

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

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

**AUGUST 2022**

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**FOREWORD:**

This syllabus provides a comprehensive overview of the Naval War College Joint Military Operations Department course on Joint Military Operations. Prepared for the College of Naval Warfare and the Naval Command 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:

  
Phil Haun, Dean of Academics

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## INDIVIDUAL COURSE SESSIONS

JMO-01 Course Overview (Lecture)  
JMO-02 Introductory Seminar (Seminar)  
JMO-03 Problem Solving and Intro to Conceptual Planning (Seminar)  
JMO-04 Understanding Guidance: Strategic Direction to Op Plans (Seminar)  
JMO-05 The Indo-Pacific Environment (Lecture)  
JMO-06 China Panel Discussion (Panel)  
JMO-07 Research Paper (Seminar)  
JMO-08 Strategic Background for the Philippines Campaign (Lecture)  
JMO-09 Intro to Operational Art (Seminar)  
JMO-10 The Military Objective and Levels of War (Seminar)  
JMO-11 Operational Factors (Seminar)  
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JMO-13 Theater Structure and Geometry (Seminar)  
JMO-14 Critical Factor Analysis and the Operational Idea (Seminar)  
JMO-15 Operational Design (Seminar)  
JMO-16 Naval Power and the Role of Naval Forces (Seminar)  
JMO-17 Struggle for Sea Control (Seminar)  
JMO-18 Contemporary Challenges to Sea Control (Lecture and Seminar)  
JMO-19 Falklands-Malvinas (Lecture and Exercise)  
JMO-20 Examination #1 (Individual Effort)  
JMO-21 Intro to Design Methodology (Seminar)  
JMO-22 Joint Planning Process (Lecture and Seminar)  
JMO-23 JSPS Overview (Lecture and Seminar)  
JMO-24 Understanding Guidance: Strategic Direction to Op Plans (Classified Seminar)  
JMO-25 Joint Logistics and Campaigning (Lecture and Seminar)  
JMO-26 Conceptual Planning PE #1- Framing the Environment (Exercise)  
JMO-27 Panel Discussion (Panel)  
JMO-28 Conceptual Planning PE #2- Framing the Problem (Exercise)  
JMO-29 Conceptual Planning PE #3- Framing the Operational Approach (Exercise)  
JMO-30 Small Wars (Seminar)  
JMO-31 The Information Environment (Seminar)  
JMO-32 Operational Law (Seminar)  
JMO-33 Cyber Warfare (Seminar)  
JMO-34 Irregular Warfare (Seminar)  
JMO-35 The Character of Future Conflict (Lecture/Seminar)  
JMO-36 Comprehensive Examination (Individual Effort)  
JMO-37 Capstone Synthesis Event (Exercise)

## JOINT MILITARY OPERATIONS COURSE DESCRIPTION

*There is a distinction between ability as a leader of men and ability as a strategist or tactician. The commander may be a great leader, a natural leader, and fail through lack of knowledge. Leadership is the art of inspiring, guiding, and directing bodies of men so that they ardently desire to do what the leader wishes. But the wishes of the leader will not bring victory unless the commander has the strategical knowledge and the tactical skill to make a good plan.*

– US Navy War Instructions (F.T.P. 143 (A)), November 1944

### 1. Mission

The Joint Military Operations (JMO) course is designed to provide 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 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 JMO course outcomes are supportive of the Naval War College (NWC) Program Learning Outcomes for Senior Level Education (SLE). Together, they outline what students will be able to do successfully upon completion of the JMO course.

- Apply critical thinking, creative thinking, and problem-solving skills to support decision making in joint military operations.
- Apply Operational Art to campaign and operational objectives.
- Apply Design Methodology to complex problems in operating environments across the competition continuum.
- Communicate how to effectively employ military power to achieve campaign and operational military objectives.

### 3. Course Objectives

The objectives below are derived from the CJCS' and CNO's guidance, NWC Mission, and support 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 leverage the instruments of national power across the 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 war fighters, 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 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 of great power competition across the continuum of competition, conflict, and war. 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. There is time 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. Joint Professional Military Education (JPME) Policy**

Title 10, U.S. Code, section 663 establishes certain statutory requirements for Joint Officer Management, including requirements for Joint Professional Military Education (JPME). JPME is defined elsewhere in Federal law (Title 10, U.S. Code, chapter 107) as "...consisting of the rigorous and thorough instruction of officers in an environment designed to promote a theoretical and practical in-depth understanding of joint matters and specifically, of the subject matter covered." The Chairman of the Joint Chiefs of Staff (CJCS) Instruction CJCSI 1800.01F (Officer Professional Military Education Policy (OPMEP)) sets the policies, procedures, objectives, and responsibilities for implementing this statutorily required officer JPME. This course is designed to support the College's senior level JPME II program in meeting those OPMEP requirements.

#### **6. Course Organization**

This course is organized along three themes, or lines of academic effort, which are complimentary, cumulative, and to some degree, running concurrently throughout the trimester. The three lines of effort are:

- Operational Warfare

- Conflict Across the Continuum
- Conceptual Planning (including the Capstone Exercise)

In the Operational Warfare portion of the course, we examine the theory and practice of high intensity state-on-state warfare. The primary theoretical framework for this is Operational Art, 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 from WWII and the 1982 Falklands/Malvinas war, employing active learning techniques whenever possible.

Another line of academic effort is our examination of Conflict Across the Continuum. In these sessions we consider the current and future character of great power competition where hostile actors seek to undermine our interests without triggering an overt conflict. We look at the impact of cyber warfare, the challenges of operations in the information environment, and the influence of operational law, along with other facets of the dynamic and complex security environment facing the Joint Force today.

Interwoven with the other course themes throughout the trimester, our Conceptual Planning line of academic effort explores the use of Design Methodology to address complex or ill-structured problems through the lens of a Combatant Commander's campaign planning responsibilities. A current-day strategic challenge from the USINDOPACOM area of responsibility is used to focus our thinking. Design Methodology is a doctrinal model to aid in understanding and communicating cause-and-effect relationships in complex environments in order to develop pragmatic options with an ends-ways means balance. The JMO Conceptual Planning effort is threaded throughout the course and supported by individual student JMO research paper efforts on topics related to the USINDOPACOM strategic challenge. This trimester-long active learning experience culminates in the Capstone Exercise where students employ Design Methodology to produce options for responding to a fictional crisis in the form of sound military advice to political leaders.

## 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 while the *Products* identify those items that may be produced in fulfillment of the learning objectives. 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. A concomitant benefit of the case study is to give students vicarious experience through analysis of past great captains of war or to expand the knowledge of a specific geographic area. 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 theater strategic 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 the volatile, uncertain, complex, and ambiguous environment. 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 analyze critically the information presented by speakers and actively 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 allow students time to analyze critically information in order to develop viable solutions to ill-structured problems. Students

may be assigned to practical exercises as individuals, small groups, seminar, or even multiple seminars.

## 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, all readings should be questioned concerning their relationship to 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 syllabus session lists a number of readings. *Required Readings* must be read prior to the session; most are digitally available and downloadable to an iPad or similar digital device. 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. *Reading Identifiers*. Each reading that is not a complete book or publication has a cover page with a four-digit reading identifier (e.g., **NWC 1002**). Oftentimes this number is used in lieu of the title, but in either event, the readings are almost universally accessible through the JMO Blackboard Website.
- c. *Finding Specific Readings*. Required Readings are typically located on 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.
- d. *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:** Students are cautioned that classified readings and documents must be read on the premises of the Naval War College. These materials must be properly safeguarded at all times. Do not leave the materials unattended. Students are not provided with classified material storage containers (safes); it is therefore necessary to check out and return classified material on a daily basis. JMO faculty will provide additional information as required during the JMO trimester. Electronic devices, such as cell phones and iPads, are not allowed in the classified sessions.



## 10. Research Paper

The research paper presents an opportunity for students to conduct research and analysis, prepare a paper that advances the literature, and demonstrate critical thinking skills. Students will address a topic relevant to the current-day USINDOPACOM strategic challenge that is used as the case study for the Conceptual Planning and Capstone section of the course. The knowledge gained through the paper research effort will support the Capstone Synthesis Event by allowing each student to act as a subject matter expert in his/her Capstone Joint Planning Group (JPG).

This assignment requires independent thought and graduate-level writing; the final product is a 3,000 - 3,500 word paper suitable for publication in a professional journal. Students select their topic, focused at the upper tactical, operational, or in some cases, a 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.

Amplifying information and guidance on the execution of a successful research paper project is provided in *JMO Research Paper Guidance for Students (NWC 2062AF)*. Moderators will serve as student paper advisors, answer questions, and otherwise assist students in this most important intellectual undertaking.

## 11. Plagiarism, Cheating, and Misrepresentation

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 8583 (U.S. Air 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 one year 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 12–15 hours of in-class and 24–30 hours of out-of-class work. Additionally, students should expect to dedicate 80-100 hours 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. Not all requirements are graded, but each provides the student with

some measure of evaluation at that point in the course. 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
Exam #1	Written/Individual	15%	20-21 September
Seminar/Exercise Contribution	Daily assessment	35%	05 Aug–04 Nov
Comprehensive Exam	Written/Individual	15%	28 October
Research Paper	Written/Individual	35%	14 October

*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 Workbooks 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 II 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 Board 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, initial literature review, development of a sound 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 thesis, 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 assigned 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 Exams:* Exams #1 and #2 require students to apply their knowledge of key concepts of the course. Both exams are open-book and require individual work. The exams will focus on aspects presented thus far in the course. Responses to both of these examinations will be 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 Exercise contributions:* Contribution grades are determined by moderator evaluation of the quality of a student's contributions to seminar discussions, projects, and exercises. 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. The Chairman will also publish separately the student seminar and classroom assignments.

## 15. Schedule

JMO seminars normally meet in the mornings and NSA 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 normally are scheduled from 0830–1145 however, some sessions may require additional time based on planning or 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, 841-3556 <a href="mailto:john.porado@usnwc.edu">john.porado@usnwc.edu</a>
Executive Assistant	PROF F. B. Horne (USN (Ret)) Room C-420, 841-6458 <a href="mailto:fred.horne@usnwc.edu">fred.horne@usnwc.edu</a>
Academic Coordinator	Ms. Susan Soderlund Room C-417, 841-4120 <a href="mailto:susan.soderlund@usnwc.edu">susan.soderlund@usnwc.edu</a>
Course Coordinator	PROF Ivan Luke (USCG (Ret)) Room C-431, 841-2598 <a href="mailto:ivan.luke@usnwc.edu">ivan.luke@usnwc.edu</a>
Coordinator, Operational Warfare Sessions	PROF Paul Povlock (USN (Ret)) Room C-410, 841-6477 <a href="mailto:paul.povlock@usnwc.edu">paul.povlock@usnwc.edu</a>
Coordinator, Conflict Across the Continuum	PROF Don Chisholm Room C-422, 841-2328 <a href="mailto:chisholm@usnwc.edu">chisholm@usnwc.edu</a>
Coordinator, Conceptual Planning & Capstone Synthesis Event	PROF Carol Prather (USN (Ret)) Room C-409, 841-7842 <a href="mailto:Carol.Prather@usnwc.edu">Carol.Prather@usnwc.edu</a>



## **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. All JMO faculty will have office hours and will make time available to advise students upon request. 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 tutorials, 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 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 big part of continuous improvement is constructive feedback from students. For this purpose, students have available a confidential running 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. Your constructive comments will help us 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. Most of these presentations feature the chiefs of service or regional and functional Combatant Commanders. These speakers are invited to discuss their views and ideas from the 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.

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## INDIVIDUAL COURSE SESSIONS

JMO-01 Course Overview (Lecture)  
JMO-02 Introductory Seminar (Seminar)  
JMO-03 Problem Solving and Intro to Conceptual Planning (Seminar)  
JMO-04 Understanding Guidance: Strategic Direction to Op Plans (Seminar)  
JMO-05 The Indo-Pacific Environment (Lecture)  
JMO-06 China Panel Discussion (Panel)  
JMO-07 Research Paper (Seminar)  
JMO-08 Strategic Background for the Philippines Campaign (Lecture)  
JMO-09 Intro to Operational Art (Seminar)  
JMO-10 The Military Objective and Levels of War (Seminar)  
JMO-11 Operational Factors (Seminar)  
JMO-12 Operational Functions (Seminar)  
JMO-13 Theater Structure and Geometry (Seminar)  
JMO-14 Critical Factor Analysis and the Operational Idea (Seminar)  
JMO-15 Operational Design (Seminar)  
JMO-16 Naval Power and the Role of Naval Forces (Seminar)  
JMO-17 Struggle for Sea Control (Seminar)  
JMO-18 Contemporary Challenges to Sea Control (Lecture and Seminar)  
JMO-19 Falklands-Malvinas (Lecture and Exercise)  
JMO-20 Examination #1 (Individual Effort)  
JMO-21 Intro to Design Methodology (Seminar)  
JMO-22 Joint Planning Process (Lecture and Seminar)  
JMO-23 JSPS Overview (Lecture and Seminar)  
JMO-24 Understanding Guidance: Strategic Direction to Op Plans (Classified Seminar)  
JMO-25 Joint Logistics and Campaigning (Lecture and Seminar)  
JMO-26 Conceptual Planning PE #1- Framing the Environment (Exercise)  
JMO-27 Panel Discussion (Panel)  
JMO-28 Conceptual Planning PE #2- Framing the Problem (Exercise)  
JMO-29 Conceptual Planning PE #3- Framing the Operational Approach (Exercise)  
JMO-30 Small Wars (Seminar)  
JMO-31 The Information Environment (Seminar)  
JMO-32 Operational Law (Seminar)  
JMO-33 Cyber Warfare (Seminar)  
JMO-34 Irregular Warfare (Seminar)  
JMO-35 The Character of Future Conflict (Lecture/Seminar)  
JMO-36 Comprehensive Examination (Individual Effort)  
JMO-37 Capstone Synthesis Event (Exercise)

## JOINT MILITARY OPERATIONS COURSE DESCRIPTION

*There is a distinction between ability as a leader of men and ability as a strategist or tactician. The commander may be a great leader, a natural leader, and fail through lack of knowledge. Leadership is the art of inspiring, guiding, and directing bodies of men so that they ardently desire to do what the leader wishes. But the wishes of the leader will not bring victory unless the commander has the strategical knowledge and the tactical skill to make a good plan.*

– US Navy War Instructions (F.T.P. 143 (A)), November 1944

### 1. Mission

The Joint Military Operations (JMO) course is designed to provide 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 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 JMO course outcomes are supportive of the Naval War College (NWC) Program Learning Outcomes for Senior Level Education (SLE). Together, they outline what students will be able to do successfully upon completion of the JMO course.

- Apply critical thinking, creative thinking, and problem-solving skills to support decision making in joint military operations.
- Apply Operational Art to campaign and operational objectives.
- Apply Design Methodology to complex problems in operating environments across the competition continuum.
- Communicate how to effectively employ military power to achieve campaign and operational military objectives.

### 3. Course Objectives

The objectives below are derived from the CJCS' and CNO's guidance, NWC Mission, and support 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 leverage the instruments of national power across the 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 war fighters, 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 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 of great power competition across the continuum of competition, conflict, and war. 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. There is time 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. Joint Professional Military Education (JPME) Policy**

Title 10, U.S. Code, section 663 establishes certain statutory requirements for Joint Officer Management, including requirements for Joint Professional Military Education (JPME). JPME is defined elsewhere in Federal law (Title 10, U.S. Code, chapter 107) as "...consisting of the rigorous and thorough instruction of officers in an environment designed to promote a theoretical and practical in-depth understanding of joint matters and specifically, of the subject matter covered." The Chairman of the Joint Chiefs of Staff (CJCS) Instruction CJCSI 1800.01F (Officer Professional Military Education Policy (OPMEP)) sets the policies, procedures, objectives, and responsibilities for implementing this statutorily required officer JPME. This course is designed to support the College's senior level JPME II program in meeting those OPMEP requirements.

