FOREWORD

This syllabus provides a comprehensive overview of the Naval War College’s Joint Military Operations trimester. 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 students in daily seminar preparation and in developing a personal plan of study. Administrative information is also included.

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Chairman, Joint Military Operations Department

Approved:

Phil Haun, Dean of Academics
INDIVIDUAL COURSE SESSIONS

JMO-01 Course Overview (Lecture)
JMO-02 Introductory Seminar (Seminar)
JMO-03 Understanding Guidance: Strategic Direction to Op Plans (Seminar)
JMO-04 Problem Solving and Intro to Conceptual Planning (Lecture/Seminar)
JMO-05 Research Paper (Seminar)
JMO-06 Actors and Visual Framing (Seminar)
JMO-07 Identifying Actors Part 1 (Lecture/Seminar)
JMO-08 Strategic Background for the Philippines Campaign (Lecture)
JMO-09 Intro to Operational Art (Seminar)
JMO-10 The Strategic 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 Identifying Actors Part 2 (Seminar)
JMO-15 Elements of Campaigns and Major Operations (Seminar)
JMO-16 Operational Design (Seminar)
JMO-17 Theater-Strategic Leadership (Seminar)
JMO-18 Evaluating Actors and Tensions (Seminar)
JMO-19 Objectives of Naval Warfare (Seminar)
JMO-20 Struggle for Sea Control (Seminar)
JMO-21 Contemporary Challenges to Sea Control (Classified Lecture and Seminar)
JMO-22 Falklands-Malvinas (Lecture/Exercise)
JMO-23 Operational Law (Lecture/Seminar)
JMO-24 Examination #1 (Individual Effort)
JMO-25 Distinguishing Actors, Tensions, and Tendencies (Seminar)
JMO-26 Panel Discussion (Panel/Seminar)
JMO-27 JSPS Overview (Lecture/Seminar)
JMO-28 Understanding Guidance: Strategic Direction to Op Plans (Classified Seminar)
JMO-29 Command and Control (Seminar)
JMO-30 The Information Environment (Seminar)
JMO-31 Intelligence for Operational Planning and Decision Making (Seminar)
JMO-32 Joint Operational Logistics (Seminar)
JMO-33 Deployment (Seminar)
JMO-34 Framing the Operational Environment (Seminar)
JMO-35 Initial Approach Framing (Seminar)
JMO-36 Small Wars (Seminar)
JMO-37 Insurgency and Counterinsurgency (Seminar)
JMO-38 Conflict Termination (Seminar)
JMO-39 Interagency Coordination (Seminar)
JMO-40 Cyber Warfare (Seminar)
JMO-41 Defense Operations in the Homeland (Seminar)
JMO-42 The Character of Future Conflict (Seminar)
JMO-43 Comprehensive Examination (Individual Effort)
JMO-44 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

Without fostering reflective thought, learning cannot move beyond conditioning, beyond the classroom... and the connection between thought and action is dissipated.

– John Dewey (1933)

1. Mission

In keeping with the mission of the Naval War College (NWC), the Joint Military Operations Department (JMO) curriculum is designed to educate senior leaders for service at the theater-strategic level of war—capable of recognizing the multi-faceted command and staff actions necessary to link ends, ways, and means to attain strategic and operational objectives in peace and in war.

2. Course Learning Outcomes

The Professional Military Education (PME) outcomes for the College of Naval Warfare and Naval Command College are designed to produce officers fully capable of serving as leaders or principal staff officers at the theater-strategic and operational levels of war. The purpose of these educational outcomes is to develop students who can:

- Apply critical thinking, creative thinking, and problem-solving skills to support decision making in joint military operations.
- Apply operational art to operational and theater-strategic objectives.
- Apply Design Methodology to complex problems in operating environments across the spectrum of conflict.
- Develop operational ideas and communicate how to employ joint military power to achieve military objectives.

3. Course Objectives

The objectives below identify the specific objectives that the JMO Department intends to achieve during the trimester. They are not to be confused with the Educational Outcomes listed in paragraph five below which may be viewed as the strategic objectives for the College. The Educational Outcomes identify what the students will have achieved at the end of the Academic
Year after students have completed the courses in all three academic departments. Below are the operational objectives we seek to achieve in JMO. Each individual session has tailored objectives that support those listed below.

- To enhance a students’ ability to develop theater strategic concepts, to apply the joint planning processes, and leverage the instruments of national power across the Joint, Interagency, Intergovernmental, and Multinational Environment (JIIM).
- To hone those senior leadership skills essential for excelling in Joint Staff and other joint headquarters positions of leadership, and to serve as trusted advisors to policy makers.
- To develop thoughtful senior war fighters, able to synthesize valid courses of action and to function in volatile, uncertain, complex, and ambiguous operating environments.
- To refine critical strategic thinking skills essential for excelling in Joint Staff and other joint headquarters positions, develop and evaluate a range of potential solutions to ill-structured problems, and recognize the implications of disruptive and future technologies for adversaries and ourselves.

4. Course Overview

The Joint Military Operations trimester is intended to refine students’ critical and creative thinking skills under the aegis of military problem solving. The Naval War College faculty realizes that senior officers arrive with an understanding of many fundamentals of Joint Military Operations; however, through a series of sequential and integrated sessions, the course focuses on refining higher-order thinking through an academic program that incorporates evaluation, analysis, and synthesis. The trimester flows from the simple to the more complex and will culminate in a synthesis event intended to allow students to display their understanding of the course concepts and to demonstrate critical and creative thinking skills. The JMO trimester includes four segments: 1) Operational Warfare, 2) Planning, 3) Contemporary Operations and Environments, and 4) the Capstone Synthesis Event.

The Joint Military Operations course is an in-depth study of the theater-strategic and operational levels of war across the range of military operations. This course builds on Joint Professional Military Education (JPME) Phase I as defined in the Officer Professional Military Education Policy (OPMEP), and complements the Naval War College’s National Security Affairs (NSA) and Strategy and Policy (S&P) curricula. Where NSA and 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 through operational planning and joint force application to achieve military objectives. It examines joint operations from the standpoint of the Combatant Commander (CCDR) and Joint Task Force (JTF) commander. It further develops joint attitudes and perspectives, and exposes officers to and increases their understanding of service cultures while concentrating on joint operations. Through extensive use of case studies, the JMO student is challenged with four enduring questions from the perspective of a joint force commander and staff:

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

The ability to answer these questions is the very essence of being able to successfully plan and lead joint operations.

5. CJCS Officer Professional Military Education Policy

Title 10 of U.S. Code, §668 identifies joint matters as “relating to the development or achievement of strategic objectives through the synchronization, coordination, and organization of integrated forces in operations conducted across domains, such as land, sea, or air, in space, or in the information environment, including matters related to national military strategy, strategic planning and contingency planning, command and control, intelligence, fires, movement and maneuver, protection or sustainment of operations under unified command, national security planning with other departments and agencies of the United States, and may include combined operations with military forces of allied nations.”

The Chairman of the Joint Chiefs of Staff (CJCS) Instruction CJCSI 1800.01F sets the policies, procedures, objectives, and responsibilities for both officer Professional Military Education (PME) and Joint Professional Military Education (JPME). It provides Joint Learning Areas (JLA) as CJCS-approved joint knowledge to be mastered over a continuum of learning. As part of the CNC&S/NSC curriculum, the JMO course contributes significantly to the attainment of these JLAs:

JLA 1 - Strategic Thinking and Communication

Joint officers demonstrate advanced cognitive and communications skills employing critical, creative, and systematic thought. They evaluate alternative perspectives and demonstrate the ability to distinguish reliable from unreliable information to form reasoned decisions. They persuasively communicate on behalf of their organizations with a wide range of domestic and foreign audiences. Via their communication, they synthesize all elements of their strategic thinking concisely, coherently, and comprehensively in a manner appropriate for the intended audience and environment.

JLA 2 - The Profession of Arms

Joint officers are first and foremost members of the profession of arms, sworn to support and defend the Constitution, with specialized knowledge in the art and science of war. They demonstrate joint-mindedness and possess a common understanding of the values of their chosen profession demonstrated through the exercise of sound moral judgement and the embodiment and enforcement of professional ethics, norms, and laws. They apply the principles of life-long learning and demonstrate effective joint leadership and followership.
JLA 3 - The Continuum of Competition, Conflict, and War

Joint officers are experts in the theory, principles, concepts, and history specific to sources of national power, the spectrum of conflict, and the art and science of warfighting. They apply their knowledge of the nature, character, and conduct of war and conflict, and the instruments of national power, to determine the military dimensions of challenges to U.S. national interests, evaluating the best use of the military instrument across the full spectrum of conflict to achieve national security objectives.

JLA 4 - The Security Environment

Joint officers effectively and continuously assess the security implications of the current and future operational environment. Using appropriate inter-disciplinary analytical frameworks, they evaluate historical, cultural, political, military, economic, innovative, technological, and other competitive forces to identify and evaluate potential threats, opportunities, and risks.

