pp. I-1 - I-2, II-1 - II-18 and IV-1 - IV-9.](#)

[China Aerospace Studies Institute. "In Their Own Words: Science of Military Strategy 2020." Montgomery, AL: Air University, Jan 2022. Read pp. 142-148.](#)

[Way, Tyler. "Counterspace Weapons 101." Center for Strategic and International Studies, June 14, 2022. Read.](#)

☰ Supplemental Reading

[U.S. Department of Defense. *Military and Security Developments Involving the People's Republic of China, Annual Report to Congress, 2023*. pp.71-73, 97-103.](#)





INTERORGANIZATIONAL COOPERATION AND CAMPAIGNING

The crux of interorganizational cooperation is understanding the civil-military relationship as collaborative rather than competitive. While the military normally focuses on achieving clearly defined and measurable objectives within given timelines under a C2 structure, civilian organizations are concerned with fulfilling shifting political, economic, social, and humanitarian interests using negotiation, dialogue, bargaining, and consensus building.

-- Joint Publication 3-08 *Interorganizational Cooperation* (2017)

OBJECTIVES

- Value the contributions of civilian government agencies, international organizations, non-government organizations, and contractors to Joint operations and campaigns.
- Understand the continuing practical challenges of interorganizational cooperation in campaigning across the competition continuum.
- Evaluate ways and means for achieving interorganizational cooperation in Joint operations and campaigns.

🔍 Focus

This session addresses the continuing need for the contributions of organizations outside of the U.S. military to combatant commander Joint Operations and Campaigns and the challenges of achieving unity of effort with those organizations.

Background

Non-military organizations have in varying degrees and specifics legal authorities, experience and expertise, capabilities, and capacities that are required for combatant commander success but are not resident in the military. They often also offer different perspectives that improve military planning and decision making. At the same time, their legal charters, organizational structures and processes, objectives and interests, cultures, and constituencies depart from those of the military to varying degrees.

Federal civilian organizations have their own reporting lines and rarely are under direct control of the military; in some cases, the military comes under their control. Organizations outside the federal government (including U.S. state and local governments as well as non-governmental and international organizations) are essentially independent of control by the military. Irrespective their many differences, these organizations share one important characteristic: they cannot be commanded by the military, so that unity of effort must be achieved by different means. In all of this, the practical challenges to achieving unity of effort today resemble, but are more expansive, complex and difficult than the problem of “Jointness” on which the United States has been working for almost 150 years.

World War II was fought successfully not just by the military but by myriad federal civilian agencies such as the State, Commerce, and Treasury Departments, Office of Strategic Services (OSS), and the Board of Economic Warfare, the last of which, among many endeavors, controlled exports, planned and executed economic blockades, and engaged in preemptive purchasing to deny critical resources to the enemy. Even before the war officially commenced for the United States in December 1941, the United States had conducted an effective multi-dimensional financial siege against Japan. During the war, and especially after, the International Red Cross and other non-governmental organizations provided essential services.

Building on its World War II experience, throughout the Cold War the United States directed both military and federal civilian agencies and resources against the Soviet Union. Employing all elements of national power – diplomatic, informational, military, and economic (the so-called DIME) – proved effective in this long war. Contributions of the Central Intelligence Agency (CIA), U.S. Information Agency (USIA), Agency for International Development (USAID) were especially noteworthy.

Peace operations following the dissolution of the Soviet Union produced military attention to the essential contributions of myriad non-military organizations to success across the range of operations, resulting in the milestone October 1996 *Interagency Coordination During Joint Operations Joint Publication (JP) 3-08*. Continuing military involvement in





INTERORGANIZATIONAL COOPERATION AND CAMPAIGNING

“complex contingency operations” gave further impetus to this focus. The Iraq and Afghanistan wars, particularly their associated “post-conflict” or “stability” operations, made clear not only the requirement for contributions of organizations outside the military (including, for example, the Departments of State, Homeland Security, Agriculture, Justice, and Treasury, along with United Nations agencies, non-governmental organizations, and civilian contractors) to the national mission but the continuing inadequacy of mechanisms to gain their cooperation and contributions.

The United States refocus on “Great Power” competition (to include “gray zone activities”) and violent conflict with state actors, along with reconceptualizing combatant commanders’ ongoing efforts as “campaigning,” has renewed attention to what is now called “Interorganizational Cooperation,” a term believed to capture both the range of other organizations and how to obtain their important contributions. The requirement for combatant commander cooperation with other organizations does not end when violent conflict commences; it remains integral to effective combatant commander planning for (to include, for example, basing agreements and SOFAs) and execution of violent conflict as well as for follow-on operations.