#### **6. Course Organization**

This course is organized along three themes, or lines of academic effort, which are complimentary, cumulative, and to some degree, running concurrently throughout the trimester. The three lines of effort are:

- Operational Warfare

- Conflict Across the Continuum
- Conceptual Planning (including the Capstone Exercise)

In the Operational Warfare portion of the course, we examine the theory and practice of high intensity state-on-state warfare. The primary theoretical framework for this is Operational Art, 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 from WWII and the 1982 Falklands/Malvinas war, employing active learning techniques whenever possible.

Another line of academic effort is our examination of Conflict Across the Continuum. In these sessions we consider the current and future character of great power competition where hostile actors seek to undermine our interests without triggering an overt conflict. We look at the impact of cyber warfare, the challenges of operations in the information environment, and the influence of operational law, along with other facets of the dynamic and complex security environment facing the Joint Force today.

Interwoven with the other course themes throughout the trimester, our Conceptual Planning line of academic effort explores the use of Design Methodology to address complex or ill-structured problems through the lens of a Combatant Commander's campaign planning responsibilities. A current-day strategic challenge from the USINDOPACOM area of responsibility is used to focus our thinking. Design Methodology is a doctrinal model to aid in understanding and communicating cause-and-effect relationships in complex environments in order to develop pragmatic options with an ends-ways means balance. The JMO Conceptual Planning effort is threaded throughout the course and supported by individual student JMO research paper efforts on topics related to the USINDOPACOM strategic challenge. This trimester-long active learning experience culminates in the Capstone Exercise where students employ Design Methodology to produce options for responding to a fictional crisis in the form of sound military advice to political leaders.

## 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 while the *Products* identify those items that may be produced in fulfillment of the learning objectives. 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. A concomitant benefit of the case study is to give students vicarious experience through analysis of past great captains of war or to expand the knowledge of a specific geographic area. 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 theater strategic 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 the volatile, uncertain, complex, and ambiguous environment. 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 analyze critically the information presented by speakers and actively 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 allow students time to analyze critically information in order to develop viable solutions to ill-structured problems. Students



may be assigned to practical exercises as individuals, small groups, seminar, or even multiple seminars.

## 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, all readings should be questioned concerning their relationship to 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 syllabus session lists a number of readings. *Required Readings* must be read prior to the session; most are digitally available and downloadable to an iPad or similar digital device. 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. *Reading Identifiers*. Each reading that is not a complete book or publication has a cover page with a four-digit reading identifier (e.g., **NWC 1002**). Oftentimes this number is used in lieu of the title, but in either event, the readings are almost universally accessible through the JMO Blackboard Website.
- c. *Finding Specific Readings*. Required Readings are typically located on 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.
- d. *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:** Students are cautioned that classified readings and documents must be read on the premises of the Naval War College. These materials must be properly safeguarded at all times. Do not leave the materials unattended. Students are not provided with classified material storage containers (safes); it is therefore necessary to check out and return classified material on a daily basis. JMO faculty will provide additional information as required during the JMO trimester. Electronic devices, such as cell phones and iPads, are not allowed in the classified sessions.

## 10. Research Paper

The research paper presents an opportunity for students to conduct research and analysis, prepare a paper that advances the literature, and demonstrate critical thinking skills. Students will address a topic relevant to the current-day USINDOPACOM strategic challenge that is used as the case study for the Conceptual Planning and Capstone section of the course. The knowledge gained through the paper research effort will support the Capstone Synthesis Event by allowing each student to act as a subject matter expert in his/her Capstone Joint Planning Group (JPG).

This assignment requires independent thought and graduate-level writing; the final product is a 3,000 - 3,500 word paper suitable for publication in a professional journal. Students select their topic, focused at the upper tactical, operational, or in some cases, a 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.

Amplifying information and guidance on the execution of a successful research paper project is provided in *JMO Research Paper Guidance for Students (NWC 2062AF)*. Moderators will serve as student paper advisors, answer questions, and otherwise assist students in this most important intellectual undertaking.

## 11. Plagiarism, Cheating, and Misrepresentation

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 8583 (U.S. Air 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 one year 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 12–15 hours of in-class and 24–30 hours of out-of-class work. Additionally, students should expect to dedicate 80-100 hours 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. Not all requirements are graded, but each provides the student with

some measure of evaluation at that point in the course. 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
Exam #1	Written/Individual	15%	20-21 September
Seminar/Exercise Contribution	Daily assessment	35%	05 Aug–04 Nov
Comprehensive Exam	Written/Individual	15%	28 October
Research Paper	Written/Individual	35%	14 October

*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 Workbooks 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 II 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 Board 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, initial literature review, development of a sound 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 thesis, 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 assigned 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 Exams:* Exams #1 and #2 require students to apply their knowledge of key concepts of the course. Both exams are open-book and require individual work. The exams will focus on aspects presented thus far in the course. Responses to both of these examinations will be 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 Exercise contributions:* Contribution grades are determined by moderator evaluation of the quality of a student's contributions to seminar discussions, projects, and exercises. 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. The Chairman will also publish separately the student seminar and classroom assignments.



## 15. Schedule

JMO seminars normally meet in the mornings and NSA 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 normally are scheduled from 0830–1145 however, some sessions may require additional time based on planning or 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, 841-3556 <a href="mailto:john.porado@usnwc.edu">john.porado@usnwc.edu</a>
Executive Assistant	PROF F. B. Horne (USN (Ret)) Room C-420, 841-6458 <a href="mailto:fred.horne@usnwc.edu">fred.horne@usnwc.edu</a>
Academic Coordinator	Ms. Susan Soderlund Room C-417, 841-4120 <a href="mailto:susan.soderlund@usnwc.edu">susan.soderlund@usnwc.edu</a>
Course Coordinator	PROF Ivan Luke (USCG (Ret)) Room C-431, 841-2598 <a href="mailto:ivan.luke@usnwc.edu">ivan.luke@usnwc.edu</a>
Coordinator, Operational Warfare Sessions	PROF Paul Povlock (USN (Ret)) Room C-410, 841-6477 <a href="mailto:paul.povlock@usnwc.edu">paul.povlock@usnwc.edu</a>
Coordinator, Conflict Across the Continuum	PROF Don Chisholm Room C-422, 841-2328 <a href="mailto:chisholm@usnwc.edu">chisholm@usnwc.edu</a>
Coordinator, Conceptual Planning & Capstone Synthesis Event	PROF Carol Prather (USN (Ret)) Room C-409, 841-7842 <a href="mailto:Carol.Prather@usnwc.edu">Carol.Prather@usnwc.edu</a>

## **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. All JMO faculty will have office hours and will make time available to advise students upon request. 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 tutorials, 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 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 big part of continuous improvement is constructive feedback from students. For this purpose, students have available a confidential running 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. Your constructive comments will help us 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. Most of these presentations feature the chiefs of service or regional and functional Combatant Commanders. These speakers are invited to discuss their views and ideas from the 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.



## JMO-01

# COURSE OVERVIEW

### OBJECTIVES

- Understand the objectives 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 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 the "adjacent possible" tomorrow.

The goal of this trimester is to provide you some new perspectives – gained from history, 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 Readings (15 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 2022.](#) Newport, RI: August 2022.  
Read "Course Description", pages v to xix.





## 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*

### OBJECTIVES

- Comprehend seminar guidelines, course expectations, 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 conduct of the seminar. The research paper writing requirement is briefly introduced but will be discussed in more detail in a subsequent session.

### ?? Questions,

In the reading linked below, Professor Chisholm traces the evolution of planning for war within 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?

### 📖 Required Readings (18 Pages)

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

Scan your JMO Seminar's BlackBoard Course at: <https://navalwarcollege.blackboard.com>.





## PROBLEM-SOLVING AND CONCEPTUAL PLANNING

### OBJECTIVES

- Comprehend the character of human problem-solving.
- Comprehend the 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.

### Focus

This session begins the Planning block of the JMO curriculum. This session focuses on military planning and decision-making as specialized processes of human problem-solving behavior. It is organized as a lecture followed by seminar discussion.

*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)

In so doing, we consider the origins, components, and assumptions of the Joint Planning Process and the Design Methodology as specialized, formalized, and complementary forms of problem-solving adapted to the ever-widening range of problems the military is called upon to address. The Design Methodology comprises a major thread of the course, beginning with this session and concluding with the Capstone event.

### Background

The problem-solving approach 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.

Before World War I the U.S. Navy and Army had already begun developing their own versions of problem-solving at the tactical level, based on work done by the German army: the Estimate of the Situation, which provided the basis for the written order, commander's guidance, and decentralized execution by subordinates – what we now call mission command.

In the face of the rapidly increasing scale, complexity, and duration of warfare, it had also become 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 war with Japan. World War I experience made manifest the practical importance and viability of formal planning for success in military operations, especially within the context of coalitions. 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. This was accompanied by incremental adoption of what we now know as the operational art, which provided the technical language for military problem-solving. World War II proved a watershed for strategic and operational planning and the beginnings of the formal Joint planning process we practice today.





## PROBLEM-SOLVING AND CONCEPTUAL PLANNING

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 strategic levels – and horizontally – across services, Federal civilian agencies, coalition partners and allies, and contractors – further out in time, and across all domains, all in pursuit of a seamless 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 Joint planning has become *the way* by which the U.S., and increasingly, its friends and foes alike, engage in military problem-solving.

Although service and Joint Planning Processes have proven remarkably apt for conventional operations against other nation-states (e.g., Desert Storm), they have proven less effective for the expanded set of operations the military has increasingly been called to conduct (e.g., stability operations) and 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 China (and Russia) seeking to prevail against the United States and its partners through a complex combination of actions in all domains across the competition continuum.

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. As a form or mode of Conceptual Planning, it is intended to aid deeper understanding of operating environments and underlying problems. Its purpose is to provide cognitive tools to better develop and communicate military options integrated into a whole-of government approach for those problems whose solution extends well beyond conventional military operations. Joint doctrine on Design now provides a framework to visualize, understand, and develop approaches through the lens of four “frames.” Complementary to and increasingly integrated with the Joint Planning Process, the Design Methodology is intended to extend operational art’s vision with a methodology that helps commanders and planners to answer the ends – ways – means – risk questions.

### ?? Questions

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

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

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

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

How does the Design Methodology 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 (60 pp. and 4:44 min. of video)

Simon, Herbert A. “Decision Making: Rational, Nonrational, and Irrational.” *Educational Administration Quarterly* Vol. 29, No. 3 (August 1993): 392-411. (NWC 2196)

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

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

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.





## **PROBLEM-SOLVING AND CONCEPTUAL PLANNING**

General Martin Dempsey, Chairman, Joint Chiefs of Staff, "Letter to Senator Carl Levin, Chairman, Senate Armed Services Committee." 19 July 2013. Review. (NWC 4205)

Rauch, Daniel E., and Matthew Tackett. "Design Thinking." *Joint Force Quarterly*, 101, 2<sup>nd</sup> Quarter, April 2021, 11-17. (NWC 4192A)

U.S. Army. Army Design Methodology. Army Techniques Publication (ATP) 5-0.1. Washington, DC: Headquarters, Department of the Army. July 2015. Read pp. 3-3 through 3-12.







## JMO-04

# UNDERSTANDING GUIDANCE: STRATEGIC DIRECTION TO OPERATIONAL PLANS

*Before beginning, plan carefully.*

~ Marcus Tullius Cicero  
Roman Statesman

## Focus

This session is part of the Planning block of the JMO curriculum. The previous session, JMO-3, presented ways to think about problem solving, and introduced the idea of military planning as a form of problem solving. With any military planning, planners must understand strategic level guidance about whatever problem(s) the military is being asked to help solve. Hence, this session is about how to understand strategic guidance.

The session begins with an overview of strategic planning **theory** and the connection of policy aims to operational plans and ultimately tactical action. The session investigates the **doctrine and practice** of connecting current U.S. strategic guidance to operational level planning. The session then identifies the **current roles and responsibilities** of U.S. national strategic actors and operational Commanders to: identify strategic objectives in support of policy, assess the capabilities of the Joint Force and articulate risk, align forces and resources (ways and means) to prioritized ends, and to deliver guidance to operational planners. Key concepts include the role of the CJCS as **global integrator** between Geographical and Global Combatant Commands, and **Global Campaign Plans (GCPs) / Combatant Commander Campaign Plans (CCPs)**.

## OBJECTIVES

- Analyze the purpose, roles, functions, and responsibilities and relationships that translate national policy aims into operational planning guidance.
- Analyze the integration of strategic military guidance with other instruments of power in the development of operational plans to support national policy aims.
- Evaluate the requirements of strategic planning documents for operational planners (ends, ways, means, risk) and analyze the collaboration between national level planners and theater/regional level planners.
- Understand how Combatant Commanders and their staffs develop integrated Campaign Plans in line with strategic guidance

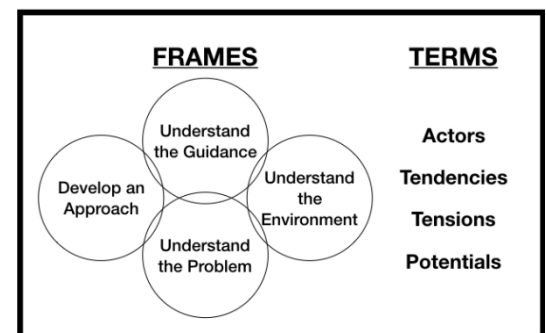


## Background

Campaign planning at the operational level of war requires skilled planners who are capable of problem solving, critical thinking and creative thinking. Additionally, operational planners must possess the skills to define problems, identify objectives, align ways and means to ends, and to describe risk. Ultimately, effective campaign planning must connect national policy aims to operational objectives and tactical action.

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, blood and treasure will be spent without purpose and risk assessment becomes incredibly difficult for tactical leaders.

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 names of these systems and processes have changed over time, but they all endeavor to provide higher guidance to the operational commands. Operational planners will often have to seek additional information, updated guidance, and clarification of strategic priority in order to craft campaign plans that nest with and serve the strategic desired ends of national leadership.





## JMO-04

# UNDERSTANDING GUIDANCE: STRATEGIC DIRECTION TO OPERATIONAL PLANS

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. In order for tactical action to have purpose, operational planners must translate policy aims and strategic direction with coherent, concise operational plans.

## ?? Questions

What elements of strategic guidance are necessary for operational and tactical planning to conduct both deliberate and crisis action planning?

How does the 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?

How might operational level planners distil clear operational objectives from broad strategic guidance and direction?

What are the friction points between national level policy makers and operational planners? What systems are in place to reduce this friction?

How does the concept of a competition continuum impact how planners approach campaigns in the Joint Force?

## Required Readings (26 Pages)

[Liddell-Hart, Sir Basil Henry. "The Objective in War: National Object and Military Aim." Naval War College Review 5, no. 10 December 1952. \(NWC 2046\)](#)

[Dunford, Joseph F. Jr., "The Character of War and Strategic Landscape Have Changed" Joint Force Quarterly 89, \(2nd Quarter, April 2018\): 2-3. \(NWC 1226\)](#)

[General Martin Dempsey, Chairman, Joint Chiefs of Staff, "Letter to Senator Carl Levin, Chairman, Senate Armed Services Committee." 19 July 2013. \(NWC 4205\)](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. \*Joint Doctrine Note 1-19, Competition Continuum\*. Chairman of the Joint Chiefs of Staff. 3 June 2019. Read 1-11.](#)





## THE INDO-PACIFIC ENVIRONMENT

*The vast Pacific Ocean has ample space for China and the United States. We welcome a constructive role by the United States in promoting peace, stability and prosperity in the region. We also hope that the United States will fully respect and accommodate the major interests and legitimate concerns of Asia-Pacific countries.*

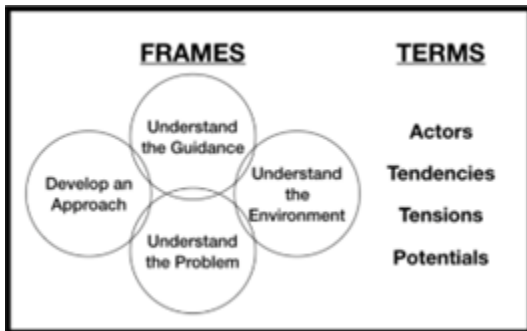
~ Xi Jinping ~

### OBJECTIVES

- Comprehend the complexity of the history and operating environment in the Western Pacific region.
- Comprehend the global nature of problems the US, as well as partners and allies, face
- Comprehend essential characteristics of threats posed by China

### Focus

This session is part of the block of JMO curriculum oriented to planning. The Planning block provides students with tools and concepts, but it also demands student *practice* throughout the term, culminating in the final Capstone Synthesis Event. Because the practice develops over time as students master the course material, the planning block is threaded through the course, vice being presented in strict sequence. The lectures for this session, first on actors in the Western Pacific region, and second, focused on threats presented by China, provide a starting place for beginning to frame the regional operating environment that is the backdrop for students' research, which will build expertise within the seminars for coming to grips with a capstone problem at the end of the course. As such, these lectures serve as jumping off points for each seminar's term-long conceptual planning effort focused on the Western Pacific.