JLA 5 - Strategy and Joint Planning

Joint officers apply a knowledge of law, policy, doctrine, concepts, processes, and systems to design, assess, and revise or sustain risk- and resource-informed strategies and globally integrated, all-domain joint plans across the spectrum of conflict. They demonstrate broad understanding of joint, interagency, intergovernmental, and multinational capabilities and policies to inform planning. They envision requisite future capabilities and develop strategies and plans to acquire them. They use strategy and planning as primary tools to develop viable, creative options for policy makers. In so doing, they position the United States to achieve national objectives across the full spectrum of conflict.

JLA 6 - Globally Integrated Operations

Joint officers creatively apply U.S., allied, and partner military power to conduct globally integrated, all-domain operations and campaigns. They exercise intellectual agility, demonstrate initiative, and rapidly adapt to disruptive change across all domains of competition, conflict, and war. They do so consistent with law, ethics, and the shared values of the profession of arms in furtherance of U.S. national objectives.

6. Course Organization

The JMO trimester begins with a series of introductory sessions that shape the intellectual environment. Among these are a couple of sessions that provide orientation to the trimester long conceptual planning effort threaded through the course which is centered on a regionally focused capstone question. These conceptual planning activities interspersed within the course, along with the research paper, are aimed at building collective expertise and understanding within the seminars needed to tackle the final stage of the capstone effort at the end of the course.

The introductory sessions are followed by a series of seminar discussions on the theoretical underpinnings of Joint Military Operations as embodied in operational art and maritime warfare theory. After students develop a deeper understanding of theory, the faculty will present some real-world constraints and restraints in order to investigate the nexus of operational art and operational law. The student will then be provided the opportunity to examine the sources of
higher-level planning guidance and considerations used by the United States Department of Defense in framing and solving military problems spanning the range of military operations. This is followed by a more detailed examination of some of the more challenging aspects of operational functions and operational support.

Once students have grasped the theoretical foundations and the processes necessary for success in the operating environment in which operational and theater-strategic military problems are solved, the course will require students to consider their roles in military operations in complex environments across the range of military operations.

The final event of the JMO trimester is a Capstone Synthesis Event intended to fuse all aspects of the trimester in a realistic scenario in which students will investigate current issues and recommend solutions. At the conclusion of JMO, senior students should be capable of leading a Joint Planning Group in a problem-solving endeavor, fostering critical and creative thinking skills in subordinates, and demonstrating fluency in both operational art and joint terminology.

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 deepen the experiential pool in students 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 Required Readings. These readings must be read prior to the session; most are digitally available and downloadable to an iPad or similar digital device. Syllabus readings are arranged in priority reading order. 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 that is current and tied to real-world issues that affect U.S. national security. Students will develop broad research questions regarding a selected region that will be the Department’s focus of effort for the Capstone Synthesis Event. This paper requires independent thought and graduate-level writing; the body of the paper will be commensurate in length with that of a professional journal article. Quality papers are retained in the Naval War College’s Library, and uploaded to the Defense Technical Information Center (DTIC) database.

Students will brief their research to their colleagues and, through this peer review, will be able to refine their papers prior to submission for grading. Moreover, the knowledge gained through the voyage of discovery will support the Capstone Synthesis Event. Each student, armed with in-depth knowledge of a specific area (education, infrastructure, governance and so forth), will act as a Subject Matter Expert (SME) in his/her assigned Joint Planning Group (JPG).

Students are encouraged to submit their research papers for the Naval War College Prize Competition described in the **Student Handbook.** Amplifying information and guidance on the execution of a successful research paper project is provided in **JMO Research Paper Guidance for Students (NWC 2062AD).** 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 Military 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:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Type Effort</th>
<th>Weight</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Art Exam</td>
<td>Written/Individual</td>
<td>20%</td>
<td>22-23 September</td>
</tr>
<tr>
<td>Seminar/Exercise Contribution</td>
<td>Daily assessment</td>
<td>35%</td>
<td>06 Aug–05 Nov</td>
</tr>
<tr>
<td>Comprehensive Exam</td>
<td>Written/Individual</td>
<td>20%</td>
<td>27-28 October</td>
</tr>
<tr>
<td>Research Paper</td>
<td>Written/Individual</td>
<td>25%</td>
<td>19 October</td>
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C. Assignment Submissions. Research papers for JMO will be submitted to their respective professors electronically through Turnitin Assignments set up in each Blackboard seminar course. Students may assess their papers through the Turnitin Student Workbooks in Blackboard to benefit from Turnitin’s Similarity Report prior to final paper or exam submission. 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. When submitting papers for evaluation to professors through the Blackboard seminar course, students are still able to revise and resubmit the assignment up to the assignment deadline. For this reason, faculty will refrain from downloading or otherwise viewing any assignment submissions that come in through Turnitin assignments in their Blackboard seminar courses until the final deadline for submitting papers has passed. Students should refer any questions regarding Turnitin to their professors.

D. Exam Submissions. Exam responses will also be submitted through Turnitin Assignments set up in each Blackboard seminar course. Due to the timed nature of JMO examinations, there is no requirement for students to review a Turnitin Similarity Report prior to final submission. Students will refer to the specific exam prompt, and moderator guidance, for citation requirements.

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 by the student as a result of critical consideration of the research questions which will first be discussed in JMO-03, Introduction to Problem Solving, the proposal format 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.

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**C. Grading criteria for Exams:**

The Operational Art examination and the Comprehensive examination 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 Capstone Synthesis Event contributions:

The seminar and joint planning exercise contribution grades are determined by moderator evaluation of the quality of a student’s contributions to sessions (seminar discussions, projects, and exercises). Because the students are the SMEs for the Capstone, the quality of their paper briefs will be a contributing factor to the contribution grade. 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. Moderators may adjust these times to facilitate the learning objectives for each segment of instruction. Changes from this schedule will be captured in the weekly schedules available electronically to students.

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 Christopher F Rohrbach, USN
Room C-421, 841-3556
Christopher.Rohrbach@usnwc.edu

Executive Assistant
PROF F. B. Horne (USN (Ret))
Room C-420, 841-6458
fred.horne@usnwc.edu

Academic Coordinator
Ms. Susan Soderlund
Room C-417, 841-4120
susan.soderlund@usnwc.edu

CNW & NCC Course Coordinator
PROF Ivan Luke (USCG (Ret))
Room C-431, 841-2598
ivan.luke@usnwc.edu

Coordinator,
Operational Warfare Theory Sessions
PROF Paul Povlock
Room C-410, 841-6477
paul.povlock@usnwc.edu

Coordinator, Planning Sessions
PROF Carol Prather (USN (Ret))
Room C-409, 841-7842
Carol.Prather@usnwc.edu

Coordinator, Contemporary Operations &
Environments Sessions
PROF Don Chisholm
Room C-422, 841-2328
chisholm@usnwc.edu

Coordinator, Capstone Synthesis Event
PROF Mark Seaman (USN (Ret))
Room C-428, 841-7297
seamanm@usnwc.edu

17. Faculty Assistance

Faculty members are available to assist students with course material, to review a student’s progress, and to provide counseling as required or requested. All JMO faculty will have virtual office hours and will advise their students of their virtual office hours. 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.
OBJECTIVES

- Understand the objectives of the Joint Military Operations course.

Focus

The Chairman of the Joint Military Operations Department, Captain Christopher F. Rohrbach, USN, 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. This trimester is about warfighting: we will examine how to wield the military instrument of power to achieve national policy goals. Operational art allows us to adapt national strategy to the theater-strategic and operational levels through campaigns and major operations that produce ready to be implemented plans at the Joint Task Force and tactical levels. You are part of this vital level of war.

The Joint Military Operations course is just one stop in the continuum of the warfighting expertise of our Profession of Arms. You will not learn everything that you need to succeed in your future careers during this semester. This course will supplement your senior leadership skills and critical thinking abilities to plan theater strategies and translate them into naval and joint, interagency, intergovernmental and multi-national (JIIM) operations in order to accomplish national objectives.

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. You will be provided the opportunity to achieve similarly, and feel the fortunes of chance and fog of war. 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.

Today’s operational art theory and the doctrinal basis for the U.S. armed forces reflect the knowledge of Industrial Age warfare and nation-state relationships. The Digital Age’s accelerating rate of change creates additional variable in the creation of the next generation of joint doctrine as many of our theoretical and fundamental beliefs regarding warfare are challenged. Our Profession continues to explore these issues.
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 (16 Pages)

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 JMO-06.

Questions

Over 40 years ago, VADM Turner believed that the military establishment was in an intellectual decline and instituted educational reforms because of this belief. Based on your reading of his address, how do you think VADM Turner would view the intellectual state of the current military and interagency establishments?

To what extent is the historical environment more or less complex than the present-day environment?

Based upon the historical reading, in what way have your experiences exposed you to similar planning functions and models that attempt to simplify the environment sufficiently to move forces into action?

To what extent do the objectives of JMO prepare you for success in the joint environment?

Required Readings (27 Pages)


JMO Blackboard Website at: https://navalwarcollege.blackboard.com. Scan.
Focus

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).

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.

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

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.

Before beginning, plan carefully.