To be sure, the United States has developed and maintained certain mechanisms and processes for interorganizational cooperation, but substantially more is needed. This is especially important now given the “Ways of War” of our adversaries, which, as we have seen, seek to defeat us through coordinated (if not fully integrated) diplomatic, informational, military, and economic (DIME) means, perhaps even without direct military conflict, e.g., “gray zone activities.” In this context, we do not need to achieve perfection in interorganizational cooperation, but to do it better than our adversaries.

?? Questions

What are the several categories of other organizations that are relevant to combatant commanders? How does understanding these categories assist the combatant commander and staff to work with them?

What characteristics do other organizations share with the military? So what?

In what types of campaigns and operations (and phases) are contributions from other organizations most useful?

The military is accustomed to achieving “unity of effort” through “unity of command,” but there are many organizations with which it must work that it can neither command nor control. Given the practical value of their contributions across the competition continuum, to include violent state-on-state conflict, and the differences from the military of these organizations, how can the military achieve “unity of effort”?

What are the incentives for other organizations to cooperate with the military? What do they want from the military?

What mechanisms already exist for promoting interorganizational cooperation? Are they effective?

How might the combatant commander usefully incorporate the perspectives of other organizations in planning processes across all phases of campaigns and operations?

☰ Required Reading (70 Pages)

[McArthur, James C. et al. “Interorganizational Cooperation Part I of III: The Interagency Perspective.” *Joint Force Quarterly* No.79 \(4th Qtr. 2015\): 106-112. **Read.**](#)

[McArthur, James C. et al. “Interorganizational Cooperation III of III: The Joint Force Perspective.” *Joint Force Quarterly* No. 81 \(2nd Qtr. 2016\): 129-139. **Read.**](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Publication \(JP\) 3-08 *Interorganizational Cooperation* Washington, DC: CJCS, 12 October 2016, Validated 18 October 2017. **Read Chapters 1 and 2.**](#)





INTERORGANIZATIONAL COOPERATION AND CAMPAIGNING

[RAND](#). "A New Framework for Understanding and Countering China's Gray Zone Tactics." (Santa Monica: RAND, March 2022). **Review**.

☰ Supplemental Reading

[Barno, David and Nora Bensahel](#). "The Military is from Mars, Civilians Are from Venus: Avoiding Planetary Collisions in the Conference Room." *War On The Rocks*, 22 March 2016..

[Chisholm, Donald](#). *Coordination without Hierarchy: Informal Structures in Multiorganizational Systems*. Berkeley: University of California Press, 1989.

[McArthur, James C. et al.](#) "Interorganizational Cooperation Part II of III: The Humanitarian Perspective." *Joint Force Quarterly* No. 80 (1st Qtr. 2016): 145-152.

"[Micronesia's President Writes Bombshell Letter on China's 'Political Warfare.'](#)" *The Diplomat*. 10 March 2023. <https://thediplomat.com/2023/03/micronesias-president-writes-bombshell-letter-on-chinas-political-warfare/>.

[Miller, Edward S.](#) *Bankrupting the Enemy: The U.S. Financial Siege of Japan Before Pearl Harbor*. Annapolis, MD: Naval Institute Press, 2007.





JMO-42

THE CHARACTER OF FUTURE CONFLICT

The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish... the kind of war on which they are embarking.

—Carl von Clausewitz, *On War* (1832)

OBJECTIVES

- Evaluate evolving trends in the changing character of conflict.
- Evaluate the utility of the concepts of hybrid warfare, asymmetric warfare, unrestricted warfare, irregular warfare, and gray zone competition for understanding and addressing contemporary and future security challenges.
- Assess the implications of the volatile and ambiguous future security environment for the Joint Force Commander.

🔍 Focus

This session expands upon our discussion of contemporary competition and conflict to consider what the future may bring -- an inevitably fraught, perilous endeavor. Although we expect that the *nature* of war will remain unchanged, as we have seen, over the centuries its *character* has undeniably changed and will continue to change. This session addresses the changing character of warfare in an era marked by return to great power competition, one in which the American preference for a clear distinction between "war" and "peace" no longer (if it ever was) appears relevant. The concepts of hybrid, asymmetric and irregular warfare, as well as "gray zone" competition below the threshold of armed conflict, are evaluated for their utility in helping us to navigate this brave new world.

