FOREWORD:

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

Edmund B. Hernandez, CAPT, USN
Chairman, Joint Military Operations Department

Approved:

Phil Haun, Dean of Academics
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THE ADMIRAL RAYMOND A. SPRUANCE COURSE

*It cannot be too often repeated that in modern war, especially in modern naval war, the chief factor in achieving triumph is what has been done in way of thorough preparation and training before the beginning of war.*

—President Theodore Roosevelt, U. S. Naval Academy Address, 1902

1. Mission:

**Officer Professional Military Education Policy (OPMEP) Mission**

The Intermediate Level Course (CNC&S/NSC) mission is to expand student understanding of Joint Matters from a Service component perspective at the operational and tactical levels of war.

**Joint Maritime Operations Department Spruance Course Mission**

During the Joint Maritime Operations trimester of the College of Naval Command and Staff/Naval Staff College, students will become skilled at employing maritime power across the range of military operations in order to achieve tactical and operational objectives in support of a joint force.

2. Course Objectives

The objectives below are derived from the Department mission statement and detail the expectations for those who successfully complete the Joint Maritime Operations trimester. Each seminar or lecture has tailored objectives that support these course objectives:

- Expand critical and creative thinking and develop problem solving skills as they pertain to decision making and leadership in the maritime domain.
- Develop students grounded in Operational Art and Naval Warfare Theory including practical application across the spectrum of conflict.
- Apply the Joint/Navy Planning Process to volatile, uncertain, complex, and ambiguous problems and develop written orders designed to resolve them.
- Understand how to employ maritime power in the attainment of assigned joint and service objectives.

3. Course Overview

The Spruance Course presented by the Joint Military Operations Department is an in-depth study of the upper tactical and lower operational levels of war throughout the full spectrum of military operations with an emphasis on mid—to high intensity combat at sea.
The Spruance Course is first and foremost a warfighter’s course that recognizes the inherent difficulties associated with planning for and executing major combat operations at sea.

As such, it will prepare students to excel in the operational arena through an understanding of the effective employment of naval power involving joint forces to achieve military objectives. A focus will be put on refining your analytical skills as well as both critical and creative thinking abilities. The emphasis in this Department is on developing your warfighting and leadership skills through the lens of operational art and the theory of naval warfare to develop creative solutions to ill-structured problems. Although maritime operations and sea service contributions are emphasized, the capabilities of all services are studied with the ultimate focus on planning and execution of joint operations at the fleet and joint maritime component commander levels—in the maritime environment.

The trimester will flow from the simple to the more complex, culminating in a final planning exercise intended to allow students to display their comprehension of the rational employment of joint power and to demonstrate critical and creative thinking skills. There are themes that permeate the course: the theoretical themes include operational art and naval warfare theory while the practical themes include naval tactics and operations planning, operational leadership, naval operations short of war, maritime operational law, and joint operation planning. Through extensive study of multiple historical case studies, the JMO student is challenged with four enduring questions from the perspective of maritime and Joint Force Commanders (JFC) and their staff planners:

- 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 essence of the Joint Maritime Operations course.

4. CJCS Officer Professional Military Education Policy

The 2007 National Defense Authorization Act revises the definition of joint matters to include the integrated use of military forces that may be conducted under unified action on land, sea, or in air or space, or in the information environment with participants from multiple armed forces, U. S. Armed Forces and other U. S. departments and agencies, U. S. Armed Forces and the military forces or agencies of other countries, U. S. Armed Forces and non-governmental persons or entities, or any combination thereof. Accordingly, for purposes of clarity, the term “joint” includes multinational and interagency partners.

The Chairman of the Joint Chiefs of Staff (CJCS) Instruction CJCSI 1800.01 sets the policies, procedures, objectives, and responsibilities for both officer Professional Military Education (PME) and Joint Professional Military Education (JPME). It directs the services and service colleges to comply with the Officer Professional Military Education Policy (OPMEP) by meeting Joint Learning Area objectives defined in the OPMEP. This syllabus
lists the CNC&S and NSC Syllabus for 2017 lists the Naval War College (NWC) objectives to be addressed in each session.

The Intermediate-Level College (ILC) Joint Learning Area objectives below are presented to highlight the linkage between the syllabus and joint learning areas prescribed by the CJCS. The Professional Military Education (PME) outcomes for the College of Naval Command and Staff and the Naval Staff College are designed to produce officers fully capable of serving as leaders or staff officers at the upper tactical and operational level of war. The following Intermediate-Level College (ILC) Joint Learning Area (JLA) objectives are presented to highlight the linkage between the syllabus and the Joint Learning Areas prescribed by the CJCS.

**Learning Area 1 - National Military Capabilities Strategy**

a. Comprehend the capabilities and limitations of U. S. military forces to conduct the full range of military operations in pursuit of national interests.
b. Comprehend the purpose, roles, functions, and relationships of the President and the Secretary of Defense, National Security Council, Homeland Security Council, Chairman of the Joint Chiefs of Staff, Joint Chiefs of Staff, combatant commanders, Joint Force Commanders (JFCs), Service component commanders, and combat support organizations or agencies.
c. Comprehend how the U. S. military is organized to plan, execute, sustain, and train for joint, interagency, intergovernmental, and multinational operations.
d. Comprehend strategic guidance contained in documents such as the National Security Strategy, the Quadrennial Defense Review, National Military Strategy, Global Force Management Implementation Guidance (GFMIG), and the Guidance for the Employment of the Force (GEF).

**Learning Area 2 - Joint Doctrine and Concepts**

a. Comprehend current joint doctrine.
b. Comprehend the interrelationship between Service doctrine and joint doctrine.
c. Apply solutions to operational problems in a volatile, uncertain, complex, or ambiguous environment using critical thinking, operational art, and joint doctrine.

**Learning Area 3 - Joint and Multinational Forces at the Operational Level of War**

a. Comprehend the security environment within which Joint Forces are created, employed, and sustained in support of JFCs and component commanders.
b. Comprehend joint force command relationships.
c. Comprehend the interrelationships among the strategic, operational, and tactical levels of war.
d. Comprehend how theory and principles of joint operations pertain to the operational level of war across the range of military operations to include traditional and irregular warfare that impact the strategic environment.
e. Comprehend the relationships between all elements of national power and the importance of comprehensive approaches, the whole of government response, multinational cooperation, and building partnership capacity in support of security interests.

f. Analyze a plan critically for employment of joint and multinational forces at the operational level of war

g. Comprehend the relationship between national security objectives, military objectives, conflict termination, and post conflict transition to enabling civil authorities.

Learning Area 4 - Joint Planning and Execution Processes

a. Comprehend the relationship among national objectives and means available through the framework provided by the national level systems.

b. Comprehend the fundamentals of joint operation planning across all phases of a joint operation.

c. Comprehend the integration of joint functions (command and control, intelligence, fires, movement and maneuver, protection, and sustainment) to operational planning problems across the range of military operations.

d. Comprehend how planning for OCS (Operational Contracting Support) across the joint functions supports managing the effects contracting and contracted support have on the operational environment.

e. Comprehend the integration of IO and cyberspace operations with other lines of operation at the operational level.

f. Comprehend the roles that factors such as geopolitics, geo-strategy, society, region, culture / diversity, and religion play in shaping planning and execution of joint force operations across the range of military operations, to include traditional and irregular warfare.

g. Comprehend the role and perspective of the combatant commander and staff in developing various theater policies, strategies, and plans.

h. Comprehend the requirements across the joint force, Services, inter-organizational partners and the host nation in planning and execution of joint operations across the range of military operations.

Learning Area 5 Joint Command and Control

a. Comprehend the organizational options, structures and requirements available to joint force commanders.

b. Comprehend the factors of intent through trust, empowerment, and understanding (Mission Command), mission objectives, forces, and capabilities that support the selection of a specific C2 option.

c. Comprehend the effects of networks and cyberspace on the ability to conduct Joint Operational Command and Control.
Learning Area 6 Joint Operational Leadership and the Profession of Arms

a. Comprehend the role of the profession of arms in the contemporary environment.
b. Comprehend critical thinking and decision-making skills needed to anticipate and recognize change, lead transitions, and anticipate/adapt to surprise and uncertainty.
c. Comprehend the ethical dimension of operational leadership and the challenges that it may present when considering the Profession of Arms.
d. Analyze the application of mission command (intent through trust, empowerment, and understanding) in a Joint, Interagency, Intergovernmental, and Multinational (JIIM) environment.
e. Communicate with clarity and precision.
f. Analyze the importance of adaptation and innovation on military planning and operations.

Additional Qualification Designation (AQD) Code Qualification. Since 16 May 2007, the United States Navy awards an Additional Qualifying Designator (AQD) code of Joint Operational Planner (JPN) for all U. S. Navy (11XX, 12XX, 13XX, 16XX and 31XX designators) who graduate from the resident College of Naval Command and Staff Joint Professional Military Education (JPME I) course.

5. Course Organization. After the introductory lecture and seminar and the research paper discussion, the syllabus begins building the intellectual foundation necessary for success at the upper tactical and lower operational levels of war. The introductory sessions focus on the opportunities and challenges ahead and introduce students to the themes, outcomes, and general requirements of the JMO trimester. Students next examine the building blocks of a navy—surface, subsurface, and air—in order to begin to understand how navies fight. In this block, entitled General Naval Capabilities and Force Considerations, students will be exposed to basic tactical considerations and the capabilities and roles of various naval platforms, weapons, and sensors in order to have a general idea of what we are addressing in the following sections. This portion of the syllabus ends with an open-ended tabletop exercise that allows the students to (a) demonstrate understanding of the material presented thus far and (b) to organize naval forces creatively. The objectives of the General Naval Capabilities and Force Considerations sessions include:

- Recognizing the general capabilities of naval forces.
- Understanding the differences between single arm and combined arms naval operations.
- Describing single arm naval tactics for surface, submarine, and naval air assets.
- Demonstrating an understanding of tactics and capabilities of naval forces through an aggregation/disaggregation of forces in a fictional scenario.

Next, a study of Operational Art as a general theory prepares students to examine the entire spectrum of joint warfighting by introducing a theoretical framework and then applying that framework at the upper tactical and operational levels of war. Operational Art and Naval Warfare, both examined as theory, present the best practices of the past and serve as a milepost in understanding military problems of today. Our Operational Art and the
following Naval Warfare Theory sessions therefore, do not follow what many are accustomed to vis-à-vis scientific theory—idea, test, replicate, and then create law. Students will discover that there are very few, if any, laws in the art of war. The final session of this block presents students with an in-depth look at current and service doctrine. Armed with the theory that provides the foundation for modern doctrine, students will critically analyze that doctrine given their understanding of operational art. The Objectives for the Operational Art sessions include:

• Comprehending operational art as a body of theory, including its historical roots.
• Applying operational art in the analysis of historical case studies involving ill-structured problems.

In the Spruance Course’s unique Naval Warfare Theory sessions that follow, students are introduced to the maritime domain in the context of proven theory, and discussions will focus on the theory and practice of mid- to high-intensity warfare at sea. By theory we mean the experiences—both successful and unsuccessful—of those practitioners who have gone before. The Naval Warfare Theory seminars expand on the theoretical foundations we explored in Operational Art and prepare students for the practical sessions that follow. These sessions conclude with two tabletop exercises in which students will study a historical case study and evaluate the employment of combined naval arms. This study of theory as a whole culminates with an examination that covers selected aspects of the theory we have discussed thus far and is an opportunity for the student to (a) demonstrate mastery of the theoretical underpinnings of warfare, and (b) serve as a vehicle to demonstrate higher order thinking skills. The objectives for these seminars include:

• Reinforcing theoretical concepts through an appreciation of maritime warfare.
• Understanding the theory and practice of tactical and operational warfare at sea.

Following the written examination, an introduction to International Operational Law will emphasize familiarity with specific aspects of the law with an eye toward using it to assist planners in meeting assigned objectives. These sessions are intended to address the following objectives:

• Comprehending and applying operational law concepts in order to understand international law as it relates to maritime operations.
• Identifying operational law-related constraints and restraints on potential courses of action.

Once students have grasped the fundamental theoretical underpinnings of military actions and the nexus of operational law and warfighting theory, we will investigate how each of the services is employed in combat, with emphasis on the naval services. The Services, Their Doctrine, and Functions sessions signify the cognitive transition from the theoretical to the practical. As discerned during our critique of modern doctrine in an earlier session, one may only truly understand doctrine after an in-depth examination of the theory that informs it. Building on this foundation, students will examine the critical areas of naval
command and control, logistics and deployment, intelligence, information operations and cyberspace, how conflicts are terminated, and lastly a brief look at stability operations. Completion of these sessions provides the doctrinal and practical foundation necessary to address U. S. military considerations for operations in the contemporary environment and to support detailed Joint and Service planning events. The final session is a two-day open-ended table top exercise involving a fictional clash between the United States and a near-peer competitor. Students will be required to display an understanding of the theoretical concepts discussed thus far as well as present creative solutions to potentially real-world problems against that peer competitor. These sessions are expected to satisfy the following objectives:

- Describe the organization and employment considerations of Fleet assets.
- Broadly describe other service capabilities and recognize the differences in service doctrine.
- Explain operational functions in practice as opposed to theory.
- Identify the relationship between conflict termination and stability operations.
- Consider an operational idea to resolve a fictional scenario against a near-peer competitor.

Successfully prosecuting a modern war requires more than technical competence in the military domain and effective operational concepts. In the seminars that make up the Operational Decision Making and Military Planning portion of the course, we move deeper into the practical and discuss the Logic of the Commanders Estimate and the language of problem solving. Using the knowledge gained in previous sessions, students are next introduced to additional skills that develop a broader understanding of the complexity of military operations. Orders development provides an overview of how we convert the critical and creative thinking in a planning group into tangible products for others to execute. The development of an operations order, stressing the detailed requirements associated with writing the order, will be accomplished during our first major exercise. The first exercise is a multi-day, detailed planning exercise in which students will craft an operations order intended to gain and maintain sea control against a fictional contested environment in and around Borneo. Students will apply the Navy Planning Process (NPP) to develop that operations order. The objectives for this first exercise include:

- Understanding the difference between complex and complicated problems and the approaches needed to resolve them.
- Using the Navy Planning Process (NPP) to create orders that demonstrate mastery of JMO subject matter thus far.
- Creating an operations order that integrates the maritime force in time, space, and purpose to obtain naval objectives in support of the joint force.

This exercise is followed by an investigation of those things that a navy does when it is not involved in mid- to high-intensity combat—Naval Operations Short of War. Humanitarian assistance, combating piracy, peace operations, homeland security, and a multi-day session on Small Wars will round out the operations short of war seminars and set the stage for the Final Planning Exercise. Objectives for these sessions include:
• Describing the roles of a navy when not engaged in mid-to high intensity combat.
• Discussing how a navy can support operations short of war.
• Distinguishing the unique requirements of naval forces in operations short of war.

At the conclusion of these sessions, the final multi-day planning exercise using the Joint Operation Planning Process (JOPP) and the previously developed Operations Order will exercise our order against a thinking enemy. The War at Sea, a joint planning exercise, will utilize the previously developed Operations Order for the struggle for sea control and will be supported by the College’s War Gaming Department. The War Gaming Department will adjudicate the order, requiring students to quickly reassess and plan accordingly. This school-house ‘reset’ allows students to refine their operational designs without the cost of losing service members and machines to enemy action and is an essential element in an active educational process. Students will note that the exercise pits the United States against an exceptionally robust enemy force requiring not only a theoretically sound approach, but also a creative approach. Simple use of force is insufficient to defeat the threat. We will combine two seminars into an Operational Planning Team (OPT) and using the JOPES Crisis Action Planning process, coupled with critical and creative thought, resolve a scenario that involves the projection of joint power. The final scenario provides all students the opportunity to interact with the media and to develop and present briefings to senior leadership. The final exercise will reinforce many of the concepts studied throughout the trimester. The objectives of the War at Sea Exercise are to:

• Apply the Joint /Navy Operation Planning Process (JOPP / NPP) to develop a military solution to an ill-structured problem.
• Explain the challenges and responsibilities of members of an Operational Planning Team.
• Synthesize the concepts of operational art, service and joint doctrine, operational law, and operational planning by developing an operations order that accomplishes an assigned mission.
• Brief joint orders to senior decision makers.

6. Syllabus Organization

The syllabus establishes the basis for required course work and serves as an intellectual roadmap for the trimester. In each session, the Focus specifies the general context of the topic. Next, the Objectives section cites the specific session goals and provides an intellectual line of departure for the readings. The Background section provides assistance in framing the individual session and how it fits into the course flow. The Discussion Topics section is designed to generate critical thinking and is the foundation for seminar discussion. The questions serve to focus the student as he or she reads through the assigned readings. They also provide a review at the completion of the readings to ensure the student comprehends the essence of the session. Prior understanding of the questions is critical for effective reading. The Products section identifies those items that may be produced in fulfillment of the session objectives. The Readings section provides a foundation for student preparation and enhances understanding of the topic.
The Joint Maritime Operations Trimester fulfills the majority of the Joint Professional Military Education (JPME) Phase I requirements established by the Chairman, Joint Chiefs of Staff in the OPMEP guidance. The objectives identified in each session reflect these requirements. The remaining JPME Phase I requirements are fulfilled in the National Security Affairs (NSA) and Strategy and Policy (S&P) Departments’ courses (TSDM and S&W) and selected electives.

7. Methods of Instruction

The Socratic Method. The seminar is the fundamental learning forum for this course with student expertise being 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 find 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. These questions build upon the assigned questions and are generated through a combination of reading, experience, and thinking through the material. 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. At the College of Naval Command and Staff and Naval Staff College, students are responsible for their own education. Only by thoroughly preparing for seminar sessions can students become active catalysts who generate positive and proactive seminar interaction and refine critical and creative thinking skills.

The Case Study Method. This method of instruction is used to provide intellectual stimulation for students and is designed to develop student abilities to analyze and solve problems 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 tactical or operational purposes, or fictional crisis situations that demonstrate the application of concepts such as presence, deterrence, international law, rules of engagement, and self-defense. Case studies sometimes will be narrowly focused to illustrate a specific point and potential force capabilities and limitations or to highlight explicit concepts involving an aspect of tactical or operational warfare. Seminars are often split into smaller groups or teams to prepare solutions and responses. The Case study method is active learning, meaning that it allows students to achieve a higher level of learning while providing students with many more data points relevant to problem solving in the volatile, uncertain, complex, and ambiguous environment in which they will operate. Students will be tasked with analyzing
the case study material, synthesizing information, and evaluating recommended courses of action that they create.

**The Lecture-Seminar Method.** To share equally the vast experience of some of our faculty members and guest speakers, lectures are often followed by seminar discussion. Students are encouraged to analyze critically the information presented by speakers and engage actively in post-speaker seminar discussions. JMO lectures are intended to generate questions that the students may discuss in seminar and are not intended as merely the transmission of knowledge.

**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 information critically in order to develop viable solutions to ill-structured problems. Students may be assigned to practical exercise as individuals, small groups, seminar, or even multiple seminars. This active learning method reinforces multiple concepts and should be fully embraced.

8. **Readings**

All JMO course sessions are supported by various readings. The purpose of these readings is to assist in understanding the many aspects of the topics being presented and often, to provide divergent points of view on the same topic. 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 provide point-counterpoint and are intended to foster discussion. The readings serve as a line of departure for seminar discussion and are not intended solely as drivers of discussion. They are the raw material from which we will build our understanding of various topics. 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. While the vast majority of assigned readings have been digitized and loaded on student iPads, some readings, due to their value as reference material, are issued. A thorough understanding of the following information will significantly assist the student in using the course readings to best advantage:

(a) **Categories of Readings.** Each syllabus session lists categories of readings.

(1) **Required readings** are those that must be read prior to the session. Often seminar moderators will offer additional guidance on the priority of the readings, based on the special needs of the individual seminar or recommend scanning a particular reading for broad content or as a refresher. The required readings include video presentations of selected lectures that students are expected to critically consume and come prepared to discuss in the following day’s seminar.

(2) **Supplementary readings** are those relevant to a session topic that may be useful to a student seeking more information in order to gain insight beyond that provided by the Required Readings; this includes additional background material on case studies and
exercises. On occasion, faculty moderators may assign Supplementary Readings to individual students to read and provide oral synopses to the seminar in support of topic discussion. Supplementary readings also provide additional sources for student research in support of the JMO Research paper requirement.

(b) **Reading Identifiers.** Each reading that is not a complete book or publication is identified through a four-digit reading identifier (e.g., NWC 1002). This number is often used instead of the title, but in either event, the readings are located on the JMO Blackboard website and have been uploaded on your iPad under the specific session.

(c) **Finding Specific Readings.** Readings for any specific session may be located as follows:

1. Required Readings are provided electronically or annotated as *(Issued)*. Issued means that the readings may be found in the JMO reading material issued in hard copy.

2. Supplementary readings and Library Reserve readings, are not issued. These readings are frequently available in the Henry E. Eccles Library and may assist students in further research on a topic that interests them and often forms an embryonic bibliography of the research paper.

**IMPORTANT NOTE:** Students are cautioned that classified readings and documents must be read on the premises of the Naval War College. Ensure such materials are 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. Faculty moderators will provide additional information as required during the JMO trimester. Ensure that for any classified sessions or lectures you do not bring your iPads, cell phones, or other wireless devices to class.

(d) **Management of Reading Load.** The amount of preparatory reading required for each session depends on a variety of factors, including topic complexity, session objectives, and the course schedule. The typical weekly reading requirements are on the order of 300 to 400 pages. This syllabus is a powerful tool in that it allows students to develop a personal plan of study that leads to better time management and a deeper understanding of the syllabus material.

_It is recommended that students review session reading requirements at least a week ahead of time in order to plan preparation time regressively and accurately and ensure that all necessary readings are on hand._
9. JMO Research Paper

The JMO Research Paper presents the opportunity to study an upper tactical, operational, or in some cases, theater-strategic level issue, conduct research and analysis, and prepare a paper that advances the literature and expands the body of knowledge. Purely strategic or lower tactical level research papers are not appropriate for this research requirement. The research paper is a chance for students to address a real-world topic that they personally feel is of value. This assignment requires independent thought and graduate-level writing; the final product must be a 14-17 page paper suitable for publication in a professional journal. The amount and depth of research should be adequate to support the student’s thesis, and sufficiently justify the conclusions and recommendations. Another use of the paper may be to provide a source of innovative thinking to the Service and Joint staffs involved with the many issues bearing on employment of forces.

Numerous combatant and headquarters commands actively solicit papers and monographs on topics of current interest to them. The Naval War College is frequently canvassed for papers on particular subjects, and requested to generate interest in specific areas for research and writing to support requesting commands. Students are encouraged to submit their research papers for the Naval War College Prize Competition as described in the Naval War College Student Handbook and posted on the JMO Blackboard Website. Amplifying information and guidance on the selection and execution of a successful JMO Research Paper project is provided in NWC 2062AA. Your moderators will answer questions and otherwise assist you in this most important intellectual undertaking during the introductory seminars and student tutorials in February and March.

10. Plagiarism, Misrepresentation, and Cheating

Student attention is directed to the Naval War College 2013 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 credit properly 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).

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.
a. The verbatim use of others’ words without both quotation marks (or block quotation) and citation.
b. The paraphrasing of others’ words or ideas without citation.
c. 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.

*Cheating* is defined as the giving, receiving, or using 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:

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

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

a. Submitting a single paper or substantially the same paper for more than one course at the NWC without permission of the instructors.
b. 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.

11. Requirements

Students are expected to prepare fully for each seminar and to participate in classroom discussions and exercises.

*Your principal duty during this academic year is to read, to study, to reflect, and to sharpen your critical and creative thinking skills.*

A tough-minded, questioning attitude and a willingness to enter into rigorous but disciplined discourse are central to the success of the course. An officer’s ability to engage positively and productively in deliberations and formulate advice is integral to sound operational decision making. Moderators evaluate seminar contributions with regard to one’s
skills in persuading peers and seniors because persuasive leadership is critical to an officer’s continued success. Moderators evaluate written products because they represent one’s ability to synthesize and organize information in a coherent manner, applying analytical frameworks and critical thinking. Seminar work and written products are also used to demonstrate the level of subject mastery achieved by individual students and indirectly the effectiveness of the faculty and course material. Students are expected to improve both their written and verbal skills throughout their NWC experience.

(a) **Workload.** Some peaks in the workload will occur. Advance planning and careful allocation of time will help mitigate these peaks. This is particularly true of the JMO Research Paper.

*This is a Master’s Degree awarding course of study that confers that degree after only one year of exceptionally rigorous study. Expect, therefore, to commit significant time to reading and as importantly, to reflection. Student experience indicates that the total course requirements will involve a weekly average workload of about 12-18 hours of in-class and 25-30 hours of out-of-class work. Additionally, students should expect to dedicate 80-100 hours in researching, drafting, and producing an acceptable graduate level research paper.*

Time management is a critical aspect of a student’s success in mastering the multiple requirements of the Joint Maritime Operations course. This syllabus is a powerful tool in that it allows students to develop a personal plan of study that leads to better time management and a deeper understanding of the course material.

(b) **Oral and Written Requirements.** The JMO Department has oral and written requirements that provide the opportunity for the student to demonstrate synthesis and progress. In addition, these requirements serve as 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 how the student is doing at that point in the course. To accomplish the JMO curriculum successfully, students must complete the below requirements. 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>Examination #1</td>
<td>Written/Individual</td>
<td>20%</td>
<td>31 Mar – 3 Apr</td>
</tr>
<tr>
<td>JMO Research Paper</td>
<td>Written/Individual</td>
<td>35%</td>
<td>12 May</td>
</tr>
<tr>
<td>Seminar Contribution</td>
<td>Daily Assessment</td>
<td>30%</td>
<td>21 Feb – 9 June</td>
</tr>
<tr>
<td>Examination #2</td>
<td>Written/Individual</td>
<td>15%</td>
<td>30 – 31 May</td>
</tr>
</tbody>
</table>
12. 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 receipt of JPME Phase I certification. Any assigned grade may be appealed in writing within seven calendar days after receiving the grade. Grades will be appealed first 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 Academic Affairs, 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.