~ Marcus Tulius Cicero
Roman Statesman
Questions

What elements of strategic guidance are necessary for operational 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 do concepts such as ‘global integration’ and ‘dynamic force employment’ impact operational level commanders and planners?

Required Readings (26 Pages)


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.
Focus

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.

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.

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. Also called 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. “Why Decision Making is so Difficult.” [https://www.youtube.com/watch?v=eTXkZURBq7k](https://www.youtube.com/watch?v=eTXkZURBq7k) (2:19 min.)

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

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


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 and during the final Capstone Synthesis Event, students will use their expertise developed in researching and writing their papers to address the ill-structured problems of the specified geo-political area of interest using design methodology.

**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 2062AE and below.

**Topic Area, Research Question, and Working Thesis.** Students will choose a topic area for their research paper pertinent to the designated Capstone geo-political area of interest and approved by their moderators. After selecting a topic area and initial research question, students will continue preliminary research to develop a working thesis and build a supporting research methodology. 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 the moderators using the format posted to Blackboard and contained in NWC 2062AD. The proposal will present the student’s thesis, road map and outline for arguments, methodology for evidence to support their arguments, and an annotated bibliography. In 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 research 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.

**In-Progress Reviews.** Students accomplish in-progress reviews with their seminar moderators in order 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 2062AE 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 2062AE 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 during the June graduation ceremony. 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 student’s behalf.

Schedule. The following schedule spreads out 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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>17 Aug, 0830</td>
<td>Research Topic Proposed</td>
</tr>
<tr>
<td>24 Aug, 0830</td>
<td>Research Question and Working Thesis Proposed</td>
</tr>
<tr>
<td>24-27 Aug</td>
<td>In Progress Review #1</td>
</tr>
<tr>
<td>7 Sep, 0830</td>
<td>Paper Proposal Due</td>
</tr>
<tr>
<td>7-10 Sep</td>
<td>In Progress Review #2</td>
</tr>
<tr>
<td>28 Sep - 7 Oct</td>
<td>Submit Drafts for Review to Paper Advisor</td>
</tr>
<tr>
<td>19 Oct, 1600</td>
<td>Research Paper Due</td>
</tr>
</tbody>
</table>

Questions
None.

Required Readings (25 Pages and Video)
Harvison, Melissa. [JMO Research Paper Guidance Video](On Blackboard)


Reference

ACTORS AND VISUAL FRAMING

The framing of a problem is often far more essential than its solution.

- Albert Einstein

OBJECTIVES

Improve ability to articulate and communicate cause and effect understanding in a complex environment.
Further expose to divergent thinking.
Gain an understanding of the resources necessary to support a design methodology team.

Focus

This is the first of eight sessions using the concepts of design methodology leading into the Capstone Synthesis Event. These sessions (JMO-6, 7, 14, 18, 25, 26, 34, and 35) also support the development of student research papers used to inform the Capstone Synthesis Event. The JMO comprehensive exam also incorporates the language and structure of design methodology. This first session is a moderator-led environmental framing exercise using the actors associated with the Capstone event. The intent is two-fold: (1) to introduce some of the relevant actors in the area of interest; and (2) to provide a practical example of one or more ways of visually depicting the environment using the relationships among actors. This session will serve as a baseline for students to build upon during the trimester. The rest of the design sessions will be student-led, and will allow students to collaboratively present and discuss their research in order to eventually support discourse on potential military-led approaches.

Background

Throughout the trimester, students will gain an understanding of the current environment (South China Sea), what problems exist, and what approaches the Geographic Combatant Commander might be able to take in order to stabilize or improve the environment. The eight classes and the student research papers support this end. Upon reaching the Capstone, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

To what extent do visual depictions aid discourse or increase understanding of an issue or environment?

What previous frameworks have you used or complex problems have you experienced in planning?

Has the Military/Navy struggled with planning in a complex environment previously?

Who are some of the relevant actors in the South China Sea? Why?

Required Readings (13 Pages)

Required Research (60 minutes)

Moderators will assign a short, individual, research topic to each student in preparation for the session.
Focus

This is the second of eight sessions using design methodology leading into the Capstone Synthesis Event. These sessions also support the development of student research papers used to inform the Capstone Synthesis Event. The comprehensive exam also incorporates the language and structure of design methodology. The first session provides students initial insight into the region. This session begins with a lecture designed to familiarize students with the geopolitical area that will be focused upon throughout the trimester. The seminar portion will focus on relevant actors within the region in order to facilitate student paper topic determination and research.

Background

Throughout the trimester, students will gain an understanding of the interactions amongst actors in the current environment (South China Sea), what problems might exist, and what approaches the Combatant Commander might be able to implement in order to stabilize or improve the environment. The eight classes and the student research papers will all support this end. Upon reaching the Capstone, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

Who are the most relevant actors in the current environment and why?

How do you define relevance for an actor?

Which are the most significant relationships that require further research in order to better understand the environment and potentials for conflict or opportunity?

Required Readings (approx. 31-49 Pages)


Read any one of the following:


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

**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 for large-scale conflicts?

**Required Readings (34 Pages)**

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 Operational Warfare at Sea: Theory and Practice, is 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. 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

What is operational art? When and why did it emerge as a body of theory?

How does operational art link strategy and tactics?

How does operational art assist commanders in making sound military decisions?

Required Readings (21 Pages)
INTRODUCTION TO OPERATIONAL ART


Buckel, Chad. “A New Look at Operational Art: How We View War Dictates How We Fight It.” *Joint Force Quarterly* 100 (2021): 94–100. (NWC-1243)

THE STRATEGIC OBJECTIVE AND LEVELS OF WAR

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 (2021), the National Defense Strategy 2018 (NDS), and the National Military Strategy 2018 (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

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.
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?

How and by whom are the terms and conditions for conflict termination determined?

Required Readings (43 Pages)


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 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. The higher the level of war, the more critical it is to have the factors of time, space, and force in harmony, because the consequences of failure at the operational and strategic levels are far more serious than at the tactical level. 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. Any major mismatch between the space to be gained and controlled and the force available will require the operational commander to assume greater risks. The requirements of force employment determines the space in which it will be employed. 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. 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

At the operational and strategic level, “force” encompasses far more than simply military sources of power. Explain the difficulties in evaluating force capabilities beyond quantifiable military formations.

Explain how time impacts 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?

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

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 One 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 (37 Pages)**


OPERATIONAL FUNCTIONS

Focus

This session addresses the various capabilities, structures and activities that allow the operational commander to integrate the disparate efforts of a force toward a common objective. Grouped together as "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 to effectively integrate and synchronize the actions of the joint force. Over time, such related activities and capabilities have been grouped together into functional areas and given various names to include; battlefield operating systems, battlefield functions, joint functions and operational functions. In 2017, Milan Vego modified his theories and began calling them operational support elements in his Operational Warfare at Sea. 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, 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 the force in operations, operational functions must be considered even during the selection and articulation of an objective. As an example, in order to analyze effectively space and the force available to an adversary, consideration of operational intelligence is immediately necessary. Logistics immediately provides limits to what operations can and cannot do in a specific time frame in a specific space. Objectives and levels of war determine initial command arrangements from which command and control is derived.

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

Describe how operational functions can 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:

Explain the challenges in regard to the utilization of operational functional encountered by the Allies and Japanese during planning for their respective campaigns. How well did both sides address these challenges? In what functions did the opposing sides assume risk?

Analyze the Japanese use of their 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?

Analyze the Allied use of their 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)


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?
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 (37 Pages)**


If you don’t know where you are going, you’ll end up someplace else.

Yogi Berra

OBJECTIVES

- Improve ability to articulately communicate cause and effect understanding in a complex environment.
- Further expose to divergent thinking.
- Gain an understanding of the resources necessary to support a design methodology team.

Focus

This is the third of eight sessions using design methodology leading into the Capstone Synthesis Event. These sessions also support the development of student research papers used to inform the Capstone Synthesis Event. The comprehensive exam also incorporates the language and structure of design methodology. The previous lecture was designed to familiarize students with the geo-political area that is the focus of the trimester. This seminar session will further the discussion of relevant actors within the region and some of their interactions in order to facilitate student paper topic determination and research.

Background

Throughout the trimester, students will gain an understanding of the interactions amongst actors in the current environment (South China Sea), what problems might exist, and what approaches the Combatant Commander might be able to implement in order to stabilize or improve the environment. The eight classes and the student research papers will all support this end. Upon reaching the Capstone, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

Who are the most relevant actors in the current environment and why?
How do you define relevance for an actor?
Which are the most significant relationships that require further research in order to better understand the environment and potentials for conflict or opportunity?

Required Readings (approx. 41 Pages)


Review the readings below from Identifying Actors Part I:


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.

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 culmination as it relates to the center of gravity.
- Deduce the operational ideas developed by opposing commanders during planning for the Philippines and “SHO One” Campaigns.
Questions

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

Explain the concepts of critical capabilities and critical requirements. How do they contribute to defeating the enemy COG?

Explain what may determine whether an indirect or direct approach to the COG is appropriate.

How can deception potentially weaken a critical strength?

Explain the concept of physical and cognitive culmination. What key factors cause culmination?