It is organized as a lecture followed by seminar discussion.

≡ Background

Since the Treaty of Westphalia ended the Thirty Years War in 1648, Western theorists and historians have considered state-on-state conventional conflict to be the primary method of using force to achieve political objectives. European states' expanding technological and organizational prowess enabled them to conduct increasingly broader and more destructive conflicts across the globe, reaching their apotheosis with World War II. Post-war decolonialization and the proliferation of national liberation movements, supported and rationalized by Marxist and, more recently, Islamist ideology and tactics, have led to insurgencies in both hemispheres, some of them successful, many of them still ongoing.

However, the international operational reach and effectiveness of non-state actors, particularly compared to the rising European states, was historically limited. This no longer applies in the post-Cold War-9/11 world, with ready access to deadly weapons and exploitation of cyber weapons in an interconnected world. As military capabilities and capacities of non-state actors have increased and expanded into "new" patterns of conflict and warfare, states have been compelled to address them as more than just nuisance or noise.

The population-centric character of much recent contemporary conflict, combined with rapid adaptation of civilian information technology, has allowed opposition forces to create dilemmas for states. Adaptive, ruthless state and non-state adversaries have sought and often found effective ways to attack those with whom they violently disagree, especially U.S. and Western interests, both overseas and on the home front. Insurgents have been able to acquire both conventional and unconventional capabilities that, when combined in innovative ways, sometimes exceed in effectiveness the firepower of their governmental foes. Irregular warfare continues to challenge not only fragile but also developed nation states.

Among non-state actors, Al Qaeda and Daesh have written extensively about new ways to attack and defeat the conventionally superior United States and other Western states. Their ideas, along with training and planning techniques, have spread globally via the internet. While these opponents may not be professional militaries, this does not necessarily make them less effective. It does make them less predictable and harder to identify. And they are not typically concerned with the constraints of international law, but are prepared to exploit them for their own purposes. These threats will not go away anytime soon.





JMO-42

THE CHARACTER OF FUTURE CONFLICT

At the same time, as we have seen, the People's Republic of China's (PRC) rapid development as an economic, political, and military power, one with a strong sense of its own centrality in the universe, has altered not only the international balance of power, but the ways in which national objectives have been pursued. The PRC viewed the 1991 Gulf War as a watershed event in the character of war, which has conditioned how it engages with the U.S. and the rest of the world. The PRC's ongoing exploitation of a panoply of coercive means below the level of direct armed conflict (the so-called "gray zone" or portion of the competition continuum intended to advance the PRC's interests without reaching the threshold at which the United States and its allies would respond with force) reflects both a continuation and extension of its traditional approaches, as explicated by Sun Tzu and Mao, and a direct recognition of U.S. superiority in conventional warfare. The PRC continues to challenge the United States and undermine the post-World War II international order in ways that defy ready resolution by means that the United States historically has found congenial and effective.

Although not likely to become a threat at the same level as the PRC, Russia remains a nuclear power and has been active in a spoiler role internationally while asserting itself in Europe, especially in former parts of the Soviet Union, while threatening the Baltic states, and attempting through economic (especially energy resources) and other means to coerce other European states. Like the PRC, Russia has used a wide range of unconventional means, such as computer network attack, psychological warfare, influence operations, and proxy military forces, combined with conventional military forces, to advance its ends. Still, Russia's "special operation" (invasion of and war against) the sovereign state of Ukraine has made manifest that conventional state-on-state attrition warfare (including intentional targeting of civilians) is by no means a thing of the past.

The Ukraine War has profoundly affected virtually all aspects of the post-World War II international order in ways that few might have predicted before the war's onset little more than two years ago. Making matters more complex, Russia and the PRC have recently increased their partnerships across a range of areas, to include space. At the same time, preplanned economic sanctions used by the U.S. and its allies against Russia demonstrate that non-kinetic means of coercion remain viable.

Collectively, these threats render it essential for both military officers and civilian leaders to comprehend not only their emerging patterns, but also to understand how present and future opponents, state and non-state, intend to exploit them.

?? Questions

Are presently emerging patterns of warfare new or do they represent a return to historically common means for conducting war?

Discuss the common threads in the several concepts of unconventional, irregular, hybrid, and gray zone warfare. Are these concepts substantively different or merely different names for a common feature of the character of war in any age?

Explain the implications for the joint force commander of conceptualizing competition between nations as a continuum from cooperation through competition below the level of armed conflict and finally international armed conflict.