### Background

The first JMO sessions examined the nature of problem solving, and presented planning (including military planning) as a form of problem solving. The next session examined sources of strategic level guidance, and how strategic direction is incorporated into operational plans. When facing a military planning problem, either short or long term, once commanders and planners have some idea as to what they are being asked to do by political leadership, it is essential to gain sufficient understanding of the operating environment in which the problems exist. Determining what constitutes "sufficient" understanding may be a major challenge. Initially, it makes sense to get a broad overview of the region, and of the biggest threats in the region.

In JMO, students will be asked to consider the following overarching question over the course of the trimester:

*With the reemergence of long-term, strategic competition by revisionist powers, what competition mechanisms should U.S. Indo-Pacific Command (USINDOPACOM) consider with regards to the maritime challenges in the Western Pacific?*

In the context of conceptual planning, students and seminars can begin forming their understanding of strategic guidance related to the problem or problems this question encompasses. Alongside that effort, will be the work to understand the Western Pacific operating environment. The two lectures for this session are intended to provide a description of many of the major characteristics of this operating environment, focused first on the major actors in the region. The first lecture will present a number of lenses for examining actors across the Western Pacific region, from





## THE INDO-PACIFIC ENVIRONMENT

the state down to the individual level. The second lecture provides a short, intensive look at China as an actor, and the threats China presents to other actors, and to U.S. interests.

### ?? Questions

To what extent should one examine non-state *as well as* state actors when trying to understand the Western Pacific region? To what extent should analysis of state actors be privileged in considering cause and effect?

To what extent does the behavior of actors outside the Western Pacific region drive events within the region? How strong are these effects?

Why does China think it should have sovereign rights inside the Nine-dashed line?

How long have disputes in the South and East China Seas been going on?

To what extent should problems in the Western Pacific be viewed as global problems?

### ☰ Required Readings (43 Pages)

Sangtam, Apila. "Vietnam's Strategic Engagement in the South China Sea." *Maritime Affairs: Journal of the National Maritime Foundation of India* 17, no. 1 (January 2, 2021): 41–57.  
<https://doi.org/10.1080/09733159.2021.1939868>

Grossman, Derek. "China Has Lost the Philippines Despite Duterte's Best Efforts." The Rand Blog, May 6, 2021.  
<https://www.rand.org/blog/2021/05/china-has-lost-the-philippines-despite-dutertes-best.html>.

Strangio, Sebastian. "Philippines' Marcos to Pursue Bilateral Deal With Beijing Over South China Sea." The Diplomat, January 28, 2022. <https://thediplomat.com/2022/01/philippines-marcos-to-pursue-bilateral-deal-with-beijing-over-south-china-sea/>.

Basu, Pratinashree. "Pop Culture and Strategic Messaging: How Netflix Got Caught in the South China Sea Dispute | ORF." Observer Research Foundation, January 3, 2022. <https://www.orfonline.org/expert-speak/pop-culture-and-strategic-messaging/>.

Dinarto, Dedi. "Can Bakamla Be at the Forefront of Indonesia's Natuna Sea Strategy?" The Diplomat, January 21, 2022. <https://thediplomat.com/2022/01/can-bakamla-be-at-the-forefront-of-indonesias-natuna-sea-strategy/>.

Abke, Tom. "Indonesia Spearheading Regional Cooperation in South China Sea | Indo-Pacific Defense Forum." *Indo-Pacific Defense Forum* (blog), March 5, 2022. <https://ipdefenseforum.com/2022/03/indonesia-spearheading-regional-cooperation-in-south-china-sea/>.

Cohen, Sam, and Alex Vivona. "Water Wars: Japan Focused on Defense Expansion, While U.S. Makes a Soft-Power Push - Lawfare." Lawfare, February 2, 2022. <https://www.lawfareblog.com/water-wars-japan-focused-defense-expansion-while-us-makes-soft-power-push>.

Varada, Pranay. "Micronesia: The Next US-China Battleground." Harvard International Review, December 6, 2021. <https://hir.harvard.edu/micronesia-the-next-us-china-battleground-2/>.





## JMO-06

# CHINA PANEL DISCUSSION

*"We must also contend with the reality that the distribution of power across the world is changing, creating new threats. China, in particular, has rapidly become more assertive. It is the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and open international system."*

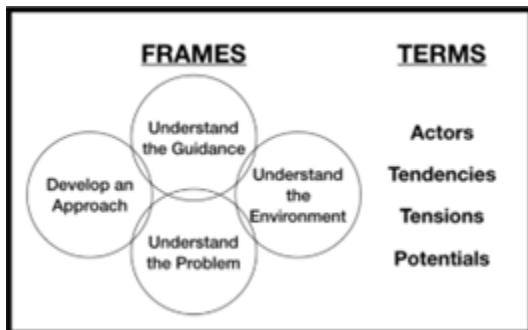
~ Interim National Security Strategic Guidance March 2021

### OBJECTIVES

- Gain an understanding of China.
- Comprehend how China uses its power at home and overseas.
- Identify challenges China is facing in sustaining its rise.

### Focus

This session is part of the Planning Block threaded through the JMO course. It continues from JMO-5 with providing a focused segment leveraging the knowledge of subject matter experts whose knowledge will help quickly orient students to the Western Pacific operating environment. Remembering from the previous session, the second lecture in JMO-5 discussed China from the standpoint of threat. This session introduces China as a strategic competitor of the United States, with a deeper examination of what it means to be Chinese, what China's strategic aims are, and how China thinks about how to pursue its own objectives. The session takes the form of a panel discussion. The panelists are drawn from the Naval War College faculty who have specialized expertise in various facets of China. This will provide an overview of the primary actor in the Pacific Theatre across several dimensions.



### Background

China is a re-emerging power, which recent National Security Strategies and the 2018 National Defense Strategy identify as a U.S. competitor. The competition with China is not just taking place in the realm of bilateral economics, but across a global continuum, with our allies & partners, and in the fora of the global institutions which uphold international norms and customs. The Department of Defense will likely not always be the lead agency in enacting policy in pursuit of U.S. objectives as we "compete," but it is nearly certain that the military will be called upon to act in varying capacities across all domains. The course of the competition will surely pose problems, and hence the military will also, of course, be called upon to engage in planning. A good thing to start with in planning, be it detailed or conceptual, is to work to understand the operating environment. JMO-05 and JMO-06, together, aim to help with this. They provide a concentrated shot of expert input in service to students being able to build awareness rapidly about actors in the INDOPACOM theater, and how the competition is taking place day-to-day. Further, this knowledge will be beneficial in helping students identify a topic for the JMO-07 Research Paper, support later framing of the operational environment in conceptual planning, and assist with building regional expertise within seminars in preparation for the final Capstone Synthesis Event. In previous jobs, you might not have been interested in, or dealt with great power competition, but great power competition is interested in you!





## CHINA PANEL DISCUSSION

### ?? Questions

How does the idea of “Being Chinese” compare or differ from your idea of “Being American”? Or, for our international students, from the self-concept that comes from being from your country?

How does the Chinese Communist Party integrate paradoxical ideologies and systems?

What does China want and how is the Chinese Communist Party planning to sustain its rise?

### Required Readings (59 Pages)

Barbara Demick, “Uncovering the Cultural Revolution’s Awful Truths,” *The Atlantic*, 6 November 2021. (NWC 3265)  
<https://www.theatlantic.com/magazine/archive/2021/01/chinas-rebel-historians/617265/>.

“Xi Jinping is rewriting history to justify his rule for years to come,” *The Economist*, Nov. 6, 2021 edition.  
<https://www.economist.com/china/2021/11/06/xi-jinping-is-rewriting-history-to-justify-his-rule-for-years-to-come>.

Brandon Yu, “One Child Nation Reveals the Human Cost of an Infamous Chinese Law,” *The Atlantic*, August 13, 2019. (NWC 3267) <https://www.theatlantic.com/entertainment/archive/2019/08/one-child-nation-documentary-nanfu-wang-jialing-zhang/595894/>.

Steven Lee Myers and Olivia Mitchell Ryan, “Burying ‘One Child’ Limits, China Pushes Women to Have More Babies,” *The New York Times*, August 11, 2018. (NWC 3263) <https://www.nytimes.com/2018/08/11/world/asia/china-one-child-policy-birthrate.html>.

“Chaguan: A Horror from Another Age,” *The Economist*, Feb. 26, 2022 edition. (NWC 3257)  
<https://www.economist.com/china/2022/02/26/a-story-of-a-trafficked-bride-shocks-china>.

“All change, bar one,” *The Economist*, Jan. 15, 2022 edition. (NWC 3266)  
<https://www.economist.com/china/2022/01/13/xi-jinpings-job-is-safe-but-chinas-leadership-is-being-shaken-up>.

“Chaguan: Egalitarianism Revisited,” *The Economist*, Jan. 22, 2022 edition (NWC 3268)  
<https://www.economist.com/china/2022/01/22/the-communist-party-revisits-its-egalitarian-roots>.

David Shambaugh, “The Coming Chinese Crackup,” *Wall Street Journal*, Mar 6, 2015. (NWC 3264)  
<https://www.wsj.com/articles/the-coming-chinese-crack-up-1425659198>.

Chen Dingding, “Sorry, America: China is NOT Going to Collapse, National Interest, Mar 10, 2015 (NWC 3260)  
<https://nationalinterest.org/feature/sorry-america-china-not-going-collapse-12389>.

“China’s Economy: What’s Its Weak Spot?” Video by *The Economist*  
<https://www.youtube.com/watch?v=zgDL1tXd0s>.

“China’s ‘Economic Costs are Rising’ due to Shanghai Lockdown,” Video by BBC New  
<https://www.youtube.com/watch?v=9F0UpqByHis>.

Peter Dutton, “Three Disputes and Three Objectives- China and the South China Sea,” *Naval War College Review*, Volume 64 Number 4 Autumn, Article 6.

Rana Mitter, “The World China Wants,” *Foreign Affairs*, January/February 2021 (NWC 3269)  
<https://www.foreignaffairs.com/articles/china/2020-12-08/world-china-wants>.







# JMO-07 RESEARCH PAPER

*The secret of getting ahead is getting started.*

- Mark Twain

## OBJECTIVES

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

## Focus

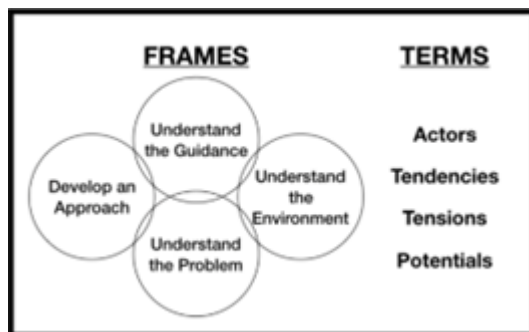
This session addresses the research paper requirements, including guidance on research, writing, and due dates. The research paper provides an opportunity to hone the critical thinking and persuasive written communication skills vital to every senior officer. The research paper also facilitates in-depth study of a specified geo-political area of interest.

Throughout the trimester students will use the knowledge developed in researching and writing their papers to address the ill-structured problems of the Western Pacific, oriented to the larger overarching question introduced in JMO-5. The paper does not need to fully answer or "solve" the overarching question, but it must be logically connected to it. Knowledge gained through research, writing, and discussion will also serve to inform students' seminars' conceptual planning efforts during the final Capstone Synthesis Event, JMO-37.

Geo-political Area of Interest: *Pacific*

Overarching Question for the Trimester:

*With the reemergence of long-term, strategic competition by revisionist powers, what competition mechanisms should U.S. Indo-Pacific Command (USINDOPACOM) consider with regards to the maritime challenges in the Western Pacific?*



## Background

During the first ten weeks of the course, students will research and write an argumentative research paper, which is one of four graded elements of the course. The most successful research papers are written in a succinct logical style, well-structured with a clear thesis and road map, contain original critical thought, and leverage purposeful research and the author's analysis to support its thesis, recommendations, and conclusions. JMO guidance for the research paper is provided in NWC 2062AF and below. 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 the designated geo-political area of interest, connected to the overarching question, and approved by their moderators. After selecting a topic area and initial research question, students will continue their research to develop a





## JMO-07 RESEARCH PAPER

working thesis and build supporting evidence for an argumentative paper. Students must ensure their working thesis has narrowed their topic sufficiently to be effectively addressed 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 2062AF. The proposal will present the student's thesis, road map and outline for arguments, evidence to support their arguments, and an annotated bibliography. By reviewing the paper proposal, moderators can confirm the proposed paper satisfies JMO course requirements and 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; any changes to this plan should be discussed between the student and 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 semester, using their Research and Reflection days wisely.

**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 below schedule.

**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 following: cover page; table of contents; abstract; charts, maps, graphs, photos, diagrams, etc.; footnotes or endnotes; annexes; or bibliography. The paper should follow the format guidelines provided in NWC 2062AF 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. NWC 2062AF provides JMO research paper guidance. A template for the research paper is available on Blackboard.

**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 guidance for the students each year. Students may choose to submit their works for consideration; faculty are prohibited from submitting on a student's behalf.

**Schedule.** The schedule below spreads the research and writing of the paper throughout the first ten weeks of the course and designates touch points with moderators/paper advisors to guide and provide feedback to students. Events in italics may be revised or made optional by seminar moderators.

16 Aug, 0830:	<i>Research Topic Idea Proposed</i>
23 Aug, 0830:	Research Question and Working Draft Thesis Proposed
23-26 Aug:	In Progress Review #1
6 Sep, 0830:	Research Paper Proposal Due
6-9 Sep:	<i>In Progress Review #2</i>
26 Sep - 6 Oct:	<i>Submit Drafts for Review to Paper Advisor</i>
14 Oct, 1600:	Research Paper Due







# JMO-07 RESEARCH PAPER

## ?? Questions

None.

## Required Readings (30 Pages and Videos)

Harvison, Melissa. [JMO Research Paper Guidance Videos](#). (On NWC SharePoint)

[U.S. Naval War College, Joint Military Operations Department. \*The JMO Research Paper Guidance for Students\*. Newport, RI: June 2022.](#) Read. **(NWC 2062AF)**

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

## References

Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations, 9<sup>th</sup> Edition*. Chicago: University of Chicago Press, 2018. **(Issued)**

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





# STRATEGIC BACKGROUND FOR 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  
General of the Army George C. Marshall  
On strategic planning for the Pacific Theater of War, 1956

## OBJECTIVES

- Understand the broad contours of the pre-war and wartime strategic and operational events and decision-making that led to the decision to conduct the 1944-1945 campaign to retake the Philippines from the Japanese.
- Understand the enduring complexities and challenges of theater-level campaign planning.
- Understand the utility of the design methodology for campaign planning.

## 🔍 Focus

[This lecture provides an overview of the strategic background for the 1944-1945 Philippines Campaign. ]

## ⚙️ Background

[At the distance now of nearly 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.