Explain the concept of the operational idea. How does the operational idea relate to the operational design?

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 (65)


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 an operational idea into a full operational design 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 achieve 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?

Explain the concepts of operational sequencing and synchronization. What is the relationship among operational objectives, tasks, and the factor of time?

How are intermediate objectives selected?

How may operational functions exploit advantages and mitigate disadvantages in time, space, and force?
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 (73 Pages)


In addition to the required readings, an optional recorded micro-lecture is available to support this session: Op Design.
**Focus**

This session addresses the fundamental components of theater-strategic leadership. It contrasts the responsibilities of theater-strategic and operational commanders with those of command at the tactical and national-strategic levels, employing a series of case studies to highlight the types of decisions theater-strategic and operational-level commanders face.

**Background**

Theater-strategic leadership is a collective term for levels of command with the authority and responsibility for accomplishing strategic, theater-strategic, and operational level objectives. As such, it bridges the command levels responsible for accomplishing national strategic objectives down to and including operational objectives. It is exercised by levels of command from the combatant command level to subordinate Joint Task Force commands. It requires a leader with broad vision who can focus on broad military objectives above the tactical level. With a wide array of objectives, theater-strategic commanders must be able to view accurately even the most complex situation. Furthermore, these leaders must understand how actions at each level of war affect other levels. In the United States, plans for force employment all include cooperation with other agencies and forces from allied or coalition partners. Therefore, it is imperative that theater strategic and operational commanders understand joint/combined operations, how to coordinate interagency issues, and command and control challenges in planning and preparation of a campaign or major operation.

To move beyond the narrow focus of a tactical commander, theater-strategic and operational commanders must anticipate trends in military, political, economic, and other elements of a situation weeks and months ahead of time. In short, they must think operationally. This also means they must de-emphasize their tactical expertise. This may be counterintuitive because, in most cases, these officer’s tactical expertise resulted in their promotion to the position of an operational leader.

Operational thinking does not come naturally; it is acquired by conscious effort and hard work. It can be obtained through practical experience in war or large-scale exercises and maneuvers, as well as through operational and strategic war gaming. However, there is little opportunity for most future commanders to obtain the necessary broad vision via experience. Therefore, the officer acquires the needed perspective through both Professional Military Education and systematic self-study of military history, geography, international relations, economics, ethnicity and nationalism, culture, society, religions, and so forth. Study of past wars, campaigns, and major operations is one the best methods for acquiring an operational perspective, and eventually an operational vision. The latter is the application of operational thinking in planning, preparing, or executing a campaign or major operation.

Combat success is enhanced when theater-strategic and operational commanders leverage certain selected aspects of operational art. Like the principles of war, there is no common agreement with regard to what the principles are or even

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**OBJECTIVES**

- Analyze theater-strategic leadership to determine the unique responsibilities and unique challenges of leadership and command at the theater-strategic and operational level of war.
- Analyze how theater-strategic leaders—commanders and their staffs—acquired an operational perspective.
- Assess the U.S. military’s effectiveness at developing successful theater-strategic and operational leaders, capable of achieving the CJCS approved Desired Leader Attributes.

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

- Samuel Eliot Morison,
  *The Liberation of the Philippines*
how many there are. They are not universal, but primarily based on one’s way of war. Yet despite national differences in
the conduct of operational warfare, experience has shown that overlooking or violating the selected principles of
operational leadership decreases chances for success and can result in the failure of a major operation or campaign.

This session studies the theater-strategic leadership of selected past military leaders, allowing you to distill
prevailing operational leadership principles and consider their utility as a framework for further application.

**Questions**

Compare and contrast tactical, operational, and strategic decisions. What commonalities exist among them? What
distinguishes them from one another?

Deduce the fundamental tenets of successful theater-strategic leadership. Which, in your assessment, are the most
important?

Explain the relationship between a commander’s character traits, personal intellect, and personal intuition. How much
does character matter? How do we develop and assess personal intuition?

Given Milan Vego’s explanation of the concepts of operational thinking and operational vision from the readings, analyze
the similarities and differences. What role does the study of operational art play in developing operational leaders who
possess such thinking and vision?

Evaluate the prevailing principles of successful operational leadership. Which, in your assessment, are the most
important? What is the linkage to ‘Mission Command’?

Historical commanders had months or years of warfare in which to grow into outstanding theater-strategic leaders. How
can senior leaders be effectively developed for this difficult position today?

How well do services create officers who have the knowledge and skill to:

1. Understand the security environment and contributions of all instruments of national power?
2. Respond to surprise and uncertainty?
3. Recognize change and lead transitions?
4. Operate on intent through trust, empowerment, and understanding (Mission Command)?
5. Make ethical decisions based on shared values of the profession of arms?
6. Think critically and strategically in applying joint warfighting principles and concepts to joint Operations?

**Required Readings** (~ 56 Pages)

150-156. (NWC 1131). *This reading is available via E-Reserves* accessible via BlackBoard.


In addition, students will be assigned one of the following readings:

Chester Nimitz:


Douglas MacArthur:


Tomoyuki Yamashita:


Focus

This is the fourth of eight sessions using design methodology leading into the Capstone Synthesis Event. These sessions also support the development of student research papers used to inform the Capstone. The comprehensive exam also incorporates the language and structure of design methodology. This session will focus on the tensions of relevant actors within the region in order to further understanding of the environment through student presentations and discourse. During this session, each student will moderate a portion of the seminar (5-7 minutes) with a focus on tensions between and amongst actors within the operational environment that they discovered during research. This should naturally lead into a discussion of what negative potentials exist that could lead to conflict in the region.

Deliverables:

1) A one-page paper on tensions within the environment based upon individual research, distributed to the rest of the seminar NLT 1700 the day prior to this session. Graphical depictions are highly encouraged. This will serve as the source of student-moderated discussion. Maximum word count is 250. This deliverable should assist in shaping the background portion of student research papers.

2) 5-7 minute student-led discussion on tensions within the environment based upon individual research.

Background

Throughout the trimester, students will gain an understanding of the current environment (South China Sea), what problems exist, and what approaches the Combatant Commander might be able to take in order to stabilize or improve the environment. The eight classes and the student research papers will all support this end. Upon reaching the Capstone Synthesis Event, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

What are the major tensions between relevant actors in the environment that might result in regional conflict and why might these tensions exist?

Required Readings (05 Pages)

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.

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

Compare and contrast sea control to maritime security. Can sea control be exercised in peacetime? 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 the U.S. and Japanese naval forces during the Philippines Campaign? How did land and maritime objectives differ? Were they mutually supporting?

How did the U.S. and Japanese maritime objectives contribute to, support or distract from the theater and strategic objectives during the Philippines Campaign?
THE OBJECTIVES OF NAVAL WARFARE

Required Readings (33 Pages)


This session focuses on the struggle for sea control in wartime. Sea control allows naval forces freedom of action in achieving military objectives against an opposing force. This session examines sea control as a theoretical construct as well as the practical methods to achieve it.

**Background**

The previous session examined the objectives and methods of naval forces across the Continuum of Cooperation, Competition, Conflict, and War. This session focuses on sea control, the wartime condition bounded in time and space where a naval force accomplishes military tasks with opposition from the enemy. Sea control is necessary to accomplish other objectives, 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 war at sea. Sea control essentially means the ability of 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, conducting their own operations.

Sea control is not analogous to occupying or capturing territory on land where one side or the other holds territory. The natural state of the sea is uncommanded during times of war. The sea or ocean area is invariably abandoned by the victorious side regardless of whether the opponent was completely defeated or not. Once obtained, effort must always be expended to maintain sea control. As long as an enemy naval force can challenge sea control, control remains a tentative condition.

Most importantly, sea control is only meaningful in relation to military objectives. Sea control is obtained only in the place, time, and to the degree necessary to accomplish specific objectives. Sea control can be categorized in terms of operational art: factors time, space, and force. In terms of factor time, sea control may be seen as permanent or temporary; in terms of factor space, it may be general or local; and in terms of force it may be absolute or contested. In practice, degrees of sea control resist easy classification or determination.

**Questions**

- What is sea control and why does one obtain it?
- What are the various degrees of sea control and how do you differentiate between them?
- How are the terms “sea control” and “sea denial” related?
- Discuss the main methods used by opposing sides to obtain, maintain, exploit, deny and dispute sea control.
- How does a commander balance obtaining and maintaining sea control with risk?
How would you evaluate the effectiveness of U.S. and Japanese planning and execution in the struggle for sea control during the Philippines Campaign?

Evaluate the U.S. Navy’s current ability to achieve sea control in the 21st century against a capable adversary?

💻 Required Readings (28 Pages)


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

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.

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
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


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 (59 Pages)


"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*

**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 (88 Pages)**

**Focus**

This session evaluates the integration of international law and authorities across the full spectrum of military operations from peacetime to war. The session explores the implications of operational law on warfare and operations short of war by analyzing and comparing two case studies: the Falklands/Malvinas Conflict of 1982 case study, discussed previously in JMO-22, and the Tanker Wars of the 1980s. Use of lawfare by China, Russia, Iran, and the United States will be compared for effectiveness in achieving operational and/or strategic objectives. The contemporary challenges to maintaining freedom of navigation and protection of commerce in areas of tension (e.g., Strait of Hormuz and East/South China Seas) will be analyzed, including disputes over both maritime claims and the interpretation of applicable international law. The difficulties and State differences in application of international law, particularly Law of Armed Conflict (LOAC), to cyber and space will also be considered.