Analyze how a theater strategic commander and staff can effectively employ the military element of power to support competition below the level of armed conflict while preparing for war.

☰ Required Reading (36 Pages)

Hoffman, Frank G. "Four Faces of War," Ch. 5, pp. 107-124 in Tim Swiejs and Jeffrey H. Michaels (Editors), *Beyond Ukraine: Debating the Future of War* (London: C. Hurst and Co., 2024). **Read.**

[This item available via Leganto.](#)





THE CHARACTER OF FUTURE CONFLICT

[Chisholm, Donald. "The Risk of Optimism in the Conduct of War." *Parameters* V. 33 No. 4 \(Winter 2003-2004\): 114-131. Read.](#)

☰ Supplemental Reading

[Becker, Jeffrey. "Joint Operating Environment 2040." *Military Intelligence Professional Bulletin*, Volume 46 Number 4 October–December 2020, pp. 35-37.](#)

[Hoffman, Frank G. "The Future Is Plural: Multiple Futures for Tomorrow's Joint Force." *Joint Force Quarterly* 88 \(1st Qtr. 2018\).](#)

[Liang, Qiao and Wang Xiangsui. *Unrestricted Warfare: Scenarios for War and the Operational Art in an Era of Globalization*. People's Liberation Army Literature and Arts Publishing House. \(February 1999\). \(NWC 3254\)](#)

[Liang, Qiao and Wang Xiangsui. "Do We Advocate Terrorism?" Originally published in March 2000 in *Jianchuan Zhishi*.](#)

[New Atlanticist, "The Next National Defense strategy is coming. These Seven Points are a Key to Understanding It," *The Atlantic Council*, 20 April 2022.](#)

[U.S. Department of Defense. *2022 National Defense Strategy Fact Sheet*. 28 March 2022.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Doctrine Note 1-19. *Competition Continuum*. Washington, DC: CJCS, 3 June 2019.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Concept for Integrated Campaigning*. Washington, DC: CJCS, 16 March 2018.](#)





JMO-43

CAPSTONE SYNTHESIS EVENT

- 1) *Is the proposed operation likely to succeed?*
- 2) *What might be the consequences of failure?*
- 3) *Is it in the realm of practicability in terms of material and supplies?*

- Card kept on CINCPAC/CINCPAC ADM Chester Nimitz's Desk (July 1944)

OBJECTIVES

- Create operational objectives that support theater strategic campaigns and meet national strategic guidance.
- Create potential military responses to emergent crises that achieve strategic objectives, while employing and sustaining forces in a joint, interagency, and international environment.
- Evaluate the validity of potential military responses and make appropriate changes and recommendations.

🔍 Focus

This session is the culminating event of the JMO curriculum. The Capstone Event pulls together all of the lessons from the JMO Phase II Senior Level Course and applies them to a theater level military problem. The purpose of this exercise is to synthesize course material by leveraging operational art theory, contemporary doctrine and planning, and our current warfighting concepts in a six-day exercise.

Moderators will provide a catalyst inject and conceptual planning guidance.

Deliverable: A Commander's Estimate of the Situation and an Operational Approach presentation—approximately 20 minutes—that provides a military response to emergent crises, followed by a 30 to 45-minute seminar discussion focused on the process by which the seminar members arrived at and refined their recommended Approach. Students will also plan and run a 90-minute Capstone hotwash on the final day of the course.

Students are advised that while this exercise may use real world strategic issues and landscapes, the catalyst and planning guidance will be based on a fictional situation, and are in no way predictive, nor does any part of this practical exercise reflect the policy of the U.S. Navy or the U.S. Government. This educational exercise provides students an opportunity to apply the principles and concepts studied throughout the trimester.

≡ Background

The Capstone Synthesis Event is intended to refine the students' ability to address problems associated with combat operations at the theater strategic and operational levels of war, and to demonstrate this skill set using the material taught throughout the JMO course. The fictional catalyst inject will change the operating environment and will involve a measure of urgency. This will drive a need to reassess and re-frame as seminars develop conceptual plans in an evolving environment. The catalyst will not drive to immediate execution of a numbered operational plan, but it will likely demand coherent employment of military power.

The Capstone Synthesis Event exists in the context of the mission statement for the JMO Phase II Senior Level Course:

The Joint Military Operations (JMO) course provides current, rigorous, and relevant senior JPME supporting CJCS OPMEP and the Navy's PME Continuum with a primary focus at the theater-strategic level. Graduates will be skilled military and government leaders prepared to meet operational and strategic challenges across the competition continuum*, with an emphasis on warfighting.