In this session we frame 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 the 1944-1945 Philippines Campaign. This, in order to place it in its proper context and set the stage for its use in exploring the concepts and theory of operational art. We address the challenges of coalitions, civil-military dynamics, differences of interest and perspective among and within the several services, the structure and evolution of command and control and planning, 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 a campaign in the Philippines, how is that it ended up conducting one?

What can we learn from this case about future decision-making in large-scale conflicts?

## 📖 Required Readings (34 Pages)

[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 1-32, and scan Appendices A and B. (NWC 1093)





## INTRODUCTION TO OPERATIONAL ART

### OBJECTIVES

- Comprehend the meaning of the term operational art.
- Understand the historical emergence of operational art.
- Comprehend how 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.*

Wayne Hughes

### Focus

This session introduces the body of military theory known as the 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

Operational Art. 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?





## INTRODUCTION TO OPERATIONAL ART

What is the significance of the return to great power competition on the relevance of operational art?

### Required Readings (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.

[Jensen, Rebecca and Steve Leonard, "Back to the Future: Rediscovering Operational Art in an Era of Great Power Competition," Modern War Institute at West Point, September 10, 2021. \(NWC 3255\)](#)





## JMO-10

# THE MILITARY OBJECTIVE AND LEVELS OF WAR

(issued)

*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 interrelationship among the four instruments of national power (diplomatic, information, military, and economic) and how the strategic objective relates to the desired end state.
- Examine the relationship between levels of war and levels of command
- Examine the concept of regressive planning and operational-level planning.
- Dissect the “Four Questions” and analyze how they can help the theater-strategic and operational level commanders apply assets in the pursuit of strategic objectives.

## Focus

This session focuses on strategic objectives and how they must drive military thinking and actions throughout the entire range of military operations. The direct relationship between national strategic and operational objectives will be discussed, as well as the concept of regressive planning. This session will also consider the interrelationship 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 the 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, the seminar 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 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 found in Joint Publication 3-0, Joint Operations:

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)

Levels of command exist during both peace and wartime and are more clearly delineated than levels of war. As noted in Joint Publication 3-0,

...three levels of war—strategic, operational, and tactical—model the relationship between national objectives and tactical actions. There are no finite limits or boundaries between these levels, but they help commanders visualize a logical arrangement of operations, allocate resources, and assign tasks to the appropriate level of command. Echelon





## JMO-10

# THE MILITARY OBJECTIVE AND LEVELS OF WAR

of command, size of units, types of equipment, and types and location of forces or components may often be associated with a particular level, but the strategic, operational, or tactical purpose of their employment depends on the nature of their task, mission or objective.

In practice, the level of command is determined not only by the objectives to be accomplished, but by the size and shape of the area in which the command operates and the size and composition of forces engaged.

The theater-strategic and operational commander must ensure that the response to the “four questions” (the essence of the plan) remains 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.

## ??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?

Explain the concept of regressive planning.

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

What is the connection between planning for conflict and planning for post-conflict operations?

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

## ☰ Required Readings (32 Pages)

Vego, Milan. *Joint Operational Warfare: Theory and Practice*. Newport, RI: Naval War College, 2009. Read: [I-44 to I-50, “Policy-Strategy-Operational Art Nexus,”](#) and [II-3 to II-20, “Military Objectives and the Levels of War.”](#)

[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. \(NWC 4012\)](#)

[U.S. Office of the Chairman of the Joint Chiefs of Staff. \*Joint Operations\*. Joint Publication \(JP\) 3-0. Washington, DC: CJCS, 17 January 2017 Incorporating Change 1, 22 October 2018. Read I-12 to I-14, II-3 to II-4.](#)

[Hime, Douglas N. “The Philippines Campaign, 1944-45: A Case Study.” Newport, RI: U.S. Naval War College, Joint Military Operations Department, December 2013. Scan 68-72 \(Appendix A-D\) and 79-89 \(Appendix F\), review 1-8. \(NWC 1093\)](#)

In addition to the required readings, an optional recorded micro-lecture is available to support this session: *Strategic Objectives and Regressive Planning*. Available at: [JMO Fall 2022 Micro lecture videos](#)





## JMO-11

# OPERATIONAL FACTORS

*I intend, if possible, to deny the enemy a chance to outrange me an air duel and also to deny him an opportunity to employ an air battle 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 in order 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 converting combat potential into combat power over the course of accomplishing a mission against an enemy force and 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 determines 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 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, the operational factors will reassert 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 Readings (69 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-72.







## JMO-12

# OPERATIONAL FUNCTIONS

### OBJECTIVES

- Analyze the role of operational functions in major operation and campaign planning.
- Evaluate the process by which the operational commander exploits opportunities and mitigates risks through the resourcing and arrangement of 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  
*Doctrine for the Armed Forces of the United States*

### 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 the operational art. Previous sessions have explored how factors time, space and force present both risks and opportunities to the operational commander when determining how to achieve the objective at the least cost of blood and treasure. Operational functions provide the commander levers to manipulate in order to integrate effectively, synchronize, 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 forces directly; rather they deliberately disrupt enemy functions in order to create exploitable vulnerabilities.

While primarily a tool for integrating and synchronizing actions during combat, operational functions must be considered even during the selection of intermediate objectives. As an example, function intelligence is vital for a commander to understand the effects of factors time, space and force on the options available to the enemy. Also, function logistics informs the commander what options are available to friendly forces in a specific time frame in a specific space.

Operational functions are not prescriptive; while they broadly define the group of related activities, capabilities and systems that enable a commander to synchronize forces, functions will necessarily apply differently in different situations. Some, such as logistics and intelligence will have a place in all military operations where others, such as fires, will not. Proper analysis of operational factors and their relationship to an objective allows operational functions to emerge that are relevant to achieving the objective in a particular circumstance.

### 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?





## OPERATIONAL FUNCTIONS

### Philippines Case Study:

What challenges regarding the use of functions did the Allied and Japanese commanders face during planning for their respective campaigns? How well did each side address these challenges? In what functions did the opposing sides assume risk?

How effectively did the Japanese use operational functions to defeat the Allied attempt to retake the Philippines? With the benefit of hindsight, what should they have done differently with their operational functions?

How effectively did the Allies use operational functions in retaking the Philippines? With the benefit of hindsight, how should they have resourced, synchronized, or sequenced them differently?

### Required Readings (55 Pages)

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.](#)

[U.S. Office of the Chairman, Joint Chiefs of Staff. Joint Operations. Joint Publication \(JP\) 3-0. Washington, DC: CJCS, 17 January 2017, incorporating Change 1, October 22, 2018.](#) Read: “Joint Functions” III-1 to III-52.

In addition to the assigned readings, an optional recorded micro-lecture is available to support this session: *Op Functions* Available at: [JMO Fall 2022 Micro lecture videos](#).





## JMO-13

# 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  
October 3, 1944

### OBJECTIVES

- Analyze how geometry and theater structure allows 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 operation or theater of war.

### 🔍 Focus

The objective determines force employment which in turn determines the required space. In order 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.

Geographic locations afford significant tactical, operational, and strategic advantages to either side and 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 involves 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 staffs 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 to the operational commander. Therefore, it is not enough to ensure a balance of time, space, and force against an objective; rather, the commander structures the theater and articulates what is possible given the space, combat potential, and anticipated duration of the campaign or major operation.

### ?? Questions

Explain how the commander uses 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 DPs?

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 has 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:

Evaluate 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's 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. DPs before and after landing on Leyte?

Describe the impact of theater geometry on operations between October 1944 and March 1945. Assess how well the United States and Japan re-balanced time, space, and force against their respective objectives as the geometry of the situation evolved.

### Required Readings (40 Pages)

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

[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 thru IV-35.

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

In addition to the assigned readings, an optional recorded micro-lecture is available to support this session: *Theater Structure and Geometry* Available at: [JMO Fall 2022 Micro lecture videos](#).





## CRITICAL FACTOR ANALYSIS AND THE OPERATIONAL IDEA

*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*

### 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, 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 staffs 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 the 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 staffs 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.





## CRITICAL FACTOR ANALYSIS AND THE OPERATIONAL IDEA

### ??Questions

What is 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 ever change? Explain.

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

How does one deduce an enemy center of gravity?

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? 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 Readings (69)

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

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

In addition to the assigned readings, two optional recorded micro-lectures are available to support this session: *COG and Related Concepts* and *Butch Cassidy COG Example*. Available at: [JMO Fall 2022 Micro lecture videos](#).





# JMO-15

## OPERATIONAL DESIGN

### OBJECTIVES

- Analyze the logic of developing an operational idea into an operational design through the application of operational art.
- Compare the execution of the Philippines Campaigns to the respective operational designs developed during planning and evaluate the major decisions made by the commanders.
- Evaluate the differences and similarities between applying operational art during combat and during operations short of war.

*This plan is derived from "MUSKETEER-TWO", Basic Outline Plan for PHILIPPINES Operations, GHQ, SWPA, 29 August 1944, and JCS 713/4. It covers operations of forces of the Southwest Pacific Area to reoccupy LUZON. It includes changes of plan as a consequence of the results of recent carrier strikes in the PHILIPPINE area.*

- Directive, MUSKETEER III  
Basic Outline Plan, 26 September 1944

### 🔍 Focus

This session serves as a synthesis of the previously discussed operational art concepts. This seminar will focus on the logic behind the development of a full operational design from a conceptual operational idea, with emphasis on sequencing and synchronization, selection of intermediate objectives, and the use of functions to exploit advantages and mitigate disadvantages in time, space, and force. The practical exercise will again focus on the operational designs of the opposing commanders in a historical case study, but this time from the perspective of how the campaign was fought rather than how it was planned, leading to analysis and evaluation of the key decisions the commanders made as conditions on the battlefield changed.

### ⚙ Background

The basis of any campaign plan is the operational design. An operational design includes a number of interrelated elements that collectively achieves unity of effort toward the ultimate objective. The main elements of a sound 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.

The operational idea and operational design developed by the commander and planning team prior to a campaign provide a sound starting point for the accomplishment of the objective but do not remain static, especially once combat is joined. General MacArthur had an idea for a return to the Philippine Islands as early as May, 1942, but continued to refine it through the start of the campaign in October, 1944, and then made significant changes afterwards as conditions on the battlefield changed. A good operational design incorporates elements a high degree of flexibility to accommodate such changes.

### ?? Questions

How are the concepts of operational idea and operational design related?

What are operational sequencing and synchronization, and what role do they play in a successful operational design?

How are intermediate objectives selected?

To what degree is operational art useful in operations below the level of high intensity combat?







# JMO-15

## OPERATIONAL DESIGN

### Philippines Case Study:

To what degree did MacArthur's planned operational design for the liberation of the Philippines survive contact with the enemy? Identify and assess the major decision points in the campaign from the United State's side.

To what degree did the original Japanese operational design for the defense of the Philippines survive contact with the enemy? Identify and assess the major decision points in the campaign from the Japanese side.

Analyze the Japanese plan for operational deception in support of their naval defense of the Philippines. To what extent was the plan successful and why?

### Required Readings (52 Pages)

[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 32-58 and review Appx G "OP MONTCLAIR". **(NWC 1093)**

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

["Operations Short of War and Operational Art." Joint Force Quarterly. Vol. 98, No. 3 \(Third Quarter 2020\): 38-49.](#) **(NWC 2194)**

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

In addition to the required readings, an optional recorded micro-lecture is available to support this session: *Op Design*  
Available at: [JMO Fall 2022 Micro lecture videos](#). .







## NAVAL POWER AND THE ROLE OF NAVAL FORCES

*My operation must depend absolutely upon the naval force which is employed in these seas... No land force can act decisively unless accompanied by a maritime superiority.*

- General George Washington  
To the Marquis de Lafayette, November 15, 1781

### OBJECTIVES

- Comprehend the roles and functions of navies and naval forces.
- Analyze how the performance of naval missions and accomplishment of naval objectives contributes 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 examine the range of tasks 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, the necessary condition for naval forces to achieve military objectives in wartime, will be explored in the following session. ]

### ⚙️ Background

Naval forces play an important role in 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. Among the military branches, naval forces are unique by operating full time in the global commons, not just when deployed for combat. 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 Ivan Luke, Geoffrey Till, and Milan Vego have slightly different ways of conceptualizing the range of naval activities. A full and thorough consideration of what navies 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 in theater.

### Questions

Why do nations build and maintain navies? To what degree does the Mahanian concept of command of the sea apply today? How do the roles of naval forces in wartime contribute to the overall war effort?

Compare and contrast the concepts of sea control and maritime security. Is the concept of sea control relevant in peacetime, beyond the realm of armed conflict? Why or why not?

How do the key components of the maritime operating environment (political/legal, military, social, economic, environmental, etc.) enable or constrain the operational planner?

What were the objectives of U.S. and Japanese naval forces during the Philippines Campaign in WWII? Were these naval objectives aligned with land and higher-level objectives? ]





## NAVAL POWER AND THE ROLE OF NAVAL FORCES

### Required Readings (38 Pages)

[Luke, Ivan T. "Legitimacy in the Use of Seapower." Newport, RI: U.S. Naval War College, Joint Military Operations Department, July 2015.](#) Read. (NWC 2133)

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 3d ed. London and New York: Routledge, 2013. Read Chapter 2 (27-44). (NWC 1242)

This item also available via Leganto.

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

[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.





## 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 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 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 supports the accomplishment of other objectives. Thus, sea control is not simply an end unto itself.

Historically, the objective of a fleet was to obtain and maintain what was called command of the sea (now called “maritime supremacy” in joint terminology). The understanding of this term changed significantly with the advent of submarines, aircraft, and guided missiles. The term we teach, sea control, more accurately conveys the true state of affairs in a modern war at sea. Having sea control essentially means the ability for one’s fleet to operate with a high degree of freedom in a sea or ocean area for some period of time. An alternate objective is sea denial where a naval force precludes or interferes with the other’s ability to conduct operations but does not, or is not capable of, using the sea for own purposes with a high degree of freedom of action.

Sea control is not analogous to occupying or capturing territory on land where one side or the other holds territory. It deals with neutralizing aspects of the enemy force that can inhibit one’s intended use of the sea, and sea control is not a static condition. Once obtained, effort must always be expended to maintain sea control. As long as an enemy has the 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?

What are the various ways of characterizing sea control? Why does it matter?

How are the concepts of “sea control” and “sea denial” related?

What are some possible methods used by opposing sides to obtain, maintain, exploit, or dispute sea control?

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

Critique the effectiveness of U.S. and Japanese consideration of sea control and/or sea denial in their planning and execution during the Philippines Campaign.

Contemplate the U.S. Navy’s current ability to achieve sea control in the 21<sup>st</sup> century against a capable adversary.





## THE STRUGGLE FOR SEA CONTROL

### Required Readings (32 Pages)

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 3d ed. London and New York: Routledge, 2013. Read Chapter 6 (pages 144-156). **(NWC 1241) (Issued)**.

**This item also available via Leganto**

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 3d ed. London and New York: Routledge, 2013. Read pages 157-162 (sections &.1 and 7.2) and 173-180 (sections 7.7 and 7.8) of Chapter 7 (pages 144-156). **(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." **(Issued)**.

**This item also available via Leganto**





## 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

### 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.

### Focus

This session facilitates student synthesis of the introductory and operational warfare 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 the prospect of 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 Readings (60 Pages)

[U.S. Office of the Secretary of Defense. \*Military and Security Developments Involving the People's Republic of China\*. 2021. Washington, DC: Department of Defense, November 03, 2021. Read iii-xii, 1-16 and 29-42. \(NWC 1236C\)](#)

[Engstrom, Jeffrey. \*Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare\*. Santa Monica, CA: Rand Corporation, 2018. Read ix-xii, 9-21 and 119-122. \(NWC 1232\)](#)





## JMO-19

# THE FALKLANDS / MALVINAS EXERCISE

*"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*

### OBJECTIVES

- Analyze and evaluate how commanders and staffs applied operational art in a historical case study.
- Apply concepts from operational law in order to evaluate the legal issues in a historical case study.
- Analyze the operational lessons valid for the employment of modern, combined and joint forces.