**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.

Authority for the use of force will vary across the spectrum of military operations. Commanders and in particularly 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 with 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, Artic 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.

Questions

What is the relationship between State use of force, legitimacy, and the United Nations Security Council (UNSC)? If UNSCRs are unlikely to be relevant in the great power competition, how do states maintain legitimacy when using military force?

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? What are a commander’s options when ROE put forces or mission at risk?

How do operational law concepts of respect for national sovereignty and neutrality, belligerent control of the immediate area of operations, maritime warning zones, blockades, and naval mining limit or assist mission accomplishment?

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 was the law used, successfully or unsuccessfully, in the Falklands Conflict and Tanker Wars to further or thwart strategic/operational objectives?

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

How are Russia, China, and Iran using “lawfare” to achieve their strategic and/or operational objectives?

What is the connection between legitimacy, lawfare, and information operations?

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 can States exploit the weaknesses in international law (sovereignty, LOS, law of neutrality, LOAC) to further military operations? What about in cyber or space domains?

Required Readings (103 pages and Lecture Videos)

DAY 1 (51 pages & Lecture Video)

Harvison, Melissa. Operational Law Lecture Video for Day 1. (On Blackboard)


**DAY 2 (52 pages & Lecture Video)**

Harvison, Melissa. [Operational Law Lecture Video](#) for Day 2. (*On Blackboard*)


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 22 September at 0845. Exams will be returned to the moderators NLT 1200 on 23 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.
**DISTINGUISHING ACTORS, TENSIONS, AND TENDENCIES**

*The tension of the soul in unhappiness, which cultivates its strength; its horror at the sight of the great destruction; its inventiveness and bravery in bearing, enduring, interpreting, exploiting unhappiness, and whatever in the way of depth, mystery, mask, spirit, cleverness, greatness the heart has been granted - has it not been granted them through suffering, through the discipline of great suffering?*  

- Friedrich Nietzsche, *Beyond Good and Evil*

**Focus**

This is the fifth of eight sessions using design methodology leading into the Capstone Synthesis Event. These sessions also support the development of student research papers used to inform the Capstone. The comprehensive exam will also incorporate the language and structure of design methodology. This session will focus on the underlying tendencies of relevant actors within the region in order to focus student research. During this session, each student will moderate a portion of the seminar (5-7 minutes) with a focus on tendencies of relevant actors that create tensions or offer opportunity.

Deliverables:

1) A one page paper on tendencies within the environment (that create tensions or offer opportunity) based upon individual research, distributed to the rest of the seminar NLT 1700 the day prior to this session. Graphical depictions are highly encouraged. This will serve as the source of student-moderated discussion. Maximum word count is 250. This deliverable should assist in shaping the student research papers.

2) 5-7 minute student-led discussion on tendencies within the environment based upon individual research.

**Background**

Throughout the trimester, students will gain an understanding of the current environment (South China Sea), what problems exist, and what approaches the Geographic Combatant Commander might be able to take in order to stabilize or improve the environment. The eight classes and the student research papers will all support this end. Upon reaching the Capstone, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

**Questions**

To what extent do the tendencies of the actors in the environment create positive or negative potentials?  
What Operational Factors should be considered when exploring tensions amongst actors?

**Required Readings (05 Pages)**

*U.S. Army, Army Design Methodology, Army Techniques Publication (ATP) 5-0.1. Washington, DC: Headquarters, Department of the Army, July 2015. Read 3-1 to 3-5.*
Focus

This is the sixth of eight sessions exploring design thinking leading up to the Capstone Synthesis Event. This session leverages student efforts from previous seminar discourse and research in support of their Joint Military Operations Research papers. Students will have the opportunity to hear different South China Sea expert perspectives, and engage in discourse of various topics relevant to the Capstone question below:

*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 South China Sea?*

Background

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 sets a foundational understanding of challenges associated with the South China Sea.

Questions

Students will develop their own questions as a seminar during JMO-25 ‘Distinguishing Actors, Tensions and Tendencies’, in preparation for the panel discussions.

Required Readings

Biographies of guest speakers – posted on Blackboard
JMO-28

JSPS OVERVIEW

Focus
This session examines the current practice of connecting U.S. strategic guidance to operational planning through the Joint Strategic Planning System (JSPS).

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 most recently 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.

Questions
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 a regional Geographic Combatant Commander’s sole 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.

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.

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.

Focus

The session provides the students an opportunity to review current US 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 US 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.

**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?

How do concepts such as ‘global integration’ and ‘dynamic force employment’ impact operational level commanders and planners?

**Required Readings** *(Classified Documents provided in seminar)*

No Readings Assigned for Homework
Focus
This session examines what many consider the most important joint function, command and control (C2). Students will analyze a joint force commander’s (JFC) organizational options for establishing the command organization for a joint force, as well as considerations (both tangible and intangible) for the commander when exercising command and control to the multinational arena.

Background
In the operational art sessions, students initially considered why the Function of C2 is important—effective C2 enables the combat power of the joint force. It is the primary means by which the commander, leveraging mission command, sequences and synchronizes the joint force to achieve objectives across the range of military operations (ROMO). In this session, we will delve more deeply into this joint function to gain greater understanding on how best to organize forces to achieve unity of command, unity of effort, centralized direction, and decentralized execution.

Joint Pub 1, *Doctrine for the Armed Forces of the United States*, provides doctrine, principles, and policy to exercise authority over joint forces and discusses key considerations for their organization. Command relationships determine the degree of authority exercised by the commander over subordinate forces. Selection of command relationships depends on many factors, and it is often contentious because these relationships determine how much authority the JFC will exercise over assigned forces.

The tasks and actions assigned to subordinate service and functional components are important to achieving the JFC’s objectives. In order to unify effort, JFCs and planners must understand and consider the span of responsibility and level of authority within each component. Suboptimal or misunderstood C2 arrangements for issues such as control of aircraft over water, control of cyberspace assets, and force sustainment responsibilities, for example, can hinder operational effectiveness.

The JFC must consider and leverage capabilities beyond those existing within the U.S. military; the JFC must examine the complex challenges—and opportunities—presented by interagency, intergovernmental, and multinational partners across the ROMO. In fact, key tenets of U.S. military strategy depend heavily upon other nations to realize success, and many key planning documents highlight the U.S. preference for operating with alliance and coalition partners to achieve U.S. national objectives. Alliances, which offer more formal and enduring command relationships, provide a range of capabilities from which the commander may draw. Organizing a multinational force, however, can present significant challenges given potential diplomatic and political sensitivities. Coalitions, which are normally formed in an ad-hoc and less permanent manner, often represent a disparate group of nation-states responding to a common threat or interest at a particular time, which may pose additional challenges for the commander as compared to a multinational force within a stable or standing alliance. Maintaining the integrity of a coalition is often a critical factor to a combined operation’s success and attainment of the associated objectives.
Questions
Some might suggest that C2 stands out as the most important joint function – do you agree? Why or why not?

How is command different from control, and why does the distinction matter? How do technological advances influence C2 across the ROMO? Why is it important to understand the relationship and distinctions between command, control, and communications?

To what extent does the concept of Mission Command affect C2? How might a JFC foster or enable mission command?

Consider the unique aspects as well as the advantages and disadvantages of combatant command (COCOM) command authority, operational control (OPCON), tactical control (TACon), and the Support command relationship (COMREL). How can the JFC leverage these authorities to optimize C2 efficiency and effectiveness?

Today’s JFC faces a number of C2 challenges in multinational and/or interagency organizations across the ROMO, which include cultural, doctrinal, readiness, intelligence sharing, interoperability, objectives, rules of engagement, and logistics. How can effective C2 help mitigate some of these challenges?

Required Readings (64) Pages


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

Focus

With the emergence of information as key terrain in modern warfare, our understanding of 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 how Operations in the Information Environment (OIE) are used to inform, persuade, and influence decision-making. This session will explore how information–related capabilities and OIE are used across the competition continuum, and review IO successes and failures from the last decade plus of war.

Background

Understanding Information as an element of national and military power; 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.

While U. S. Joint Doctrine for Information Operations (JP 3-13) has characterized IO as “The integrated employment, during military operations, of information–related capabilities (IRCs) in concert with other lines of operations to influence, disrupt, corrupt, or usurp the decision making of adversaries and potential adversaries while protecting our own” for more than a decade, the joint force has struggled to integrate information into plans and orders. 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 is central to achieving the commander's objectives at every level of warfare.

The concept of Operations 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 are 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 June 2016 DOD Strategy assigned below is reminiscent of the 2003 Information Operations Roadmap, yet it also seems that since then, we have had few successes in changing our adversaries' behavior through OIE. This is in large part due to the fact that 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, operations in the IE are being used to inform, persuade, and influence decision–makers in conflict around the globe. The weapons that are being employed use information as force, 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 of how operations in the information environment can be leveraged to achieve success across the competition continuum.