Late or Incomplete Work. Per the Naval War College 2013 Faculty Handbook (CH-2 of June 15), student work that is not completed will receive a numeric grade of zero. 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. The College's Academic Integrity Committee will assign an accompanying numeric grade to the F of between 0 and 59. Although it may not be applicable to all cases, a grade of zero will be assigned as a matter of practice. Three sets of general grading criteria help in the determination of the grades that will be assigned during the JMO trimester. The criteria below offer the student the standards and requirements by which faculty assess performance. Using current Naval War College guidance, the procedures below amplify the criteria as established within the Joint Military Operations Department.

a. Grading criteria for the JMO Research Paper:

The JMO Research Paper must have a valid thesis, provide sufficient background research to analyze the thesis, present a strong argument for the thesis, reflect consideration of 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 will be approved by the moderator team. In addition to the examples of substantive criteria specified below, the paper must be editorially correct (spelling, punctuation, grammar, syntax, format, and so forth). The research paper represents the physical manifestation of your thinking. As such, all research papers are evaluated on how well the student presents his or her ideas.

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 for prize competition. Should be retained in the Defense Technical Information Center (DTIC). Thesis is clearly articulated and focused, research is significant and arguments are comprehensive, and 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 presented, 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+ (67<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 thesis, argument or counter-argument.

D (64<67) 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.
b. Grading criteria for the Written Examinations:

Spruance Course examinations usually focus on an historic case study (ies). Moderators will provide read ahead material in advance of the exam date. Expect the examination questions to be sourced from any of the course material presented to date in seminar. Response to the examination 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 a very 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- (70-73):** Addresses the question, but does not provide sufficient discussion to demonstrate adequate understanding of the topic.

**D+ (67-70):** 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.

**D (64-67):**

**D- (60-64):** Unsatisfactory work. Fails to address the questions or paper displays evidence of plagiarism or misrepresentation.
c. Grading criteria for Seminar Contribution:

The seminar contribution grade is determined by the moderators’ evaluation of the quality of a student’s contributions to seminar discussions, projects, and exercises and the demonstration of critical and creative thought. It is recognized that throughout the course many students will participate in areas for which they have no prior expertise. Additionally, some positions may have greater visibility. Consequently, each student will be evaluated on his/her preparation and contribution in each given role, taking into consideration the above factors. All students are expected to contribute to each seminar session and to listen and respond respectfully when seminar-mates or moderators offer their ideas. This overall expectation underlies all criteria described below. While rare, interruptive, discourteous, disrespectful, or unprofessional conduct or attitude detracts from the overall learning experience and will negatively affect the contribution grade.

A (90-100) Level Contribution

A-level contribution demonstrates real achievement by a student in grasping what critical thinking is, along with the clear development of a range of specific critical thinking skills or abilities. The contributions during the course were, on the whole, clear, precise, and well-reasoned. Critical thinking terms and distinctions are used effectively. The work demonstrates a mind in charge of its own ideas, assumptions, biases, inferences, and intellectual processes. Often analyzed issues clearly and precisely, often formulated information clearly, usually distinguished the relevant from the irrelevant, often recognized key questionable assumptions, usually clarified key concepts effectively, typically used language in keeping with educated usage, frequently identified relevant competing points of view, and shows a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences. Generally displayed excellent reasoning and problem-solving skills. The A student’s work is consistently at a high level of intellectual excellence.

A+ (97-100): Peerless demonstration of wholly thorough preparation for individual seminar sessions. Consistently contributes original and highly insightful thought. Exceptional team player and leader.

A (94-<97): Superior demonstration of complete preparation for individual sessions. 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. Contributes original, well-developed insights in the majority of seminar sessions. Often takes the lead to accomplish team projects.
B (80-89) Level Contribution

B-level work represents demonstrable achievement in grasping what critical thinking is, along with the clear demonstration of a range of specific critical thinking skills or abilities. Demonstrates, on the whole, clear, precise, and well-reasoned thought. Critical thinking terms and distinctions are used frequently. The contributions demonstrate a mind beginning to take charge of its own ideas, assumptions, inferences, biases, and intellectual processes. Generally, analyzed issues clearly and precisely, often formulated information clearly, usually distinguished the relevant from the irrelevant, often recognized key questionable assumptions, usually clarified key concepts effectively, typically used language in keeping with educated usage, frequently identified relevant competing points of view, and showed a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences. B-level work displays good reasoning and problem-solving skills.

B+ (87-<90): Above-average graduate level preparation for seminar sessions. 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. Occasionally contributes original and insightful thought. Acceptable team player; takes effective lead on team projects when assigned.

B- (80-<84): Minimally acceptable graduate level preparation for individual sessions. Infrequently contributes well-developed insights; may sometimes speak out without having thought through an issue. Requires prodding to take lead on team projects.

C (70-79) Level Contribution

C-level work illustrates some but inconsistent achievement in grasping what critical thinking is, along with the development of modest critical thinking skills or abilities. C-level contributions show some emerging critical thinking skills, but also pronounced weaknesses as well. Though some contributions are reasonably well considered, others are poorly done, or at best are mediocre. There are more than occasional lapses in reasoning. Though critical thinking terms and distinctions are sometimes used effectively, sometimes they are used quite ineffectively. Only on occasion does C-level work display a mind taking charge of its own ideas, assumptions, inferences, and intellectual processes. Only occasionally does C-level work display intellectual discipline and clarity. The C-level student only occasionally analyzes issues clearly and precisely, formulates information clearly, distinguishes the relevant from the irrelevant, recognizes key questionable assumptions, clarifies key concepts effectively, uses language in keeping with educated usage, identifies relevant competing points of view, and reasons carefully from clearly stated premises, or recognizes important implications and consequences. Sometimes the C-level student seems to be simply going through the motions of the assignment, carrying out the form without getting into the spirit of it. On the whole, C-level work shows only modest and
inconsistent reasoning and problem-solving skills and sometimes displays weak reasoning and problem-solving skills.

C+ (77-<80): Generally prepared, but not to minimum acceptable graduate level. Requires encouragement to contribute to discussions; 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 (60-69) Level Contribution

D-level work shows only a minimal level of understanding of what critical thinking is, along with the development of some, but very little, critical thinking skills or abilities. D level contribution at the end of the trimester, on the whole, shows only occasional critical thinking skills, but frequent uncritical thinking. Most contributions are poorly presented and not supported logically. There is little evidence that the student is "reasoning" through the discussion. Often the student seems to be merely going through the motions of the assignment, carrying out the form without getting into the spirit of it. D-level work rarely shows any effort to take charge of ideas, assumptions, inferences, and intellectual processes. In D-level work, the student rarely analyzes issues clearly and precisely, almost never formulates information clearly, rarely distinguishes the relevant from the irrelevant, rarely recognizes key questionable assumptions, almost never clarifies key concepts effectively, frequently fails to use language in keeping with educated usage, only rarely identifies relevant competing points of view, and almost never reasons carefully from clearly stated premises, or recognizes important implications and consequences. D-level work does not show good reasoning and problem-solving skills and frequently displays poor reasoning and problem-solving skills. In general, D-level thinking lacks discipline and clarity.

D+ (67-<70) Rarely prepared or engaged. Contributions are uncommon and reflect
D (64-<67) below-minimum acceptable understanding of lesson material. Engages in
D- (60-<64) frequent fact-free conversation. (Unsubstantiated claims and fallacious reasoning).

F (Below 59) Level Contribution

While exceptionally rare at the College of Naval Command and Staff, for that student who receives an F, the student does not understand the basic nature of critical thinking, and in any case does not display the critical thinking skills and abilities which are at the heart of
this course. The contributions made during the course are vague, imprecise, and unreasoned. There is little evidence that the student is genuinely engaged in the task of taking charge of his or her thinking. Many contributions appear to have been done pro forma, with the student simply going through the motions without really putting any significant effort into thinking his or her way through them. Consequently, the student is not analyzing issues clearly, not formulating information clearly, not accurately distinguishing the relevant from the irrelevant, not identifying key questionable assumptions, not clarifying key concepts, not identifying relevant competing points of view, not reasoning carefully from clearly stated premises, or tracing implications and consequences. The student’s work does not display discernable reasoning and problem-solving skills and did not take corrective actions as recommended by his or her moderator.

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.

13. Seminar Assignments

The principal criteria for assigning students to a seminar is a balanced distribution among services and agencies, as well as student and moderator specialties and operational expertise. Typically, two faculty members are assigned to each seminar. Student seminar, classroom, and faculty assignments are published separately.

14. Schedule

Seminars usually meet in the morning; there are, however, several afternoon seminars scheduled. Depending on the work assigned, you may meet for scheduled periods in seminar as a group, in smaller teams depending on tasking, or individually to conduct study and research. Please pay close attention to the start times for each event since they vary throughout the trimester. Classes normally are scheduled for 0830–1145. If class is scheduled in the afternoon, the normal timeframe is 1300–1630. Moderators may adjust these times to facilitate the learning objectives for each segment of instruction calendar containing meeting dates and times is provided on the JMO Blackboard Website and at the end of this syllabus. Changes from this schedule will be captured in the weekly schedules available electronically to students.
15. Key Personnel

If you require additional information on the course, or if problems develop that cannot be resolved with your moderators, you may contact the Departmental Chairman via his executive assistant. The key departmental personnel are:

Chairman.......................................................... CAPT E. B. Hernandez, USN
.............................................................................. Room C-421, 841-3556

Executive Assistant ............................................. PROF F. B. Horne, (USN (Ret))
.............................................................................. Room C-420A, 841-6458

Academic Coordinator ....................................... Ms. Susan Soderlund
.............................................................................. Room C-417, 841-4120

Joint Maritime Operations Course Coordinator .......... PROF J. Gannon, (USMC (Ret))
.............................................................................. Room C-421, 841-6480

General Naval Capabilities and Employment .......... CAPT Fred Turner, (USN)
.............................................................................. Room C-430, 841-6466

Operational Art .................................................. PROF Doug Hime, (USAF (Ret))
.............................................................................. Room C-423, 841-6463

Naval Warfare Theory ........................................... CDR Mike Loomis, USN
.............................................................................. Room C-421, 841-6480

Maritime Operational Law .................................... CAPT Rob Sanders, (USN)
.............................................................................. Room C-424, 841-4644

The Services, Doctrine, and Functions .................... COL Greg Bell, (USA)
.............................................................................. Room C-408, 841-6475

Operational Decision Making and Planning ............. PROF Michael McGauvran,
.............................................................................. (USAF (Ret)) Room C-414, 841-6564

Naval Operations Short of War ......................... COL Joseph McGraw (USA)
.............................................................................. Room C-403, 841-6709

Final Planning Exercise ....................................... PROF Bill Hartig, (USMC (Ret))
.............................................................................. Room, C-428, 841-6470
16. Faculty Assistance

Faculty members are your mentors and are available to assist students with course material, to review a student’s progress, and to provide counseling as required. Accordingly, students are expected to utilize this resource to the maximum extent that moderators can support. Students with individual concerns are encouraged to discuss them as early as possible so that moderators can render assistance in a timely manner. Students are strongly urged to make use of this non-classroom time with the faculty. During tutorials, scheduled in conjunction with JMO Research Paper proposal review, moderators may take the opportunity to discuss student progress as well as to solicit student input on the course to date. The bulk of the JMO faculty is located on the fourth deck of Connolly Hall and is available to assist as needed.

17. Student Critiques

The Joint Military Operations Department strives continually to improve this course. To assist in this goal, students are required to complete a confidential end-of-course questionnaire that is submitted electronically. Students are strongly encouraged to suggest improvements immediately and not to wait until the end-of-course questionnaire. The course questionnaire is designed to allow students to comment constructively on the trimesters content, pacing, reading loads, and so forth. It is not intended as a ‘gripe sheet’ but rather seeks student input to improve the course for the following year’s students. As such, students are strongly encouraged to maintain this questionnaire as if it were a diary. It is much easier capturing your thoughts when they are fresh rather than to try to recreate them at the end of the trimester. Your constructive comments will help ensure that the course remains relevant and vital in the years to come. The release of student grades is contingent on completion of the critique.

18. Lectures by Senior Military Leaders

Enrichment lectures by senior military leaders occur periodically during the course. Most of these presentations feature the Service Chiefs or Geographic and Functional Combatant Commanders. These speakers are invited to discuss views and ideas from their perspective as operational commanders, service chiefs, or as senior staff officers. The weekly academic schedule (CNC&S or NSC, as applicable) will specify the final date and time of each enrichment lecture. Last minute changes will be disseminated by the Dean of Students and/or seminar moderators. In order to gain the most benefit from these sessions, it is critical that students be prepared to ask penetrating questions of the guest lecturer. They expect questions and your education is enhanced by their responses.
19. 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, and so forth) 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 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 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 publically 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, “Admiral 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 a 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. The 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 and individual against improper speech, discussion or behavior.

20. Course Calendar

A course calendar is included at the end of the syllabus. Be forewarned that this calendar is subject to change. Changes will be announced by the Dean of Students and your moderator’s and can be accessed through your Google email calendar function.
21. Faculty Biographies

Faculty Biographies are available in the digital version of this syllabus.
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CHAIRMAN’S INTRODUCTORY LECTURE (Spruance)

Extraordinary as it may appear, the naval officer whose principal business is to fight is not taught the higher branches of his profession. The United States is not singular in this respect. The defect is common to nearly all navies and is an inheritance of a past and less enlightened age. But with the recent revolution in naval warfare comes a demand for a higher order of talent in the conduct of naval operations.

—Rear Admiral Stephen B. Luce, USN
First President of the U. S. Naval War College

A. Focus:

The Chairman of the Joint Military Operations Department, Captain Edmund B. Hernandez, United States Navy, will provide an overview of the objectives and requirements of the Raymond A. Spruance Course.

B. Objective:

- Understand the requirements and objectives of the upcoming trimester.

C. Background:

For the foreseeable future, the use of military power, together with the diplomatic, economic, and informational instruments of national power, will be essential in achieving national strategic objectives. During this trimester, you will study how to wield the military instrument of power effectively, in concert with the above mentioned instruments, to achieve operational and theater-strategic objectives. The emphasis, quite naturally, will be on the maritime domain. While many students arrive at the Naval War College flush with tactical knowledge and expertise, we will now open the intellectual aperture and examine higher levels of war, in this case, the operational level of war. Our focus will be on both naval operations at the Fleet level and joint operations at the Joint Force Commander level; however, the relationship between our national strategies and the actualization of the objectives enunciated in those various national strategies by Combatant Commanders will also be explored.

Most Master’s Degree granting institutions require a significant amount of time invested by students in preparation, research, study, and reflection outside of the formal classroom. In these institutions, students are generally expected to devote between two and three hours in outside preparation time for each hour in seminar. The JMO Department has
developed its curriculum in a manner in which, on average, students will devote between one to two hours of outside preparation for every hour in seminar. Accordingly, for a ninety-minute seminar, expect to budget up to three hours for reading, preparing, and reflecting on the material prior to discussion in seminar. The reason for this difference between purely academic institutions and the War College is that unlike most civilian institutions of higher learning, students attending the College of Naval Command and Staff and Naval Staff College are more mature and more experienced and have already demonstrated expertise in a given field. You will note that there are days blocked off as student reading and reflection time specifically to allow you to reflect on what you have learned thus far and to prepare for what is scheduled in the following week. The faculty recognizes that in order for the student to prepare himself/herself fully for the challenge of seminar participation, time must be dedicated to preparation. As we enter into our initial theoretical studies of Joint Maritime Operations, students are presented its purpose; to fully prepare U. S. and international military officers and civilian professionals to serve at the upper tactical and operational levels of war.

The point of contact for this session is Captain Edmund B. Hernandez, USN, C-421.

D. Discussion Topics:
None.

E. Products:
None.

F. Required Reading:


G. Supplementary Reading:
None.
Always keep in mind the product which the country desperately needs is military leaders with the capability of solving complex problems and of executing their decisions. . . . You must keep your sights on problem solving as your objective.

— VADM Stansfield Turner, USN
President, U. S. Naval War College, 1972-1974

A. Focus:

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

B. Objectives:

- Discover seminar member backgrounds and areas of expertise.
- Summarize seminar guidelines, expectations, and outcomes.
- Discuss the JMO syllabus, grading policy, reading requirements, schedule, critique, and student and faculty expectations.
- Discuss social and administrative matters and assign seminar responsibilities.
- Discuss the requirements for the JMO Research Paper.

C. Background:

The introductory session provides the opportunity to meet your moderators and fellow seminar members. In preparation for the seminar, you will complete a short questionnaire that was provided by e-mail or put in your school mailbox. Completed questionnaires will be collected at the beginning of the introductory session.

**Course Requirements.** In addition to contribution to daily seminar discussions and practical exercises, written course requirements include the Operational Art essay exam, the Operations Research paper, and numerous other orders related tasks.

**Grading.** Grades will be based on the criteria specified in the JMO syllabus.
The academic honor code is discussed in the *Naval War College Student Handbook* and Academic Policy Statements; cheating, plagiarism, and misrepresentation are specifically prohibited.

The seminar will also present initial information regarding the JMO Research Paper. The JMO research paper is an objective way for students to demonstrate competence at the Master’s degree level. The research paper provides each student with the opportunity to focus on a theater or operational level issue, conduct research and analysis of the issue, and prepare a paper that advances the literature on that issue. Consequently, it enables students to concentrate on topics of significant value and interest to them as long as the topics are relevant to any of the individual sessions found in the JMO syllabus.

The research paper requires independent thought and competent writing because the final product should be suitable for publication in a professional journal. The range and depth of research should be adequate to support the student’s approach and justify sufficiently the conclusions and recommendations or lessons learned. Another use of the paper is to stimulate innovative thinking in Service component and joint force staffs involved with the many complex issues of military force employment.

Combatant commanders, operating forces, and headquarters staffs solicit papers and monographs on topics of current interest to support initiatives, develop concepts, provide depth to existing analytical efforts, and provide fresh looks at the methods of accomplishing missions. The Naval War College’s College of Naval Command and Staff and Naval Staff College is frequently canvassed for papers on particular subjects and is requested to stimulate interest in specific areas for research and writing.

A recent example is consideration of innovation in the application of naval force—how to accomplish the goal of fighting smarter rather than fighting with more. While some aspects of this project fall outside the parameters of the JMO research paper requirement, many of the issues therein are applicable. These especially include doing the right things and doing them right—the result of integrating effectiveness and efficiency. In any case, open dialogue with your moderator team is essential in ensuring an appropriate topic is selected.

1. **Requirements.** The JMO research paper requires the following:

   a. A thesis: A definitive position that the paper will aim to defend, support, or justify.
   b. Sufficient research to analyze the thesis properly.
   c. Logical conclusions drawn from the material presented within the paper.
   d. Recommendations or lessons learned, as appropriate, demonstrating the paper’s relevance to the modern operational commander.

2. **Topics.** Topics should be taken from one of the following areas:

   a. A current issue at the upper tactical or operational level of war.
   b. Operational art or the use of operational art to analyze a case.
   c. An option in support of a military strategy, operational concept, or a new doctrinal concept.
d. An issue dealing with joint, interagency, multinational planning, execution, tasks, or functions at the operational level of war.
e. Force employment innovation, such as the application of naval force at the operational level of war.
f. A topic that applies to current, near-term, or future major operations or campaigns.
g. A topic of value to an operational level commander.

Note: The JMO research paper should not be an examination of simple tactics, technology, force structure, or future force planning concepts. Also, it should not be a library search and recitation of published material, nor should it contain proposals or recommendations regarding numbers and types of weapons platforms, modifications to said platforms, weapons, sensors, or force structure. Moderators will answer any questions on specific issues relating to topic selection.

NWC 2062AA, Operations Paper: Guidance for Students contains the JMO Chairman’s guidance for selecting a suitable topic and crafting a research question. It also contains detailed guidance on developing the paper from topic selection to final draft, candidate topical areas from requesting commands, a list of topics dealing with the operational level of war, extracts on the awards program, and instructions for submission of papers to professional journals. NWC 2062AA is an excellent resource for developing ideas and selecting a topic. Be aware, however, that some topics listed in 2062AA are more applicable to other core courses and thus require transformation into JMO-worthy topics.

3. Paper Proposal. Students shall submit paper proposals to their moderators; the format of the proposal can be found in enclosure (1) to NWC 2062AA. Moderator acceptance of a proposal constitutes an understanding between the student and the moderator grading team. An accepted proposal means that the student and the moderators understand in common the depth of research, extent of analysis, and quality of writing expected of the student, in addition to the requirements discussed above in paragraph 1.

4. Research and Writing. Research and writing shall meet graduate-level standards.

5. Format. Hacker and Sommers’ Turabian’s and the Naval War College Pocket Writing and Style Guide is the standard for unclassified written work. Students should use the Chicago Manual of Style (CMS) format for notes and bibliography. Guidance for classified papers is available from the moderators. Additionally, the 2015 JMO Research Paper Template will be posted on Blackboard. Students may save this template as a file on their own computers and either compose in the file directly, or paste their work into the file. Use of the template is intended to aid in formatting of page numbers and section breaks.

6. Report Document Page. The final version of the paper submitted to the faculty requires a Standard Form (SF) 298 as the report document page. This page will be used as a coversheet for all other pages.
7. **Length.** The text of the JMO research paper will be 14 to 17 double-spaced pages in Times New Roman font size 12 with a one and a quarter left margin and one inch top, bottom, and right. (See the JMO Paper Template). Your moderators may accept longer papers depending on paper purpose and topic, but this acceptance must be obtained prior to paper submission.

8. **Faculty Advisor.** The paper advisor helps the student’s move from topic selection to research question to thesis statement; define the scope of the research effort; keep research, analysis, and writing on track; and develop effective outlines and drafts. Each student will have a paper advisor; seminar moderators will serve as paper advisors for the students in their seminars. A minimum of two tutorials will be scheduled with your moderators. Subject matter expertise in a broad range of topics is resident in the War College faculty. Your moderator will assist you, if required or desired, in coordinating a meeting with a SME in your area of interest.

9. **Grading.** The JMO research paper represents a substantial portion of the overall Course grade. The paper will be evaluated for both substance and writing quality. Grades will be based on the criteria specified in the JMO syllabus.

10. **Prizes and Awards.** JMO 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 one or more of these honors. Details are included in reading NWC 2062AA.

11. **Submission Schedule:**

   6-9 March: Conduct initial tutorial regarding potential paper topic.
   16 March: Submit paper proposal to moderators.
   3-7 April: Conduct follow-up tutorial; moderators and student agree on thesis and course of action.
   28 April: Suggested date to terminate research, commence analysis and writing.
   4 May: Exchange Papers
   8 May: Seminar critiques of research papers.
   12 May: Operations research paper due to moderators NLT 0830.

The point of contact for this session is Professor Bill Hartig, C-428.

**D. Discussion Topics:**

None.

**E. Products:**

A completed student recall roster and a student billet assignment sheet and not later than Friday 19 May, a quality 14-17 page research paper that demonstrates the ability to
coherently present a well-constructed argument and to demonstrate critical thought.

F. Required Reading:

Familiarize yourself with: The Blackboard web site at:
http://navalwarcollege.blackboard.com/


G. Supplementary Readings:

None.
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We are not interested in generals who win victories without bloodshed. The fact that slaughter is a horrifying spectacle must make us take war more seriously, but not provide an excuse for gradually blunting our swords in the name of humanity. Sooner or later someone will come along with a sharp sword and hack off our arms.

—Carl von Clausewitz, *On War*, 1832

A. Focus:

This seminar is about understanding problems and their complexities; learning the formalized language of problems and problem solving; and determining the relationship between problems and why we plan as military professionals. It will also set the conditions for a deeper understanding of the material to be discussed in the following session, *The Logic of the Commanders Estimate and Decision*.

B. Objectives:

• Understand the relationship between planning and problem solving.
• Recognize the differences in problem structure and the various methodologies available to problem solvers to address them.
• Discuss the language of problem solving and complexity.

C. Background:

This seminar provides the cognitive foundation for the Spruance Warfighter’s Course. One of the principal responsibilities of a commander at any level is to make sound decisions regarding the employment of their forces in combat. This requires commanders to make a rational *estimate of the situation*. It is an estimate because of the inherent complexity of problems that commanders face: no commander will ever have all of the facts at all times. By gaining a fuller understanding of the problem, commanders can develop a range of options.

The challenge begins with the complexity of the problem. Some problems do not lend themselves to easily identifiable military or tactical objectives; other problems are determined by the willingness of coalition partners or indigenous populations. Still other problems are inextricably linked to the support of fickle domestic politics or political compromise. These types of problems are ill-structured and make military decision-making impossible without a rational estimate.
In the next seminar, *The Logic of the Commanders Estimate and Decision*, we will distinguish between deductive and inductive reasoning in estimating a military situation, which is the cornerstone of planning. We should think of planning as mental preparation that improves our understanding of a situation. In simple terms, planning is thinking before doing. This means *thinking* about the problem before launching into a solution. Even if the plan is not executed precisely as envisioned—and few are—*critical thinking* results in a deeper situational awareness that improves future decision making. We should thus think of planning as a learning activity that facilitates the exercise of judgment and not as merely a mechanical procedure.

Military planning, therefore, requires a deep appreciation of critical thinking, operational art, organizational capabilities, and human dynamics. Most importantly, it requires a nuanced leadership approach in order to reach a common and acceptable solution to the problem.

The point of contact for this session is Lt Col Jennifer Stokes USAF, C-406.

**D. Questions:**

What is a problem and why is it important to understand their structures?

How does a problem’s structure relate to the methodology to resolve it?

Why do (or should) we first assess the structure and typology of a problem before we begin trying to resolve it?

If many of the problems we confront in the modern operating environment manifest themselves as Complex Adaptive Systems, how can they be adequately described?

**E. Products:**

None.