### 🔍 Focus

This exercise serves as the synthesis event for the components of operational art explained and discussed in preceding sessions. The emphasis is on the decisions and actions of operational-level commanders on both sides of this conflict and the possibilities had they employed an operational art approach.

### ⚙️ Background

Building on the faculty presentation and extensive case study this session will allow students to conduct a thorough Operational Art analysis of the historical conflict.

The practical examination of the elements of Operational Design students will allow for both retrospective analysis of successes and shortfalls on both sides as well as leading towards the drawing of contemporary and prospective lessons identified.

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. Seminar moderators will assign specific responsibilities for student discussion of the case.

### ?? 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?

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

Critique the British and Argentinian operational theater organization and the relevant command structures. What would you have done differently?

How well did each side apply the aspects of operational and maritime law?

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

What major operational lessons learned can the United States derive from this conflict?

### 📖 Required Readings (100 Pages)

#### Day 1:

[Hime, Douglas N. "The Falklands-Malvinas Case Study." Newport, RI: U.S. Naval War College, Joint Military Operations Department, June 2010. Read 1-80. \(NWC 1036\)](#)





## JMO-19

# THE FALKLANDS / MALVINAS EXERCISE

### Day 2:

#### For students assigned to Team UK:

Woodward, Sandy. *One Hundred Days – The Memoirs of the Falklands Group Commander*. Annapolis MD: Naval Institute Press, 1992. Read Chapter 4. (NWC 3259)

This item available via Leganto.

#### For students assigned to Team Argentina:

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

### Day 3:

["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, reprint, 2009. (Issued). Review: ["Operational Idea", IX-103 to IX-129.](#)

## References and Supplemental Readings

A 45-minute documentary is available via BlackBoard, within the Reference Items section, Videos and Lectures 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-20

# OPERATIONAL ART 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*

### OBJECTIVES

- Synthesize operational art concepts through the 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 introductory and theory of operational warfare sessions 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.

Students will be provided with a case study containing sufficient information to address the questions presented. This case study will be issued by your moderators to permit sufficient time to prepare for the examination. Time is allocated for student preparation, and students are strongly encouraged to prepare as a seminar. The examination is scheduled to be issued on 20 September at 1145. Exams will be returned to the moderators NLT 1200 on 21 September. Grading criteria for the operational art examination may be found in the JMO Course Description on the JMO Senior Level Course Blackboard site.

### Questions

See examination question sheet.

### Required Readings

A case study will be issued prior to the examination with sufficient time for students to conduct a thorough analysis and prepare for the examination.





## INTRODUCTION TO DESIGN METHODOLOGY

*"Separating operational design from the planning process is a purely arbitrary solution and a potentially harmful one."*

~ Milan Vego

"A Case Against Systemic Operational Design." Joint Forces Quarterly, Issue 53, p.74.

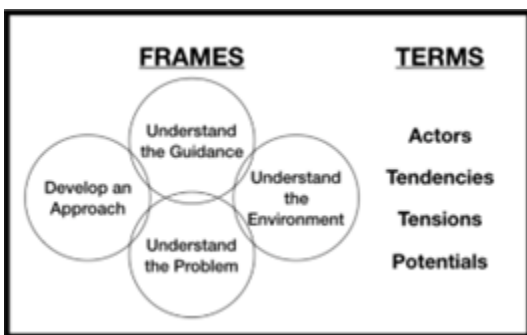
### OBJECTIVES

- Gain an understanding of the origins of Design Methodology in Joint Doctrine.
- Understand the utility of Design Methodology for critical thinking and conceptual planning.
- Understand how Design Methodology is used in conjunction with the Joint Planning Process.

### Focus

This session is part of the Planning block of the JMO curriculum. The Planning block provides students with tools and concepts, but it also demands student *practice* throughout the term, culminating in the final Capstone Synthesis Event. While the Operational Warfare block, which focused on operational art and naval warfare theory, is now complete, students have simultaneously been engaging in practice with the Planning block through the development of research papers. Remember that because *the practice of conceptual planning develops over time in this course* as students master the course material, the planning block is threaded through the course, vice being presented in strict sequence. With that in mind, this session introduces Design Methodology as a mode or framework for conducting conceptual planning. The focus of the session is on providing students an understanding of Design 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-22, 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 on the origins of Design Methodology and its evolution in service and joint doctrine. Students will then develop an understanding of the utility of Design Methodology through a practical exercise.



### Background

Design Methodology, like the Joint Planning Process, 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 is particularly useful for conceptual planning and solving complex problems. It is intended to aid a deeper understanding of operating environments and underlying problems. Its purpose is to provide cognitive tools to better develop and communicate military options integrated into a whole-of-government approach for those problems whose solution extends well beyond conventional military operations. In simple terms, Design Methodology requires planners to understand strategic guidance, frame the operational environment, frame the





## INTRODUCTION TO DESIGN METHODOLOGY

problem, and frame an operational approach. Complementary to, and increasingly integrated with the Joint Planning Process, the 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

Why was Design Methodology developed and 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 does Design Methodology 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 (52 Pages)

[BG \(ret.\) Wass de Czege, Huba, "Systemic Operational Design: Learning and Adapting in Complex Missions." \*Military Review\*, 89 no. 1, \(January-February 2009\). \(NWC 3256\)](#) Read pp. 2-12.

[Vego, Milan, "A Case Against Systemic Operational Design." \*Joint Forces Quarterly\*, Issue 53, \(2<sup>nd</sup> Quarter 2009\). \(NWC 4189\)](#) Read pp. 69 through 75.

[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 through IV 19.

[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 through 2-8.

### References

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 2021." Carlisle, PA. 2021.

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

Rauch, Daniel E. and Matthew Tackett. "Design Thinking. *Joint Forces Quarterly*, Issue 101. 2021.





## THE JOINT PLANNING PROCESS

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*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.*

~ Dwight D. Eisenhower  
November 14, 1957

### OBJECTIVES

- Understand the relationship between conceptual and detailed planning.
- Understand the role of the commander and the responsibilities of the Joint Planning Group leaders in the Joint Planning Process (JPP).
- Analyze the JPP as a methodology for developing plans and orders.

### 🔍 Focus

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

### ⚙️ Background

Planning has two closely related components—conceptual and detailed. Design, as presented in JMO-03 *Problem Solving and Conceptual Planning* and JMO-21 *Introduction to Design Methodology*, directly supports the conceptual aspect of planning by assisting the commander in his/her 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 Joint Planning Process (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 both a common vocabulary as well as 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 and 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. Ultimately, the 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 Readings (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 III-1 to III-5.](#)

[U.S. Naval War College, Joint Military Operations Department. "Joint Planning Process \(JPP\) Workbook." Newport, RI. January 2022. Read 24-40.\(NWC 411K\) \(Issued\).](#)

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

[Gilchrist, Mark. "It's a Journey, Not a Destination: Seven Lessons For Military Planners." \*Modern War Institute\*, 17 September 2019. Accessed 15 May 2022. \(NWC 3270\) <https://mwi.usma.edu/journey-not-destination-seven-lessons-military-planners/>.](#)

[Coleman, Frederick. "Getting Out of Our Tactical Comfort Zone." \*Air & Space Power Journal\* 34, no. 1 \(2020\). \[https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-34\\\_Issue-1/ASPJ-Spring-2020.pdf\]\(https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-34\_Issue-1/ASPJ-Spring-2020.pdf\). \(NWC 3271\)](#)

[Eikmeier, Dale and Iova, Titel. "Factor Analysis: A Valuable Technique in Support of Mission Analysis," \*Military Review\* 101 No. 5 \(2021\), <https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/SO-21/eikmeier-factor-analysis/eikmeier.pdf>. \(NWC 3272\)](#)

### References

Deployable Training Division, Joint Staff J7. "Insights and Best Practices: Joint Operations, 5<sup>th</sup> 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 2020 (Extract)." U.S. Army War College, Carlisle Barracks, PA: 2021.





## JMO-23

# JSPS OVERVIEW

The JSPS is the method by which the Chairman fulfills his responsibilities under Title 10, U.S. Code (Title 10, U.S.C.), maintains a global perspective, and develops military advice for the Secretary of Defense and the President.

CJCSI 3100.01D

### Focus

This session is part of the Planning block of the JMO curriculum. With the idea that all military planning at the operational level and above requires understanding of strategic guidance, JMO-4 provided an initial grounding in basic strategic theory, and how commanders and staffs might start to think about strategic guidance in the modern operating context. JMO-21 introduced Design Methodology as a way of organizing conceptual planning, while JMO-22 discussed the JPP as a way of organizing detailed planning. Now, in this session, we move back into setting up for upcoming practice in conceptual planning. This session examines the current practice of connecting U.S. strategic guidance to operational planning through the Joint Strategic Planning System (JSPS). Experience within the seminars will likely make for rich discussion on this topic. At the same time, it could also be helpful to think about the structure and workings of the JSPS in the context of the overarching question related to the Western Pacific.

### Background

U.S. Military planning has been in a state of flux since the early 2000's. Events following 9/11 revealed that Cold War era practices were insufficiently flexible to meet the Nation's needs in a rapidly changing strategic environment. The Joint Strategic Planning System (JSPS) in its most current form was signed on 21 May 2021. The JSPS is the primary method by which the Chairman fulfills his Title 10, U.S.C. responsibilities, maintains a global perspective, and provides military advice to the Secretary of Defense and the President.

Joint Pub 5-0 (CH I and II) outlines the planning doctrine in a transregional, all domain and multifunctional environment. 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. Using Joint Planning, the goal is to produce plans that accomplish the assigned objectives, align with strategic guidance, reflect the current operating environment, and resource constraints, and are developed in standardized products and in standardized formats that are ready for transition to execution.

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 Geographic Combatant Commander's responsibility. Since the thread of threats, capabilities and reach of state and non-state actors transcends borders, and the U.S. has resource constraints, our planning and responses must be coordinated across the regional boundaries to address both geographic and multi-domain problems.

### Questions

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

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

Describe the concept of Global Integration and assess to what degree it is effective in practice.

### OBJECTIVES

- Understand the purpose of the Joint Strategic Planning System (JSPS)
- Evaluate the effectiveness of the JSPS in supporting the Chairman in (1) providing strategic direction for the Armed Forces, and (2) conducting strategic and contingency planning.
- Evaluate the effectiveness of current Joint Planning and the challenges of the strategic environment that includes the Great Power Competition.



## JMO-23

### JSPS OVERVIEW

As the United States confronts Strategic Competition with Russia and China, describe the planning consideration that will challenge the Joint Force and its ability to resource and integration?

#### Required Readings 56 pages

[U.S. Office of the Chairman of the Joint Chiefs of Staff. "Joint Strategic Planning System." Chairman of the Joint Chiefs of Staff Instruction \(CJCSI\) 3100.01E 21 May 2021. Read Enclosures A-C.](#)

[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 Chapter II.](#)

[Congressional Research Service "Renewed Great Power Competition: Implications for Defense – Issues for Congress" July 31, 2020, Read 1-26.](#)





## JMO-24

# UNDERSTANDING GUIDANCE: STRATEGIC DIRECTION TO OPERATIONAL 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

## 🔍 Focus

[This session is part of the Planning block of the JMO curriculum. The session provides the students an opportunity to review current U.S. strategic guidance as expressed in the National Defense Strategy, National Military Strategy, and Joint Strategic Campaign Plan. Students will be provided copies of the classified versions of all three 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, operational planners must possess the skills to define problems, identify objectives, align ways and means to ends, and to describe risk. Ultimately, effective campaign planning must connect national policy aims to operational objectives and tactical action.

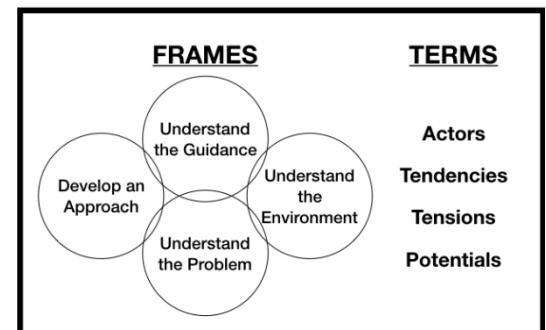
Design methodology underscores the importance of understanding higher-level guidance throughout the design process. Campaign planners—practitioners of design—must do the same. Planning at the operational level of war without clear understanding of national policy and strategic guidance is a recipe for strategic mismatch: tactical actions will not align with policy aims, blood and treasure will be spent without purpose and risk assessment becomes incredibly difficult for tactical leaders.

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 Defense Strategy, National Military Strategy, and Joint Strategic Campaign Plan are three guidance documents that express aims and objectives from the national policy level to the operational level. Operational planners will often have to seek additional information, updated guidance, and clarification of strategic priority in order 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. In order for tactical action to have purpose, operational planners must translate policy aims and strategic direction with coherent, concise operational plans.]

## 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 military 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.
- Understand how U.S. Combatant Commanders and their staffs develop integrated Campaign Plans in line with U.S. strategic guidance







## UNDERSTANDING GUIDANCE: STRATEGIC DIRECTION TO OPERATIONAL PLANS (CLASSIFIED SEMINAR)

### ?? Questions

How does the 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?

How might Design Methodology aid operational level planners in distilling clear operational objectives from the broad strategic guidance and direction as delivered in the NDS and NMS?

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

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?

### ☰ Required Readings (Classified Documents provided in seminar)

[Biden, Joseph R. "Interim National Security Strategic Guidance" President of the United States, Washington D.C. March 2021.](https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf) <https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf>

[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 Chapter I.





## JMO-25

# 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 is part of the Planning Block in the JMO curriculum. The previous two sessions provided orientation to the Joint Strategic Planning System, and exposure to the classified planning guidance for Combatant Commanders. No plan, be it a Combatant Commander's Campaign Plan or a plan for major operation executed by a Joint Task Force, can be complete without rigorous attention to logistics and sustainment. 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 addresses the Combatant Commander and staff's role in framing the operational environment, logistically setting the theater to provide options to sustain and extend the commander's operational reach.

### Background

Joint operations in today's operational environment are extremely complicated. Commanders must consider the feasibility and supportability of operational concepts, to include analyzing tradeoffs in flowing combat power with sustainment and support in campaign and contingency planning. Operational logistics and sustaining joint operations are further challenged when operating in a contested environment. Sound operational design requires such considerations as the timing and sequencing of deployment and distribution operations to support the operational scheme of maneuver, and posture forces in a way that extends the operational reach and endurance of the Joint Force. Joint Forces must leverage the capabilities of numerous stakeholders, including the Services, Functional Combatant Commands, Combat Support Agencies, private industry, coalition partners, and allies in achieving combat potential and power in support of joint objectives. Combatant Commanders and staffs should understand the sustainment challenges, opportunities, and risks in the design and development of joint plans and orders.

This session commences with a 30-minute 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 case study on Operation Iraqi Freedom serves as a baseline to discuss, analyze and critique the execution of operational logistics in support of major combat operations

### Questions

What are some of the time, space, and force challenges to conducting logistics in today's high-threat environment? How might commanders and logisticians balance factors and synchronize operational function to mitigate them?

Discuss the implications of sustainment with regards to campaign plans. What operational considerations are most important to joint force commanders relative to sustaining major operations?

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





## JOINT LOGISTICS AND CAMPAIGNING

As the commander, what considerations might you face when considering Operational Contract Support (OCS) enablers? 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?

How do global force management considerations and capacity influence deployment and sustainment operations?

### Required Readings (58 Pages)

[Perry, Walter L., Richard E. Darilek., Laurinda L. Rohn, Jerry M. Sollinger. \*Operation Iraqi Freedom: Decisive War, Elusive Peace\*. Santa Monica, CA: RAND Corporation, 2015.](#) Read Chapter 9 (pages 341-365). (NWC 2144)

Gray, Colin S. *Fighting Talk: Forty Maxims on War, Peace, and Strategy*. Westport, Conn: Praeger Security International, 2007. Read 115-118.

**This item available via Leganto.**

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

[Department of Military Strategy, Planning, and Operations. “Campaign Planning Handbook: Academic Year 2021.” U.S. Army War College, Carlisle Barracks, PA: 2021.](#) Read 159-166. (NWC 2082)

[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 (1-7 & 13-15).