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?
Describe some of the challenges that combatant commanders face in integrating physical and informational power.

How can joint force commanders use operations in the information environment to inform, persuade, and influence decision makers across the spectrum of conflict?

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

Describe how the information environment impacts nations in South East 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 US Government counter China’s operations in the information environment in the South China Sea?

**Required Readings (53 Pages)**


**References and Supplemental Readings**


Focus

This session reinforces the key role intelligence plays as an operational function and examines how intelligence supports planning. It also provides a broader view of the use and value of intelligence to decision-makers across the U.S. government; from supporting national strategy, diplomacy, and military R&D, down to the operational and tactical levels of warfare. Within the overall JMO curriculum, this session supports a more detailed student exploration of the concept of Design during the Capstone exercise.

Background

History is replete with evidence of military and political leaders’ quests for detailed information regarding their enemies. From Sun Tzu and Alexander the Great to the present day, a leader’s thirst for information on which to base informed decisions has only increased with the progress of information technology. To this end, the United States has developed—over time—an Intelligence Community of considerable scale and budget.

Beginning with personnel dedicated to intelligence duties in the Continental Army, to the establishment of the Office of Naval Intelligence in 1882, military intelligence led the way to more expansive national intelligence operations, namely the Office of Strategic Services (OSS) during World War II. The OSS evolved into the first permanent peacetime—and largely civilian—intelligence agency, the Central Intelligence Agency (CIA), following the war. Since that time, dedicated intelligence departments and operations have proliferated throughout the U.S. government to its current status today, consisting of 17 federal agencies with significant intelligence sections that comprise the overall U.S. Intelligence Community. As one of the recommendations from the 9/11 Commission, and to optimally manage and coordinate these intelligence operations, Congress and former President George W. Bush established a Director of National Intelligence (DNI) in 2004. The Director also presides over the National Intelligence Council (NIC), which is principally chartered to produce National Intelligence Estimates (NIE).

The U.S. Intelligence Community covers a broad waterfront, from providing intelligence on a daily basis to the President and key personnel in the National Security Council and cabinet, to informing the theater-wide plans and operations of the Geographic and Functional Combatant Commanders, all the way down to providing actionable intelligence at the tactical level. While the CIA and the NIC, guided by the DNI, principally provide intelligence to national-level decision-makers, it is the Joint Intelligence Officer, or J2, who is charged to provide intelligence to the Joint Force. This Joint Force can be at the Joint Chiefs, combatant command, Joint Task Force, or Joint Component level. It is at the theater-strategic and operational levels—the Geographic Combatant Commander, JTF, and Joint Component level—that intelligence arguably plays a key role within the U.S. military. Operational intelligence supports military strategy, theater campaign plans, joint operations, and tactical actions in all domains.

To this end, joint operational intelligence has the key role of providing the commander and staff a deep understanding of the operational environment and enemy (or potential enemy) threat. This includes detailed predictive

OBJECTIVES

- Evaluate the roles and responsibilities of intelligence and the U.S. Intelligence Community (IC) as they relate to supporting national/strategic, theater/operational, and even component/tactical planning and decision-making.
- Understand how the intelligence process is synchronized to support operational decision-making and Joint Planning/Design, specifically towards a more comprehensive understanding of the adversary and the operational environment.
- Comprehend the roles and responsibilities of the commander and the intelligence officer in the intelligence process at the joint operational level.
- Assess how intelligence has been utilized—optimally or less so—in historical context, to determine enduring lessons, and consider implications for future joint military planning and operations.
assessments of the enemy military forces, including capabilities and intent, but extends further to include a wide range of environmental, cultural and political factors that affect joint and multinational operations. This process is termed the Joint Intelligence Preparation of the Operational Environment (JIPOE). The requirement for this wide-ranging assessment of the enemy and the operational environment has existed since the earliest days of intelligence.

Despite the considerable capabilities the U.S. Intelligence Community (IC) brings to the joint force and military operations, they remain imperfect, and the conduct of intelligence remains as much an art as a science. Intelligence has had its share of failures, both through incarceration or even absence, which has had detrimental effects on some national policy decisions and military operations. Yet even when intelligence is accurate, timely and predictive, it has sometimes been poorly appreciated—or even disregarded—by both military and civilian leaders, with corresponding ill effects on operations. It is therefore critical that senior decision-makers and staff planners alike be critical consumers of intelligence, partnering closely with intelligence professionals and organizations to ensure that the adversary and the operational environment are as well analyzed and comprehended as possible before committing forces to battle.

Questions

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

How is the intelligence process synchronized to support operational decision-making and Joint Planning/Design?

How does the intelligence officer at the operational level leverage the capabilities of the intelligence community for military operations and tactical actions?

Intelligence must be driven by a clearly defined set of priorities to ensure limited resources are applied against the most critical intelligence needs. What is the military decision-maker’s role in defining these priorities? What are the characteristics of a critical consumer of intelligence?

What are some of the intelligence challenges associated with multinational operations?

Proponents of the concept of design stress the significance of thoroughly understanding the operational environment prior to detailed joint planning, much less operations. Is this the primary responsibility of intelligence? What is the role of intelligence in design? Is it any different from the JIPOE?

Required Readings (34 Pages including case studies)


Your moderator will assign one of the below readings to each team.


Optional Reading


Focus

This session focuses on joint logistics at the theater-strategic and operational levels of war. It addresses the combatant commander and staff’s role in framing the operational environment logistically. The session highlights the essential nature of incorporating the principles of logistics, operational contract support, and conversation with logistics planners throughout the planning process. The session concludes with a contextual discussion of logistics principles and planning elements via Van Creveld’s Chapter on Field Marshall Rommel in North Africa.

Background

Joint operations in the modern era have become extremely complicated, and at times, complex, affairs. Assured access to areas of operations, including the security of transit enroute, can no longer be taken for granted. Exploiting the capabilities each Service, the Inter-Agency, and Coalition partners provide, will go a long way towards preparing for the unexpected and adapting to the operating environment as it is; not as we wish it to be. Combatant Commanders and staffs need to understand the opportunities, challenges, costs and benefits of incorporating a solid joint logistics planning framework into theater posture and distribution plans as key elements of Operations Plans and, when necessary, Operations Orders.

This session leverages Field Marshal Rommel’s experiences in North Africa as the vehicle by which you will be able to discuss, analyze and assess how to devise viable logistics concepts, including operational contract support, as critical enablers for successfully employing, sustaining and redeploying forces in support of operations across the spectrum of conflict.

Questions

How does Function Sustainment (logistics) tie into the other Operational Functions?

Why is understanding the principles of logistics critical to formulating a comprehensive plan that supports the commander’s objectives?

What is your perspective on the balance between logistical effectiveness and efficiency when planning against Operational and Theater Strategic, Objectives?

As the commander, what considerations might you face when considering Operational Contract Support (OCS) enablers? What are some “costs” (force structure, footprint, legal, etc.) of including OCS in operations?
Evaluate Field Marshal Rommel’s use of Operational Art when he was faced with operational logistics dilemmas.

### Required Readings (26 Pages)

- **Van Creveld, Martin L.** Supplying War: Logistics from Wallenstein to Patton. Cambridge, UK: Cambridge University Press, 1997. Read Chapter 6 (182-192). *This reading is available via E-Reserves accessible via BlackBoard.*

- **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) and Chapter IV, Figure IV-2 (Pg. 74).

Focus

This session focuses on how joint deployment operations and the U.S. Defense Transportation System supports the joint force commander. First, it examines how joint forces get from wherever they are in the world to where they are needed. Next, it identifies the key Department of Defense (DOD) organizations and entities responsible for the deployment process. Finally, it addresses specific operational requirements and considerations for joint force commanders (JFC) and staffs planning deployment operations.

Background

The ability of the U.S. military to successfully carry out its assigned tasks per the National Security Strategy and National Military Strategy depends greatly on its capability to effectively deploy and sustain U.S. and multinational forces in a theater of operations (force sustainment includes all supporting activities required to support a deployed force). Strategic mobility encompasses the sustainment process that transports people, equipment, supplies, and other commodities by land, sea, and air from one theater to another, known as inter-theater transportation (inside a theater, or "intra-theater," transport of these materials to the end user is the responsibility of the theater commander). The Defense Transportation System (DTS) consists of three major sources of transportation resources and capabilities: military (organic), commercial (non-organic), and host nation. To successfully execute a major operation or campaign, the supported JFC must have a clear understanding of the capabilities and limitations of strategic mobility and the DTS.

As the Joint Deployment and Distribution Coordinator, USTRANSCOM oversees DOD-wide distribution activities. Deployment and movement are executed by USTRANSCOM’s component commands: Military Surface Deployment & Distribution Command (Army), Military Sealift Command (Navy), and Air Mobility Command (Air Force). As well, the Department of Transportation’s Maritime Administration (MARAD) bridges Military Sealift Command, U.S. Flag commercial companies, and domestic unions for sealift procurement and operations. MARAD maintains a fleet of ships to provide "surge" sealift during war and national emergencies, promote an adequate U.S. Merchant Marine to meet the Nation’s sustainment needs, operate the U.S. Merchant Marine Academy, and support state maritime academies to educate maritime officers and provide information on training and employment to American merchant mariners.