The deliverable should be oriented as a product that would serve as the basis for advising national command authority regarding military options, and for informing commander's guidance for follow on planning. With such basis for foundational understanding, further detailed planning would have a better chance of setting conditions to achieve victory in the kind of near future complex military operating environments posited by the capstone scenario. Students should be particularly alert to both risks *and* opportunities.





CAPSTONE SYNTHESIS EVENT

?? Questions

How does a Combatant Commander effectively leverage component or multi-national perspectives and capabilities when planning operations?

How does the Combatant Commander best integrate and leverage elements of military power?

How does the Commanders Estimate of the Situation relate to shorter term conceptual planning?

How does a high-level staff manage the tension between the need to reframe conceptual understanding of the operating environment and the potential need to quickly start detailed planning?

Required Reading (41 Pages)

[Aquilino, John C. "Statement of Admiral John C. Aquilino, U.S. Navy, Commander, U.S. Indo-Pacific Command," 18 April 2023. Read.](#)

[Dempsey, Martin E. "Letter to Senate Armed Services Committee," 19 July 2013. \(NWC 4205\). Review.](#)

["Forces/Capabilities Handbook". Joint Military Operations Reference Guide. January 2023. \(NWC 3153T\). Review.](#)

[Selected USN/USMC and PLA/\(N\)/\(AF\) Tactical Capability Handbook. \(NWC 2164E\). Review.](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. Joint Planning. Joint Publication \(JP\) 5-0. Washington, DC: CJCS, 01 DEC 2020. Review pp. IV-1 to IV-45.](#)



JMO SLC AUGUST 2024

MONDAY 29	TUESDAY 30	WEDNESDAY 31	THURSDAY 1	FRIDAY 2
MONDAY 5	TUESDAY 6	WEDNESDAY 7	THURSDAY 8	FRIDAY 9
Cloister	Convocation	FWS	FWS	0830-0900 JMO-01 Course Overview (Lecture/Pringle) 0915-1145 JMO-02 Intro Seminar (Seminar)
MONDAY 12	TUESDAY 13	WEDNESDAY 14	THURSDAY 15	FRIDAY 16
0830-1145 JMO-03 Problem Solving and Military Decision Making (Lecture/Pringle/Seminar)	0830-1145 JMO-04 China Panel (Lecture/Spruance/Seminar)	0830-1000 JMO-05 Research Paper (Seminar) 1015-1145 JMO-06 Strategic Background of the Philippines Campaign (Lecture/Spruance)	0830-1000 JMO-07 Intro to Op Art (Seminar) 1015-1145 JMO-08 Military Objective and Levels of War (Seminar) NCC Clambake Event	0830-1145 JMO-09 Operational Factors (Seminar)
MONDAY 19	TUESDAY 20	WEDNESDAY 21	THURSDAY 22	FRIDAY 23
0830-1145 JMO-10 Operational Functions (Seminar)	0830-1000 JMO-11 Principles of War (Seminar) 1015-1145 JMO-12 Theater Structure & Geometry (Seminar) Initial Research Topic idea due	PMW Day	0830-1145 JMO-13 Critical Factor Analysis (Seminar)	Reading, Research, and Reflection
MONDAY 26	TUESDAY 27	WEDNESDAY 28	THURSDAY 29	FRIDAY 30
Electives 1	0830-1000 JMO-13 Critical Factor Analysis (Seminar continued) 1015-1145 JMO-14 Operational Design/Operational Leadership Philippines Campaign (Seminar)	0830-1145 JMO-14 Operational Design/ Operational Leadership Philippines Campaign (Seminar continued)	0830-1145 JMO-15 CES/Operational Idea Philippines (Seminar)	Labor Day 96 Hr.
Research Question & Draft Thesis Due	IPR#1	IPR#1	IPR#1	IPR#1