### References

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, 8 May 2019. Read Chapter I (I-1 to I-3; I-8 to I-10) Chapter IV, Figure IV-2 (Pg. 74)

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. Read: Executive Summary and Chapter I, page I-4.

U.S. Department of Defense. “Joint Concept for Logistics v2.0”. 25 September 2015.

Department of the Navy Office of the Chief of Naval Operations, *Navy Planning, Logistics* (NTTP 5-01.4). April 2015





## CONCEPTUAL PLANNING PE #1 FRAMING THE ENVIRONMENT

*"Army Design Methodology is a methodology for applying critical and creative thinking to understand, visualize, and describe unfamiliar problems and approaches to solving them."*

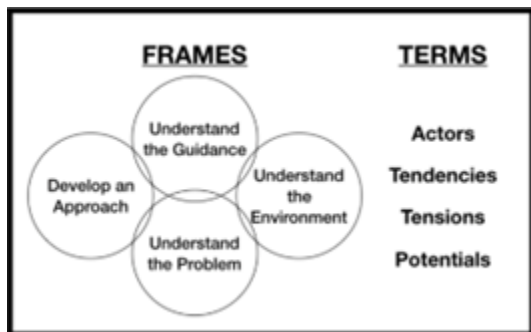
U.S. Army. Army Design Methodology. Army Techniques Publication (ATP) 5-0.1, p.1-3.

### OBJECTIVES

- Develop an understanding of the utility of Design Methodology for critical thinking and conceptual planning.
- Understand how Design Methodology is used in conjunction with the Joint Planning Process.
- Apply Design Methodology through a practical exercise.

### Focus

This session is part of the Planning block of the JMO curriculum. At this point, students have been introduced to Design Methodology, refreshed on the JPP, and had a chance to consider the strategic guidance in more detail. Practice in conceptual planning now continues with application of Design Methodology. This session consists mainly of a practical exercise in which students will use the expertise they have been building throughout the term to frame the Western Pacific operating environment.



### Background

To understand something—an idea, a statement, an event, or a situation—commanders and staffs need to put that something into context. Establishing context involves discerning the relationships of that something and its surrounding. Commanders initiate Design Methodology by forming a planning team to help them develop a contextual understanding of their operational environment. In framing the operational environment, the team seeks to understand what is going on and why and what the future operational environment should look like.

### Questions

What is going on in an operational environment and why has this situation developed?

Who are the relevant actors and what is causing conflict among relevant actors?

What are the strengths and weaknesses of the relevant actors?

Why is the situation (or the projected future situation) undesirable?

What is the direction and guidance of higher authorities pertaining to the situation?

What future conditions need to exist for success?





## CONCEPTUAL PLANNING PE #1 FRAMING THE ENVIRONMENT

### Required Readings (31 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. Review pp. IV 1 through IV 19.](#)

[U.S. Army. Army Design Methodology. Army Techniques Publication \(ATP\) 5-0.1. Washington, DC: Headquarters, Department of the Army. July 2015. Review pp. 1-1 through 2-9, Read pp. 3-1 through 3-12.](#)

### . References

[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 2021." Carlisle, PA. 2021.](#)





## PANEL DISCUSSION

To change ourselves effectively, we first had to change our perceptions.

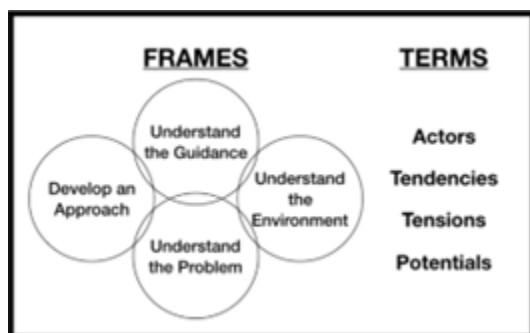
— Stephen R. Covey

### OBJECTIVES

- Analyze differing perspectives within a complex environment.
- Gain further exposure to divergent thinking.
- Gain an appreciation of the resources necessary to support a design methodology team.

### Focus

This session is part of the Planning block of the JMO curriculum. This session provides additional expert insights from a new set of panelists who are deeply familiar with the Western Pacific operating environment. The panel discussion aims to foster additional exploration of Design thinking leading up to the Capstone Synthesis Event. This session leverages student efforts from previous seminar discourse, as well as research students have accrued as they have been writing their research papers. Following the panelists' presentations of their remarks, time will be allotted for a robust question and answer period.



### Background

Practice continues in conceptual planning with a pause to take in additional information, and consider how it affects the seminar's framing of the environment. Students should consider how the addition of new perspectives does or does not change their understanding, and why this is the case. Additionally, this session has been brought forward in the syllabus in order to provide the students with time to make minor adjustments to their research papers. The insight gained from discourse contributes to research paper refinement, as well as to development of further understanding of challenges associated with the Western Pacific.

### Questions

Students will develop their own questions in coordination with their seminar in preparation for the panel discussion.

### Required Readings

Biographies of guest speakers will be posted for students





## CONCEPTUAL PLANNING PE #2 FRAMING THE PROBLEM

*No problem can be solved until it is reduced to some simple form. The changing of a vague difficulty into a specific, concrete form is a very essential element in thinking.*

~ J.P. Morgan  
American Financier and Banker

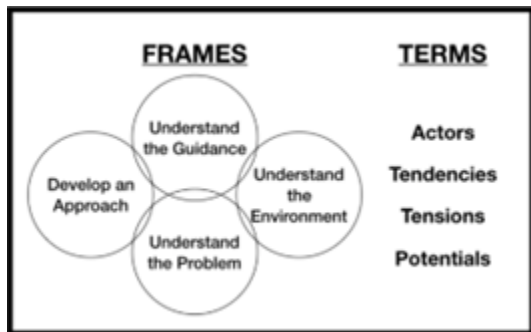
### OBJECTIVES

- Demonstrate critical thought and synthesize course concepts concerning the operational environment and desired end state.
- Conceptualize ways to describe an ill-structured problem.
- Gain knowledge in multiple topic areas to more fully address the challenges in the Capstone synthesis event.

### Focus

This session is part of the Planning block of the JMO syllabus. Practice in the Design Methodology mode of conceptual planning continues in this session. The intent for the practical exercise for this session is for students to frame the problem by identifying obstacles impeding progress toward achieving the desired end state. Students should begin this collaborative effort within their seminars by reviewing their environmental frame to examine the differences between the current state of the operational environment and the desired end state. The goal is to understand the *relevant* tensions (frictions, conflicts, and competitions) between *relevant* actors including geographic, demographic, economic, religious, and resource consumption trends. Combined, these tensions represent a set of interrelated issues (a system of problems) the team may need to address. In addition, the students should identify shared desired conditions among alternative future states and the friendly desired end state. These shared desired conditions will serve as potential opportunities to consider when developing the operational approach.

Deliverable: A problem statement.



### Background

Throughout the trimester, students have gained an understanding of the current operating environment in the Western Pacific, what problems exist, and what approaches the Combatant Commander might be able to take in order to stabilize or improve the environment. Generating a concise problem statement, which articulates, among the many problems that exist in the operating environment, what problem the commander sees as the one that the joint force might act upon to improve the situation. A clearly articulated problem statement helps gain coherence in formulating an operational approach, which will be the project of the practical exercise in the next session, JMO-29.

### Questions

How does the strategic environment; our own assumptions; the sources and drivers of policy, including values, interests, threats, and opportunities; and the desired ends all contribute to framing the issue?

What is preventing the force from reaching the desired end state?





## CONCEPTUAL PLANNING PE #2 FRAMING THE PROBLEM

### Required Readings (11 Pages)

[U.S. Army. Army Design Methodology. Army Techniques Publication \(ATP\) 5-0.1. Washington, DC: Headquarters, Department of the Army. July 2015.](#) Read chapter 4.

[The Marine Corps War College Strategy Primer. Quantico, Virginia: Marine Corps University Press, 2021.](#) Read pp. 30-32, 39-41. (NWC 2198)

### References

[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.](#)

[General Martin Dempsey, Chairman, Joint Chiefs of Staff, "Letter to Senator Carl Levin, Chairman, Senate Armed Services Committee." 19 July 2013.](#) (NWC 4205)

[Rauch, Daniel E., and Matthew Tackett. "Design Thinking." \*Joint Force Quarterly\*, 101, 2<sup>nd</sup> Quarter, April 2021, 11-17.](#) (NWC 4192A)







# CONCEPTUAL PLANNING PE #3 FRAMING AN OPERATIONAL APPROACH

*If I had only one hour to save the world, I would spend fifty-five minutes defining the problem and only five minutes finding the solution.*

~ Author unknown (misattributed to Einstein)

## OBJECTIVES

- Demonstrate critical thought and synthesize course concepts concerning the operational environment, problem/s and desired end state.
- Conceptualize ways to solve or manage ill-structured problems.
- Gain knowledge in multiple topic areas to more fully address the challenges in the Capstone synthesis event.

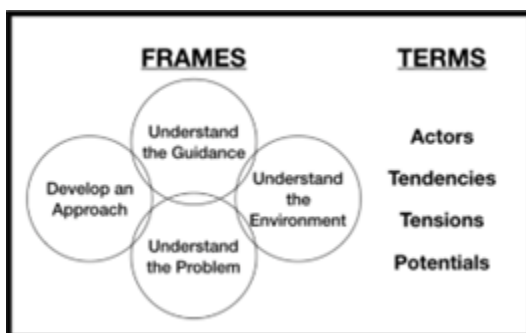
## Focus

This session is the final Planning block session prior to the Capstone Synthesis Event. Practice of conceptual planning via Design Methodology continues with framing an operational approach that addresses the overarching question of the JMO trimester:

*With the reemergence of long-term, strategic competition by revisionist powers, what competition mechanisms should U.S. Indo-Pacific Command (USINDOPACOM) consider with regards to the maritime challenges in the Western Pacific?*

With the understanding of the operational environment and associated problems, students, in collaboration with their seminars, should visualize and describe broad general actions and means to solve the problem/s they have identified, or move the problem/s to a "better state." During discussions about an operational approach, students are encouraged to further investigate, revisit and refine the other frames (guidance, environment, and problem) as their approach ideas begin to gel. The discursive aspect of Design Methodology is one of its strengths. While at some point, a Design team needs to stop admiring the problem in order to move toward action, maintaining some tolerance of continuing creative and analytical discussion can bring about a powerful "aha" moment – although there is no guarantee!

Deliverable: An Operational Approach presentation, Max 15 min. Minimize obsessive reliance on PowerPoint.



## Background

Throughout the trimester, students have gained an understanding of the current environment (the Western Pacific), what problems exist, and what approaches the Combatant Commander might be able to take in order to stabilize or improve the environment.





## CONCEPTUAL PLANNING PE #3 FRAMING AN OPERATIONAL APPROACH

In terms of the eventual utility of an “artifact” of a Design effort, in the context of this term’s consideration of maritime challenges in the Western Pacific, such an operational approach could serve to inform numerous aspects of a Combatant Commander’s Campaign Plan aimed at the long haul of campaigning in the context of the Competition Continuum.

Of note, looking ahead from this session to the culminating practical exercise for the course, Moderator teams will use the insights gained from their seminars’ overall Design efforts, and corresponding operational approaches, to formulate a plausible catalyst inject for the Capstone Synthesis Event. The catalyst will change the operating environment, and will involve a measure of urgency. This will, of course, drive a need to reassess and re-frame. However, even though the time horizon and the scope of the seminar team’s focus will likely shrink some as a result of the catalyst, all of the conceptual planning work the seminars have done throughout the term *will remain relevant*. The catalyst will not drive to immediate execution of a numbered operational plan, and it will likely demand coherent integration of other tools of national power in addition to the military tool. With this in mind, seminars should view the understanding they have built over the course of the term via Design Methodology, *and the operational approach they produce in this session*, as foundational to follow on, shorter fused, but no less important conceptual planning in the face of a sudden, significant change in the operating environment.

### ?? Questions

How do we go from the existing conditions to the desired end state?

What obstacles or tensions exist between the two?

What broad actions help attain these conditions?

What type of resources are required to attain these conditions?

What are the risks associated with attaining these conditions?

### ☐ Required Readings (28 Pages)

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

[The Marine Corps War College Strategy Primer. Quantico, Virginia: Marine Corps University Press, 2021.](#) Read 42-60. (NWC 2198)

### References

[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.](#)

[General Martin Dempsey, Chairman, Joint Chiefs of Staff, “Letter to Senator Carl Levin, Chairman, Senate Armed Services Committee.” 19 July 2013. \(NWC 4205\)](#)

[Rauch, Daniel E., and Matthew Tackett. “Design Thinking.” \*Joint Force Quarterly\*, 101, 2<sup>nd</sup> Quarter, April 2021, 11-17. \(NWC 4192A\)](#)





## JMO-30 SMALL WARS

Small war has in reality no particular connection with the scale on which any campaign may be carried out; it is simply used to denote, in default of a better, operations of regular armies against irregular, or comparatively speaking irregular, forces.

~ Colonel C. E. Callwell, Royal Artillery  
*Small Wars Their Principles and Practice*

### Objectives

- Evaluate the practice of both states and non-state actors to achieve their political ends through the use of small wars.
- Assess what has changed and what remains the same in the realm of Small Wars in the 21st century.
- Assess the implications of Small Wars on operational planning and execution.

### 🔍 Focus

[This session addresses the social and political phenomenon of Small Wars. In his early work, *Schriften, Aufsätze, Studien, Briefe*, Band 1 and *Bekenntnisdenschrift*, Clausewitz tells us that Small War may be seen in two ways. First, as states applying small-scale organized violence against military targets in order to exhaust the enemy and to compel them to change policy. Second, as the application of organized and unorganized violence by non-state actors against military forces to harass and exhaust the enemy's army in order to change their policy. Viewing the wars of the twentieth and early twenty-first centuries through the lens of Small Wars will aid commanders and planners in understanding both current and future conflicts. ]

### ⚖ Background

[The concept of Small Wars is not new. Clausewitz further considered the phenomena of guerrilla warfare, insurgency, and wars of liberation in "The People in Arms" chapter of *On War*. Colonel C. E. Callwell, Royal Artillery, wrote *Small Wars: Their Principles and Practice* (1896) to better understand the British Army's nineteenth century successes and failures in Afghanistan, Sudan, and South Africa. On the eve of World War II (1940) the U.S. Marine Corps published an in-depth study of Small Wars between the world wars. "Small Wars/21st Century" advises that this type of war differs from larger conventional conflicts in 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).

Great powers have frequently failed in fighting Small Wars. Their failures may be attributed to the need to maintain large conventional forces that can win against a large conventional foe, an inability to adapt these large forces to compete with smaller hybrid forces, and the protracted nature of Small Wars that often diminishes their political will to fight and win. These factors render it challenging at best to achieve military and national objectives to achieve a clear political end state. In essence, large nation states do not necessarily lose Small Wars; they simply fail to win them.

The topics studied in the latter portion of the JMO trimester represent the ways and means of Small Wars. They are often characterized by the use of asymmetric methods that weaker sides choose to fight great powers. Small Wars are population-centric and may be 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., these are simply terms that are 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.

In the U.S. experience, its challenges began in the early twentieth century with military interventions in Latin America (Haiti, Dominican Republic, Nicaragua); they continued with Vietnam, Afghanistan, and Iraq. Other states have faced their fair share of Small Wars, e.g., Soviet Union-Afghanistan (1979-1989), Israel-Hezbollah (2006), Russia-Georgia (2008), Israel-Hamas (2008), Russia-Ukraine (2014), and Syria / Iraq vs. ISIS/ISIL, with varying degrees of success and failure.

It is essential for professional military officers and civilian leaders to comprehend not only these enduring and emerging patterns, but also to understand how present and future opponents, state and non-state, conduct Small Wars in pursuit of their objectives and ends. ]

### ?? Questions

[Discuss how Small Wars may be used to achieve military objectives and political ends.





## JMO-30 SMALL WARS

What is the relationship between Small Wars and complex problems?