During planning, the supported JFC and staff must develop a prioritized deployment plan and joint reception, staging, onward movement, and integration (JRSOI) plan that supports the JFC’s operational idea. The JFC’s detailed movement plan, which includes timing and sequence of deploying and redeploying forces, is communicated to supporting commanders and force providers in the Time Phased Force Deployment Data (TPFDD). The TPFDD serves as the commander’s primary tool for managing the flow of forces/capability into—and from—the area of operations.

The TPFDD uses the Strategic Mobility Triad consisting of pre-positioned material, sealift, and airlift. Each triad component has distinct advantages and disadvantages in terms of response time, expense, availability of assets, and carrying capacity.

Questions

How do supported joint force commanders (JFC) get forces from wherever they are in the world to the JFC’s area of operations?

Which key Department of Defense commands and entities execute the deployment process?
What are the relative advantages and disadvantages for each leg of the strategic mobility triad?

What specific operational requirements should operational planners consider when conducting deployment planning?

### Required Readings (31 Pages)


Framing the Operational Environment

There are always three speeches, for every one you actually gave. The one you practiced, the one you gave, and the one you wish you gave.

- Dale Carnegie

Focus

This is the seventh session of eight using design methodology leading into the Capstone Synthesis Event. These sessions support the development of student research papers used to inform the Capstone Synthesis Event. The intent is for the students to frame the environment through individual presentations of their research. Students will collaboratively frame the environment, building off of each student’s presentation. Each student will provide a 5-7 minute presentation that visually depicts the environment, including actors, tendencies, tensions, and potentials. The discourse of this session is intended to allow students to (1) develop a shared understanding of the environment; (2) fill in gaps in individual research; (3) identify areas for further research in preparation for both finalizing student papers as well as the Capstone event; and, (4) further develop counter-arguments for research papers. Collectively, the seminar should begin to understand some of the possible problems, through their study of identified actors, tendencies, tensions, and potentials.

Deliverables:

1) A one page paper on the environment based upon individual research, distributed to the rest of the seminar NLT 1700 the day prior to this session. Graphics are encouraged on this single page. Graphical depictions are highly encouraged. Maximum word count is 250.

2) 5-7 minute presentation on the environment based upon individual research. Drawing, and use of graphics, is highly encouraged.

Background

Throughout the trimester, students will gain an understanding of the current environment (South China Sea), what problems exist, and what approaches the Combatant Commander might be able to take in order to stabilize or improve the environment. The eight classes and the student research papers all support this end. Upon reaching the Capstone Synthesis Event, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

None

Required Readings

None

Objectives

- Demonstrate critical thought and synthesize course concepts in the presentation of a scholarly research.
- Share research information regarding an ill-structured problem.
- Gain knowledge in multiple topic areas to more fully address the challenges in the Capstone synthesis event.

Frames

- Understand the Guidance
- Understand the Environment
- Understand the Problem

Terms

- Actors
- Tendencies
- Tensions
- Potentials

Develop an Approach
INITIAL APPROACH FRAMING

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 in the presentation of a scholarly research.
- Share research information regarding an ill-structured problem.
- Gain knowledge in multiple topic areas to more fully address the challenges in the Capstone synthesis event.

Focus

This is the eighth session of eight using design methodology leading into the Capstone Synthesis Event. These sessions support the development of student research papers used to inform the Capstone Synthesis Event. The intent of this session is to begin developing possible approaches for USINDOPACOM. Discourse should include a logical relationship between all four frames (guidance, environment, problem, and approach). Students should build off of the work from previous sessions. During discussion about the approach frame, the other frames should also be further investigated and developed. Insight gained from this session shapes the tasking that will be assigned for the Capstone Exercise.

Background

Throughout the trimester, students will gain an understanding of the current environment (South China Sea), what problems exist, and what approaches the Combatant Commander might be able to take in order to stabilize or improve the environment. The eight classes and the student research papers all support this end. Upon reaching the Capstone Synthesis Event, a fashioned (but plausible) inject will be made into the environment by the faculty that will drive guidance and a re-assessment of the framing.

Questions

None

Required Readings

None.
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'

**Focus**

This session addresses the social and political phenomenon of Small Wars. In his early work, *Schriften, Aufsätze, Studien, Briefe*, Band 1 and *Bekenntisdenkschrift*, 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 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.
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)


Focus

This session focuses on the fundamental characteristics of insurgencies. 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 an insurgency. This, in turn, will enable them to devise effective operational plans for countering that insurgency.

Background

Although the US military was born as an insurgent 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 insurgencies will continue, although their 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) an insurgency successfully, one needs to understand the causes, levels of support, grievances, and other factors that sustain the insurgency. This is difficult because although insurgencies 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.

Insurgency and Counterinsurgency is discussed over two full sessions in order to make connections and draw conclusions on the application of operational art theory to the irregular warfare environment. The first session is devoted to the theory and analysis of insurgency. The second session focuses on both understanding and fighting insurgencies through the examination of historical case studies.

Questions

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

Describe the factors that must be present for an insurgency to develop and possibly succeed.

Explain how the political/social/cyber environment can be used by an insurgent to accomplish their objectives.
Some argue that in the future, insurgencies will increase in frequency while incidents of conventional warfare will recede. Do you agree with this prediction? Why or why not?

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

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 US 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 counterinsurgency (COIN) operations.

Analyze how counterinsurgents utilize the political/social/information environments in pursuit of their objectives.

**Required Readings (53 (First Session) / 35-55 (Second Session case study) )**

**First Session:**


**Second Session:**

Case Studies: Students will read one assigned case study below as directed by seminar moderators.


Focus

This session addresses the challenges of conflict termination and provides a foundation for the following session on defense support to stabilization. It considers the advantage of early planning for conflict termination and how termination criteria can set the conditions for a stable transition to subsequent operations. Conflict termination can dramatically affect Phase IV (Stabilization) and Phase V (Enable Civil Authority). History provides cases of varying degrees of successful conflict termination. Students should be aware of the complex array of factors inherent in conflict termination as part of a process that focuses on achieving an effective transition to stabilization efforts and subsequent activities.

Background

U.S. military operations have consistently revealed the complex nature of conflict termination. Past operations provide examples of successes and failures in linking termination of combat operations to desired end states. The characteristics of different types of conflicts—civil war, conventional state-on-state war, and insurgencies—have produced various planning approaches and results. Additionally, the scope of strategic objectives affects the termination process. For the joint force commander, the challenge of conflict termination is not the discontinuation of hostilities at a specific point in time but rather the effective transition from combat to post-hostilities operations. Although joint doctrine has begun to address the transition from dominating (Phase III) to stabilizing the operational environment (Phase IV), the key to success can reside outside an operational commander’s control. A clear desired end state provides the basis for establishing specific termination criteria that set the conditions for successful stability operations.

Setting the stage for a continued military and civilian presence after the termination of major combat operations is critical to any long-term success in a region. Operational planning must consider that actions taken in Phase III affect efforts to achieve termination objectives and impact the ability to conduct successful stability operations. A number of critical factors influence the decision to terminate conflict: (1) timing; (2) physical location; (3) formality of surrender; (4) the enemy’s remaining capabilities and control over assigned forces; (5) the limits on the operational commander’s authority to make terms with the enemy; (6) and coalition concerns and objectives. Conflict termination is not a unilateral enterprise, as the enemy ultimately decides when and how to end fighting. At times, enemies have refused orders by their own military and civilian leadership to lay down their arms and have fought long after any reasonable expectation of attaining their objectives had vanished. Thus, conflict termination presents the commander with a number of difficult challenges.

This session examines case studies from different historical periods in order to understand the enduring challenges of conflict termination: the U.S. Civil War and World War II Japan. Each case allows the student to consider the criteria that led to conflict termination, examine how theater and/or operational commanders applied directions from higher headquarters, and determine how military objectives were linked to desired end states.
**Questions**

Discuss the difference between conflict termination and conflict resolution. Are these concepts more difficult to assess in the contemporary environment?

How are the conditions and terms for conflict termination determined?

What should the joint force commander consider when planning for conflict termination?

Discuss how the joint force commander translates the strategic objective of a conflict into military conditions to be achieved as a product of an operation or campaign.

What are the roles of allies or coalition partners in conflict termination?

How does conflict termination impact subsequent stabilization efforts?

**Case Study Questions**

a. What key events led to the termination of hostilities? Did the conflict terminate as planned?

b. What were the U.S. national security objectives? What were the desired end states?

c. How did the victorious civilian leaders and military commanders treat the defeated forces and what was the impact on subsequent events?

d. What was the strategic guidance and how did that guide military planning for termination?

e. What were the termination criteria? What should they have been?

f. What lessons can be learned from your case study?