SEPTEMBER 2024

MONDAY 2	TUESDAY 3	WEDNESDAY 4	THURSDAY 5	FRIDAY 6
Labor Day	0830-1430 JMO-16 Wargame Philippines	Electives 2	0830-1000 JMO-17 Naval Power and the Role of Naval Forces (Seminar) 1015-1145 JMO-18 Struggle for Sea Control (Seminar)	0830-1145 JMO-19 Chinese Maritime Strategy (Lecture/ Pringle /Seminar)
				Full Research Paper Proposal Due
MONDAY 9	TUESDAY 10	WEDNESDAY 11	THURSDAY 12	FRIDAY 13
Electives 3	0830-1145 JMO-20 Operational design: Falklands-Malvinas Conflict (Lecture/ Spruance /Seminar)	0830-1145 JMO-20 Operational design: Falklands-Malvinas Conflict (Seminar continued)	0830-1145 JMO-21 CES Falklands/Malvinas (Seminar)	0830-1430 JMO-22 Wargame Falklands-Malvinas
FSP	FSP IPR#2	FSP IPR#2	FSP IPR#2	FSP IPR#2
MONDAY 16	TUESDAY 17	WEDNESDAY 18	THURSDAY 19	FRIDAY 20
Electives 4	Reading, Research, and Reflection	PMW DAY	JMO-23 Exam 0830 Exam issued	1200 Exam returned
MONDAY 23	TUESDAY 24	WEDNESDAY 25	THURSDAY 26	FRIDAY 27
Electives 5	0830-1145 JMO-24 Policy Aims to Strategic Guidance (Seminar)	0830-1145 JMO-25 Strategic Guidance to Op Plans (Classified seminar/ MLH)	0830-1145 JMO-26 Design Methodology (Seminar)	0830-1145 JMO-27 Joint Planning Process (Lecture/ Pringle /Seminar)

OCTOBER 2024

MONDAY 30 SEP	TUESDAY 1	WEDNESDAY 2	THURSDAY 3	FRIDAY 4
Electives 6	0830-1145 JMO-28 Operational Command and Control (Seminar)	0830-1145 JMO-29 Operational Intelligence (Seminar)	0830-1145 JMO-30 Joint Logistics and Campaigning (Lecture/Pringle/Seminar)	Reading, Research, and Reflection
MONDAY 7	TUESDAY 8	WEDNESDAY 9	THURSDAY 10	FRIDAY 11
Electives 7	0830-1145 JMO-31 Small Wars and Irregular Warfare (Seminar)	0830-1145 JMO-32 Chinese way of war (Lecture/Spruance/Seminar)	0830-1145 JMO-33 Russian way of war (Lecture/Pringle/Seminar)	Reading, Research, and Reflection
MONDAY 14	TUESDAY 15	WEDNESDAY 16	THURSDAY 17	FRIDAY 18
COLUMBUS DAY	0830-1145 JMO-34 Contemporary Challenges to Sea Control (Classified Lecture/MLH/Seminar)	Electives 8	0830-1000 JMO-35 JWC Overview (Classified Lecture/MLH/Seminar) 1200-1530 JMO-35 Component Warfighter Talks (Classified Panel)	0830-1145 JMO 36-Wargame Department Lessons Learned (Classified Lecture/MLH/Seminar) 1630- Research Papers Due
		FSP	FSP	FSP
MONDAY 21	TUESDAY 22	WEDNESDAY 23	THURSDAY 24	FRIDAY 25
Electives 9	0830-1145 JMO-37 Operational Law and Lawfare (Panel/Pringle/Seminar)	PMW DAY	0830-1000 JMO-38 Information Warfare (Seminar) 1015-1145 JMO-39 Cyber Warfare (Seminar)	0830-1000 JMO-39 Cyber Warfare (Seminar continued) 1015-1145 JMO-40 Space Warfare (Seminar)
FSP	FSP	FSP		
MONDAY 28	TUESDAY 29	WEDNESDAY 30	THURSDAY 31	FRIDAY 1 NOV
Electives 10	0830-1145 JMO-41 Interorganizational Cooperation (Seminar)	0830-1145 Session-42 The Character of Future Conflict (Lecture/Pringle/Seminar)	0830-1145 JMO-43 Capstone Synthesis Event - (Lecture/Pringle) - CES	0830-1145 JMO-43 Capstone Synthesis Event - Planning

NOVEMBER 2024

MONDAY 4	TUESDAY 5	WEDNESDAY 6	THURSDAY 7	FRIDAY 8
0830-1145 JMO-43 Capstone Synthesis Event - Planning	0830-1145 JMO-43 Capstone Synthesis Event - Red Team	0830-1145 JMO-43 Capstone Synthesis Event - Red Team	0830-1145 JMO-43 Capstone Synthesis Event Out brief	0830-1000 JMO-43 Capstone Synthesis Event Hotwash 1015-1145 Course hotwash
MONDAY 11	TUESDAY 12	WEDNESDAY 13	THURSDAY 14	FRIDAY 15
VETERAN'S DAY OBSERVED				