To what degree are there common threads in the ways belligerents prosecute Small Wars?

To what extent are the traditional instruments of national power effective in prosecuting Small Wars?

Describe the challenges that commanders and staffs face in effectively incorporating ideas on prosecuting Small Wars into planning and executing transregional, all domain, multi-function campaigns and operations across the competition continuum.

### Required Readings (60 Pages)

[Cassidy, Robert M. "Why Great Powers Fight Small Wars Badly," Military Review, Sept/Oct 2002.](#) Read 41-53. (NWC 3198)

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

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

[Warfighting. Marine Corps Doctrine Publication 1. Headquarters, U.S. Marine Corps, Washington, DC, 1997.](#) Read 23-28.





## THE INFORMATION ENVIRONMENT

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

### OBJECTIVES

- Assess the role of Information as an instrument of national power in achieving national and theater strategic objectives.
- Assess the integration of Operations in the Information Environment (OIE) in theater campaign development.
- Evaluate the ends, ways and means that the Combatant Commander and staff may integrate OIE into theater policies, and strategies across the competition continuum.

### 🔍 Focus

With the emergence of information as key terrain in modern warfare, our understanding the Information Environment – how information is sent and received, how it is perceived, and how it is acted upon – are all integral to contemporary warfare. This session focuses on how operating in the information environment (OIE) is used to inform, persuade, and influence decision-making across the competition continuum.

### ⚙️ Background

Understanding Information as an element of national power and a joint function; how it is moved, prioritized, analyzed and synthesized to support decision makers is key to twenty-first century operations. The confluence of information connectivity, content and cognition combine to form the Information Environment (IE), a term of art in U.S. Joint doctrine. The IE is used by decision makers as data is collected and prioritized to create information. That information is synthesized into knowledge that decision makers leverage to make decisions.

The emerging U. S. Joint Doctrine for Information in Joint Operations (JP 3-04) stresses the need for commanders and planners to incorporate information as a foundational element of all operations. This includes understanding how information impacts the operating environment (OE), how it supports human and automated decision making and how to leverage information to achieve objectives. Understanding the power of information enables one to inform, persuade and influence actors in the OE. Broadly speaking, all operations are in the end 'influence' operations. In other words, short of unconditional surrender, all military operations are undertaken to influence an adversary to make a decision favorable to larger U.S. objectives. Given this, the integrated employment of information-related capabilities (IRCs) in all military operations are central to achieving the commander's objectives at every level of warfare.

The concept of operating in the information environment (OIE) is yet another attempt by the DoD to get its arms around the power of information in contemporary competition and conflict. OIE is used by belligerents on both sides to affect decision-making across the range of military operations, yet our adversaries seem to consistently control the narrative. The 2018 Joint Concept for Operating in the Information Environment (JCOIE) assigned below is an evolution of the 2003 Information Operations Roadmap, yet it seems that since then, we still struggle to change our adversaries' behavior through OIE. This is in large part due to our adversaries, whether they are state or non-state actors, are not constrained by truth and laws, enabling them to "out inform" us both on and off the battlefield.

Today, operating in the IE is being used to inform, persuade, and influence decision-makers in competition and conflict around the globe. The tools and weapons that are being employed use information power, instead of, or in addition to, physical means to compel adversaries and decision-makers to act. This session is intended as a foundation for understanding how operating in the information environment can be leveraged to achieve success across the competition continuum.





## THE INFORMATION ENVIRONMENT

### ?? Questions

Can modern conflicts be won by the use of lethal operations alone? Explain your answer.

Why is information considered an element of national power?

Define information power and provide examples of how it has been used throughout history.

Describe China's integrated use of information power to achieve their aims.

Describe how the information environment impacts nations in Southeast Asia and how Chinese Strategic Support Forces might achieve control over the movement of content. What impact might that control have over various populations or military operations?

How might USINDOPACOM and the U.S. Government counter China's operations in the information environment in the South China Sea?

How can joint force commanders operate in the information environment to inform, persuade, and influence decision makers across the competition continuum?

### Required Readings (53 Pages)

[Crowell, Richard M. "Great Power Competition — China's Use of Small War and Information Power in Pursuit of Its Epochal World Order." Newport, RI: U.S. Naval War College, Joint Military Operations Department, July 2021. \(NWC 2195\)](#)

[Costello, John. "The Strategic Support Force: China's Information Warfare Service," Washington, DC, Jamestown Foundation, Vol XVI, Issue 3. \(NWC 2182\)](#)

U. S. Office of the Chairman of the Joint Chiefs of Staff. Information in Joint Operations. Joint Publication (JP) 3-04. Washington, DC: CJCS, 2022. Read Chapters 1, 2 and 7. [Pending release of final document]

### References and Supplemental Readings

[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. \(NWC 2021E\)](#)

[U. S. Office of the Chairman of the Joint Chiefs of Staff. "Joint Concept for Operating in the Information Environment." Washington, DC: CJCS July 25, 2018. Read 1-30. \(NWC 4185\)](#)

[Irie, Robert. "Promoting Submarine Cable Diversity as a Foundation for Information Security in the South China Sea." Newport, RI: U.S. Naval War College, Joint Military Operations Department, October 2019. \(NWC 3247\)](#)





## OPERATIONAL LAW

*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*

### 🔍 Focus

This session posits the value of integrating international law and authorities into the planning and execution of all military operations – during peace, competition, and war. The session examines the application of operational law to warfare and operations short of war by analyzing and comparing the Falklands/Malvinas Conflict of 1982, discussed previously in JMO-19, U.S. and China operations/strategy in the South and East China Sea, and the ongoing Russia/Ukraine war. Difficulties in applying existing law of armed conflict to new domains, such as cyber and space, and the effectiveness and consequences of using lawfare or violations of international law to achieve operational and/or strategic objectives will also be evaluated.

### 📖 Background

Operational law is a broad term encompassing those facets 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 take into consideration a wide range of international and domestic laws and ensure they have the appropriate authorities to accomplish the mission.

While the armed conflicts of the last few decades have been primarily on land, it is likely that a future U.S. armed conflict would involve warfare in the maritime domain. Because of its nature as a global common, naval forces of States in competition often operate in proximity in the maritime domain with a risk for escalation into conflict. Therefore, it is useful to evaluate the effects and application of international law in the context of both warfare and operations short of war at sea. The Falklands/Malvinas Conflict of 1982 and the Tanker Wars of the 1980s are useful historical case studies for the discussion of operational law in naval warfare and operations short of war, as two of the few naval conflicts that have occurred in the age of surface-to-surface missiles, jet aircraft, and nuclear-powered submarines.

Freedom of movement in international waters and airspace is 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.

For the operational planner, the factor space is heavily influenced by international law governing the establishment of land, sea, and air boundaries. These boundaries directly impact freedom of movement of military forces. For example, during the deterrent or pre-hostilities phase of an operation, military forces generally respect the sovereign rights of nations regarding their land territory, national waters, and national airspace. During the hostilities phase of an operation, when the law of armed conflict (LOAC) governs the situation, the movement of military forces may be conducted without regard to the sovereign territorial rights of the enemy belligerent nation. However, the traditional sovereign rights of other states (e.g., neighboring/neutral states) must, as a matter of law, continue to be respected. Limitations on freedom of movement of forces within land, sea, and air boundaries of such states must be factored into operational planning.

### 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 or violations of international law to achieve both strategic and operational objectives.







## OPERATIONAL LAW

Authority for the use of force will vary across the spectrum of military operations. Commanders and in particular their staffs must understand and take authorities into consideration in planning and executing operations. Authorities can include United Nation Security Council Resolution (UNSCR), international criminal jurisdiction, consent of a flag state, self-defense, rules for the use of force (RUF), or rules of engagement (ROE). In contrast to most land operations, in maritime operations, a unit may use different authorities nearly simultaneously for actions taken.

International law governing the use of military force in war is divided into two parts: (1) the *jus ad bellum* (when and under what circumstances a nation has a right to use military force or go to war) and (2) the *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 holding the potential for use of force. Therefore, all military commanders, planners, and operators must thoroughly understand the application of LOAC regardless of the type of operation. When studying LOAC, one must bear in mind that LOAC has historically been called the Law of War and the international community often refers to LOAC as International Humanitarian Law (IHL).

States frequently limit or authorize the use of military force in rules of engagement (ROE). While ROE normally comply with LOAC, the State may use the ROE or other policy measures (e.g. civilian casualty limits) to restrict the use of force beyond restrictions required by LOAC. The 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 domestic populations judge the use of military force largely based on whether the action taken is perceived to be in accordance with international law. Compliance, or perceived compliance, with international law conveys legitimacy. Considering the speed with 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 achievement of both the military and strategic objectives through loss of legitimacy.

Compliance with the law is tied to legitimacy, and because States strive for the perception of legitimacy with any use of force, there has been a recognition that the law has utility as a weapon of strategy and war. The term "lawfare" has been defined in various ways but for our purposes we will use the following definition: using – or misusing – law as a substitute for traditional military means to achieve an operational or strategic objective. Under this definition simply complying or violating international law would not be lawfare.

Lawfare is increasingly utilized by States, as well as non-state actors, across the spectrum from competition to war to achieve not only operational objectives but also strategic ones. In recent years, competitors and potential adversaries have taken strategic approaches that leverage their interpretation of international law to further their national interests and objectives. In some cases, lawfare has accomplished national objectives without resorting to force, or at least not armed conflict, while in other cases lawfare has furthered objectives during armed conflict.

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, and Arabian Gulf). The legal aspects of military operations in such environments must be evaluated during planning and re-evaluated during execution as the enemy has a vote.

In some domains, such as cyber and space, the application of international law, particularly LOAC, is not settled and interpretation of how the rules apply, if they are applied, varies. These differences can be exploited to a State's advantage – another application of lawfare – while arguably maintaining legitimacy. |







## OPERATIONAL LAW

### ?? Questions

What are the connections among State use of force, international law, the United Nations Security Council Resolutions (UNSCRs), and legitimacy? If UNSCRs are unlikely in great power competition, how do states maintain legitimacy when using military force? When would a state consider legitimacy in using military force not needed or irrelevant?

How are ROE shaped by policy, the law, and military requirements? How is use of force under self-defense different from the use of force under LOAC? When does a commander choose to violate ROE? What is the relationship between ROE and mission command?

How does LOAC apply to civilian vessels (e.g. fishing vessels, oil tankers) during warfare in the maritime domain? When are they directly participating in hostilities or legitimate military targets?

How do respect for national sovereignty; laws of neutrality; and LOAC (including belligerent control of the immediate area of operations, maritime zones, blockades, and naval mining) limit or assist mission accomplishment? How do States exploit weaknesses in international law (sovereignty, LOS, law of neutrality, LOAC) to further military operations? What about in cyber or space domains? When would an operational plan include violating international law?

How are the different interpretations of UNCLOS and national interests affecting 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?

How are Russia and China using "lawfare" to achieve their strategic and/or operational objectives? What are the connections between legitimacy, lawfare, and information operations? How does this impact military planning?

Is operational law more relevant in warfare or operations short of warfare, war or competition? What are the risks or potential consequences if operations in war or short of war are conducted in violation of international law?

### ☰ Required Readings (83 pages and Lecture Video)

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

[Harvison, Melissa. "Operational Law Primer." Newport, RI: U.S. Naval War College: Joint Military Operations Department. January 2020.](#) Read Preface, 1-3 and 5, 25-28, 31-72. **(NWC 2147A)**

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. Read 161-173, 186-195. **(NWC 2146)**  
**This item available via Leganto.**

[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)**

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

[Hime, Douglas N. U.S. Naval War College. Joint Military Operations Department. "The 1982 Falklands-Malvinas Case Study." Newport, RI: Naval War College, 2010.](#) Review 18-30. **(NWC 1036)**





## JMO-33 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 cyber warfare in contemporary conflict to achieve military objectives and political ends. Much public (and professional) perception of cyberspace and the concept of cyber warfare is characterized general misunderstanding of what the domain is and how various actors use it to support their interests. Many of the actions described as cyber warfare are more accurately acts of cyber-enabled information warfare. Accordingly, Daniel T. Kuehl, the former director of the Information Strategies Concentration Program at the U. S. National Defense University, offers this 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 in this session as a way to normalize its many and varied aspects. It considers code and content as cyber forces that move through the domain. These forces have increasingly been used to control machines independent of their owners and to influence human decision-making across the competition continuum.

### ⚙️ Background

Among 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. The vast scope of global activity in cyberspace in the early 21st century is revealed by the approximately 4.6 billion Internet users, or 59 percent of people on Earth, more than of them 2.2 billion Facebook users. The U.S. Department of Defense (DOD) operates over 15,000 networks and more than seven million edge devices (electronic computing devices providing entry points to move content and code around the internet). DOD weapons systems are more connected than at any time in our history. This increased connectivity creates both opportunities and vulnerabilities that the DOD has only recently begun to address.

In an effort 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, as defined in U. S. Joint doctrine, is the employment of cyberspace capabilities where the 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, in particular, standardize warfighting terminology and allow warfighters to better understand and communicate actions and objectives across multiple warfare areas. Not surprisingly, as the competition





## JMO-33 CYBER WARFARE

continuum evolves with the changing character of war, it now 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 increasing interconnectedness of humans and machines has produced significant changes in the character of war. The CJCS Joint Concept for Integrated Campaigning (JCIC) calls for integrated campaigning across geographic boundaries *and* in multiple domains. In an effort to begin understanding the complexity associated with integrated campaigning this session examines JTF ARES and Operation GLOWING SYMPHONY actions against ISIS and the impact of cyberspace operations to control, deny or dispute the movement of information on 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.

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 U.S. and ISIS.

### ☰ Required Readings (60 Pages)

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. Read. (NWC 2137)

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. Read 5-28; 33 and 36. (NWC 4179)

Temple-Raston, Dina. "How the US Hacked ISIS," National Public Radio, September 26, 2019. Listen or read. <https://www.npr.org/2019/09/26/763545811/how-the-u-s-hacked-isis>.

Cox, Matthew. "US, Coalition Forces Used Cyberattacks to Hunt Down ISIS Command Posts," <https://www.military.com/dodbuzz/2018/05/25/us-coalition-forces-used-cyberattacks-hunt-down-isis-command-posts.html>.

### ☰ References and Supplemental Readings

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)





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# **JMO-33** **CYBER WARFARE**

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.





## IRREGULAR WARFARE

*By definition, guerillas and terrorists are weak. By definition, their opponents are much stronger. Contrary to the accepted wisdom... most guerillas and terrorists won their struggles precisely because they were weak.*

- Martin van Creveld,  
*The Changing Face of War*, 2008

### OBJECTIVES

- Analyze revolutionary warfare to determine the role of violence in contesting legitimate governance.
- Apply an analytical framework that addresses the common causes of insurgency, the fundamental structure of insurgencies, and how insurgencies are generally sustained.
- Evaluate the key concepts of irregular approaches to warfare and current joint counterinsurgency doctrine.
- Apply the fundamental elements of operational design and planning to irregular campaigns.

### 🔍 Focus

This session focuses on the fundamental characteristics of irregular warfare. We consider the operational environment to understand the root causes of insurgency and to better understand the challenges of designing counterinsurgency operations. Using design methodology, elements of operational art, and specialized analytical tools, students will gain the capability to analyze the environment and structure of insurgencies. Students will consider the character of irregular warfare and the applications of irregular campaigns in the contemporary environment.

### ⚙️ Background

Although the U.S. military was born as an irregular force and has historically engaged in numerous conflicts against insurgent opponents, it has remained far more enthusiastic about conflict at the upper end of the range of military operations. Conflicts involving one (or more) insurgencies drag on for years, are rife with political/strategic/operational challenges, and are the least likely to respond to the employment and application of purely military force. One may safely assume that irregular warfare will continue, although the environment, specific forms, and tactics may change. Military officers and members of relevant civilian agencies must understand how to operate in politically uncertain and ambiguous environments against foes that are weaker in terms of military power but play by very different rules.