**Required Readings (33 pages)**


**Case Studies:** To be assigned by moderators.

**U.S. Civil War**


**Japan**

Focus

This session concentrates on the importance of interagency coordination at the national and theater levels to meet strategic and theater-strategic objectives. Operational commanders will likely face challenges working with the various U.S. civilian agencies present in the operating environment. Organizational culture and bias often narrow focus and lead to fractures in unity of effort. Being aware of the idiosyncrasies of the interagency environment, and the challenges inherent in interagency coordination is important to understanding how operational commanders can integrate and coordinate U.S. civilian agencies into their planning to achieve strategic objectives.

Background

Interagency coordination is complex and typically requires finesse and tact. Joint Force Commanders and their staffs must understand how national security policy in a given U.S. administration is developed, planned, and executed through interagency processes. Just as commanders and their staffs synchronize and sequence military service capabilities in the joint arena, they must be aware of the diverse viewpoints and capabilities of their civilian counterparts to successfully plan and execute operations. Commanders should appreciate that each U.S. agency will almost certainly perceive and weigh institutional equities differently, possess its own policy preferences, and employ unique procedures. Despite the challenges inherent in the interagency process, it can bring to bear the considerable expertise and capabilities of the U.S. Government to aid in the successful execution of joint operations.

At the strategic level, the National Security Council (NSC), populated by the National Security Staff (NSS), is the forum for considering national security and foreign policy issues and coordinating policies across the U.S. Government. The Principals Committee (PC), Deputies Committee (DC), and Interagency Policy Committees (IPCs) work to reach consensus. There is no single approved coordination or planning process. Each issue is unique and requires that the White House’s chosen interagency team develop its own concept of operations. Personalities, resources, and time drive the decision-making process.

Executive orders, joint doctrine, authorities, and the procedures of civilian agencies only partially determine the ways in which interagency coordination takes place. Unity of effort in theater is most often realized by developing effective working relationships with and among U.S. Ambassadors and their country teams; Washington-based policy elements; and Combatant, Joint and Combined Task Force Commanders, and their staffs. In practical terms, this means developing an understanding of the capabilities, equities, and cultures of various agencies and the individuals that represent them in any given operation or campaign. Comprehending these variables improves the commander’s ability to plan, coordinate, and execute across the range of military operations.

Combatant Commanders and Joint Force Commanders have a number of resources available to assist with interagency coordination. Most Combatant Commanders have a senior political advisor (POLAD). Combatant Command and often Joint Task Force staffs have a Joint Interagency Coordination Group (JIACG), which has emerged as an organizational mechanism for planning coordination. Additionally, the Office of the Secretary of Defense and the Joint Staff created an initiative to integrate interagency viewpoints into the planning process: “Promote Cooperation” serves as a forum where Combatant Commanders can coordinate their plans with other agencies.
Questions

Why do you think some intelligent observers might question the use of the word “process” in relation to interagency coordination?

How do the national-strategic and theater-strategic interagency coordination bodies fit together? Who servers on the bodies?

How might organizational practices, cultures, purposes and capabilities of the agencies present themselves in an interagency forum and impact interagency discussions?

What are the responsibilities of a U.S. Ambassador and a country team? How do they coordinate with a Joint Force commander and staff?

Why might members of different parts of the US government perceive an interagency issue differently?

How might challenges in the interagency manifest themselves?

How might a Joint Force Commander overcome the challenges in the interagency environment?

Required Readings (37 Pages)


Focus

This session focuses on the use of 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 by a 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 evolves, so does the need to adapt and innovate in cyberspace.
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 U.S. 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)


References and Supplemental Readings


One of the biggest mistakes that tactical commanders can make is to assume they need to take charge upon arrival at the scene of an incident. Military forces operating freely within civilian jurisdictions risk upsetting the Constitutional balance between civil authority, the military, and the private sector.

- Army Doctrine Publication 3-28, Defense Support of Civil Authorities

Focus

This session addresses how Department of Defense (DoD) military operations within the U.S. homeland differ from similar missions on foreign soil. Operating in the homeland brings different command and control arrangements along with legal limitations, and risks. Responding to significant breakdowns in civil order will be particularly challenging. This session examines the considerations commanders and planners must take into account when planning or executing military operations on U.S. soil. It also includes a practical exercise in which students explore the implications of DoD domestic military operations in response to an escalating series of threats.

Background

The U.S. joint force is primarily organized, trained, and equipped for operations overseas. The President may, however, choose to employ federal military forces within the U.S. homeland in a variety of circumstances. Missions may include responding to disasters, supporting federal law enforcement authorities, or defending the United States from external threats and aggression. Military operations in the homeland present the commander with numerous factors not encountered in foreign operations.

Many of the challenges of domestic operations spring from the U.S. federal system and the overlap of jurisdiction and responsibility among various federal, state, and local authorities. Other challenges—and risks—arise because these operations are conducted in and among the American people, demanding the highest sensitivity to the use of force and collateral damage within the homeland.

All DoD missions in the homeland are categorized as either Defense Support of Civil Authorities (DSCA), or Homeland Defense (HD). DSCA missions (such as disaster relief) are conducted in support of one or another civilian agency and make up the preponderance of military operations in the homeland. HD missions are much less frequent, intrinsically military in nature, and conducted under DoD lead. All military operations inside the U.S. homeland involve different challenges from those experienced overseas. Their complexity, ambiguity, and risk increase greatly with an increased threat. Any situation where the possibility of civil disorder exists will be extremely challenging for the commander. The paradigm for the employment of military force in a coercive role in the U.S. homeland is particularly ill-defined. Military commanders are well served to fully understand the complexity of the domestic operating environment before that decision is made.

Questions

All DoD missions in the homeland are categorized as either Defense Support of Civil Authorities (DSCA), or Homeland Defense (HD). Given the joint doctrine structure for domestic military operations, what are the key distinctions between the DSCA and HD mission areas and what are the implications for the commander?

Describe the operational concept for U.S. national incident response and how supporting DoD military forces integrate. What are the potential pitfalls for the military commander and how might they be avoided?

When would a dual-status commander be appropriate? What are the advantages and disadvantages of this construct?
What factors should be of concern to the military commander if tasked with restoring domestic civil order? What might the commander consider doing to reduce or mitigate risk during domestic civil disturbance operations?

- **Required Readings (41 Pages)**


Who could imagine that an insufferably arrogant actor, whose appearance has changed the entire plot, suddenly finds that he himself is actually the last person to play this unique role. Furthermore, without waiting for him to leave the stage, he has already been told that there is no great likelihood that he will again handle... a central role in which he alone occupies center stage. What kind of feeling would this be?


**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 larger and more destructive conflicts across the globe, reaching their apotheosis with World War II. Post-war decolonization 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 and 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 military officers, 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.

**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.
At the same time, the PRCs accelerating 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. This has conditioned how it engages with the U.S. and the rest of the world. The PRC’s ongoing exploitation of a panoply of coercive means below the level of direct armed conflict (the so-called gray zone or competition continuum) 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 U.S. and undermine the post-World War II international order in ways that defy ready resolution by means that the U.S. historically has found congenial and effective.

Although not likely to become a threat at the same level as the PRC, Russia 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. Like the PRC, Russia has used a wide range of unconventional means, such as computer network attack, psychological warfare, and proxy military forces, combined with conventional military force, 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.

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**

1. 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 U.S and its allies?

2. Are presently emerging patterns of warfare new or do they actually represent a return to historically common means for conducting war?

3. 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?

4. 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.

5. 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 (65 Pages)**


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

The final event in the JMO trimester is a Capstone Synthesis Event that emphasizes design as a methodology for addressing ill-structured problems. The purpose of this exercise is to synthesize course material by leveraging individual research, rigorous discourse and practical application. This is done in a realistic staff environment through the development of a broad operational approach intended to address a series of problems based on fashioned tasking provided by the moderators. Students are advised that while this exercise may use real world strategic issues and landscapes, the task is based on a fictional situation from the J-5 and is in no way predictive nor does it reflect the policy of the U.S. Navy or the U.S. Government. This educational exercise provides students an opportunity to apply the principles and concepts studied throughout the trimester.

Background

The Capstone synthesis focus is intended to refine the students’ abilities to address ill-structured problems at the operational/theater strategic level of war and to demonstrate this skill set using a design methodology. Students will apply design thinking as they reframe the operational environment following the moderator tasking, and develop a campaign-level concept briefing that could form the basis for future military action/engagement that addresses the Capstone question:

*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 South China Sea?*

Students act in assigned J5 Staff Directorate Joint Planning Group billets or as Operation Planning Team leads, with moderators guiding them. Moderators serve as the Commander, J5 Director, and Officers Conducting the Exercise, and provide all guidance and intent to the students in order to ensure a baseline for planning. Individual students will serve as the focal point in the educational process providing common answers to Requests for Information, generating support issues as required to sustain the educational momentum, and providing overarching guidance to all planning groups based on their assigned research paper topics. The exercise culminates with a campaign design brief presented to a senior planner.
Questions

- How does a Combatant Commander’s staff organize and address potential solutions to ill-structured problems?
- How does a Joint Planning Group effectively leverage component or multinational 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?

Required Readings (08 Pages)