**F. Required Readings:**


G. Supplementary Readings:


THE LOGIC OF THE COMMANDER'S ESTIMATE AND DECISION (Seminar)

Before undertaking a task the commander makes an estimate of the situation and formulates a plan of action. The estimate follows in general the accepted form. In scope and thoroughness it is commensurate with the size and importance of the task and the time available.

—Navy Department, War Instructions
Paragraph 217, 1944

A. Focus:

This seminar provides the next cognitive building block towards sound decision-making. It will focus on why and how commanders/staff link understanding the problem with an estimate in order to form the basis for a rational decision.

B. Objectives:

- Know the historical roots of the commander's estimate of the situation and understand the logical reasoning applied in the process of estimating the situation.
- Understand the relationship between process and the format of the estimate of the situation
- Comprehend the role and importance of the commander in the estimate of the situation

C. Background:

The estimate of the situation is the very foundation of any sound decision-making process, whether in business, military affairs, or your personal life. As stated in the last seminar, one of the principal responsibilities of commanders at any level of command is to make decisions for the employment of their forces in combat. Yet decisions that could result in the loss of human life or mission failure should never be left to guesswork, raw emotion, or total reliance on a “gut feeling.” Nor can automated decision aids replace the commander’s experience, judgment, and wisdom in making a sound decision. As history illustrates, the most successful military commanders have and still use a mental process of estimating the situation before making a decision.

In making a decision, one must collect all the facts by understanding the problem and then determine what options are open and what might stand in the way of these options. Each option is then weighed against possible obstacles and in terms of their advantages and disadvantages. The estimate process should end with a sound decision. In military terms, the commander’s estimate of the situation is understood as a logical process of reasoning by
which a commander considers all the factors affecting a military situation to determine a
course of action to accomplish a given mission. The estimate is a reasoned solution to a
problem in which each step in the process incrementally leads to a decision that, without
these steps, could be arrived at only by accident. The purpose of the estimate of the situation
is not to justify a decision previously arrived at but to develop a reasoned, well informed
approach to solving a military problem. Thus, logical reasoning is the very foundation of a
sound estimate of the situation. In the next session, you will have the opportunity to study
logical reasoning as the foundation of Critical Thinking.

The commander’s estimate of the situation should be a thorough and methodical
process of reasoning. Great care should be taken that no relevant factors are omitted or,
worse, willfully ignored in the analysis. Hasty and superficial considerations should be
avoided. Following procedural steps will also not necessarily result in the best decision, or
even a “good” decision. This means that commanders and their staffs should know the
advantages and disadvantages of various methods and then apply the one best suited to the
mission and the situation and the commander’s personal preferences and experience. For the
purposes of this course, the commander’s estimate generally encompasses the following:
mission analysis, estimate of the physical/human environment, the enemy situation and the
friendly situation (and in some cases the situation of the neutrals), analysis of the opposing
courses of action, comparison of friendly courses of action, and the decision. This
perspective can be expanded or condensed per the nature of a given problem.

The more the commander practices conducting the estimate of the situation, the more
likely the commander is to make sound decisions. One of the main prerequisites for making
a sound decision is a full understanding of the theoretical underpinnings of the estimate and
its principal elements. As the last session illustrated, this means a thorough understanding of
the complexities of the problem. If the process is properly applied, the estimate of the
situation should ensure that the commander and his staff do not leave out any factor of
importance that has a bearing on the decision. At the same time, no amount of education or
training will ensure that the commander makes a sound decision unless it is coupled with
sound judgment and wisdom based on practical experience.

The point of contact for this session is Professor Bill Hartig, C-428.

D. Discussion Topics:

How has the commander’s estimate of the situation evolved over time to the systematic part
of planning today?

How is reflective reasoning used in conducting an estimate of the situation? Describe
advantages and disadvantages of deductive and inductive reasoning.

What is the relationship between the mental process and the format of the estimate of the
situation? What are advantages and disadvantages of each?

What is the role of information and reports in conducting an estimate of the situation?
Explain and discuss the role and importance of the commanders and their staffs in the estimate of the situation. What is the role of automated decision aids in the estimate process?

E. Products:
None.

F. Required Reading:


G. Supplementary Readings:


CRITICAL THINKING #1:
HOW TO THINK (Seminar)

The essence of the independent mind lies not in what it thinks, but in how it thinks.

—Christopher Hitchins, Letters to a Young Contrarian

A. Focus:

The purpose of this session is for you to begin to learn how to think: how to look at an argument, evaluate it, decide on its reasonableness, and then present an argument of your own. Commanders do not normally develop an estimate of the situation in a vacuum; rather, they evaluate the arguments made by others and, combined with their own insight, arrive at a conclusion.

B. Objectives:

- Define critical thinking and understand it both as an artifact and a process.
- Understand the value of questioning in critical thinking.
- Comprehend the differences between critical and creative thought.

C. Background:

This is the first formal foray into a topic that has captured the attention of many in the mainstream media and in intellectual circles. In the Joint Military Operations Department, critical thinking is more than some catch phrase intended to fill academic void; it is a tangible and fungible asset that we intend to refine in our students. This first short session addresses the topic of arguments. When we refer to arguments here in JMO we mean a conclusion that someone is presenting in which they are trying to convince someone else of a given position. That conclusion is—or rather should be—supported by rational and logical premises. These premises may be direct, implicit, or assumed. This is an important step as we move towards operational art and planning. Developing courses of action are based on observable facts (direct), what we believe to be true but is unobservable or folded into something else (implicit), and what we are not sure about but must choose a position to move on with planning (assumed). Determining the rational reasons behind curious historical decisions are typically found in a close examination of the very arguments made by staff and other participants in the planning/decision process.

Robert E. Lee’s curious decision to attack the Union center on the third day of the Battle of Gettysburg is a classic example of a commander first examining the arguments (based on premises); combining it with his own insight and experience, and then reaching a decision.
The historical fact that it failed is less important than determining the logic behind Lee’s estimate of the situation and his subsequent decision. Only then should we attempt to critique the decision. This helps us avoid snap-judgements: “That was a bad decision!” As we continue the ongoing discussions in critical thinking, we will also explore how to analyze arguments and construct your own; avoid logical fallacies; and finally, evaluate the arguments of your peers.

The point of contact for this session is LTC LaTasha Moody-Love USA, C-414.

D. Discussion Topics:

How is critical thinking linked to the commander’s estimate of the situation and decision-making?

What are the fundamental differences between an argument and a disagreement in formal logic?

E. Products:
None.

F. Required Readings:


King, Charles. “How to Think.” Georgetown University, School of Foreign Service and Department of Government. 1999. (NWC 4167).

G. Supplementary Readings:
None.
INTRODUCTION TO NAVAL TACTICS (Seminar)

Forces at sea are not broken by encirclement; they are broken by destruction.

—Capt. Wayne P. Hughes, Jr. USN (Ret),
Fleet Tactics and Coastal Combat, 2nd edition, 2000

A. Focus:

The principal purpose of this session is to build student understanding of naval tactics and its relationship with maritime strategy, as well as provide an overview of the key components of naval tactics. This session will set the stage for all the subsequent sessions on tactics of single naval combat arms.

B. Objectives:

- Comprehend the general capabilities of naval forces and the fundamental principles by which naval forces are tactically employed.
- Comprehend the relationship between naval tactics and maritime strategy.
- Understand the mutual relationship between the development of naval technology and the evolution of naval tactics.

C. Background:

“The young officer deals in tactics.” So begins the forward to Captain Hughes’ book on Fleet Tactics and Coastal Combat, 2nd edition. While senior officers conceive and draw large arrows on white boards and charts, tactical officers must bring combat power to bear on the enemy at great risk to the crew, ship, and mission. As the October 2000 terrorist attack on USS Cole, the 1987 missile attack on USS Stark, and the 1982 sinking of Argentina’s ARA Belgrano demonstrated, tactical failure at sea has a profound impact on operations, strategy, and even the national mood. While naval tactics are fundamentally different from the tactics on land or in the air, they remain grounded in principles that affect the development and evolution of naval tactics in general and in specific ways. Understanding these “cornerstones” (as Hughes describes them) allows naval officers to think about how to best employ naval tactical actions in order to accomplish tactical objectives—and the risk to ship and mission that such employment entails. As an operational commander/planner, understanding the fundamentals of employing naval tactical actions is critical to developing rational estimates of the situation, developing options, and making sound operational and tactical decisions. As Hughes writes, “Our ablest naval officers were tacticians who knew their weapon systems.”
So what are naval tactics? In generic terms, naval tactics can be defined as the *theory and practice of planning and employing naval tactical actions aimed to accomplish a tactical objective*. The theory of naval tactics can further be arbitrarily grouped into two categories: general theory and tactics of naval forces. *General naval tactics* explain and analyze mutual relationships and patterns of both tangible and intangible elements of tactics common to tactics of platforms and forces as a whole. In contrast, *tactics of naval forces* deal with the tactical employment of naval weapons/sensors/equipment, individual naval platforms and their groups, naval combat arms, and combined naval combat arms. This session and the following sessions on naval combat arms and naval combined arms will deal primarily with *tactics of naval forces*. Later in the course, you will explore *general naval tactics* as part of planning for a joint maritime operation.

Naval tactical actions are conducted with and without the use of weapons. They can be planned or unplanned. They can be conducted at any time and regardless of the ratio of forces in a given theater. They are conducted in a sea/ocean area varying in size from a combat zone/sector to a maritime area of operations. In generic terms, the main methods of tactical actions with the use of weapons are attacks, strikes, raids, engagements, and battles. These terms are not necessarily identical to those used in the employment of ground forces. As Hughes describes, firepower (fires), scouting (ISR), and C2 are functioning tactical elements of naval forces which are opposed by the processes and elements of counterforce, anti-scouts (counter-ISR), and C2 counter measure systems. The naval tactician employs sensors to locate the enemy (while interfering with the enemy’s scouting) and makes command decisions that transform scouting and firepower into a delivered force (while interfering with the enemy’s C2). The successful delivery of firepower is at the center of naval tactical action.

The point of contact for this session is CAPT Fred Turner, C-430.

**D. Discussion Topics:**

Why is understanding naval tactics important to the naval operational commander?

Describe Hughes’ six cornerstones of naval tactics. Which seems most relevant to modern navies today? Which seems least relevant?

Describe the relationship between naval tactics and maritime strategy.

Why is there a mutual relationship between emerging technologies and naval tactics?

What is a "naval attack?" How are naval tactical actions different from tactical actions on land or in the air?

**E. Products:**

None.
F. Required Readings:


Vego, Milan. *Naval Tactical Actions*. Joint Military Operations Department, Newport, RI: Naval War College. August 2015. *(NWC 2155).*

G. Supplementary Readings:


Vego, Milan. *Objectives of Naval Warfare*. Joint Military Operations Department, Newport, RI: Naval War College. August 2015. *(NWC 1102).*

__________. *On Naval Tactics*. Joint Military Operations Department, Newport, RI: Naval War College. September, 2015. *(NWC 2148).*
A sword never kills anybody; it is a tool in the killer's hand.

—Seneca

A. Focus:

Good tacticians know the capabilities and limitations of their systems. This session will provide an overview of the standard platforms, weapons, and sensors commonly found in navies today. Developing an understanding of naval force capabilities is the foundation of effectively employing naval forces.

B. Objectives:

- Comprehend the capabilities and limitations of naval forces to conduct the full range of military operations in pursuit of national interests.
- Analyze the importance of adaptation and innovation on military planning and operations.

C. Background:

The rapid advance in both sensor and weapon technology during the Second World War had an inestimable effect on naval tactics, the kind of platforms navies procured and warship design itself. In the years following the close of World War II, technologies with a direct impact on naval warfare continued to evolve and improve. Both surface and air search radar, which were in their nascent stage at the beginning of the war, became commonplace among the major naval powers shortly thereafter. Such was also the case with sonar systems designed to locate, identify and track much more capable submarines. With the advent of the nuclear powered submarine, the surface to air guided missile, the anti-ship cruise missile, and the super-carrier; the tactical considerations of naval commanders underwent a considerable change.

As weapon and sensor capabilities changed, so did warship design and the tactics of employment. Tactical formations and dispersion of platforms underwent change. Ships that formerly emphasized offensive firepower switched to defensive roles and vice-versa. The advent of the guided missile, along with the increased range and capability of naval aviation and modern submarines, meant the heavy naval rifle (and the tactics to most effectively employ it) was supplanted in importance. Heavily armored warships were likewise replaced with much lighter designs with an emphasis on increased sensor capability. Because of the cyclical relationship between sensors, firepower, and command and control, as new weapon
systems are developed and capabilities evolve, so do the tactics. Increases in the range and lethality of offensive firepower coupled with increases in detection capabilities shortened the decision cycle of commanders in both the defensive and offensive aspects of naval combat.

With only the U. S. Navy and the Russian Navy maintaining a number of cruisers, the multi-role destroyer has now become the most prolific and capable surface combatant. Even smaller platforms such as frigates, corvettes, and fast missile craft may have significant offensive firepower capabilities that must be mitigated by maritime planners.

Leaps in non-nuclear propulsion technology, such as air-independent propulsion (AIP), have made the diesel submarine into an extremely capable platform which in some environments is more desirable than its larger nuclear powered cousin. Modern subsonic as well as supersonic long range anti-ship cruise missiles continue to proliferate with ever increasing levels of accuracy and lethality. These weapons, which may be launched from surface, subsurface and air platforms, put surface forces increasingly at risk. Likewise, improvements in the performance of undersea mines as well as modern torpedoes further threaten naval forces. Lastly, the introduction and proliferation of remotely piloted or unmanned platforms throughout the maritime and air domains presents new challenges to naval warfighters now and into the foreseeable future.

Therefore, the proper synchronization of sensors, platforms, and weapon systems is a critical component in massing effective naval firepower on a desired target. By overwhelming a target’s defensive capabilities with coordinated strikes a naval force may gain significant tactical and operational advantage. As naval forces cannot be regenerated as quickly as ground forces such an event may prove operationally or strategically decisive.

The point of contact for this session is CDR Brad Donnelly USN, C-405.

D. Discussion Topics:

How has the proliferation of long range Anti-Ship Cruise Missiles (ASCM) impacted naval warfare tactics?

What type of sensors/weapon systems are commonly found on most air, surface and subsurface combatants?

Describe the relationship between sensor and weapon system capability to naval tactical actions.

E. Products:

None.

F. Required Reading:


G. Supplementary Readings:


TACTICAL FUNDAMENTALS OF SURFACE FORCES (Seminar)

No captain can do very wrong if he places his ship alongside that of the enemy.

—Vice Admiral Horatio Nelson, 21 October 1805, Battle of Trafalgar

A. Focus:

This session will focus on the tactical fundamentals of the combat employment of surface forces.

B. Objectives:

- Comprehend the tactical capabilities and limitations of employing surface combatants.
- Understand the influence of the physical environment on the employment of surface combatants.
- Understand the main methods of tactically employing surface combatants.

C. Background:

Historically, the backbone of any navy is in surface forces. From the Battle of Salamis in 480 BCE, through the age of sail and down to today, surface forces remain a critical component in tactical naval actions. Until the 20th Century, the history of naval warfare was primarily the history of the surface combatants. From the triremes of the classical age to the ships of the line during the Napoleonic Wars and the battleships of the first half of the 1900s, the power of a fleet was defined by the design and armament of surface ships along with the fighting characteristics of the men who served on them.

The primacy of the surface combatant in naval warfare was not challenged until well into the 20th century with the development of the airplane and the submarine as legitimate components of a battle fleet. Despite the introduction of those platforms, the surface combatant and surface warfare itself remains a cornerstone of naval power.

As technology has progressed throughout the centuries so have the types of platforms from which surface warfare is conducted. The oar powered triremes of the classical age with their rams and crews that fought ship to ship as soldiers eventually developed into the wooden warship propelled by sail and mounting an ever increasing number of guns. These vessels, which began to proliferate in the 15th Century and reached their zenith in the early 19th Century, gave way in turn to the steam powered, iron armored warships of the mid to late 1800s.
With the launching of the HMS DREADNOUGHT in 1906, the British Royal Navy introduced the age of the modern battleship which was to remain the primary naval combatant until being displaced by the aircraft carrier during the Second World War. Designed primarily for ship to ship combat through the use of ever larger guns with increasing range, the anti-surface role of the battleship was eventually overtaken by a number of ship types armed with anti-ship cruise missiles (ASCMs). Originally developed as a radio controlled, air launched weapon by Germany in WWII, the proliferation of ship launched ASCMs enabled relatively small surface combatants to engage surface targets at much longer ranges with devastating effect. First used successfully by the Egyptians against the Israeli destroyer EILAT in the Six-Day War of 1967, the ASCM can now be found on numerous surface combatants around the world.

Today, surface forces operate both in the open ocean and in the littorals, and include a number of platforms ranging in size from large cruisers to much smaller corvettes and missile patrol craft. The primary surface combatant of today’s blue water navies is the destroyer which is a multi-role platform capable of engaging surface, air, and sub-surface targets with a mixture of guns, missiles, and torpedoes.

The point of contact for this session is CDR Brad Donnelly USN, C-405.

D. Discussion Topics:

What are the tactical advantages and disadvantages of employing surface combatants?

What are the tactical differences between employing surface combatants in the open ocean and in the littorals?

What are the effects of the physical environment (weather/climate) on surface forces as they attempt to use sensors and weapons and/or avoid counterforce?

Has the proliferation of ASCMs rendered surface combatants tactically impotent? Explain why or why not.

E. Products:
None.

F. Required Reading:


**G. Supplementary Readings:**


Tenacity, Dick. Stay with the bastard till he’s on the bottom.

—CDR Mush Morton, USN, Commanding Officer, USS Wahoo (SS-238)

A. Focus:

This seminar will focus on the tactical fundamentals of employing submarine forces.

B. Objectives:

- Comprehend the tactical capabilities and limitations of employing submarines.
- Understand the influence of the physical environment on the employment of submarines.
- Understand the main methods of tactically employing submarines.

C. Background:

Technological innovations have continued to expand submarine roles and missions. At the start of the First World War, senior officers of all the Great Powers were unsure as to the role of the submarine. Submarines were originally employed for coastal defense and as an arm of the battle fleet, operating in support of the main line of battle. In 1917 during World War I, German U-boats adopted unrestricted warfare sinking thousands of tons of merchant shipping. The British effectively countered this tactic with convoys. During World War II, Germans U-boats employed Wolfpack tactics that concentrated firepower permitting simultaneous attacks that often-overwhelmed convoy escorts. Even after over one hundred years of submarine operations, there remains some ambiguity in the employment and purpose of submarines.

Submarines provide commanders a wide and diverse set of capabilities that goes far beyond using stealth to sink surface ships with torpedoes. Submarines provide unique (and often unmatched) capabilities in intelligence, surveillance, and reconnaissance (ISR); naval special warfare, strike operations, employment of mines, and other tactical actions such as maritime interdiction and counter narcotics. At the national level, submarines provide a critical strategic deterrence capability. Taken together, the inherent stealth and independence associated with the employment of submarines continues to challenge an enemy and provide a unique ability to contest the subsurface and surface domains.

The point of contact for this session is Professor Paul Povlock, C-410.
D. Discussion Topics:

What are the traditional capabilities of the various classes of submarines and the sensors and weapons that they employ?

How has the employment of the submarine changed over the last 100 years?

Describe the tactical challenges of conducting submarine operations in various operating environments.

Lautenschlager argues that today’s submarines are gaining the capability to engage and defeat first-line naval forces in a fleet action. Do you agree with his conclusion? Why or why not?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


TACTICAL FUNDAMENTALS OF NAVAL AIR WARFARE (Seminar)

If you want to go anywhere in modern war, in the air, on the sea, on the land, you must have command of the air.

— Fleet Admiral William F. “Bull” Halsey, USN
Testimony to Congress following WW II

A. Focus:

The focus of this session is to describe and to analyze the tactical fundamentals of employing naval air forces and to differentiate them from land based air forces.

B. Objectives:

• Comprehend the tactical capabilities and limitations of employing naval aviation.
• Understand the influence of the physical environment on the employment of naval aviation.
• Understand the main methods of tactically employing naval aviation.
• Comprehend the tactical differences between naval aviation and land-based air.

C. Background:

It was not until the early Twentieth century that navies organized and funded aviation programs specifically intended to develop airplanes for use in the maritime domain. These early aircraft were initially used as naval gunfire spotters, intended to improve the accuracy of, and extend the effective range of their main warship, the battleship. By 1914, testing of air delivered ordnance was accomplished and within a few short years, forward firing ordnance for the purpose of countering aircraft attack was introduced. From there, naval aviation has developed to support operations across the air, surface and subsurface domains.

Naval air greatly extends the range and increases the speed at which a commander may either attack enemy forces in the air, land, sea or undersea domains or defend his own forces in a maritime environment. Naval air also has the capacity to significantly enhance situational awareness in the maritime environment by enabling the commander to dispatch sensors well beyond surface sensor ranges.

Naval air, while a significant aid to warfare in the maritime environment, due to its speed, range and lethality, has certain challenges associated with its efficacy. Projecting naval air-power generally requires air superiority in the operational environment in which the Fleet is operating such that an opposing air force can be detected and neutralized before it becomes a
threat to the Fleet. Sustainment and persistence can become challenging if circumstances require continuous coverage for extended tactical actions if only one aircraft carrier is assigned to a task force. Meteorological conditions can also threaten effective naval air operations (for example, heavy sea states that do not permit launch and recovery of aircraft). Aircrew and flight deck personnel fatigue as well as aircraft reliability can also reduce sustainment and persistence with only one aircraft carrier assigned to a specific area of operation.

Naval air assets are relatively cheap, fast and effective with respect to achieving positive identification of threats with multiple sensors for weapons employment, but if a commander desires to maintain a continuous air presence in the maritime environment, the costs associated with putting naval air strike assets on station for continuous coverage could be prodigious and could require multiple carriers and the associated additional logistical support in the form of fuel, parts, etc. For these reasons, it is important for naval air to be viewed as an integral part of the overall naval force and not in isolation.

With respect to the other services’ ability to support naval air operations, as with surface ships and submarines, naval air forces ultimately require sustainment from land. Ground and other land air forces may be used to secure and maintain friendly force lodgments and access to vital sustainment bases. Additionally, in a littoral environment, ground and air forces could be used to attrite the enemy’s ability to threaten friendly naval forces with land based air and missile systems. Further, destruction or seizure of enemy bases by friendly air and ground forces could deny the enemy basing and sustainment of assets that could be used to threaten friendly naval assets. Forward ground and non-naval air assets can also provide situational awareness in areas where naval air might be used for power projection ashore.

Additionally, as technology advances, there is the potential for increased reliance on Unmanned Aerial Vehicles (UAVs) in maritime operations. A survey of reports of ongoing discussions in defense establishments across the world indicates that many countries recognize the strengths of maritime UAVs. It may be useful to consider how the development and employment of UAVs in a maritime role will affect sea control and sea denial operations in the future. Finally, one should also consider how operating in an ever growing contested and congested electromagnetic operating environment will impact both manned and unmanned air operations.

The point of contact for this session is CDR Tom Pham, USN, C-410.

D. Discussion Topics:

What are the tactical advantages and disadvantages in the combat employment of one’s naval air forces?

Discuss how the effects of the physical environment affect the employment of one’s naval aircraft on the open ocean and the littorals, such as enclose/semi-enclosed seas.

How can other services (air forces and ground forces) support naval air in naval tactical actions?
Manazir argues that carriers should remain the dominant naval arm for naval strike operations and naval tactical actions. Do you agree with his conclusions? Why or why not? Discuss how the increasing prevalence of UAVs may affect naval air operations.

What is the impact of modern/advanced intelligence, surveillance, and reconnaissance and integrated air defense systems capabilities have on future naval air operations and planning?

**E. Products:**

None.

**F. Required Readings:**


Manazir, Michael C. RADM. “Responsive and Relevant.” *U. S. Naval Institute Proceedings.* 140, no. 2, (February 2014). *(NWC 4155).*

**G. Supplementary Readings:**


TABLETOP EXERCISE #1: ORGANIZING NAVAL ASSETS IN THE OPEN OCEAN (Exercise)

Show me a good loser, and I’ll show you a loser.

—Vince Lombardi

A. Focus:

Students will be presented a tactical problem in the form of a brief scenario and using the information learned in the previous seminars on surface, submarine, and naval air power, will aggregate (task organize) their forces based on objective, friendly and threat capabilities, and the environment. Moderators will serve as the opposing force. The purpose of this simple exercise is to allow students to demonstrate an understanding of the capabilities of various naval platforms, weapons, and sensors.

B. Objectives:

• Apply critical and creative thinking skills and knowledge of naval power in task organizing a naval force based on objective, threat, environment, and capabilities.
• Demonstrate a general understanding of the broad capabilities of the United States Navy’s principal weapons, platforms, and sensors.

C. Background:

Tabletop exercises, sand table exercises, and all manner of educational tools have been in use since the Indians devised the game of chaturanga—modern day chess— to teach military strategy and maneuver to their officers. From a cursory scan of the readings, we discover that map exercises, staff exercises or Command Post Exercises (CPX), training trips, tactical talks, and sand-table exercises are the more common form of these ‘war games’. The purpose of this specific exercise presented here is to allow students to come together to solve a real-world problem using a fictional scenario.

You are expected to concisely present your decision(s) and to argue (support) them based on what we know of capabilities of the various platforms. Leveraging the very basic information discovered thus far, students will apply critical thought and rudimentary problem solving skills to first disaggregate the assigned forces and then, based on objectives, threat, capabilities, and the environment, aggregate their forces to maximize likelihood of tactical success.

This is not a war fighting exercise, merely the first in a series of exercises that will expand in scope, complexity, and ambiguity—all intended to sharpen your critical thinking.
and decision making skills. It is, in the language of critical thinking, a logic exercise in which students are presented an opportunity to demonstrate understanding of materials discussed thus far. Your moderator will provide input/feedback on the various decisions considered. Students are forewarned, however, that future exercises are designed to increase in complexity, depth, and ambiguity.