To fight (or support) irregulars successfully, one needs to understand the causes, levels of support, grievances, and other factors that sustain irregulars. This is difficult because although insurgencies and revolutions share certain fundamental characteristics, each remains unique. Historical, cultural, political, and economic factors must be recognized as integral to any meaningful analysis. A design methodology may be of particular use in identifying the complex, adaptive nature of the environment, the root causes of the conflict, possible objectives, and possible operational approaches.

### ?? Questions

Historically, irregular warfare has been the resort of the “weak.” What does this mean?

Describe the factors that must be present for irregulars to succeed against professional, national forces.

Explain how the political/social/cyber environment can be used by an insurgent to accomplish their objectives.

How has the rise of irregular movements with global reach differed from earlier insurgencies (or do they really differ)?





## IRREGULAR WARFARE

Explain the relationship between the existence of an insurgency and the perceived legitimacy of a host nation or occupying government. How can a government establish its legitimacy?

Explain the differences in the U.S. doctrinal approach to Counterinsurgency Operations and Foreign Internal Defense? Why might these differences matter in terms of legitimacy?

Explain the relationship of the operational factors of time, space, and force with an objective in conducting irregular operations.

Analyze how irregulars use the political/social/information environments in pursuit of their objectives.

### Required Readings (53 First Session)

#### First Session:

Fall, Bernard B. "The Theory and Practice of Insurgency and Counterinsurgency." Naval War College Review (Winter 1998): 46-57. [Originally published in the April 1965 Naval War College Review from a lecture delivered at the Naval War College on December 10, 1964]. (NWC 3097)

U.S. Office of the Chairman of the Joint Chiefs of Staff. *Counterinsurgency*. Joint Publication (JP) 3-24. Washington, DC: CJCS, 25 April 2018. Read Chapter I.

Waghelstein, John, and Donald Chisholm. "Analyzing Insurgency." Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006. (NWC 3099)





# 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*

## 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 dealing with contemporary and future security challenges.
- Assess the implications of the likely volatile and ambiguous future security environment for the Joint Force Commander.

## Focus

This session concludes our discussion of contemporary competition and conflict by considering what the future may bring. Although we expect that the nature of war will remain unchanged, over the years 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.

## 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 their 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 groups, particularly compared to the rising European states, was historically limited. This is no longer the case, particularly in the post-Cold War-9/11 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 may be able to acquire both conventional and unconventional capabilities that, when combined in innovative ways, may exceed the firepower of their governmental foes. Irregular warfare continues to challenge not only fragile and but 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.

At the same time, the PRC’s 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, conditioning 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







## JMO-35

# THE CHARACTER OF FUTURE CONFLICT

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, such as Georgia, Ukraine, Armenia, and Belarus, while threatening the Baltic states, and attempting through economic means to coerce other European states. In 2022, Russia's "special operation" (invasion of and war against) the sovereign state of Ukraine made manifest that conventional state-on-state attrition warfare is by no means a thing of the past. The continuing and emerging impacts of that war have 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. Like the PRC, Russia has also 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. 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 make clear 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

How did 1991's *Desert Storm* affect Chinese thinking about the character of future warfare? How did this thinking depart from the thinking of the United States and its allies?

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 the character of war?

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.

## ☰ Required Readings (76 Pages)

[Department of Defense. 2022 National Defense Strategy Fact Sheet. 28 March 2022.](#) Read.

[New Atlanticist. "The Next National Defense strategy is coming. These Seven Points are a Key to Understanding It." \*The Atlantic Council\*. 20 April 2022. <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-next-national-defense-strategy-is-coming-these-seven-points-are-key-to-understanding-it/>.](#) Read.

[Becker, Jeffrey. "Joint Operating Environment 2040." \*Military Intelligence Professional Bulletin\*, Volume 46 Number 4 October–December 2020, pp. 35-37.](#) Read.

[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.](#) Read.

[U.S. Office of the Chairman of the Joint Chiefs of Staff. \*Joint Concept for Integrated Campaigning\*. Washington, DC: CJCS, 16 March 2018.](#) Read Executive Summary and pages 1-6.







# THE CHARACTER OF FUTURE CONFLICT

[Liang, Qiao and Wang Xiangsui, \*Unrestricted Warfare\* \(February 1999\).](#) (NWC 3254) Read pp. 2, 4-7, 204-222, 226-228.

[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.](#) Read.





## JMO-36

# COMPREHENSIVE EXAMINATION

*If the mind is to emerge unscathed from this relentless struggle with the unforeseen, two qualities are indispensable: first, an intellect that, even in the darkest hour, retains some glimmerings of the inner light which leads to truth; and second, the courage to follow this faint light wherever it may lead.*

- Carl von Clausewitz,  
*On War*, 1832

### OBJECTIVES

- Synthesize course concepts including operational art, operational law, and environmental considerations through the analysis of JMO course material.
- Create a reasoned response to the examination questions demonstrating an internalization of the various concepts of the Joint Military Operations curriculum.
- Provide students the opportunity to demonstrate critical thinking skills.

### Focus

This session is designed to allow students to demonstrate their (1) synthesis of the course material considered to date, and (2) higher order thinking skills in a complex, uncertain, and ambiguous situation involving use or contemplated use of military force.

### Background

Examination questions will be issued on 27 October at 1200. Student responses are due to their moderators NLT 1200 28 October. Grading criteria for the comprehensive examination may be found in the JMO Course Description on the JMO Senior Level Course Blackboard site.

### Questions

See examination question sheet.

### Required Readings

The examination is based on JMO course material considered to date.





## CAPSTONE SYNTHESIS EVENT

*If men make war in slavish obedience to rules, they will fail.*

- General Ulysses S. Grant

### Focus

This session is the culmination of the Planning block of the JMO curriculum. This final event in the JMO trimester is a Capstone Synthesis Event that continues to use Design Methodology as a mode of conceptual planning. The purpose of this exercise is to synthesize course material by leveraging individual research, rigorous discourse, and the artifacts of practical application of Design Methodology - the operational approaches seminars produced in JMO-29.

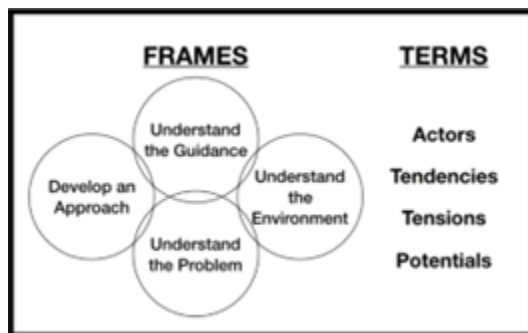
Moderators will provide a catalyst inject and conceptual planning guidance.

Deliverable: An *updated* Operational Approach presentation, max 15 min. Continue to minimize obsessive reliance on PowerPoint; additionally, preparation for a follow on 45 minute seminar discussion with a mentor focused on the process by which the seminar members arrived at their recommended updated Operational Approach.

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.

### OBJECTIVES

- Synthesize problem-solving concepts in leading a multidisciplinary and multinational planning team addressing ill-structured problems in a volatile, uncertain, complex, and ambiguous environment.
- Synthesize leadership skills necessary to sustain innovative and agile organizations in a joint environment.
- Formulate theater strategic and operational objectives that support theater campaigns and national military strategies across the spectrum of conflict and synchronize efforts at the operational level with the national strategic, national military strategic, and theater strategic levels of war.
- Revise planning processes to balance the competing objectives of the interagency effort, including Inter-Governmental Organizations and Non-Governmental Organizations, in achieving stated objectives.
- Apply Design Methodology as a mode of conceptual planning for developing potential solutions to ill-structured problems.



### Background

The Capstone Synthesis Event is intended to refine the students' ability to address ill-structured problems at the theater strategic and operational levels of war, and to demonstrate this skill set using Design Methodology. The catalyst inject will change the operating environment, and will involve a measure of urgency. This will drive a need to reassess and re-frame. However, even though the time horizon and the scope of the seminar team's focus will likely shrink considerably as a result of the catalyst, all of the conceptual planning work the seminars have done throughout the term





## CAPSTONE SYNTHESIS EVENT

*is still relevant.* The Capstone Synthesis Event exists in the context of the original focus question for the term-long conceptual planning effort:

*With the reemergence of long-term, strategic competition by revisionist powers, what competition mechanisms should U.S. Indo-Pacific Command (USINDOPACOM) consider with regards to the maritime challenges in the Western Pacific?*

Further, the catalyst will not drive to immediate execution of a numbered operational plan, and it will likely demand coherent integration of other tools of national power in addition to the military tool. Hence, seminars should view the understanding they have built over the course of the term via Design Methodology as foundational to this follow on, shorter fused, but no less important conceptual planning effort in the face of a sudden, significant change in the operating environment in which the state of one or various ill structured problems have become less favorable to U.S. interests.

In terms of how to orient the artifact coming out of this reframing, students may view the updated Operational Approach brief as a product that would be used to inform a conversation between the commander and the Secretary of Defense examining options bare days or hours following such a change. With *good enough* foundational understanding, further detailed planning likely has a better chance of setting conditions to achieve national objectives in today's complex operating environments. Students are advised to be alert to both risks and *opportunities*.

### ?? Questions

How does a Combatant Commander's staff organize to address potential solutions to ill-structured problems?

How does a Joint Planning Group effectively leverage component or multi-national perspectives and capabilities when planning operations?

How does the Combatant Commander best integrate or leverage elements of national power to accomplish strategic and operational objectives?

How does long term conceptual planning relate to shorter term conceptual planning?

Following a sudden, strategically significant change to the operating environment, particularly one not driving to immediate execution of a numbered operational plan or other major combat operations, how does a high level staff manage the tension between the need to reframe conceptual understanding of the operating environment and problem/s, and the potential need to quickly start detailed planning?

### ☰ Required Readings (08 Pages)

[U.S. Army. \*Army Design Methodology\*. Army Techniques Publication \(ATP\) 5-0.1. Washington, DC: Headquarters, Department of the Army. July 2015.](#) Read Chapter 2, Review Chapters 3 thru 5.

[Davidson, Phillip S. Statement of Admiral Philip S. Davidson, U.S. Navy, Commander, U.S. Indo-Pacific Command, 9 March 2021. \(NWC 2136B\) Review.](#)



# JMO SLC AUGUST 2022

MONDAY 1	TUESDAY 2	WEDNESDAY 3	THURSDAY 4	FRIDAY 5
		Convocation		0830-0900 JMO-01 Course Overview (Lecture)  0915-1145 JMO-02 Intro Seminar (Seminar)
MONDAY 8	TUESDAY 9	WEDNESDAY 10	THURSDAY 11	FRIDAY 12
0830-1145 JMO-03 Problem Solving & Introduction to Conceptual Planning (Lecture/Seminar)	0830-1145 JMO-04 Understanding Guidance: Strategic Direction to Operational Plans (Seminar)	0830-1145 JMO-05 The Indo-Pacific Environment (Lecture*2)	0830-1145 JMO-06 China Panel Discussion (Lecture*3)	0830-1000 JMO-07 Research Paper (Seminar)  1000-1145 Student research time
MONDAY 15	TUESDAY 16	WEDNESDAY 17	THURSDAY 18	FRIDAY 19
Electives 1	0830-1000 JMO-08 Strategic Background on the Philippines Campaign (Lecture)  1015-1145 JMO-09 Intro to Op Art (Seminar)  Initial Research Topic Idea Due	0830-1000 JMO-10 Military Objective & Level of War (Seminar)  1015-1145 JMO-11 Operational Factors	0830-1000 JMO-11 Operational Factors (Seminar)  1015-1145 JMO-12 Operational Functions (Seminar)	Research and Reflection Day
MONDAY 22	TUESDAY 23	WEDNESDAY 24	THURSDAY 25	FRIDAY 26
Electives 2	0830-1000 JMO-12 Operational Functions (Seminar)  1015-1145 JMO-13 Theater Structure & Geometry (Seminar) Research Question & Draft Thesis Due	0830-1145 JMO-14 Critical Factor Analysis and the Operational Idea (Seminar)	0830-1145 JMO-14 Critical Factor Analysis and the Operational Idea (cont'd) (Seminar)	0830-1145 JMO-15 Operational Design (Seminar)
	IPR#1	IPR#1	IPR#1	IPR#1
MONDAY 29	TUESDAY 30	WEDNESDAY 31	THURSDAY 1 SEP	FRIDAY 2 SEP
Electives 3	0830-1145 JMO-15 Operational Design (cont'd) (Seminar)	0830-1145 JMO-15 Operational Design (cont'd) (Seminar)	Research and Reflection Day	LIBERTY

# SEPTEMBER 2022

MONDAY 5	TUESDAY 6	WEDNESDAY 7	THURSDAY 8	FRIDAY 9
LABOR DAY	0830-1000 JMO-16 Naval Power and the Role of Naval Forces (Seminar)  1015-1145 JMO-17 Struggle for Sea Control (Seminar) <b>Full Research Paper Proposal Due</b>	0830-1145 JMO-18 Contemporary Challenges to Sea Control (Lecture/Seminar)	0830-1145 JMO-19 Strategic Background on the Falklands-Malvinas Conflict & Exercise (Lecture/Seminar)	Research and Reflection day
	IPR#2	IPR#2	IPR#2	IPR#2
MONDAY 12	TUESDAY 13	WEDNESDAY 14	THURSDAY 15	FRIDAY 16
Electives 4	0830-1145 JMO-19 Falklands-Malvinas Exercise (cont'd) (Seminar)	0830-1145 JMO-19 Falklands-Malvinas Exercise (cont'd) (Seminar)	0830-1145 JMO-19 Falklands-Malvinas Exercise (cont'd) (Seminar)	Research and Reflection day
MONDAY 19	TUESDAY 20	WEDNESDAY 21	THURSDAY 22	FRIDAY 23
Electives 5	0830-1145 Student exam prep time  <b>1145 JMO-20 Exam 1 issued</b>	<b>1200 Exam 1 returned</b>	0830-1145 JMO-21 Intro to Design Methodology (Seminar)	Research and Reflection day
MONDAY 26	TUESDAY 27	WEDNESDAY 28	THURSDAY 29	FRIDAY 30
Electives 6	0830-1145 JMO-22 Joint Planning Process (Lecture/Seminar)	0830-1145 JMO-23 JSPS Overview (Lecture/Seminar)	0830-1145 JMO-24 Understanding Guidance: Strategic Direction to Operational Plans (Classified Seminar)	0830-1145 JMO-25 Joint Logistics and Campaign Design (Lecture/Seminar)
	NCC travel ?	NCC travel ?	NCC travel ?	NCC travel ?

# OCTOBER 2022

MONDAY 3	TUESDAY 4	WEDNESDAY 5	THURSDAY 6	FRIDAY 7
Electives 7	0830-1145 JMO-26 Conceptual Planning PE #1- Framing the Environment (Seminar)	0830-1145 JMO-27 WestPac Tensions Panel Discussion (Panel/Seminar)	0830-1145 JMO-28 Conceptual Planning PE #2- Framing the Problem (Seminar)	LIBERTY
MONDAY 10	TUESDAY 11	WEDNESDAY 12	THURSDAY 13	FRIDAY 14
COLUMBUS DAY	0830-1145 JMO-29 Conceptual Planning PE #3- Framing an Operational Approach (Seminar)	Electives 8	0830-1145 JMO-30 Small Wars (Seminar)	Research and Reflection day  1600- Research Papers Due
MONDAY 17	TUESDAY 18	WEDNESDAY 19	THURSDAY 20	FRIDAY 21
Electives 9	0830-1145 JMO-31 The Information Environment (Seminar)	0830-1145 JMO-32 Operational Law (Seminar)	0830-1145 JMO-33 Cyber warfare	Research and Reflection day
MONDAY 24	TUESDAY 25	WEDNESDAY 26	THURSDAY 27	FRIDAY 28
Electives 10	0830-1145 JMO-34 Irregular warfare (Seminar)	0830-1145 JMO-35 The Character of Future Conflict (Lecture/Seminar)	Research and Reflection day	0830 JMO-36 Comprehensive Exam issued  1600 Comprehensive exam returned

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