The point of contact for this session is Professor John Houfek, C-409.

**D. Discussion Topics:**

Describe the utility of war gaming as a training and educational tool.

Develop, propose, and support your potential solution(s) to the given problem regarding the aggregation of naval power.

**E. Products:**

An in-seminar discussion regarding potential task organizations based on mission, threat, capabilities, and environment for U. S. naval forces in a fictional scenario.

**F. Required Readings:**


**G. Supplementary Readings:**


INTRODUCTION TO OPERATIONAL ART (Seminar)

Successful strategy achieves national and alliance political aims at the lowest possible cost in lives and treasure. Operational Art translates those aims into effective military operations and campaigns.

—Colonel Harry G. Summers, U. S. Army (Ret),
On Strategy II: A Critical Analysis of the Gulf War, 1992

A. Focus:

Furthering your understanding of classic military thinkers and theory, this session focuses on the historical roots of operational art. This session also introduces the linkages between operational art, strategy, and tactics. The study of the theory known as operational art is presented here using mid- to high-intensity combat scenarios because that is the most direct manner in which to discern the nature of the art. That is not to say, however, that operational art does not apply to lower intensity combat scenarios as we shall see later in the trimester.

B. Objectives:

- Comprehend the meaning of the term operational art.
- Understand the historical emergence of operational art.
- Comprehend how operational art links strategy to tactics.
- Understand the importance of applying operational art during conceptual planning

C. Background:

In Strategy and War you discussed, or in some cases will discuss, Clausewitz, Mahan, and Douhet—military theorists who looked to the past to predict how wars could be better fought in the future. These theorists lived a turbulent time, highlighted by technical advancement. As the size, speed, and diversity of military forces grew—as well as the space they occupied and in which they fought, these men understood that a good strategy alone could not guarantee a victory; conversely, one could win every tactical engagement and still lose the war. To achieve victory, they understood that one must effectively link strategy and tactics to ensure that tactical actions support strategic objectives. In modern warfare, the strategic perspective is often too broad to ensure the decisive employment of one’s sources of power; likewise, the tactical framework is often too narrow.

Another field of study and practice exists to synchronize multiple sources of power properly in order to accomplish the ultimate strategic or operational objective. This third component of military art, operational art, occupies an intermediate position between the
realm of policy and strategy and that of tactics—and is inextricably linked to both. Without operational art, war would be a set of disconnected engagements, with relative attrition the only measure of success or failure.

Operational art, as defined by Dr. Milan Vego in *Joint Operational Warfare: 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 strategic or operational objectives in a given theater. Operational art emerged in the nexus of societal change and advancements in 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.

The point of contact for this session is Professor Doug Hime, C-423.

D. Discussion Topics:

How does theory contribute to our understanding of operational art?

How does operational art link strategy and tactics?

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

Discuss how an understanding of operational art assists commanders in non-traditional warfare.

Explain why operational art begins with the objective.

E. Products:

None.

F. Required Readings:


G. Supplementary Readings:


MILITARY OBJECTIVES AND
THE LEVELS OF WAR (Seminar)

Pursue one great decisive aim with force and determination—a maxim which should take first place among all causes of victory.

—Carl von Clausewitz, Principles of War, 1812

A. Focus:

The foci of this session are the importance of the objective in operational warfare, the process of determining and articulating objectives, the scale of military objectives, the linkage between the objective and its constituent tasks, and the relationships between the military objectives and corresponding levels of war.

B. Objectives:

- Understand the relationship among and between the strategic, operational, and tactical levels of war and their corresponding objectives.
- Identify the concepts of regressive planning and operational-level planning that are the focus of the course.
- Analyze how the “Four Questions” of warfare can help operational-level commanders employ assets in the pursuit of strategic objectives.

C. Background:

As pointed out in the session introducing operational art, a clearly stated and attainable objective is essential in order to link strategy and tactics; without a clearly attainable objective, any military effort expended is literally aimless and tactical actions, however successful, remain random. Almost all aspects of operational warfare are related, either directly or indirectly, to the objective to be accomplished.

Tactical, operational, and strategic objectives are differentiated according to their scale. Among other things, the objective determines the method of one’s combat force employment, the size of the physical space for accomplishing it, the level of war, and also the level of command, type of planning, and major phases and elements of one’s combat force employment. The scale of the objective determines the method of one’s combat force employment and the size of the physical space in which one’s forces are to be employed, not vice versa.

The selection of an objective is the first and most critical step in undertaking any military enterprise. As Liddell-Hart describes, this establishes purpose for the operation. Once the objective is determined, the entire problem becomes greatly simplified (but not
necessarily easy to resolve). Determining a military objective, however, is often the most difficult aspect of operational planning, requiring a careful analysis of the enemy’s factors of space, time, and force. In general, the larger the scale of the objective, the more important the factors of space, time, and force to be considered become.

It is not sufficient to specify the objective alone; one must also clearly articulate what type of action must be carried out to accomplish the specific objective or the staff will be unable to plan the pending operation effectively. The operational commander and planners must also try to anticipate the possible effects (consequences or results) of the accomplishment of the military objective and the intermediate objectives that nest with the overall objective. This is more an art than a science and requires planning regressively: working backwards from the desired end state to ensure that the required conditions are created at each step prior to executing the operation. Much depends on the commander’s knowledge and understanding of the enemy and all aspects of the military and nonmilitary situation. There are, however, many pitfalls in the process, which, in turn, can make predictions tenuous at best. A useful cognitive approach is to ask four fundamental questions that can assist the commander in visualizing the scope of his or her operation:

- What conditions must be created in order to achieve the objective? (ends)
- What sequence of events must occur to create the necessary conditions? (ways)
- What resources should be used in order to facilitate the sequence of events? (means)
- What degree of risk is acceptable at each step of the enterprise? (risk)

Finally, the scale and complexity of the military objective to be accomplished determine the level of war to be conducted. This is a crucial point when initially preparing for an operation. Understanding the level of war allows commanders to focus on the appropriate environmental factors, centers of gravity, and decisions. An operational level commander, focused too much on the tactical actions, can overlook or fail to anticipate the need to create conditions that transition the operation to another follow-on operation or termination of conflict. For the Spruance Warfighter’s Course, we will focus primarily on the operational and tactical levels of war.

The point of contact for this session is Commander Adrian Fryer, Royal Navy, C-407.

D. Discussion Topics:

Discuss the differences in the meaning of the terms aim, goal, and objective.

What is the relationship between the military objective and its constituent tasks?

How do U. S. military commanders derive military objectives from higher strategic direction?

Discuss the differences between and components of military art (strategy, operational art, and tactics) and the levels of war.
E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


A. Focus:

This session explores the meaning of the term “theater,” its structure, and its elements or geometry. The inextricable linkages among and between the objective(s), theater, and levels of war and command will be discussed, and the Leyte case study will be used to illustrate and enable a critical analysis of the theater structure and selected parts of the theater geometry in seminar.

B. Objectives:

- Comprehend the relationship between the military objective(s) and the physical structure of a theater.
- Understand the considerations that may inform and influence theater structure.
- Understand the meaning and importance of the key terms pertaining to theater geometry (positions, bases of operation, lines of operation, decisive points, lines of communication, and objectives).

C. Background:

As discussed in the previous session, the objective determines the level of war and the employment of the required force. Force employment determines the space required to best employ this force. Therefore, a theater of war should be militarily organized to ensure the most favorable conditions for the employment of one’s forces across the entire spectrum of conflict, from peacetime competition to high-intensity conventional war. The larger the assigned military objective(s), the greater the force required and, therefore, the larger the physical environment required to deploy, concentrate, and maneuver the force, and the larger the infrastructure needed to support the employment of one’s forces. Hence, the theater has to be divided into a number of geographically-based areas to ensure the most effective employment of one’s military and nonmilitary sources of power. The structure of a three-dimensional theater, overlaid with the information environment, can include one or more theaters of operations, areas of operations, and combat zones (or sectors). The size of each subdivision should be primarily based on the scale of the military objective to be accomplished and the selected method of combat force employment. The latter, in turn, dictates the size and mix of one’s forces required to accomplish a given objective. The
theater and its subdivisions are the very basis for establishing and maintaining tactical, operational, and strategic levels of command or command echelons.

Any theater contains a variety of natural and artificial features called “theater elements” or “theater geometry” that significantly affect the planning and execution of military action at any level of war. These theater elements include: positions, distances, bases of operation, physical objectives, decisive points, lines of operation (LOO), and lines of communication (LOC)—any of which may have tactical, operational, or even strategic significance. The 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. Operational commanders and their staffs must, therefore, know and understand the advantages and disadvantages of these elements to ensure the most effective employment of their forces against the enemy, but also to protect friendly forces from reciprocal actions by the enemy.

The point of contact for this session is Commander Adrian Fryer, Royal Navy, C-407.

D. Questions:

In building an appreciation of the operational environment, what physical and abstract/intangible factors bear on theater structure and how are they balanced?

Explain the advantages and disadvantages of central and exterior positions.

What is the original meaning and importance of the Jominian concept of a “decisive point”? Has the information age changed that concept? If so, how?

To what extent are there differences in using lines of operations on land, in the air, or at sea? Explain.

Leyte Case Study: Either individually or in groups, students will analyze the Leyte Case Study.

Given the military objective and looking at the theater from the Japanese and American perspectives, both army and navy, explain how the principal elements of the theater impact the following:

1. Balancing the required force to achieve the objective with the space requirements and their inherent limitations.
2. The exercise of effective command and control.
3. Aspects of the theater geometry that offer advantages to exploit or disadvantages to mitigate or protect.
Elements to consider:

- Geography of the Philippines archipelago, South China Sea, SE Asia, Indonesia
- Positions relative to the force that the opposing sides have to employ, given their objectives.
- (Current) Bases of Operation; (Anticipated) Bases of Operations
- Key distances for consideration: maritime transit times, air coverage, land movement, and so forth.
- Points considered decisive, relative to the objective and the employment of forces.

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:

OPERATIONAL FACTORS (Seminar)

Armies do not burst from one theater of war into another; rather a projected strategic envelopment may easily take weeks and months to carry out. Besides, distances are so great that the chances of even the best measures finally achieving the desired result remain slight.

—Carl von Clausewitz, *On War*, 1832

A. Focus:

This session addresses another foundational aspect of operational art—the analysis of operational factors of space, time, and force and the interrelationship of these factors in achieving operational objectives. It is normally taught concurrently with Operational Functions. As we have already discovered, all aspects of operational art are linked to objectives. The concept of using information obtained from the analysis of operational factors in order to understand the operating environment better and to make sound operational decisions is examined in this session. This session builds on the theories introduced in earlier sessions, Military Objectives and the Levels of War, and the Theater: Its Structure and Geometry. Additionally, the assigned Leyte Gulf case study reading along with the historic information presented in the previously viewed War in the Pacific lecture provides context for illustrating applications of operational factors in planning and conducting tactical actions and operations.

B. Objectives:

- Comprehend the operational factors of space, time, and force.
- Comprehend the interrelationship between the operational factors.
- Analyze the process by which an operational commander balances the operational factors against each other in order to expose opportunities and risks towards the achievement of the objective.

C. Background:

As you have learned previously, a commander’s estimate of the situation is logically based on a rational examination of time, the environment, adversarial forces, and his/her own forces. Armed with a rational set of premises, the commander can now make an estimate upon which he or she can develop options. Thus, military problem solving begins with factors: Space, Time, and Force. The operational commander “looks at” the objective through the lens of factors space, time, and force to expose opportunities and risks towards the achievement of the objective. This visualization is the genesis of the operational idea and
subsequently, the concept of the operation. As the commander develops the operational idea, operational functions (next session) can help mitigate disadvantages and exploit advantages in space, time and force in order to accomplish the objective.

Since force employment and space for force employment are determined by the objective, analysis of operational factors begins with the objective. Without an objective, the analysis has no purpose. Critical aspects of information from both the enemy and friendly sides are included in this analysis. Although operational commanders may not be able to choose their space, they do have the ability to manage the characteristics of time and force. As you have already learned in Theater Structure and Its Geometry, the size, shape, and nature of a space will affect the quantity and type of forces employed, as well as the time required to conduct a successful military operation. Managing aspects of all three of these factors allows the commander to shape the operational environment to his or her advantage and mitigate operational and tactical risks.

The point of contact for this session is Lt Col Mike LePage, USAF, C-403.

D. Discussion Topics:

Explain the theoretical relationships between the operational factors space/time, space/force, and time/force. How might an operational commander balance these relationships to achieve objectives?

Leyte Case Study: Students will analyze the Leyte Gulf case study either individually or in groups.

Assess the factors space, time, and force as they appeared to the Japanese and American commanders during the planning for the invasion of Leyte Island. Frame the problem as the commanders and their planners did during planning. Your point in time is September 1944, prior to the Allied invasion. Look for those aspects of each factor, and more importantly, those key interactions between factors, that had the most impact on the options available to the commander.

Some Topics to Consider: (Not all inclusive)
- Geography of Leyte Island and the surrounding archipelago.
- Disposition, strength and readiness of defending Japanese forces.
- Disposition, strength and readiness of Allied forces.
- Intangible factors (leadership, doctrine and training).
- Availability of resources, such as fuel.
- State of training of naval aviators, infantry divisions, etc.

E. Products.

None.
F. Required Readings:


G. Supplementary Readings:


OPERATIONAL FUNCTIONS (Seminar)

I don’t know what the hell this ‘logistics’ is that Marshall is always talking about, but I want some of it.

—Admiral Ernest King, Commander-in-Chief of the Fleet and Chief of Naval Operations (CNO), 1942-1945

A. Focus:

The focus of this session is to examine what operational functions are and how planners and commanders use functions to exploit advantages in the factors and mitigate operational and tactical risks. In order to achieve objectives effectively, commanders use various functions to maintain freedom of action while simultaneously limiting the options of an opponent.

B. Objectives:

- Comprehend the role and importance of operational and joint functions in operational planning and execution.
- Understand how operational and joint functions support major operations and campaigns.

C. Background:

Operational functions exist at all levels of war and are considered even during determination of the objective. They are activities with which planners and commanders can mitigate unfavorable factor (space, time, force) disadvantages and exploit favorable advantages. Since operational functions broadly define this group of related activities and systems that enable a commander to sequence events and synchronize effects, they are not prescriptive. Careful analysis of operational factors and their relationship to an objective allows operational functions to emerge that are most relevant to the major operation. Operational commanders establish, protect, and use these functions to sequence and synchronize operations along cognitive and physical lines of operation in order to defeat (or protect) centers of gravity which facilitate tactical success.

Operational functions reinforce and complement each other and over- or under-resourcing any single function occurs at the expense of the combat force’s aggregate capability. Operational commanders, by deliberately disrupting enemy functions, create vulnerabilities that tactical commanders exploit on the battlefield. Therefore, operational commanders manage functions in order to facilitate success by tactical component commanders.
The point of contact for this session is Lt Col Mike LePage, USAF, C-403.

D. Discussion Topics:

What is the relationship between operational factors and operational functions?

Combatant commanders establish, maintain, and protect operational functions for routine peacetime activities as well as for war. What risks does the commander assume in an immature theater in which the functions have not yet been fully established?

Leyte Case Study: Students will analyze the Leyte Gulf case study individually or in groups.

Looking at the Japanese and American plans prior to the landings at Leyte Gulf, identify and assess both sides’ planned use of operational functions to balance space, time and force to achieve their objectives. Some topics to consider include the following:

- How effectively were the operational functions managed and orchestrated to offset disadvantages in space, time, or force?
- What functions did they synchronize and what effect did this synchronization have on the operation?
- Assess their methods of obtaining a force advantage.
- What was the impact of their resource shortages at that point in the war, especially fuel?
- Assess their C2 Structure (Command Organization) and arrangement of forces, including the location and tasking of reserve forces and the timing of their commitment.
- Assess the division of space between MacArthur and Nimitz/Halsey.
- Assess the control / coordination measures for the AO as they relate to Naval forces.
- Assess the operational and strategic reserve force composition and ready location, commitment triggers, employment time, and so forth.

E. Products.

None.

F. Required Readings:


G. Supplementary Readings:


What the theorist has to say here is this: one must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point at which all our energies should be directed.

—Carl von Clausewitz On War, 1832

A. Focus:

This session will examine how a commander analyzes critical factors with a focus on the operational objective to determine the operational friendly and enemy centers of gravity. This allows the commander to develop an operational idea on how to defeat the enemy’s center of gravity while protecting one’s own, which is the heart of operational design. The point of culmination, specifically avoiding one’s own and hastening that of the enemy, is also examined.

B. Objectives:

- Identify and examine the principal elements of warfare through the lens of the operational objective.
- Understand the concepts of ‘critical factors,’ ‘culminating point’ and ‘center of gravity’. Explain the utility of the concept of center of gravity in facilitating tactical success.
- Using the Leyte Gulf case study, deduce and analyze the opposing sides’ centers of gravity.
- Deduce the operational ideas developed by opposing commanders during planning for the invasion of Leyte Island.

C. Background:

Understanding the theory of the concept of center of gravity is crucial if operational commanders and their staffs intend to successfully employ their combat power in the shortest time and with the least losses for friendly forces. Combat power is normally limited, especially naval forces and landing forces. Because of this, operational commanders have to focus the major portion of their efforts against the strongest source of the enemy’s power: the center of gravity (COG). Commanders risk wasting scarce resources and time when combat power is applied to sources of power that does not lead to the accomplishment of the
Identifying centers of gravity is one of the outcomes of a solid, thorough analysis of the operational factors and functions. This allows planners and commanders to identify critical factors: those activities and requirements that are crucial for accomplishing the objective (friendly) or for the enemy to accomplish their objective (enemy). While critical, some of these factors are strengths and others are weaknesses. For example, the aviation wing of an aircraft carrier is a critical factor in projecting power to sink an opposing fleet: the air wing is critical for success. But if the air wing itself is undermanned and lacks airframes, this critical factor is arguably weak. The diligent commander seeks to protect this weakness, and look to use a critical strength to attack the opposing fleet (such as land-based air), until the carrier wing can become a strength once again. Thorough analysis of the factors and functions—and how they evolve over time—allow commanders to determine critical factors, identify critical strengths and critical weaknesses, and then select a critical strength as the center of gravity.

How to do this forms the basis for a commander’s operational idea and subsequently, the concept of the operation. It should include, in broad terms, the commander’s vision of what he/she intends to do to accomplish the overall objective and the conditions that must be created in order to achieve success; what tactical forces will do to create those necessary conditions; the sequence of major events to facilitate tactical success; and enough detail to allow subordinate tactical commanders to draw their own schemes for their respective forces. By applying focused combat power against the enemy’s COG (while protecting one’s own), the astute commander avoids early culmination while forcing culmination upon his or her opponent.

Finally, operational deception is one of the primary methods that commanders can use to weaken an opposing center of gravity. When properly conceived and executed, deception can significantly enhance the effectiveness of one’s forces, prevent surprise, and reduce the effectiveness of the enemy forces. During this session, students will develop a working definition of a COG, identify Japanese and Allied operational objectives and deduce enemy and friendly COGs. Once the COGs have been deduced, students will deconstruct the COGs in order to determine a method for defeating the COG and for forming the basis for an operational idea.

The point of contact for this session is Professor Al Bergstrom, C-430.

D. Discussion Topics:

Why and how is a center of gravity tied to an objective?

Explain the linkage between the objective and the center of gravity.

How does a planner or commander deduce an enemy center of gravity? Can you describe another method for deducing a center of gravity?

Does the center of gravity apply across the entire spectrum of conflict? If not, what analytical tool may planners use to develop an operational idea?
How can deception potentially weaken a critical strength?

How are the concepts of center of gravity and culmination related? Explain factors that may determine whether an indirect or direct approach to the center of gravity is appropriate.

Explore the concept of the operational idea. How is it linked to the commander’s estimate of the situation (CES) and commander’s guidance for planning?

**Leyte Case Study.** Students will report on the following, either individually or as part of a group:

What were the Japanese and Allied centers of gravity (from the perspective of the opponents in 1944, not in hindsight)? How well did the respective commanders identify and exploit critical factors?

Did either the Japanese or the Allies reach a culmination point in the battle for Leyte? If so, what were the indications?

Articulate the Japanese and Allied operational ideas for the invasion and defense of Leyte, as developed during planning. How well did the operational ideas properly focus on the objective and on defeating the opposing COG?

**E. Products:**

An in-seminar analysis of Japanese and U. S. objectives, critical factors, and centers of gravity for the Battle of Leyte Gulf and seizure of Leyte will be conducted during this session.

**F. Required Readings:**


G. Supplementary Readings:


Strange, Joe. “Centers of Gravity & Critical Vulnerabilities: Building on the Clausewitzian Foundation So That We Can All Speak the Same Language.” Perspectives on Warfighting, No. 4, Quantico, VA: Marine Corps University Foundation, 1996.

TABLETOP #2 OPERATIONAL DESIGN:  
AN ANALYSIS OF THE BATTLES FOR LEYTE GULF (Seminar)

Thus, partly from what he knew, but still more from what he imagined, Kurita reached the conclusion that his prospects in Leyte Gulf were both thin and grim, and that he had better save the rest of his fleet, possibly to fight another day.


A. Focus:

This session serves as a synthesis of the previously discussed operational art concepts. Commanders develop the operational idea into a full operational design with emphasis on sequencing tactical actions and synchronizing desired effects. They do this by establishing priorities, managing functional activities, and tasking subordinate commanders with the accomplishment of intermediate objectives.

B. Objectives:

- Comprehend how to develop an operational design from an operational idea.
- Understand the relationship between centers of gravity and their respective objectives at the several levels of war.
- Using the Leyte Gulf case study, compare the outcome of the battle to the respective operational designs developed by the opposing sides.

C. Background:

The basis of any operational plan is the operational design (the concept of operations) developed by the commander. The operational design is in turn based on the operational idea that is formed from the commander’s initial estimate of the situation—shaped by a rational analysis of the factors, functions, and theater geometry respective of a military objective. The main elements of a sound operational design include the desired end state; ultimate and intermediate objectives; forces required to achieve objectives; identification of critical factors and centers of gravity; initial positions and lines of operation and/or effort; directions/axes; and operational sustainment.

Warfare, by its nature, is a series of trade-offs. Commanders and staffs must continuously balance competing demands for scarce resources while still accomplishing assigned objectives and while avoiding unlooked for culmination. Taking a commander’s
idea and turning it into a sound operational design is not a simple job amenable to a few hours of discussion. It requires time, creativity, detailed calculations, and above all, rational thinking on the part of the commander and the staff. Operational design synthesizes all the conclusions generated by an operational art approach and turns an exhaustive effort into a coherent one.

An operational design provides a sound framework for subsequent detailed planning that result in executable orders. It does not, however, remain immutable. As Clausewitz has written, “Friction is the only concept that more or less corresponds to the factors that distinguish real war from war on paper.” (Clausewitz, On War, Book I, Chapter 7) This means that the operational design should remain flexible to accommodate changes brought about by combat. Consider the Battle of Leyte Gulf—specifically, the Japanese SHO-1 Plan, which on paper, should never have had a chance; the Americans were simply too strong and too many things had to break the right way. The American Operation KING II, on paper, should have gone like clockwork. Yet, as you will discover in your analysis, real war consists of often hard-to-explain events and decisions. Up to now, you have used operational art concepts to analyze the rationale behind the opposing plans. Now you will walk-thru the Operation itself and determine why it unfolded the way it did. The Japanese almost won, but ultimately were defeated; why? Was it because of questionable leader decisions, unaccounted for changes in the factors, or a poor operational design to begin with? Or perhaps the Americans were simply too strong, too talented, and had a better plan? This session will use the elements of operational design to assist your analysis of this tabletop exercise as you “replay” the Battle of Leyte Gulf.

The point of contact for this session is Professor Al Bergstrom, C-430.

D. Discussion Topics:

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

Discuss how operational functions exploit advantages and mitigate disadvantages in destroying/neutralizing (the stronger side) or degrading/deceiving (the weaker side) enemy COG.

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

How are intermediate objectives selected?

Explain the concept of branches and sequels.

Battle of Leyte Case Study:

Identify and describe the major elements of the American operational design for the landing on and seizure of Leyte Island.
Given the outcome, critique the operational design developed by Americans. Based on what they knew at the time, what could they have done differently?

Identify and describe the major elements of the Japanese operational design for defense of Leyte Island and the defeat of the U. S. invasion fleet.

Given the outcome, critique the operational design developed by the Japanese. Based on what they knew at the time, what could they have done differently?

E. Products:
None.

F. Required Readings:


G. Supplementary Reading:


OPERATIONAL LEADERSHIP (Seminar)

I am not afraid of an army of lions led by a sheep; I am afraid of an army of sheep led by a lion.

— Alexander the Great

A. Focus:

This session explores both the characteristics and elements of operational thinking and leadership at the operational level of command and assesses the impact of decisions on the outcome of military operations. It also introduces students to the concepts of mission command and of the Chairman of the Joint Chiefs of Staff Desired Leader Attributes (DLAs) for Joint Force 2020.

B. Objectives:

- Comprehend the concepts of operational thinking and operational vision.
- Understand why operational commanders need an operational perspective and how this perspective is achieved.
- Comprehend the tenets of mission command and the Desired Leader Attributes for Joint Force 2020.
- Examine common military leadership characteristics and attributes of successful commanders at the operational level of command.
- Assess the impact of leadership style and command decisions at the operational level of war.

C. Background:

At the operational level of war, effective commanders require a broad perspective of all the elements of national power influencing their areas of operations in order to understand how their actions may impact the achievement of strategic objectives. In addition, operational commanders must establish priorities, allocate resources, and manage functions to facilitate success at the tactical level. This broader operational level perspective, which requires an understanding of operational art, joint operations, and tactical capabilities, renders decision-making processes more complex and challenging than at the tactical execution level.

In contrast to their subordinate counterparts, operational commanders must focus on military objectives beyond immediate tactical actions. Instead of concentrating on fighting battles and engagements, the operational commander plans and conducts major operations and campaigns. In doing so, the operational commander must place trust in subordinate
commanders and resist the temptation to become preoccupied with the tactical level of war. Therefore, appropriately studying historical commanders and the operational decisions that they made requires gaining perspective on several fundamental concepts: operational thinking, operational vision, and mission command.

Operational thinking, or the ability to have a broad vision beyond the tactical perspective, can be developed through a synthesis of practical experience in war, exercises and maneuvers during peace, operational and strategic war gaming, professional education, and the systematic self-study of history, geography, international relations, economics, nationalism, society, culture, and so forth. The study of past wars, and their major operations, and campaigns in particular, can help a commander acquire an operational perspective. It is the practical application of operational thinking in planning, preparing, and executing a major operation or campaign that allows the commander to anticipate and foresee the effects of his actions on the enemy and then take timely and proper counteractions.

Operational vision is the commander’s ability to visualize the military conditions that will exist after the mission is accomplished. In essence, operational vision is the combination of a commander’s personal traits, professional education, and experience that together are applied to ambiguous and uncertain situations. Imagination, anticipation, intuition, coup’d oeil (the innate ability to evaluate a situation quickly), introspective thought, and historical perspective are critical leadership elements necessary to envision all phases of an operation (or campaign) in support of the political leadership’s decision to terminate hostilities, or to be able to operate effectively in the absence of perfect information. Without proper operational vision, the commander cannot translate the strategic objective assigned by political and military leadership into a military-strategic or theater-strategic objective.

On 3 April 2012, then Chairman of the Joint Chiefs of Staff, General Martin Dempsey released a White Paper entitled “Mission Command “in which he outlined the requirement to “pursue, instill, and foster mission command” throughout the U. S. military. This concept, a notion based on decentralization of effort and speed of execution based on a commander’s intent, will also be discussed in seminar. The commander’s intent (one of the principal elements of the Commander’s Estimate of the Situation) is a key link between operational vision and the successful employment of mission command.

The former Chairman issued a second memorandum on 28 June 2013 entitled Desired Leader Attributes for Joint Force 2020, in which he approved a set of Desired Leader Attributes (DLAs) “as guideposts for joint officer leader development” to aid in efforts to “institutionalize the essential knowledge, skills, attributes, and behaviors that define our profession.” How they relate to mission command and to the characteristics of operational commanders will be discussed in seminar.

The point of contact for this session is COL Glen Moore, USA, C-406.

D. Discussion Topics:

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

How is operational vision a subset of operational thinking?
How does the study and application of operational art aid in developing a leader’s ability to think “operationally”?

To what extent is mission command new? Explain the role and reciprocal nature of “trust” in the concept of mission command.

To what degree is demonstrated tactical success a good predictor of leadership ability at the operational level? Why?

How can the Services best apply experience, education, and training to develop leaders who possess the abilities outlined in the “Desired Leader Attributes for Joint Force 2020” and who are capable of thriving in an increasingly complex and uncertain operating environment?

**Case Study Discussion Topics:**

What leader attributes did operational leaders demonstrate during the War in the Pacific? How are they different from or similar to the Desired Leader Attributes (DLA) for Joint Force 2020?

Using the learned concepts of operational thinking, operational vision, and mission command, evaluate the demonstrated leadership and decision-making of the commanders in the case studies.

How did personal character traits, intellect, and intuition affect the decisions of the commanders? To what degree did these commanders rely on intuition and reason?

What operational leadership lessons can be derived from these commanders that are applicable today?

In relation to their assigned objective, how would you assess the effectiveness of these commanders at the operational level?

**E. Products:**

Student led discussions of four historical case studies.

**F. Required Readings:**


__________. Desired Leader Attributes for Joint Force 2020. CJCS Memorandum, CM-0166-13, June 28, 2013. Review. *(NWC 1194).*

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Case Studies:

**Tomoyuki Yamashita:**


**Walter Krueger:**


**Takeo Kurita:**


**William Halsey, Jr.:**

G. Supplementary Readings:


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THINKING CRITICALLY:  
U. S. DOCTRINE AND OPERATIONAL ART (Seminar)

Doctrine enunciates policies and procedures that govern action. In its broad sense, doctrine is what is taught as ‘right behavior.’”


A. Focus:

The focus of this seminar is on the employment of our critical thinking skills in a well-reasoned analysis of U. S. joint and services doctrines. The framework for this analysis is the operational art theory that we have discussed thus far.

B. Objectives:

- Understand the relationship between doctrine, theory, practice, technology, and ideas of future warfare.
- Analyze joint doctrine using your knowledge of operational art.
- Value the role of military theory in doctrine development and employment of forces in combat.

C. Background:

Up to this point in the course, you have been studying various theories of problem solving, estimates leading to options and decisions, operational art, and operational leadership. This session will now bridge the theories you have studies to the doctrine we currently use in that Navy and the Joint Force today.

Why doctrine? Why not simply plan and execute from theoretical fundamentals such as Operational Art or Hughes’ Six Cornerstones? Alternatively, since the joint force already possesses a large array of doctrine, why waste precious time on theoretical principles? To answer these questions, this session will explore the relationship between doctrine, theory, practice, technological change, and visions of future warfare. In the military use of the term, *doctrine* is understood as a set of commonly held, concisely stated, and authoritatively expressed beliefs, fundamental principles, organizational tenets, and methods of combat force employment intended to guide the planning, preparation, and execution of one’s forces to accomplish given military objectives. As described by Vego, doctrine’s main purpose is to “provide a military organization with a common philosophy, a common language, a common purpose, and unity of effort.” (Vego, *Joint Operational Warfare*, XII-3) Doctrine bridges military theory and practice. It translates theoretical ideas into doctrinal principles. These
principles are then used to devise tactics, techniques, and procedures. Finally, doctrine codifies the services or joint community’s latest thoughts on warfare. While a sound doctrine should be based on military theory, it should also take current and projected technological advances fully into account.

The process of developing and writing U. S. joint and service doctrine involves large numbers of people and organizations. It also requires a considerable amount of time for completion of this process. The final version of a given doctrinal document represents a compromise among competing individuals and their organizations/institutions. Hence, a joint or Service doctrine may or may not represent the best ideas on a given subject.

The point of contact for this session is Lt Col Mike LePage, USAF, C-403.

D. Discussion Questions/Topics:

What is military doctrine?

Why doctrine? Is theory good enough for planning and conducting operations? Why or why not?

How is service or joint doctrine developed and how often should it be updated, revised, or discarded?

E. Products:

None.

F. Required Readings:


G. Supplementary Readings:


The opinions that are held with passion are always those for which no good
ground exists; indeed the passion is the measure of the holders lack of rational
conviction. Opinions in politics and religion are almost always held passionately.

—Bertrand Russell, Sceptical Essays

A. Focus:

In an earlier seminar, we discussed what arguments are vis à vis logic and critical
thinking. We briefly touched upon their structure. In this seminar we will, using modern and
practical examples, discover a process of deconstructing an argument so that we may discern
its truthfulness or validity.

B. Objectives:

• Demonstrate the ability to deconstruct an argument.
• After deconstructing a given argument, value its accuracy or truthfulness.

C. Background:

This seminar is a practical extension of the first seminar on the topic of critical
thinking. Students will, after being given a brief argument to read, utilize the process
outlined in the readings to deconstruct the argument. This simple exercise serves multiple
purposes; it reinforces previous concepts regarding the structure of arguments in general and
it presents an opportunity to physically deconstruct a person’s argument. The value of the
deconstruction is that it allows the reader, the person whom the argument presenter is trying
to compel or convince, to better value the presenter’s conclusions.

The point of contact for this session is Professor Doug Chamberlain, C-428.

D. Discussion Topics:

What value lies in the deconstruction of an argument?

How and why does a critical thinker deconstruct an argument?
E. Products:

Students will deconstruct an argument and present their findings in seminar to their classmates.

F. Required Reading:


G. Supplementary Readings:


THE MARITIME DOMAIN (Seminar)

The first and most obvious light in which the sea presents itself from the political and social viewpoint is that of great highway; or better, perhaps, of a wide common, over which all men may pass in all directions.

—Captain Alfred T. Mahan, USN
*The Influence of Sea Power Upon History*, 1890

A. Focus:

The focus of this session is on describing the components of the maritime domain and their effect on the planning and execution of major naval and joint operations.

B. Objectives:

- Understand the main effects of physical environment, weather, and climate on the employment of maritime forces.
- Comprehend the fundamental physical oceanographic properties and differences between the Open Ocean and littoral environments.
- Understand the threats unique to littoral environments and how these influence joint planning and operations.

C. Background:

The maritime domain is an extraordinarily complex environment in which to operate. First, the distances can be vast. The oceans cover more than 70% of the earth, with the Pacific Ocean covering nearly a third of the area. Second, the oceans experience very diverse undersea conditions analogous to the earth’s climate regimes. As all military sensors are dependent upon the physical properties of the environment in which they work, understanding these properties is critical to determining their effectiveness. Finally, the sea surface is dramatically influenced by the local weather as well as storms thousands of miles away.

As low-lying and mountainous areas in the same geographic region on land have different physical characteristics, so also do littoral and open ocean areas have different characteristics. Obviously littoral areas are generally shallow while open ocean areas are deep. But what does this mean for navy planners? An eight foot swell in the open ocean is no concern for most modern naval vessels, but if coming ashore, an eight foot swell could preclude amphibious and small boat operations. In deep ocean waters, poor charts are of relatively little concern for surface vessels, but in shallow littoral waters, uncharted reefs, rocks, and shoals provide significant dangers to naval forces. Additionally, the structure of
open ocean water and littoral water columns are different. Open ocean deep water generally provides good, long-range acoustic conditions; littoral waters are highly variable with poor acoustics, eddies, and varying bathymetry. A smart submarine commander operating in the environment with intimate knowledge of his water conditions can hide within an eddy or behind a submerged ridge and lie in ambush of enemy forces. Deep water provides a relative haven from mines whereas littoral waters provide opportunities to seed bottom-moored minefields capable of sinking very large warships.

Finally, 40 percent of all the world’s cities with populations of 500,000 or more are on the coast, while more than two-thirds of the world’s population lives within 250 miles of the coast. These built-up coastal areas and accompanying civilian infrastructure can also harbor coastal defenses. Small boats that cannot operate effectively on the open ocean can be formidable in shallow littoral waters, operating close to home ports from which they can rapidly sortie and retreat. Coastal guns and surface-to-surface missiles also provide significant dangers, as clearly demonstrated in 2006 when the Israeli vessel Hanit, while operating more than 30 nm off shore, was struck by a ground launched C-802 anti-ship cruise missile fired from the back of a truck. Coastal infrastructure and efforts to minimize civilian casualties may preclude many of the offensive and defensive tools of the naval commander. Operational planners and commanders must consider these factors when transitioning from open-ocean to littoral activities.

The environment influences nearly all aspects of naval operations. The ability to operate safely, the enhancement or degradation of combatant sensors, and the relatively mundane task of locating forces operating in the maritime domain are all driven by environmental conditions. With this in mind, a fundamental understanding of what conditions can be expected, and how they will impact both friendly and adversary performance, is critical to the joint force and naval commanders.

The point of contact for this session is CDR Mike Loomis USN, C-408.

**D. Discussion Topics:**

Discuss the main characteristics of the physical environment and their effect on the employment of maritime forces.

Describe the difficulties of detecting and identifying forces in the maritime domain.

What are the main differences between the combat employment of naval forces on the open ocean and in the littorals?

Discuss the principal influences of weather and climate on the employment of naval forces.

How can the operational commander incorporate climate in his planning?

Discuss the effect of growing urbanization in the littorals on the employment of maritime forces in combat.
E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


INTRODUCTION TO NAVAL WARFARE THEORY (Seminar)

Knowledge of naval matters is an art as well as any other and not to be attended to at idle times and on the by . . .

—Pericles, 460 BC

A. Focus:

The foci of this session are on explaining the nature and character of naval warfare, the differences between wars at sea and those on land, and warfare conducted on the Open Ocean and war in the littorals. It will also present in broad terms the principal objectives of naval warfare, which we will discuss in greater detail in subsequent seminars.

B. Objectives:

- Understand the nature and character of naval warfare, including technological impacts.
- Comprehend in broad terms why nations build and maintain navies.
- Comprehend the mutual relationship between war on land and at sea.

C. Background:

While the ultimate purpose of warfare is determined on land where people live and politics prevail, the immediate object of any navy is to disable an opposing navy in order to create the necessary conditions to achieve that purpose. What you have learned so far are the capabilities and limitation of platforms/sensors/weapons, fundamentals of naval tactical theory, operational art, and basics of critical thinking. This session will link all of this with the theory of naval warfare. While World War II vaulted the U.S. Navy to global pre-eminence, the Navy has not engaged in fleet-on-fleet action since 1945, and the last enemy ship-on-ship tactical action occurred in 1988. When “practice” is limited, the Navy must lean on theory in order to rationalize how it employs forces today and in the future. This is a challenge. This session provides the theoretical rationale behind the essential functions navies provide, the mission’s navies accomplish, and the national interests that those missions protect and support. Theoretical rationale includes understanding the objectives of naval warfare, the nature and characteristics of naval warfare, its unique relationship to technology, and its relationship to warfare on land and in the air.

The character of naval warfare in general is primarily determined by the prevailing international relations, domestic politics, economic, social, demographic, religious, legal, and other conditions in a certain era. War at sea is also influenced to a much greater extent than war on land with technological advances. Finally, and unique among the services, the law of
the sea also greatly affects the character of naval warfare.

Beginning with sound naval warfare principles by Vego (classic) and Till (post-modern), students will then apply them to the U.S. Navy’s capstone operating document: Cooperative Strategy 21R (CS-21R). The Navy did not develop and produce this document in a vacuum; rather, students will see the theoretical principles that underpin the maritime services’ cooperative strategy. In the end, students should draw conclusions on what navies do (in theory) and why they do it (in theory).

The point of contact for this session is COL Christopher Connolly, USA (Ret).

D. Discussion Topics:

Why do nations build, employ, and maintain navies?

What are the main objectives in naval warfare?

Considering the objectives of naval warfare, why is it important to consider the elements of nature and character of warfare at sea?

Describe the role of the human factor in naval warfare.

How do new technologies affect the theory and practice of war at sea?

Describe the mutual relationship between war on land and at sea.

What are the main differences in conducting a war on the open ocean and in the littorals?

E. Products:

None.

F. Required Reading:


G. Supplementary Reading.


__________. *The Importance and Use of Naval History*. Newport, RI: Naval War College, November 2016. (NWC 1235).
THE OBJECTIVES OF NAVAL WARFARE (Seminar)

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

—General George Washington to the Marquis de Lafayette, 15 November 1781

A. Focus:

This session considers the objectives of naval warfare—both on the open ocean and in the littorals—at the operational level of war. Sea control is the necessary condition that allows naval forces freedom of action to achieve military objectives in the face of an opposing force. This session will examine sea control and sea denial as a theoretical construct, as well as the methods used by the stronger and weaker sides to obtain or deny sea control in a maritime theater.

B. Objective:

- Understand the theories of sea control and sea denial, and differentiate between the various degrees of sea control.
- Analyze the theoretical and practical implications of sea control and denial in regard to operational factors and functions.
- Examine the main methods of obtaining, maintaining, and exploiting sea control, and the conditions for denying and disputing sea control.
- Comprehend the role and importance of other services in sea control and denial.
- Understand distinctions between denying control on the open ocean and in the littorals.

C. Background:

Strategic objectives determine the part to be played by each service in war; however achievement of strategic objectives normally requires employment of all the components of a country’s armed forces. Therefore, war at sea should be considered not in isolation from, but as intrinsically related to, war on land and in the air. Wars are rarely won by the efforts of a single service and normally require close service cooperation. In particular, the highest degree of cooperation among the services is necessary in conducting war at sea.

Historically, the principal objective of a fleet was to obtain and maintain what was called command of the sea (or maritime supremacy in modern joint terms). The meaning of
this term has undergone significant changes owing to the advent of the submarine, aircraft, and guided missiles. The term used today, *sea control* (or *sea superiority* in modern joint terms), more accurately conveys the true state of affairs in a war at sea. It requires some level of control in all three domains (air, surface, sub-surface) to assure one’s own unfettered use, or to deny such use to a strong and resourceful opponent. Sea control is the ability of one’s fleet to operate with a high degree of freedom in a sea or ocean area for a limited period of time. The objective for a weaker opponent at sea would normally be that of *sea denial*. That is to challenge the unfettered access of a more powerful opponent, increasing their risk to operate in one or all of the domains.

Sea control, and the original concept of command of the sea, has been a fundamental maritime objective for hundreds of years. By maintaining control of strategically important areas of a maritime theater, the stronger fleet could secure the uninterrupted flow of friendly shipping, cut off enemy maritime trade, and project power onto the enemy shore. The real value of controlling the sea has not been the actual possession of a particular body of water but its subsequent exploitation toward the achievement of other objectives. The stronger maritime force leverages operational factors at sea to achieve its objectives while preventing the weaker maritime force from doing the same. Sea control can be expressed in various degrees—such as general, local, and temporary—that are relative to the operational factors of time, space, and force. As such, it is often incomplete and imperfect.

Sea control, considered the essence of sea power, is often a prerequisite for joint operations. Historically, sea control has been gained through various methods: destroying the enemy fleet at sea, destroying the enemy fleet in ports or bases, attrition, blockades, offensive mining, seizing choke points, blockading choke points, and seizing enemy bases. In the past, the most common method used to destroy the enemy fleet was by seeking a decisive battle at sea. After obtaining sea control, maritime forces consolidate operational or strategic success by maintaining and then exploiting sea control by projecting power ashore, destroying enemy coastal defenses and facilities, and degrading the enemy’s military, political, and economic sources of power.

A weaker fleet is usually not able to go on the offensive but is forced to stay on a strategic defensive until the balance of forces shifts in its favor. Consequently, sea denial is normally the operational objective, in the maritime domain, for the weaker side during a war at sea. A weaker side may also try to dispute control in certain sea or ocean areas. Because no navy has unlimited resources, and because a belligerent’s near term objectives may not require significant use of the sea in a particular area, even a strong navy might opt or be forced to conduct sea denial. In the former case, once conflict in a primary theater has abated, sufficient forces may be brought into the secondary theater to enable a more offensive posture. If, at this point, the stronger navy has been sufficiently attrited or the weaker side has been sufficiently fortified, the objective for what had been the relatively weaker fleet might shift to obtaining and maintaining sea control in a certain part of the theater.

The point of contact for this session is CDR Keith Dowling USN, C-413.
D. Discussion Topics:

What is sea control and why does one obtain it?

Does sea control exist in peacetime?

How are the terms “sea control” and “sea denial” related?

How can other services (air and ground forces) be employed in support of naval air to obtain, maintain and exercise control of the air/surface or deny that control?

Case Study Discussion Topics for Sea Control:

What were the Japanese operational objectives in the Midway-Aleutians operation?

How would you evaluate the effectiveness of Japanese planning and execution in Midway-Aleutians operation?

How much risk were the commanders willing to accept in order to obtain sea control?

Did any of the commanders use mission command or mission type orders?

What lessons learned can be derived from the case study?

Case Study Discussion Topics for Sea Denial:

What were the U. S. objectives for the defense of Midway and the Aleutians?

Evaluate the effectiveness of U. S. planning and execution in defense of Midway and the Aleutians.

How much risk were the commanders willing to accept in order conduct sea denial?

What lessons learned can be derived from the case study for modern commanders?

E. Products:

None.

F. Required Reading:


___________. Obtaining and Maintaining Sea Control. Newport, RI: Naval War College, August 2015. (NWC 1108).
Exercising Sea Control. Newport, RI: Naval War College, August 2015. (NWC 1131).


Case Study:


G. Supplementary Readings:


FUNDAMENTALS OF
ANTI-SURFACE WARFARE (Seminar)

There seems to be something wrong with our bloody ships today.

—Vice Admiral David Beatty, May 31st 1916,
Battle of Jutland

A. Focus:

The remaining sessions in the Maritime Warfare Theory section of the syllabus are intended to introduce the student to the concept of *naval combined arms*, the synergistic combination of fires from different domains and platforms intended to put an enemy on the horns of a dilemma. This session will focus on the objectives and methods of warfare against surface targets in the struggle for sea control and sea denial.

B. Objectives:

- Understand the dominant principles of naval warfare particular to surface warfare/anti-surface warfare.
- Explain the primary objectives and tactical methods of employment of multiple combat arms in finding, tracking, and attacking enemy surface forces.

C. Background:

Surface warfare (traditionally anti-surface warfare) is conducted on the surface of the oceans. It is the oldest form of naval warfare and is primarily conducted against surface targets. From ancient times until the advent of flight, this meant that surface forces sought each other out and fought for command of the sea. Over the last 100 years this has changed. Aircraft and submarine forces have provided additional means with which to attack and destroy surface targets. Today, there are a wide variety of weapon and platform types: traditional guns and torpedoes, ship- and air-launched cruise missiles, guided and unguided aircraft-deployed ordinance, and even directed energy weapons. The missile in particular has had the most effect on the evolution of surface force tactical employment - both in ship survivability as well as ranges of tactical engagement. Just as airpower signaled the end of the battleship’s dominance, the anti-ship cruise missile (ASCM) has posed a similar paradigm shift for surface forces. Surface warfare is no longer the sole province of surface warships.

Yet, surface warfare continues to play a pivotal role in the on-going struggle for sea control. As maritime access potentially becomes more threatened with increased anti-access/area-denial capabilities, navies can no longer count on the luxury of launching power...
projection strikes from maritime areas of safety. Moving closer places strike forces within range of shore-based air and missile forces, as well as littoral ships equipped with anti-ship missiles. Surface warfare is required to obtain control of seas by destroying or mitigating surface targets in order to create areas from which to project power. This is not done with surface forces only, and relies on the integrated efforts of undersea, air, and cyber forces to attack effectively first, and avoid the enemy’s counterforce. In this session, we will explore the predominant principles of surface warfare, and how various air, surface, and subsurface platforms network in real-time and space to find, track, and attack enemy surface targets.

The point of contact for this session is CDR Michael Loomis USN, C-408.

D. Discussion Topics:

What are the dominant principles of surface warfare/anti-surface warfare?

How does surface warfare contribute to sea control?

Explain why surface warfare/anti-surface warfare has evolved over time to require a combined arms approach.

Explain the unique challenges of conducting surface warfare in littoral areas.

E. Products:

None.

F. Required Reading:


Rowden, VADM Thomas; Gumataotao, RADM Peter; and Fanta, RADM Peter. “Distributed Lethality,” *United States Navy Proceedings Magazine*, January 2015 volume 141/1/1, 343. (NWC 2126).


G. Supplementary Readings:


A. Focus:

This session focuses on the objectives and methods of employing Anti-Submarine Warfare (ASW) forces in the struggle for sea control or in sea denial operations.

B. Objectives:

- Understand the dominant principles of anti-submarine warfare.
- Comprehend how ASW forces contribute to sea control/sea denial operations.
- Explain the primary objectives and tactical methods of employing ASW forces.

C. Background:

Large areas, complex and variable environments, an immense demand on time and resources, and the increased emphasis on operations in the littorals combine to make ASW one of the most difficult problems in naval warfare. At the operational level of war, maritime commanders have undertaken various courses of action to degrade the enemy submarine threat. To defeat the submarine threat in their construction sites or training areas, the transit routes to their patrol areas, or while on station, require different methods and decisions for the joint commander. Those who concentrated on only one of these methods, or focused only on the use of maritime forces to degrade enemy capabilities, limited the effectiveness of their joint effort. Land based air, ground, and cyber forces all play an important role in defeating enemy submarines.

Exercising control over the subsurface allows the exploitation of maritime operating area by other forces to accomplish objectives. Essential maritime trade could be conducted, amphibious forces could travel to their landing sites, or nuclear missile-launching submarines could be protected in bastions. Denying that same capability to the enemy allows one force to prosecute the conflict more effectively, maintaining the initiative in the maritime, and consequently, terrestrial realm. There are no panaceas in ASW, but focusing on the required
operational objectives and using all elements of the joint force to address the ASW problem provide a greater opportunity to achieve success.

The point of contact for this session is Professor Paul Povlock, C-410.

D. Discussion Topics:

Why is ASW operationally and tactically challenging?

What are the dominant principles of ASW?

Explain why successful ASW requires a naval combined arms approach, as well as the cooperation of joint forces.

How can joint forces increase the effectiveness of ASW efforts?

Historically, ASW has been force and time intensive. Can the improvements in information technology transform “Awfully Slow Warfare” into a faster method to defeat enemy undersea threats?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


Cote, Owen R. Jr. The Third Battle: Innovation in the U. S. Navy’s Silent Cold War


We can arrive at a true picture of the role of aircraft carriers in naval operations only if we consider the airplane to be a fighting tool of fighting men on fighting ships, only if we clearly recognize at the onset that the aircraft carrier is just as surely a fighting ship as is a gun carrier or a torpedo carrier.

—LCDR Bruce G. Leighton, USN, 1928

A. Focus:

This session is designed to introduce the U. S. Navy’s air and missile defense (AMD) disciplines. AMD is far more than simply the employment of the Carrier Air Wing (CVW); AMD is most effective when the CVW is understood as one of several tools that include the Carrier Strike Group (CSG) surface ships as well as sister service capabilities. As the range and lethality of our potential enemies increase, the combat employment of Navy forces in the littorals is the most valid framework for the naval AMD discussion.

B. Objectives:

- Understand the dominant principles of naval warfare particular to AMD.
- Comprehend how AMD contributes to sea control.
- Explain the primary objectives and tactical methods of employing naval assets, especially naval aviation, towards executing offensive/defensive counter-air.

C. Background:

The threats to modern navies are numerous and diverse. Of all the domains in which to fight and win on the oceans, modern navies must be prepared to defend themselves from a mix of sea and shore based anti-ship cruise missiles, anti-ship ballistic missiles, fighter/attack aircraft, electronic/cyber-attack, and armed unmanned aerial vehicles. The proliferation and lethality of modern naval weapons pose a growing threat to maritime operations.

Navy AMD is not conducted as an end. It is a concept designed to protect naval forces from air attack, in order to achieve freedom of action to conduct other naval warfighting operations. Navy AMD seeks to gain and maintain air superiority within the maritime environment, both to defend friendly forces, and to retain the capability to conduct offensive strikes or power projection. High value platforms that project power, such as the aircraft carrier, are likely the main targets of enemy air and missile attacks. The naval commander must balance the inherent tension between allocating assets to protect these
platforms while retaining enough forces to conduct strikes against surface or shore targets. A carrier strike group that is focused on self-protection alone adds little to achieving military objectives. Furthermore, the strike group commander may have additional requirements to protect other forces, as in detached surface forces or maritime shipping, further complicating the balance between offense and defense. Given these challenges, the Navy’s AMD concept applies a combined arms warfare approach that integrates embarked naval aviation and surface platforms to provide both defense-in-depth (layered defense) and mutual support, increasing survivability in a complex, dynamic and contested maritime environment.

The point of contact for this session is CDR Tom Pham USN, C-410.

D. Discussion Topics

What is AMD and how does it contribute to the struggle for sea control?

What principles of AMD can assist the commander in neutralizing the air threat to the fleet or mitigating the risk?

Describe the difference between Offensive Counter-air and Defensive Counter-air.

E. Products:

None.

F. Required Readings:


G. Supplementary Readings:


FUNDAMENTALS OF AMPHIBIOUS WARFARE (Seminar)

You are Athenians, who know by experience the difficulty of disembarking in the presence of the enemy.

—Demosthenes to Athenian troops, 425 BC

A. Focus:

This session examines the theory of amphibious warfare broadly and the ability of maritime nations to project power through the employment of this type of warfare. Amphibious warfare provides an excellent example of naval combined arms and as students will discover, is inherently a joint effort. We will explore the fundamental concepts of amphibious warfare and the options provided by amphibious forces to operational commanders.

B. Objectives

- Comprehend the fundamental concepts of amphibious warfare.
- Comprehend the potential effects that amphibious forces can generate on an enemy.
- Understand the vulnerabilities that amphibious forces, and other elements of the amphibious task force, are exposed to during landing operations.
- Understand the unique considerations for employing amphibious forces in support of operational objectives.

C. Background:

The theoretical underpinnings of amphibious warfare have been established through trial and error over thousands of years. For readers of classic literature, it was the poet Homer who 3,000 years ago wrote in the Iliad of the ancient Greeks employing amphibious operations when attacking the city of Troy in Asia Minor, near modern-day Turkey. Greek soldiers crossed the Aegean Sea and stormed ashore on the beaches near Troy during the ten-year struggle to destroy the city. In amphibious operations, therefore, one sees a clear example of a nation exploiting local sea control, for without local sea control and in modern times, local air superiority, amphibious operations are an exceptionally risky course of action to pursue.

The concept is simple, but like many simple military concepts it frequently has proven difficult to realize in practice. At its foundation, command of the sea (sea control) is the critical enabler; it allows the use of the sea as a means of transportation, in this case for
military purposes. As stated earlier, certain prerequisites are necessary before even attempting amphibious operations. A very high level of at least localized sea control and air superiority is a prerequisite for attempting an amphibious operation. The failure of Napoleon’s and Hitler’s intended invasions of England are examples of the inability of obtaining localized sea control for amphibious operations. Even with control of the sea, however, the difficulties in executing a successful amphibious operation are considerable, and must be weighed against potential results. Geoffrey Till mentions the British siege and capture of Havana in 1762, Wolfe’s capture of Louisburg in 1757 and Quebec in 1759 in the Seven Years’ War (1757-1764), Wellington’s Peninsular Campaign 1807-1814, the operations in the Crimean War of 1854-1856, and MacArthur’s amphibious envelopment at Inchon of the North Korean People’s Army in 1950 as proof that amphibious operations can have a significant—even decisive—impact on the success of land campaigns.

Amphibious operations generally consist of the assault, withdrawal, raid, demonstration, and other types of operations (humanitarian assistance and noncombatant evacuation operations, for example). Regardless of the type of operations, the theory holds true; establish local sea control and air superiority, designate a landing beach or beaches, develop a ship-to-shore movement plan, develop an amphibious fires plan, develop an afloat sustainment plan, and execute. Once the landing force is on shore, and command and control has been phased ashore to the Landing Force Commander, the amphibious operation is terminated and a land operation or campaign begins.

Sea control enables the use of the sea as a conduit for amphibious operations and the sea is, therefore, generally viewed by amphibious forces (the so-called Gator Navy and Marines) as maneuver space. Amphibious operations are extremely complex requiring detailed planning and combined arms cooperation to ensure success. Based on the circumstances, the risks to the amphibious forces can be high, but the potential reward for successful amphibious operations, as history demonstrates, can be immense and alter the course of the conflict. Students should depart the seminar with a firm grasp of the inherent value of amphibious warfare and the utility that amphibious forces provide an operational commander.

The point of contact for this session is Professor John Houfek, C-409.

D. Discussion Topics:

What are the principle requirements to successfully conduct amphibious warfare?

Describe the types of operational effects can be generated by amphibious forces?

What are the differences between conducting amphibious landings on the beaches fronting the open ocean or a peripheral sea and enclosed or semi-enclosed sea?

What are the implications of the contemporary environment for amphibious warfare and, on a grander scale, expeditionary warfare?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:

Gatchel, Theodore L. At the Water’s Edge: Defending Against the Modern Amphibious Assault. Annapolis, MD: Naval Institute Press, 1996.


FUNDAMENTALS OF
MINE WARFARE (Seminar)

We have lost control of the seas to a nation without a Navy, using pre-
World War I weapons, laid by vessels that were utilized at the time of the birth
of Christ.

– Rear Admiral Allan Smith, USN,
Advance Force Commander, Wonsan, Korea 1950

A. Focus:

This session will addresses offensive and defensive Mine Warfare (MIW) which
consists of offensive and defensive mine laying and Mine Countermeasures (MCM). It will
discuss how the offensive and defensive employment of mines can assist naval forces in
acquiring sea control or in denying the use of the sea to an enemy. Additionally examined are
the complexities faced by a naval component commander when having to deal with mined
waters in an operating area, and the methods to clear mined waters (MCM).

B. Objectives:

• Comprehend the fundamental principles and elements of mine/countermine operations.
• Understand the impact that mining/countermining operations has on obtain/deny sea
  control.
• Comprehend the combined arms requirement in conducting offensive and defensive
  mining/countermine operations

C. Background:

Mine warfare (MIW) is an important tool for the operational commander. The
physical and psychological impact that mines can have on naval operations and maritime
trade should not be underestimated. Properly deployed and maintained mine fields can
contribute to establishing and maintaining sea control, denying the enemy access to the
littorals and open seas, and protecting critical lines of operation and communication.

Employing mines, however, is a double edged sword for the naval component
commander, and can deny the use of waterways by the force employing them. In a rapidly
changing scenario, the employment of mines may not be the most effective means in
controlling or denying access to the sea. For the naval component commander, mined waters
present time/space/force challenges for acquiring freedom of action on the seas. The threat
of mines may require adjustments in plans and timelines, or require the execution of branch
plans. Mine countermeasures (MCM) operations remain a tedious and time consuming
evolution. Consideration of the operational functions, especially intelligence, protection, and movement and maneuver are essential in executing MCM operations. As MCM assets are primarily slow moving surface ships, MCM operations may require establishing local air superiority and sea control as prerequisites for success. Setting these conditions normally requires a joint/combined effort of naval, air, and ground forces.

The point of contact for this session is CDR Keith Dowling, USN, C-413.

D. Discussion Topics:

Why use sea mines? What are the main tactical advantages and disadvantages of their employment?

How does the physical environment effect the employment of mines and the conduct of mine countermeasures?

What is the difference between offensive and defensive MCM? What differentiates passive and active defensive MCM?

How is mine warfare used for obtaining and maintaining control of the surface and subsurface, or denying that control to an enemy?

What are the unique implications in space, time, and force that must be considered when conducting mine warfare?

Why is MIW an example of naval combined arms?

E. Products:

None.

F. Required Reading:


ThinkDefence. “Opening the Port of Umm Qasr, Iraq 2003.”


G. Supplementary Readings:


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MARITIME TRADE WARFARE (Seminar)

In the military, over 90 percent of our DOD requirements travel by the sea. It’s quite important to us. We are a nation that relies on the maritime industry as a critical component of our country’s economy as well as our national security. It is American ships and American seafarers who have always come through for us in times of peace, war or national emergency.

—Vice Admiral William Brown, Deputy Commander, USTRANSCOM, 2014

A. Focus:

This session will focus on the objectives, methods, and tenets employed in attacking an enemy’s maritime trade and defense and protection of friendly maritime trade (“maritime trade warfare”) at the operational and theater-strategic levels of war. Both the theory and practice of maritime trade warfare will be examined, with particular attention given to its direct, indirect, and secondary effects, and considerations for the Combatant Commander with respect to commerce warfare in a modern threat environment. The roles of submarine, mine, and air warfare in attacking and defending trade, and the importance of intermodal transport to sustaining wartime economies will also be explored.

B. Objectives:

- Understand the importance of the theory and practice of maritime trade warfare at the operational level of war and the inherent difficulties and challenges in pursuing it.
- Comprehend the objectives, methods, tenets and challenges of attacking an enemy’s maritime trade and in defending and protecting friendly maritime trade.
- Understand the elements of maritime trade and the direct and indirect effects of maritime trade warfare on an enemy’s ability to project combat power and sustain its war-fighting capacity.
- Comprehend that maritime trade warfare is inherently a joint, interagency action.

C. Background:

In the era prior to the advent of aircraft, a principal task of any navy was to attack enemy shipping at sea while, at the same time, defend and protect friendly shipping. This situation changed drastically in World War II and afterward, when land and carrier-based aircraft were used to attack not only shipping but also other elements of maritime trade: ships in port and port facilities, shipyards/ship repair facilities, storage areas, and intermodal rail,
road, and waterborne transport systems. Yet these considerable changes were often not recognized by naval theoreticians and practitioners. The importance of commercial shipping is reflected in the use of terms such as “anti-SLOC,” “pro-SLOC,” and “naval control of shipping.” The arbitrarily selected term here, “maritime trade warfare,” is more accurate because it encompasses both attack and defense/protection of maritime trade, not just of merchant shipping.

Today, there are some maritime and naval experts who apparently believe that in the era of globalization, there will be no attacks on an enemy’s maritime trade. According to this reasoning, no belligerent would take such an action due to economic and business related interdependency, and/or because his own trade would suffer considerable losses. However, experience shows that in any significant long-term war, all belligerents will engage in a struggle to destroy/neutralize and defend/protect merchant shipping or maritime trade to the greatest degree possible. Hence, in any future high-intensity, long-term conventional war at sea, both the stronger and the weaker side can be expected to conduct extensive maritime trade warfare. The focus of a weaker side, at sea, is often on attacking the enemy’s maritime trade, while the stronger side will focus on defense and protection of friendly maritime trade.

The size of the sea area – short distances versus long – and the peculiar features of the physical environment, often necessitate considerable differences between maritime trade warfare conducted on the open ocean versus in enclosed or semi-enclosed seas (popularly called “narrow seas”). In the broader context, one’s attack on enemy maritime trade is conducted in support of a strategic objective to weaken the enemy’s military-economic potential; a classic attack on a nation’s economy. Operationally, the objective is to destroy or neutralize the flow of maritime trade in a given part of a maritime theater. This is accomplished by the employment of one’s naval forces and those of other services to interfere, interdict, curtail, or cut-off the enemy’s maritime trade. The main methods of employment of one’s combat forces consist of a series of major and minor tactical actions conducted over a relatively long period of time. From time to time, major naval/joint operations are conducted as well.

Defense of maritime trade is one of the most important responsibilities of a government and its armed forces. It pertains to both defensive and offensive employment of one’s combat forces, while “protection” refers to organizational, technical, and other measures aimed at ensuring the safety of one’s maritime trade without the use of weapons. If one’s forces are relatively limited, focus should be on the selected elements of one’s maritime trade in conducting defense and protection. A country that fails to safeguard its seaborne trade may find that it not only suffers significant economic harm but also that its entire war effort may be crippled. Consequently, defense and protection of maritime trade is among a navy’s principal operational tasks in a high-intensity conventional war.

The point of contact for this session is Professor Christopher McMahon (RADM, USMS), C-411.

D. Discussion Topics:

What role does maritime trade play in projecting joint military forces to distant regions of the world? How does the U. S. military rely on maritime trade for this purpose?
What are some of the lessons learned in World War II with regard to maritime trade warfare?

Describe the elements of maritime trade. How might the differences between maritime trade conducted on the open ocean and in enclosed/semi-enclosed seas affect the commander’s operational planning?

Discuss the main methods of combat employment of naval forces and aviation in attacking an enemy’s maritime trade, including the conduct of submarine, surface, and mine warfare.

What are the principal methods traditionally employed in the defense and protection of friendly maritime trade? How should a Joint Force Commander plan to protect maritime trade, both military and/or commercial, in a modern threat environment?

Describe some key prerequisites for success in attacking an enemy’s maritime trade and for defending/protecting one’s own.

Is unrestricted commerce warfare, such as occurred in WWII, possible in the 21st Century?

What are some of the legal, environmental, and economic issues in attacking commercial vessels?

Is commerce warfare possible through the employment of business practices such as marine insurance?

E. Products:
None.

F. Required Readings:


Poirer, Michael T. “Results of the German and American Submarine Campaigns of World War II.” U. S. Navy, Office of the Chief of Naval Operations, Submarine Warfare Division, 1999. Read all less the appendix. (NWC 3175).


G. Supplementary Readings:


Grove, Eric, J. The Defeat of the Enemy Attack on Shipping 1939–1945. A revised edition of the Naval Staff History Volumes 1A (Text and Appendices) and 1B (Plans and Tables).


TABLE TOP #3: OPERATIONAL DESIGN AND THE NAVAL BATTLES FOR GUADALCANAL (Exercise)

My God, what are we going to do about this?

—Vice Admiral Robert L Ghormley
Nouméa, September 1942

A. Focus:

This tabletop exercise, a natural segue from the prior analysis of operational design, is designed to assist students in comprehending, through the historical naval battles for Guadalcanal, how both the U. S. and Japanese commanders attempted to leverage combined arms in their struggle for sea control. The exercise uses selected combat actions from the five night surface naval battles around Guadalcanal (the Battle of Savo Island, the Battle of Cape Esperance, the First Naval Battle of Guadalcanal, the Second Naval Battle of Guadalcanal, and the Battle of Tassafaronga Point). The battles’ operating conditions, exportable to the modern operating environment, should serve as an intellectual line of departure in developing future operational ideas for naval combat.

B. Objectives:

- Comprehend how the key elements of operational design apply to the design of major naval operations.
- Using the Guadalcanal case study, analyze and critique the Japanese and U. S. commander’s operational designs and use of combined arms.
- Understand the organization of naval forces based on threat, objective, and environment.
- Reinforce an understanding of naval capabilities in a combined arms arena.

C. Background:

At the outset of the Second World War in the Pacific, most battles were fought according to the manner the Japanese desired. They held the initiative and had the advantage of better trained, organized and focused forces. The Allies had to react to the Japanese attacks and were typically outfought and defeated as the Japanese seized outposts across Southeast Asia and the Central Pacific. Japanese defeats at the Battles of Coral Sea and Midway affected their ability to maintain the initiative in the war. With the loss of five Imperial Japanese Navy aircraft carriers in these battles, they no longer held the force advantage to assure victory in any operation. The latter stage of the Pacific War, from the Battle of Tarawa in November 1943 to the end of the war saw both the strength and quality of U. S. naval forces expand to such a level that the Japanese Navy was unable to compete.
While Japanese ground forces could inflict significant casualties on American ground forces attacking their defenses on a coral atoll, at sea and in the air, U. S. forces dominated the conflict. The U. S. war economy out produced the Japanese to the extent that the Japanese could not keep up regardless of their fearless devotion to the Emperor’s cause. During this segment of the war the U. S. Navy could fight the way of war it desired, using the industrial output of the American factories to destroy the Japanese on, over, and below the sea.

It is only in the ‘middle’ portion of the war, from after Midway to roughly the beginning of 1944, where neither side was fighting the type of war they envisioned. This required both sides had to make do as best they could. The U. S. Navy at Guadalcanal, the first U. S. offensive operation of the war, was past the nadir of its wartime performance, but not by much. The Japanese, still shrugging off the shock of the Midway defeat, were not far from their zenith. The Imperial Japanese Navy was a combat force with experienced tactical commanders, well trained crews and, in several areas, better armed ships than their U. S. opponent in 1942. Over the course of the six month battle, both sides’ fortunes ebbed and flowed and the side that made the best use of the resources at hand took the lead.

The naval battles of Guadalcanal resulted in alarming losses to the U. S. Navy surface force. Many of the naval battles during the six month struggle for the island were fought not at the weapons optimum ranges envisioned by either side, but at close quarters in highly restricted seas. The casualties suffered by the U. S. Navy included over 4,900 killed and nearly 3,000 wounded. In fact, the number of U. S. sailors killed in the battles off Guadalcanal exceeded the number of Marines and soldiers killed in ground fighting (1,769 killed). Losses to the Japanese at sea were also significant. In many ways this is the story of the prewar navies fighting it out for sea control in the Solomon Islands. This might also suggest that a peacetime navy requires a long time to develop the tactics, techniques and mindset to excel at warfare, a time that future navies and their sailors may not have.

The purpose of this second table top exercise is to critically analyze the naval battles through the lens of operational art and naval warfare theory. To avoid making this exercise one of hindsight, students should avoid focusing on what happened and instead analyze the leadership decisions within an operational art framework to answer why those decisions were made. This exercise will include moderator led discussion and student group work. Seminar teams will analyze each of the naval battles providing commentary on U. S. and Japanese leadership decisions using an operational art framework. We will then look forward and discuss how the lessons learned in blood at Guadalcanal can help us in a modern naval battle.

The point of contact for this session is Professor S. L. Forand, C-407.

D. Discussion Topics:

Describe the general components of an operational design for a major naval operation.

Does the operational design for major naval operations differ from design of major operations in the land domain? If so, how?
Analyze and critique the Japanese and U. S. balance of operational factors and functions. From the Japanese Commanders’ viewpoint, what were their challenges with respect to Time, Space, and Force? From the U. S. Commanders’ viewpoint?

Were there any opportunities for either side to better utilize combined arms during the struggle for Guadalcanal?

It has been said that the U. S. Navy was a learning organization during the early years of World War II. What adjustments did the U. S. Navy make after each battle? Were they successful in their implementation?

What did the Imperial Japanese Navy learn from their experiences in fighting the U. S. fleet in the waters off Guadalcanal? How did this influence their decision to evacuate Guadalcanal?

E. Products:

Student teams will prepare and brief an assigned battle, answering assigned questions.

F. Required Readings:


G. Supplementary Readings:


A senior officer said after the war that ‘the things we did on the basis of well-tried and proven formations worked, and the ad-hoc arrangements turned out much less happily.’ Joint-service liaison and staff work left much to be desired.

—Hastings and Jenkins, The Battle for the Falklands

A. Focus:

This session serves as a synthesis event for the components of operational art and maritime warfare theory discussed in preceding sessions and serves as a collective preparation for the upcoming examination. The emphasis is placed on the decisions and actions of operational-level commanders on both sides of the conflict and how they could have been different with a better understanding of operational art.

B. Objectives:

- Synthesize and apply the components of operational art and maritime warfare theory studied to date.
- Analyze and evaluate how commanders and their staffs applied operational art in a historical case study.
- Apply concepts from international and maritime operational law in order to evaluate the legal issues in a historical case study.
- Analyze the operational lessons valid for the employment of modern, multinational and joint forces.

C. Background:

This case study is conducted over four sessions, starting with a presentation of the historical/strategic background to the conflict by the JMO Royal Navy exchange officer. A 60-minute film drawing out key elements should be viewed via BlackBoard prior to the commencement of this session. Students will have seminar time available to study the case materials and develop student-led discussions of the assigned questions. The final session is devoted to student-led discussions of the case study.

This session is designed to reinforce the aspects of operational art and maritime warfare theory studied and discussed in preceding sessions. Historical examples provide an excellent opportunity for illustrating the complexities of planning, preparing, conducting, and
sustaining major operations and the reasons why particular military actions either succeeded or failed. This particular case is used because it is rich with examples of the application, lack of application, misapplication, or inability to apply the concepts associated with operational art. As the major synthesis event for this 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.

The point of contact for this session is Commander Adrian Fryer, Royal Navy, C-407.

D. Discussion Topics:

Applying the principles and elements of operational design, analyze the Falklands/Malvinas conflict. How did each side use the concepts of operational design in developing its plan?

To what extent were the objectives for each side appropriate? Why?

How well did each side employ forces relative to theater geometry to achieve its 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 maritime law?

What major operational lessons learned can be derived from this conflict?

E. Products:

To synthesize operational art concepts, students will use an analytical framework in order to discuss and answer moderator assigned questions.

F. Required Readings:


G. Supplementary Readings:


EXAMINATION #1 (Individual Effort)

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

—Carl von Clausewitz, On War, 1832

A. Focus:

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

B. Objectives:

- Synthesize operational art and maritime warfare theory concepts through the analysis of a historical, real-world case study.
- Create a coherent response to the examination questions that demonstrate an internalization of various concepts of operational art.

C. 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 that contains sufficient information to address the questions presented. This case study will be issued in sufficient time to allow students to prepare as individuals and as a group. Time is dedicated on Friday, 31 March 2017 (0830-1145) for student preparation as a group. (Students are strongly encouraged to prepare as a seminar.) The examination will be issued at 1145 on Friday, 31 March 2017 and is due to the moderators not later than 1200 on Monday, 3 April 2017. Grading criteria for the examination may be found in the front matter of this Syllabus.

The point of contact for this session is Professor Doug Hime, C-423.
D. Discussion Topics:

See examination question sheet.

E. Products:

A written response to assigned questions that demonstrates student mastery of the various concepts studied thus far. This effort should not exceed 10 double spaced typed pages in Times New Roman font 12 point with one inch margins top, bottom, and right, and one and a quarter inches left. (Use the mirrored option under page layout in Microsoft Word.)

F. Required Reading:

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.

G. Supplementary Readings:

None.
OPERATIONAL LAW—USE OF FORCE (Lecture)

Nothing in the present Chapter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a member of the UN until the Security Council has taken measures necessary to maintain international peace and security.

—UN Charter, Article 51

A. Focus:

This lecture begins the operational law portion of the Spruance Course curriculum. Operational law is a broad term encompassing those facets of international law, U. S. domestic law, U. S. military regulations and the domestic law of other nations impacting military planning and operations. When planning and conducting military operations, commanders and their subordinates must comply with the international law that governs (1) the location of hostilities/extraterritoriality, (2) the legal basis for nations to use force and (3) levels of lethality. This lecture is discussing both the *jus ad bellum* (a nations’ right to use force—or go to war) and the *jus in bello* (the law of armed conflict during land, air, and naval warfare); however the lecture focuses on the former (the later receives direct attention in the follow-on Rules of Engagement Seminar). Additionally, this lecture touches on legal issues arising from modern use of force against non-state actors, in drone/UAV/RPV strikes, and in cyber operations among others. Session objectives are considered in relationship and application to planning and executing U. S. military operations and within the Department of Defense’s mandate (DoDD 2311.1E) that all “Members of the DoD Components comply with the law of war during all armed conflicts, however such conflicts are characterized, and in all other military operations, especially those holding the potential for use of force.”

B. Objectives:

- Describe the effect of international law on the planning and execution of military operations.
- Summarize the basic principles of the law of armed conflict for land, air, and naval warfare.
- Analyze emerging legal issues surrounding the law of armed conflict at the strategic and operational levels of war.
C. Background:

International relations, both military and civilian, involve the application of international law - senior military officers may encounter international law in both contexts and across the phases of military operations. For example, international law regulates such diverse activities as aviation safety, communications, financial transactions, nautical rules of the road, and environmental protection. Paramount in the military context is that along with domestic law derived from a nation’s constitution, International law is the standard measurement for the legality of a nation’s resort to use of force and application of the law of war under the rule of law during conflict or operations short of war.

There are two primary sources of international law: state practice and international agreements. When state practice attains a degree of regularity and is accompanied by the general conviction among nations that such behavior in conformity with that practice is obligatory; that practice it is said has risen to become a rule of customary law or customary international law. Customary international law is binding upon all nations and exists without a signed agreement (e.g., treaties or conventions).

Bilateral or multilateral formal agreements between and among nations are the primary sources of international law, and many often restate customary international law norms while adding additional material and considerations. Signed, formal agreements, treaties or conventions come in multiple forms — related and unrelated to the conduct of hostilities. Significant conventions and treaties related to the conduct of hostilities include, the Hague Conventions of 1907, the Geneva Conventions of 1949; the UN Charter; the 1975 Declaration protecting persons from Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; the 1977 Additional Protocols (AP I and AP II) to the 1949 Geneva Conventions (I, II, III and IV); and the 1993 Chemical Weapons Convention, and the 1997 Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-personnel Mines (Ottawa Treaty), among others. Secondary sources of international law include general principles of law, judicial decisions, and the writings of legal experts.

The UN Charter is the keystone publication for understanding the post-WWII construct for a nation’s resort to use of force whether in accordance with the Charter’s Article 51 (self-defense) or as authorized by a formal Resolution of the UN Security Council. Other legal bases for use of force may include, but are not limited to, humanitarian intervention to stop a genocide (R2P - responsibility to protect), protection of own nationals abroad through non-combatant evacuation operations (NEOs) or the rescue of hostages taken by terrorists or pirates.

The two legal regimes that may apply to a use of force are (1) International Human Rights Law (IHRL) or (2) the Law of Armed Conflict (LOAC). LOAC (which is the current preferred U. S. terminology) has been historically referred to as the Law of War; and today it is often referenced by the international community as International Humanitarian Law or IHL. Unlike the general body of IHRL, which the USG generally considers a peacetime regime; IHL/LOAC is the specialized body of law directed at military members involved in international armed conflict (IAC), non-international armed conflict (NIACs), and during all U. S. military-executed counter-terrorism (CT) operations. The U. S. military generally uses the terms IHL and LOAC consistent with guidance under the DoD Law of War (LOW) Instruction and the 2015 DoD Law of War Manual.
Additional and slightly different language on the same subject is found under the International Committee of the Red Cross and Red Crescent Society (ICRC) definition. The DoD instruction on LOW definition says,

**Law of War.** That part of international law that regulates the conduct of armed hostilities. It is often called the ‘law of armed conflict.’ The law of war encompasses all international law for the conduct of hostilities binding on the United States or its individual citizens, including treaties and international agreements to which the United States is a party, and applicable customary international law.

The ICRC definition states, “International humanitarian law is a set of rules which seek, for humanitarian reasons, to limit the effects of armed conflict … [it] protects persons who are not or are no longer participating in the hostilities and [it] restricts the means and methods of warfare” unless stated otherwise. This set of laws is represented, among other places, in Common Article 3 of the four 1949 Geneva Conventions.

The U. S. military’s Law of War Doctrine does not consider most human rights law extraterritorial, i.e., these laws are within a legal regime that generally does not apply across nation state borders. The U. S. view on the application of human rights in armed conflict is: in international armed conflict, only the customary law of human rights applies; in NIAC, both customary and treaty law (to which the U. S. is a party) apply, but this application is subject to the doctrine of *lex specialis* (“law governing a specific subject matter”). Under *lex specialis*, when there is a conflict between the two sources of law (IHL/LOAC and IHRL), the LOAC rule (the specialized law) is followed. Likewise, things in the conflict zone, not germane to the fight (the right to marry or to vote, for example) would generally be governed by IHRL.

In contrast, the U. S. does consider LOAC to have extraterritorial application, i.e., it applies globally at all times to military forces during armed conflict and is the law primarily applicable during international military combat operations. Definitely, it is that part of international and domestic law regulating the conduct of armed hostilities under the *jus in bello* construct. LOACs extraterritorial application is based on domestic policy, international custom and practice, and international agreements or conventions and shows up in execution as the *rules of engagement* followed by forces in the field.

There are three general principles of LOAC: *military necessity*, *proportionality*, and *humanity*. *Military necessity* allows a belligerent to apply force to achieve legitimate military objectives. *Proportionality* means the degree of force used must be no greater than necessary (i.e., minimally necessary) and required (i.e., proportional) to the prompt realization of those legitimate military objectives sought to be obtained. *Humanity* forbids the infliction of suffering, injury, or destruction not actually necessary to accomplish legitimate military purposes (i.e., not militarily necessary and/or not proportional). LOAC also requires, for example, that belligerents distinguish as much as reasonably possible between combatants and noncombatants when targeting the enemy; and for combatants to do the same and separate from non-combatants when in a position to be engaged by opposing forces–this is known as the *principle of distinction*. 
Finally, LOAC is consistent with Principles of War, such as objective, mass, and economy of force. LOAC and the previously discussed Principles of War stress the importance of directing force against critical military targets, while avoiding the waste of resources against objectives that are militarily unimportant. LOAC also enhances legitimacy and facilitates restraint; both of which are principles of Joint Operations.

The point of contact for this session is CAPT Robert A. Sanders, LP.D, JAGC, USN, C-424.

D. Discussion Topics:

Why do nations care about international law when deciding whether or not to use force? What motivates them to comply with its provisions?

Describe the role of the UN Security Council (UNSC) regarding the use of force against a nation or non-state actors.

What are the requirements to be a lawful combatant; to be a non-combatant/civilian? What is an unlawful (or unprivileged) combatant?

To what extent does the law of armed conflict apply across the spectrum of conflict? Across this spectrum of conflict are criminals, unlawful combatants, or violent extremist organizations (VEOs) subject to the same or different treatment?

How has the law of armed conflict changed, if at all, during the conflicts in Iraq and Afghanistan? Is it different for combating ISIL?

E. Products:
None.

F. Required Reading:


White House Fact Sheet: *U. S. Policy Standards and Procedures for the Use of Force in Counterterrorism Operations outside the United States and Areas of Active Hostilities*, May 23, 2013. *(NWC 1085).*


G. Supplementary Reading:

**OPLAW Overview**


**Protection and Treatment of Combatants/Non-combatants**


__________. *Convention Relative to the Treatment of Prisoners of War*, August 12, 1949, Articles 1-42. (Contained within the *Law of War Documentary Supplement* 199-208), 111.

United States Congress, Joint Resolution. *Affirmation of Authority of the Armed Forces of the United States to Detain Covered Persons Pursuant to the [AUMF], NDAA FY2012, Public Law. 112-81, § 1021, December 31, 2011.*

**Emerging Legal Issues**


Use of Force


The sea, in contrast to land cannot be held or captured. . . No one possesses the sea or an ocean permanently.

—The Nature of Naval Warfare,
Naval War College Staff, 1938

A. Focus:

This lecture focuses on the law of the sea and the law affecting military operations in the maritime environment. When planning and conducting military operations, commanders and their subordinates must comply with the international law that governs (1) the legal basis for nations to use force and lethality and (2) the law that governs the conduct of hostilities extraterritorially. We now add an aquatic tributary flowing from these two streams into the maritime environment (conflict and non-conflict). The general features of the maritime environment, what is called The Maritime Domain will be discussed from a legal perspective. Legal classifications or regimes of the ocean and airspace directly affect maritime operations by determining the degree of control a coastal nation may exercise over the conduct and activities of foreign merchant ships, warships, and aircraft operating in those areas. This lecture discusses not only constraints maritime operational law might have on military operations but, also how the operational commander can use the law, what some now call lawfare, to achieve success in both conflict and non-conflict missions.

B. Objectives:

- Value the maritime operational considerations resulting from the sovereign right of nations to limit the entry and movement of foreign forces within their territorial seas.
- Analyze the operational challenges in asserting freedom of navigation and protection of commerce on the maritime commons.
- Analyze emerging legal issues surrounding freedom of navigation in disputed maritime areas such as the Arctic, the Arabian Gulf, and the South China Sea.

C. Background:

For the operational planner, “Factor Space” is heavily influenced by international law governing establishment of land, sea, and air “boundaries.” These boundaries directly impact a military forces’ freedom of movement. For example, during the deterrent or pre-hostilities phase of an operation, military forces typically 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 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 neighboring/neutral states must be factored into operational planning. For instance, when navigation and over flight rights within another nations’ air and sea space prove insufficient, operational planners must consider alternative routes or consider notifying the State Department of the need to obtain access and transit agreements in order to facilitate planned operations.

Freedom of movement in international waters and airspace is fundamental to implementing U. S. national and military strategies. The legal basis for these navigational freedoms is the United Nations Convention on the Law of the Sea (UNCLOS). This freedom allows access to strategic areas of the world, facilitates support and reinforcement of forward-deployed forces, enables U. S. and coalition forces to operate worldwide, and ensures uninterrupted global commerce. During this lecture and associated readings the rights of all nations in international waters and international airspace, as well as the limited rights of coastal nations to exercise jurisdiction over some portions of the sea and airspace adjacent to their coastline will be discussed.

Although UNCLOS has not been ratified by the U. S. Senate, all U. S. military operations are, by Executive Order (EO), conducted in accordance with UNCLOS’ delineation of rights and responsibilities. The EO, in place since 1983, is recognized as depicting customary international law and reflects UNCLOS’ descriptions of various maritime zones and boundaries and such areas associated states’ rights and responsibilities. Since the EO’s enactment, the United States has actively exercised and asserted U. S. navigation and over flight rights and freedoms on a worldwide basis. The U. S. does so in a manner consistent with the balance of sovereignty and interests reflected in UNCLOS through the Freedom of Navigation Program (FONOPS). Moreover, pursuant to the EO, the United States under President Ronald Reagan (Statement on United States Ocean Policy, 10 March 1983) asserted it will not “acquiesce in unilateral acts of other states designed to restrict the lawful rights and freedoms of the international community in navigation, over flight, and other related high seas uses.

The point of contact for this session is CAPT Robert A. Sanders, LP.D, JAGC, USN, C-424.

D. Discussion Topics:

What sovereign rights does a nation have regarding its land territory, territorial sea and national airspace, and how does this affect the movement or operation of foreign military forces in these zones?

What are the distinctions between innocent passage, transit passage, archipelagic sea-lane passage, and high seas freedoms of navigation? How, if at all, are military planning and operations affected by the various legal regimes of oceans and airspace?
How can operational planners use the concepts of belligerent control of the immediate area of operations, maritime / air warning zones, and blockade to assist mission accomplishment?

To what extent may the military operations of a belligerent nation be conducted within the land territory, national airspace and national waters of neutral or non-belligerent nations?

E. Products:
None.

F. Required Reading:


G. Supplementary Reading:


Don't fire 'til you see the whites of their eyes.

—General Israel Putnam or Colonel William Prescott, Bunker Hill, 1775

A. Focus:

This seminar provides the opportunity to apply the fundamental concepts introduced in previous operational law sessions to multiple real-world, Rules of Engagement (ROE) scenarios. The 2015 U. S. National Military Strategy says, “We now face multiple, simultaneous security challenges from traditional state actors and transregional networks of sub-state groups – all taking advantage of rapid technological change. Future conflicts will come more rapidly, last longer, and take place on a much more technically challenging battlefield… the application of the military instrument of power against state threats is very different than the application of military power against non-state threats.” This ROE section is designed to enhance understanding of how legal, political, and military considerations factor into ROE development as well as ROE-related issues that might arise during coalition operations. Finally, this session focuses on the commander’s role in promulgating and reviewing ROE and responding to apparent ROE/LOAC violations.

B. Objectives:

- Understand the basic principles underlying the use of force in self-defense.
- Understand the principles behind the Standing Rules of Engagement (SROE) and the distinction between conduct-based ROE and status-based ROE.
- Understand the distinction between SROE and the Standing Rules for the Use of Force (SRUF).
- Examine ROE development in the planning process and understand the process by which modifications to ROE are obtained from higher authority.
- Understand the role of political, legal, and military personnel in the formulation of ROE.
- Discuss the role of the commander upon learning of an apparent ROE violation.
- Understand the implications of working with coalition forces and their likely different ROE.

C. Background:
J. Fred Buzhardt, then DoD General Counsel wrote a letter to Senator Edward Kennedy dated 22 September 1972 (and reprinted in American Journal of International Law (AJIL) 124 (1973) stated: “With reference to your inquiry concerning the rules of engagement governing American military activity in Indochina, you are advised that rules of engagement are directives issued by competent military authority which delineate the circumstances and limitations under which United States Forces will initiate and/or continue combat engagement with the enemy. These rules are the subject of constant review and command emphasis. They are changed from time to time to conform to changing situations and the demands of military necessity. One critical and unchanging factor is their conformity to existing international law as reflected in the Hague Conventions of 1907 and the Geneva Conventions of 1949, as well as with the principles of customary international law of which UNGA [United Nations General Assembly] Resolution 2444 (XXIII) is deemed to be a correct restatement.”

Students will be working through various situations using short factual scenarios, videos and other media depicting real world events and dramatic presentations, during which mission specific ROE and the SROE have been applied. Students will be asked to identify ROE issues and critique the efficacy of the ROE as well how the military forces involved interpreted and applied the ROE/SROE.

The point of contact for this session is CAPT Robert A. Sanders, L.P.D, JAGC, USN; C-424.

D. Discussion Topics:

Who has a role in crafting ROE for a particular mission and why?

How does a joint force and/or a coalition force draft and apply ROE for given operations? What unique ROE issues arise in coalition operations? What methods to resolve?

What is Positive Identification (PID) and what ramification does the requirement for PID have on US forces/coalition forces?

Describe methods a planning staff can employ to obtain mission specific ROE. How do you draft and seek supplemental ROE?

Who in the chain of command should have/does have the authority to determine hostile intent? Who has the authority to take lethal measures when faced with hostile intent?

In asymmetric warfare what, if any, proactive measures can forces take to assist in determining hostile intent at sea and on the ground?

What considerations impact a commander’s actions when he/she becomes aware of potential violations of the ROE and/or the Law of Armed Conflict?

What role do tactical Directives play vis-à-vis ROE? Operation Iraqi Freedom (OIF)/Operation Enduring Freedom (OEF) examples?
E. **Products:**
None.

F. **Required Readings:**

CFLCC Operation Iraqi Freedom ROE Card, 31 Jan 03. (NWC 5011).


G. **Supplementary Readings:**


Scan Executive Summary.

*Rules of Engagement* movie (1) courtroom scene; (2) combat scene:

(1) [http://www.youtube.com/watch?v=BcBJbgJf69A](http://www.youtube.com/watch?v=BcBJbgJf69A)

(2) [http://www.youtube.com/watch?v=Fp7ihY2aAaY](http://www.youtube.com/watch?v=Fp7ihY2aAaY)

OPERATIONAL LAW CASE STUDY (Seminar)

"You will usually find that the enemy has three courses open to him, and of these he will adopt the fourth."

— Field Marshal Helmuth von Moltke, the Elder

A. **Focus:**

This seminar provides the opportunity to apply operational law from the courses prior OPLAW sessions and readings to a real world maritime conflict and to discuss how operational commanders derive authorities for action and force employment within the context of specific military operations.

B. **Objectives:**

- Analyze the Law of the Sea and Laws of Armed Conflict as pillars upholding and restraints binding a Commander’s development of an operational idea into an operational design that is executed across the range of military operations.
- Apply the CJCS SROE and *The Commander’s Handbook on the Law of Naval Operations* in a factual context involving employment of military forces.
- Evaluate the evolution of the operational authorities for employment of force during the Iran-Iraq Tanker Wars (1980-1988).

C. **Background:**

See JMO Sessions 34, 35, and 36.

The point of contact for this session is CAPT Robert A. Sanders, LP.D; JAGC, USN, C-424.

D. **Discussion Topics:**

Students will work individually to prepare short answers to assigned scenario questions and then lead seminar discussion on their assigned questions.

E. **Products:**

An in-seminar discussion using a real-world case study and selected questions intended to synthesize the concepts of operational law.
F. Required Reading:


G. Supplementary Reading:

BBC video, “Shooting down of Iran Air 655”
   Part 1 of 3: https://www.youtube.com/watch?v=Onk_Wi3ZVME
   Part 2 of 3: https://www.youtube.com/watch?v=50sYFs6p7lk
   Part 3 of 3: https://www.youtube.com/watch?v=Rgu5FNtpBzM


Tell the men to fire faster and not to give up the ship; fight her til’ she sinks!

—Captain James Lawrence, USS Chesapeake, 1 June 1813 (War of 1812)

A. Focus:

This session emphasizes the organizational structure and capabilities the United States Navy uses to fight today’s enemies while preserving the operational agility necessary to respond to uncertain future crisis. As such, this seminar will focus on the organization and employment of naval forces at the high-tactical and operational levels of war. Highlights include roles, missions, core competencies, operational concepts, doctrine, and considerations for employing Navy forces in a joint environment. This session, in conjunction with other Service specific seminars, will broaden the students’ comprehension of joint force employment at the operational level of war and across the range of military operations in pursuit of national interests.

B. Objectives:

• Comprehend the roles and missions of the U. S. Navy and its contribution to the Joint Force.
• Understand how the U. S. Navy is organized to plan, execute, sustain, and train for maritime in support of the Joint Force Commander (JFC).
• Know broad doctrinal service concepts guiding the employment of naval forces at the high-tactical and operational levels of war.
• Comprehend the Navy’s commitment to the Profession of Arms and the principal means by which it achieves decentralized command and control; mission tactics.

C. Background:

This seminar is another opportunity for some students to critically examine specific U. S. military capabilities. This session provides a foundational understanding of USN organization and employment that students will use throughout the Spruance course. Discussions of capabilities and employment considerations will support the future sessions by providing baseline knowledge of capabilities and doctrine to inform future planners of potential contributions of the naval services for future operational contingencies.
The point of contact for this session CAPT Michael Junge, USN, C-429.

D. Discussion Topics:

What is the role for the U. S. Navy in today’s strategic environment? Has it changed?

How does the U. S. Navy organize to plan, execute, sustain, and train for maritime in support of the Joint Force Commander (JFC).

How are deployed Navy forces used to support geographic combatant commander theater objectives?

Do the present capabilities of the Navy meet the requirements stated in its own strategic guidance and doctrine?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:

Every Marine has an individual responsibility to study the profession of arms. A leader without either interest in or knowledge of the history and theory of warfare—the intellectual content of the military profession—is a leader in appearance only. Self-directed study in the art and science of war is at least equal in importance to maintaining physical condition and should receive at least equal time. This is particularly true among officers; after all, the mind is an officer’s principal weapon.

— Warfighting, Marine Corps Doctrinal Publication 1

A. Focus:

This session emphasizes how the Marine Corps fights today’s enemies while preserving the operational agility necessary to respond to uncertain future crisis. As such, this seminar will focus on the organization and employment of Marine forces at the high-tactical and operational levels of war. Highlights include roles, missions, core competencies, operational concepts, doctrine, and considerations for employing the Marine Air Ground Task Force (MAGTF) in a joint environment. This session, in conjunction with other Service specific seminars, will broaden the students’ comprehension of joint force employment across the range of military operations in pursuit of national interests.

B. Objectives:

- Comprehend the roles and missions of the U. S. Marine Corps and its contribution to the Joint Force.
- Comprehend how the U. S. Marine Corps is organized to plan, execute, sustain, and train for maritime and joint expeditionary operations in support of the Joint Force Commander (JFC).
- Comprehend broad doctrinal service concepts guiding the employment of Marine forces at the high-tactical and operational levels of war.
- Comprehend the Marine Corps’ commitment to the Profession of Arms and the principal means by which the Corps achieves decentralized command and control; mission tactics.

C. Background:

Since its founding in 1775, the roles and missions of the Marine Corps have evolved to meet the changing needs of the nation. Originally charged with security for naval stations
and ships-of-the-line, the Marine Corps grew to contribute major land formations during The Great War (WWI). Throughout World War II, Marine aviators leveraging lessons from the “Banana Wars” operated from Navy ships and provided close air support to Marine ground units conducting amphibious operations in the Pacific. Today, the Marine Corps contributes to the nation’s defense by providing an expeditionary force in readiness.

The Marine Corps organizes to provide rapidly deployable forces capable of conducting expeditionary operations in any environment. In addition to maintaining the Marine Corps’ unique amphibious capability, the operating forces maintain the capability to deploy by whatever means is appropriate to the situation. Marine forces are organized around a Marine Air Ground Task Force (MAGTF), a scalable task-organized unit consisting of ground, aviation, combat service support, and command elements. Although MAGTFs are organized around base structures, for example the Marine Expeditionary Brigade (MEB), these organizations provide a combined arms force that a single commander can easily tailor to most emerging situations.

Marine operating forces offer the JFC various options for employment. From forward deployed ship-borne MAGTFs to self-sustaining units capable of operating hundreds of miles inland. The Marine Corps provides unique capabilities for a variety of missions. The Marine Corps’ ethos, heritage, and warfighting philosophy influence how the Marine Corps organizes, trains, equips, and employs its operating forces. Concepts such as maneuver warfare, decentralized command and control, and a bias for decision making at the lowest level permeate the Marine mindset. Even well-known watchwords such as “innovate, adapt, and win” are more than simple slogans, and they underpin the Marine Corps’ approach to crisis, conflict, and war.

The point of contact for this session is LtCol Matt Dreier, USMC, C-403.

D. Discussion Topics:

Describe the roles and mission of the United States Marine Corps.

Discuss the versatility, flexibility, scalability, combined arms capability, types, deployment/employment considerations, and limitations of MAGTFs.

Describe how Marine forces are used to support the Joint Force Commander and functional components (Joint Force Maritime Component, Joint Force Land Component, and so forth).

Discuss the enduring principles that define the identity of Marines and the Marine Corps.

Describe how Mission Command, commonly referred to by Marines as mission tactics or mission orders, works within the Marine Corps.

E. Products:

None.
F. Required Readings:


G. Supplementary Readings:

U. S. COAST GUARD ORGANIZATION AND EMPLOYMENT (Seminar)

The U. S. Coast Guard is a shining example of how well a Federal agency can perform with its flexibility, speed, and expertise.

—Representative Russ Carnahan, (D-Missouri)

A. Focus:

This session emphasizes how the USCG (a DHS organization) operates in today joint environment while preserving the operational agility necessary to respond to uncertain future crisis. As such, this seminar will focus on the organization and employment of USCG forces both within the joint community and domestic security and support. Highlights include roles, missions, core competencies, operational concepts, and considerations for employing the USCG forces in a joint environment. This session, in conjunction with other Service specific seminars, will broaden the students’ comprehension of joint force employment across the range of military operations in pursuit of national interests.

B. Objectives:

• Understand the missions, authorities, and capabilities of the Coast Guard as a potential tool for use by the joint force commander.
• Understand the nature and extent of Coast Guard international engagement, as a potential tool for use by the joint force commander.
• Comprehend the considerations for employing U. S. Coast Guard forces as part of a joint and multinational force at the operational level of war.

C. Background:

This session provides a foundational understanding of U. S. Coast Guard capabilities that students will use throughout the Spruance course. A discussion of mission and capabilities provides baseline knowledge of capabilities and doctrine to inform future planners of potential contributions of these services for future operational contingencies. The Coast Guard is an armed service that has participated in every American war since its inception. Although multi-mission in nature and charged with significant responsibilities in such diverse areas as maritime law enforcement, search and rescue, pollution response and maintaining an aids to navigation system, Coast Guard forces provide military capabilities in support of the national military strategy. In recent combat operations, Coast Guard forces provided to Joint Force Commanders maritime interception operations, port operations and security, coastal sea control and other mission sets where the smallest U. S. service’s expertise can add value. As
part of the Department of Homeland Security, the Coast Guard functions as the lead federal agency for maritime homeland security and plays a supporting role for maritime homeland defense. While this new emphasis on homeland security has placed increasing demands on an already over-extended service, the Coast Guard has garnered increasing political support from involvement in 9/11 and Hurricane Katrina.

The point of contact for this session CAPT Greg Tlapa, USCG, SP-214.

D. Discussion Topics:

Discuss the roles of the USCG in today’s strategic environment. What are the Service’s strengths and weaknesses in the joint operations arena? How is it organized?

Describe/discuss how deployed forces from the USCG are used to support geographic combatant commander (GCC) theater objectives.

How might the Coast Guard's unique authorities and capabilities be leveraged in support of joint military or interagency operations?

E. Products:

None

F. Required Readings:


G. Supplementary Readings:

You may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clean of life—but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.

—T. R. Fehrenbach, *This Kind of War*

**A. Focus:**

This session emphasizes how the Army is organized to contribute to the Joint Force while preserving the operational agility necessary to respond to future crisis. This session focuses on the organization and employment of Army forces at the high-tactical and operational levels of war. Highlights include roles, missions, core competencies, operational concepts, doctrine, and considerations for employing Army forces in a joint environment. This session, in conjunction with other Service specific sessions, will broaden the students’ comprehension of joint force employment across the range of military operations in support of national interests.

**B. Objectives:**

- Comprehend the roles and missions of the U. S. Army and its contribution to the Joint Force.
- Comprehend how the U. S. Army is organized to plan, execute, sustain, and train for maritime and joint expeditionary operations in support of the Joint Force Commander (JFC).
- Comprehend broad doctrinal service concepts guiding the employment of Army forces at the high-tactical and operational levels of war.

**C. Background:**

This seminar is the first formal opportunity for the students to examine critical capabilities and employment considerations for of the U. S. Army. The session will serve as a foundation for understanding how the Army “thinks and operates,” as well as how it arranges and provides forces and capabilities to a joint commander.

The point of contact for this session is COL Anthony New, USA, C-411.
D. Discussion Topics:

What is the role of the Army in today’s Joint Force? What does Army doctrine say it is?

Explain the operational advantages (and challenges) of employing the Army in a Joint Maritime Operation.

How does service bias impact operational employment?

What are the Army’s primary formations at the operational and tactical levels of war?

What are the differences between an Army “Modular” BCT and a USMC scalable MAGTF?

Why does the Army believe that the effect of technologies on land are often not as great as in other domains? Do you agree or disagree?

E. Products:

None.

F. Required Readings:


G. Supplementary Readings:

If we are not able to gain and maintain air superiority – which is not a given and it’s not easy – if we were unable to do that in a future conflict . . . then everything about the way the United States Army and the United States Marine Corps fight on the ground would have to change. What they buy, how they train, maybe even who they recruit. This is a foundational element of the use of airpower and of joint warfighting.

—General Mark A. Welsh III, Air Force Chief of Staff

A. Focus:

This session emphasizes how the United States Air Force (USAF) is organized to fight today’s enemies while preserving the operational agility necessary to respond to uncertain future crises. As such, this seminar will focus on the organization and employment of United States Air Force forces at the high-tactical and at the operational levels of war. Highlights include roles, missions, core competencies, operational concepts, doctrine, and considerations for employing U. S. Air Force forces in a joint environment. This session, in conjunction with other Service specific seminars, is intended to broaden the students’ comprehension of joint force employment across the range of military operations in pursuit of national interests.

B. Objectives:

- Comprehend the roles and missions of the USAF and its contribution to the Joint Force.
- Comprehend how the USAF is organized to plan, execute, and sustain joint expeditionary operations in support of the Joint Force Commander (JFC).
- Comprehend broad doctrinal service concepts guiding the employment of USAF forces at the high-tactical and operational levels of war.

C. Background:

This seminar is an opportunity for the students to examine specific capabilities and organization of the U. S. Air Force. This session will support the Spruance Course curriculum by providing baseline knowledge of Air Force capabilities and doctrine, informing students about what the USAF contribute, to operations throughout the spectrum of conflict.
D. Discussion Topics:

What are some of the core capabilities of the USAF?

What are the roles and responsibilities of a Joint Force Air Component Commander (JFACC) and the Joint Air Component Coordination Element (JACCE)?

What is the role of the Air Operations Center (AOC)?

Describe how deployed USAF forces are used to support geographic combatant commander (GCC) theater objectives.

Discuss how Desired Leadership Attributes (DLAs) and Mission Command are applied within the USAF.

E. Products:
None

F. Required Readings:


G. Supplementary Readings:


U.S. SPECIAL OPERATIONS FORCES
ORGANIZATION AND EMPLOYMENT (Seminar)

The environment in which we find ourselves has changed. Instead of traditional nation-state conflict, both USSOCOM’s and USSOF’s assigned missions are predominantly focused on addressing the non-state or transnational violent extremist threat.

— Admiral Eric Olson, USN,
Former Commander, USSOCOM

A. Focus:

This session emphasizes how the Special Operations Forces (SOF) contribute to the Joint Force while preserving the operational agility necessary to respond to uncertain future crisis. As such, this seminar will focus on the organization and employment of SOF forces at the high-tactical and operational levels of war. Highlights include roles, missions, core competencies, operational concepts, and considerations for employing SOF in a joint environment. This session, in conjunction with the Service specific seminars, will broaden the students’ comprehension of joint force employment across the range of military operations in pursuit of national interests.

B. Objectives:

- Comprehend the roles and missions of the SOF and its contribution to the Joint Force.
- Comprehend how the SOF/U.S. Special Operations Command organized to plan, execute, and sustain operations in support of the Joint Force Commander (JFC).
- Comprehend broad doctrinal service concepts guiding the employment of SOF at the high-tactical and operational levels of war.

C. Background:

This session provides a foundational understanding of U.S. Special Operations Forces capabilities that students will use throughout the JMO course. Discussions of capabilities will support the Contemporary Operations sessions by providing baseline knowledge of capabilities and doctrine to inform future planners of potential contributions of these services for future operational contingencies. Special Operations Forces (SOF) are small, specially organized units manned by people carefully selected and trained to operate under physically demanding and psychologically stressful conditions to accomplish missions using modified equipment and unconventional applications of tactics against strategic and operational objectives in hostile, denied, or politically sensitive environments to achieve military, diplomatic,
informational and or economic objectives employing military capabilities for which there is not broad conventional force requirement. Since the establishment of the U. S. Special Operations Command (USSOCOM) in 1987, SOF have been under the combatant command of one unified commander and have been trained and equipped to conduct unilateral, joint and combined special operations across the Range of Military Operations. SOF supports the geographic combatant commanders, U. S. ambassadors and their country teams, and other government agencies. Additionally, USSOCOM is designated as the lead to synchronize GWOT efforts across DoD. Each military service has established a major command to serve as the service component of USSOCOM.

The point of contact for this session COL Joe McGraw, USA (SF), C-431.

D. Discussion Topics:

Describe the role of SOF. How is SOF organized? What are some of the future challenges that SOF faces?

What capabilities does SOF provide national decision makers? What are some limitations of SOF? In what ways can operational planners employ SOF to achieve GCC objectives?

U. S. Special Operations Command propounds five ‘SOF Truths’:

- Humans are more important than hardware.
- Quality is better than quantity.
- Special Operations Forces cannot be mass produced.
- Competent Special Operations Forces cannot be created after emergencies occur.
- Most Special Operations require non-SOF assistance.

Discuss the relevance and applicability of these ‘truths,’ particularly the fifth ‘SOF Truth’.

What are the advantages and disadvantages to employing SOF as compared to conventional forces?

Discuss how Desired Leadership Attributes (DLAs) and Mission Command are applied within SOF.

E. Products:

None.

F. Required Readings

“Policy Considerations in Combating Terrorism: Decision Making Under Conditions of Risk and Uncertainty”, Combating Terrorism Center at West Point, January 2012. (NWC 1129).


G. Supplementary Readings:

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CRITICAL THINKING #3:
THE LOGICAL FALLACY (Seminar)

Cynicism, like gullibility, is a symptom of underdeveloped critical faculties.

—Jamie Whyte, Crimes Against Logic

A. Focus:

Now that we as critical thinkers understand the structure of arguments writ large, this seminar will, through practical examples, delve into the various forms of fallacious arguments; arguments in which the presenter intentionally or not, presents a validly constructed argument (one which contains a conclusion and premise(s)) that nonetheless is clearly flawed. The purpose of this short seminar is to heighten your awareness of the fallacious argument so as to avoid them in use and to detect them in the written and spoken word; in other words, to sharpen your critical thinking skills as a warfighter.

B. Objectives:

• Refine the ability to recognize fallacious reasoning in an argument.
• Develop the understanding of how to refute fallacious arguments.

C. Background:

Clinical Psychologist Rian McMullen provides a working definition that we will use as a start point in JMO; “Logical fallacies are unsubstantiated assertions that are often delivered with a conviction that makes them sound as though they are proven facts.” (The New Handbook of Cognitive Therapy Techniques, 2000). With this definition in mind, we must be aware that fallacious arguments, or simply flawed reasoning, are often the result of one or two principal reasons. In the first case, the person presenting the argument often bases the argument on emotion or on what they ‘know’ to be true without ever delving into the actual facts. The arguer therefore presents fallacious reasoning out of ignorance. Note, ignorance in this case should not be conflated with intelligence; the ignorance we speak of here is in allowing a bias or a false narrative to color ones thinking.

Fallacious reasoning is often founded on a lack of critical thought and is not done with any malice of forethought. The second instance of fallacious reasoning is more hazardous as it is more often than not done with mal intent. A polished arguer, a person who understands the logic or reasoning, can use fallacious reasoning to support a conclusion that may or may not be in the best interest of those who the arguer is trying to convince. This is the principal reason we want to understand the concept of the logical fallacy; so that we may identify them so as to refute a flawed argument.
The point of contact for this session is COL Glenn Moore USA, C-428.

D. Discussion Topics:

Describe the indicators of fallacious reasoning.

Present an analysis of a scholarly article.

E. Products:

Student brief that describes the logical integrity of a scholarly article assigned.

F. Required Reading:


G. Supplementary Readings:


NAVY COMMAND AND CONTROL (Seminar)

We can never forget that organization, no less than a bayonet or an aircraft carrier, is a weapon of war.

—Congressman Bill Nichols, Hearings for the Goldwater-Nichols Defense Reorganization Act, 1986

A. Focus:

This session addresses the Navy’s management of the Joint Force Maritime Component Commander (JFMCC) organization, responsibilities, and command relationships. It will provide an overview of the Maritime Operations Center (MOC) concept and construct. Finally, it examines the Composite Warfare Commander (CWC) concept and how this model is organized to coordinates multiple warfare functions.

B. Objectives:

- Comprehend the factors of centralized and decentralized command and control (C2) to include intent through trust, empowerment, and understanding that support the selection of a specific C2 option.
- Comprehend the organizational options, structures, and requirements available to the JFMCC.
- Comprehend the basic MOC structure and purpose.
- Comprehend Navy Composite Warfare Doctrine, including the role of the Officer in Tactical Command (OTC) and the OTC relationship to the CWC.

C. Background:

Command and control (C2) of maritime forces is shaped by the characteristics and complexity of the maritime domain as well as the traditions and independent culture of the naval service. In centralized C2, all authority is concentrated in a single commander and a single headquarters. Decentralized C2 relies on subordinate commanders to execute operations independently but in accordance with a thorough understanding of the commander’s intent, and command by negation or mission command. The selection of either a centralized or decentralized C2 option depends upon the objective to be accomplished.

Naval command relationships are based on a philosophy of mission command involving centralized guidance, collaborative planning, and decentralized control and execution. With a long-standing practice of using mission-type orders, naval C2 practices are intended to achieve relative advantage by leveraging Boyd’s “OODA Loop” of observe,
orient, decide, and act rapidly. Mission-type orders enable continued operations in environments where communications are restricted, compromised, or denied, allowing subordinates to exercise disciplined initiative, consistent with the higher commander’s intent.

The Joint Force Commander (JFC) will often designate a JFMCC to coordinate the activities of maritime forces. In cases where the JFC does not designate a JFMCC, the JFC may elect to directly task maritime forces. The JFC normally designates the forces made available for tasking by the JFMCC, and delegates the appropriate command authority the JFMCC will exercise over assigned and attached forces and maritime assets. Forward deployed maritime force packages are normally comprised of units that train together prior to deploying. These tailored force packages may include Carrier Strike Groups and Amphibious Ready Groups with an embarked Marine Expeditionary Unit. The JFMCC will normally exercise operational control (OPCON) over assigned service component maritime forces and either OPCON or tactical control over attached forces.

The JFMCC’s staff is typically built from an existing service component, numbered fleet, Marine Air-Ground Task Force, or subordinate service force staff and then augmented as required. If a Navy component or numbered fleet commander is designated as the JFMCC, his or her existing staff or MOC will normally form the nucleus of the JFMCC staff. In a maritime headquarters, two complementary methods of organizing people and processes exist. The first is the doctrinal Napoleonic J-code structure, which organizes people by the function they perform (i.e. intelligence, logistics, etc.). The second is a cross-functional approach that organizes the staff into boards, centers, cell, and working groups. These organizations manage specific processes or tasks that do not fit well under the J-code structure and are best suited to those tasks that require cross-functional participation, such as targeting, assessment, and information operations. The formalized addition of this cross-functional network to the doctrinal J-code organizational structure is what constitutes the MOC. The MOC can be thought of as a loosely-bound network of staff entities overlaying the J-code structure. The MOC’s focus is on operational tasks and activities rather than fleet management or support and provides an organizational framework through which maritime commanders may exercise operational level command and control. The MOC was established to address shortfalls in the Navy’s ability to command and control at the operational level of war. This MOC initiative focused on defining and developing operational level headquarters with some degree of baseline commonality around the globe. The MOC provides the framework from which Navy commanders at the operational level (Navy Component Command, Numbered Fleet, and Joint/Combined Force Maritime Component Command) exercise their C2.

At the tactical level, C2 transitions to the CWC concept where the OTC is responsible for the tactical force deployment and action. The OTC is the senior officer present eligible to assume command, or the officer to whom the senior officer has delegated tactical command. The commander of a task organization is its OTC when the organization is operating independently. The OTC also designates a CWC to coordinate overall operations. Joint community understanding of these command and control constructs is important when coordinating or working with maritime forces. The OTC controls CWC and subordinate warfare commanders’ actions through “command by negation.” Command by negation acknowledges that in many aspects of often distributed and dispersed maritime warfare, it is necessary to pre-plan the actions of a force to an assessed threat and delegate some warfare
functions to subordinate commanders. Once such functions are delegated, the subordinate commander is to take the required action without delay, always keeping the OTC informed of the situation. The CWC orchestrates operations to counter threats to the force, while the OTC retains close control of power projection and specific sea control operations.

The point of contact for this session is CDR Tom Pham, USN, C-410.

D. Discussion Topics:

What is the preferred method of C2 for Joint Maritime Operations and why?

How is a JFMCC staff organized? What are its responsibilities?

Describe the MOC concept, its organization, and how the MOC construct differs from traditional naval structures.

How does the CWC concept seek to minimize seams between various functional areas?

E. Products:
None.

F. Required Reading:


__________. Navy Warfare Publication (NWP) 3-32, Composite Warfare Doctrine. Washington D.C.: September 2010. Read Ch. 1 and 6, Scan Ch. 2.


G. Supplementary Readings:


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NAVAL LOGISTICS AND DEPLOYMENT (Seminar)

The war has been variously termed a war of production and a war of machines... Whatever else it is, so far as the United States is concerned, it is a war of logistics. The ways and means to supply and support our forces in all parts of the world – including the Army of course – have presented problems nothing short of colossal and have required the most careful and intricate planning.

— Admiral Ernest King, CNO
Operation WATCHTOWER, 1942

A. Focus:

This session provides an overview of the operational function - logistics, with emphasis on naval logistics of the Navy and Marine Corps. The focus is for planning and coordinating logistics in support of the Navy Component Commander (NCC) or Joint Force Maritime Component Commander (JFMCC), connecting strategic-level organizations and resources with the tactical user in order to sustain the fleet and/or force across the range of military operations. Additionally, this session introduces the national deployment system (strategic triad) through an examination of the mission of U. S. Transportation Command (USTRANSCOM), its subordinate component commands, and their role deploying joint forces in support of global contingencies.

B. Objectives:

- Comprehend and describe the relationship among the elements of strategic, operational, and tactical logistics, and understand the implications of operational factors on naval logistics in support of maritime operations.
- Comprehend and describe naval logistics capabilities, command, and control thereof within the overall Logistics Support Model.
- Identify and analyze specific logistics issues that must be addressed when developing a logistics staff estimate and how to apply them in the planning process for a deployment and maritime operation.
- Evaluate and assess the operational concept of logistics support to achieve operational objectives.
- Describe the elements of the strategic deployment triad, including benefits and challenges of each.
- Describe the steps of the deployment process.
C. Background:

According to NWP 4-0 Naval Logistics, logistics is planning and executing the movement and support of forces. NWP 4-0 defines sustainment is the provision of personnel, logistics, and other support required to maintain operations until successful accomplishment of the mission. Naval logistics consists of seven core capabilities: supply, maintenance operations, transportation, health service support, operational engineering, other logistic services, and operational contract support. These seven core naval logistics capabilities should be thought of as critical requirements for readiness, operational reach, endurance and sustainment of naval forces.

Naval logistics is interconnected and overlapping across all three levels of war. Each service department is responsible for their logistics however, logistics support is commonly accomplished through a combination of service departments, various DoD organizations, agencies, and contracted support at the strategic, operational and tactical levels. Although logistics is a service responsibility, geographic combatant commanders retain Directive Authority for Logistics (DAFL) for situations where operational imperatives drive the need to direct service components to support other services by cross-leveling resources, lift assets or other critical capabilities in support of operational requirements.

Naval logistics at the operational level is primarily concerned with deployment, basing, readiness and sustainment support to operating forces, namely numbered fleets and Marine Air Ground Task Forces. Naval logistics at the operational level has unique considerations that distinguish its execution from that of support to ground maneuver forces or air forces operating from expeditionary bases. The Navy’s logistics architecture is designed to support forces maneuvering at sea, over the shore, and ashore.

From the strategic level, the Navy leverages DoD, the services, other government agencies and the private sector as sources of logistics and provided through a Fleet Global Logistics Network. The Fleet Global Logistics Network consists of Naval Advanced Logistics support Sites (NALSS), Naval Forward Logistics Sites (NFLS) and a Combat Logistics Force to provide shore based and underway replenishment down to the “last nautical mile” to fleets and Marine Corps forces. Effective naval logistics requires access to partner nation bases, ports and facilities, assured communications, mobile capabilities, and an appreciation for factors time, space and force among considerations when developing a fleet concept of logistics support.

Operational level naval logistics may involve coordination with coalition naval commands supporting multinational operations. Although coalition logistics and sustainment are national responsibilities, naval component command planners will often develop and utilize acquisition and cross-service agreements through diplomatic channels as a source of multinational logistics support.

The ability of Navy and Marine Corps forces to successfully carry out their assigned tasks in support of national security objectives depends greatly on their logistics capabilities to deploy forces, equip, and sustain them in a theater of operations and in a timely manner. Commanders must have a clear understanding of their logistics capabilities and limitations to execute a major operation or campaign successfully. At the initiation of planning, the Navy N4 (or G4 in a MAGTF) develops a logistics staff estimate, a product describing operational
requirements, available resources, existing shortfalls and risk that enables commanders’ situational understanding and decision making. When completed, the logistics staff estimate informs the development of the concept of logistics support as Paragraph 4 and Annex D within plans and operations orders. An effective logistics concept should support freedom of movement, operational flexibility, mitigate risks of culmination and anticipate operational requirements for follow-on phases in operational plans and campaigns.

Within the context of the commander’s estimate and planning guidance, several senior commanders have stressed command & control, basing, and logistics as critical to setting conditions for operational success. These considerations must be integrated and synchronized with the other operational functions and with respect to factors time, space and force. Finally, they must consider deployment, distribution, and sustainment early and throughout the navy planning process, particularly due to lead times required to source, prepare and deploy forces globally.

Naval forces deploy or move by multiple means. NTTP 5-01.4 Navy Planning, Logistics, defines deployment as all activities from origin or home station through destination, specifically including intracontinental United States, inter-theater, and intra-theater movement legs, staging, and holding areas. Deployment encompasses the transportation of people, equipment, supplies, and other commodities by land, sea, and air, to enable military force projection and includes efforts for scheduling the mobilization and movement of forces and material to support the higher joint task force commander’s operational concept. Navy ships with embarked forces, naval air squadrons, detachments, and MEUs are self-deploying. Marine Corps forces and naval expeditionary component command forces - such as Seabees, security units, small boat units, and special operating forces, are transported to and from theater via strategic common-user land, sea, and air transportation provided by USTRANSCOM.

The deployment portion of this session focuses on the “move the force” functional capability of which the Navy plays a major role. Over 90% of U.S. warfighter equipment and supplies travel by sea. While the Joint Staff J3 serves as the DOD joint deployment process owner, USTRANSCOM serves as DOD’s Mobility Joint Force Provider, Single Manager for Defense Transportation and Single Manager for Patient Movement. Their charter is to maintain and operate a deployment system for orchestrating the transportation aspects of worldwide mobility planning, integrating deployment-related information management systems, and providing centralized wartime traffic management. Actual movement is executed by USTRANSCOM’s component commands: Military Surface Deployment & Distribution Command (SDDC—Army), Military Sealift Command (MSC—Navy), and Air Mobility Command (AMC—Air Force). The Department of Transportation’s Maritime Administration (MARAD) bridges MSC, U.S. flag commercial carriers for sealift procurement and operations.

In the initial steps of the deliberate planning process, the NCC or JFMCC and JTF staffs simultaneously develop CONOPs along with task organization (Annex A) and a prioritized movement plan, communicated in Annex A, Appendix 1, Time-Phased Force Deployment List (TPFDL). As the planning process continues, the TPFDL is substantiated and codified as the TPFDD or Time Phased Force Deployment Data. The TPFDD serves as the commander’s primary tool for managing the flow of forces/capability into the area of operations. The supported CCDR reviews and validates the lift requirements within the
specific TPFDD window and notifies USTRANSCOM that the movement requirements are ready for lift scheduling. USTRANSCOM uses the TPFDD to employ each leg of the Strategic Mobility Triad to project power. The Strategic Mobility Triad consists of pre-positioned material, sealift and airlift.

Point of contact for this session is LTC Troy Rittenhouse, USA, C-404.

D. Discussion Topics:

Are logistics and sustainment the same/different? When should logistics be considered during the planning process and why?

What are the naval logistics capabilities? What organizations exist to resource NCC and JFMCC requirements across the three levels of war?

What are the NCC or JFMCC options for commanding and controlling naval logistics?

What critical logistics issues must be properly addressed when planning maritime operations and why? How does the “logistics staff estimate” serve as a tool to facilitate critical logistics planning? How do the principles of naval logistics assist logistics planners?

What are the advantages and disadvantages of each leg of the strategic deployment triad?

What are the major planning considerations facing operational planners in deploying a force to the theater of operations? Who/how is this operation managed?

What were some of the naval logistics challenges at Leyte and do those same challenges exist today; if so, which and how do we overcome them?

E. Products:

None.

F. Required Readings:


U. S. Office of the Chief of Naval Operations. *Naval Logistics*, NWP 4-0M/MCWP 4-2, Navy Warfare Publication; Norfolk, VA: Department of the Navy, July 2011. Read: Chapters 2, 3, & 5

________. *Naval Planning, Logistics*, NTTP 5-01.4, Navy Warfare Publication; Norfolk, VA: Department of the Navy, April 2015. Read: Chs 1, 2, 3, 4, Appendices A & B.


G. Supplementary Readings:


Peterson, Mike W. “Rapid Port Opening Elements - SDDC’s newest units are logistics first responders,” *TRANSLOG, The Journal of Surface and Deployment Distribution*, (Fall 2009).


U. S. Office of the Chairman of the Joint Chiefs of Staff. *Doctrine for Logistic Support of Joint Operations*, Joint Publication (JP) 4-0. Washington, D.C.: CJCS, 16 October, 2013. Read Executive Summary (ix–xvi); Chapter I (all); Chapter II (II-1 to II-12); Chapter III (III-1 to III-3; Scan remainder of chapter); Read Appendix B. Scan: Appendices C, D, and E.


________. *Sealift Support to Joint Operations*, Joint Publication (JP) 4-01.2. Washington,
D.C.: CJCS, 22 June 2012. Read Chapter I. Scan Chapters III and IV.
OPERATIONAL INTELLIGENCE FOR THE MARITIME COMMANDER (Seminar)

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

—Carl von Clausewitz, On War, 1832

A. Focus:

Intelligence, as a discipline and an operational function, is essential to the successful conduct of military operations in both peacetime and war. Intelligence operations are often described as a high-demand/low-density enterprise, meaning requirements routinely outstrip available resources. It is therefore imperative intelligence resources be utilized as efficiently as possible and be driven by a clear set of priorities informed by commander’s intent and guidance. This will ensure limited resources are applied against the commander’s most pressing concerns.

This seminar focuses on the nature and principles of intelligence, the responsibilities of both the joint force and maritime commander and the duties of the staff intelligence officer/J2/N2, primarily at the operational level. In particular, this seminar will explore the critical nature of the commander’s relationship with the intelligence officer, and how commander’s priorities and Priority Intelligence Requirements (PIRs) drive the intelligence process to support operational decision-making. Additionally, the class will examine the importance of the Intelligence Estimate and Intelligence Preparation of the Operational Environment (IPOE), and how they support the Navy Planning Process (NPP).

B. Objectives:

• Understand Joint and Navy doctrinal terminology relating to intelligence, including the intelligence process and associated intelligence functions.
• Understand how the intelligence process is synchronized to support decision-making and operational planning, specifically towards a more comprehensive understanding of the adversary and the operational environment.
• Examine intelligence organizations and operational-level integration.
• Comprehend the roles and responsibilities of the commander and the intelligence officer in the intelligence process at the 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 and navy planning and operations.
C. Background:

History provides numerous examples of military and political leaders’ quests for detailed information regarding their enemies. From Sun Tzu and Alexander the Great to the present day, leaders’ thirst for information to help make 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. Currently there are 17 federal agencies with significant intelligence sections that comprise the overall U. S. Intelligence Community (IC). As one of the recommendations from the 9/11 Commission, and in an attempt to manage and coordinate these intelligence operations optimally, Congress and President George W. Bush established a Director of National Intelligence (DNI) in 2004.

The IC 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 geographic combatant commanders, all the way down to providing actionable intelligence at the tactical level. While agencies of the IC, guided by the DNI, principally provide intelligence to national-level decision-makers, it is the Joint Intelligence Officer (J2) who is responsible for providing intelligence to the Joint Force and the N2 who is responsible for providing intelligence to naval forces. From the Joint Staff J2 at the national level, through Combatant Command J2s and Joint Task Force J2s at the theater-strategic and operational level, to N2s at the operational and tactical levels, operational intelligence plays a key role within the U. S. military. Operational intelligence supports military strategy, theater-wide campaign plans, joint operations, maritime operations and tactical actions in all domains.

To this end, 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 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 maritime, joint and multi-national operations. This process is termed the Intelligence Preparation of the Operational Environment (IPOE). The requirement for this wide-ranging assessment of the enemy and the operational environment existed since the earliest days of intelligence.

Despite the considerable capabilities the U. S. Intelligence Community brings to the joint force and maritime 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 inaccuracy or even absence, which has had detrimental effects on some national policy decisions and military operations. 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 senior decision-
makers and staff planners alike be critical consumers of intelligence, partnering closely with intelligence professionals and organizations to ensure the adversary and the operational environment are as well analyzed and comprehended as possible before committing forces and people to combat.

The point of contact for this session is CAPT Fred Turner, USN, C-430.

D. Discussion Topics:

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

How is the intelligence process synchronized to support operational decision-making, as well as joint and navy planning? What specific intelligence products does the J2/N2 bring to bear?

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?

What is the relationship between intelligence officer and commander/decision maker?

What is the future of joint and maritime intelligence? What does the commander need to make decisions in the likely operational environment of the future?

E. Products:

Students will be assigned to teams in a moderator memo to analyze optimum and sub-optimum incorporation of intelligence into planning and operations in several historical case studies. Students will answer questions posed in the memo as they apply to their specific case study and lead seminar discussion based on their findings and analysis.

F. Required Readings:


________. *Intelligence Support to Naval Operations.* Naval Warfare Publication (NWP) 2-01 (Final Draft). Norfolk, VA: Department of the Navy, July 2016. Scan Chapter IV.


**Moderator will assign the below readings by team:**


**G. Supplementary Readings:**


Ilardi, Gaetano Joe. “al Qaeda’s Operational Intelligence – A Key Prerequisite to Action.” *Studies in Conflict and Terrorism,* 31 (2008): 1072-1102. *(NWC 2078).*


INFORMATION OPERATIONS AND CYBERSPACE OPERATIONS (Seminar)

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

A. Focus:

The focus of this session is to develop an understanding of how Information and Cyberspace may be used in the pursuit of military objectives and political ends in contemporary conflict. Broadly speaking, all operations are in the end ‘influence’ operations. In other words, short of unconditional surrender military operations are undertaken to influence an adversary to make a decision favorable to larger U. S. objectives. As such, the integrated employment of information–related capabilities (IRCs) and cyberspace operations is central to achieving the commander’s objectives at every level of warfare.

With the emergence of information as key terrain in modern warfare, how we use the Information Environment (IE) and its contemporary subset cyberspace to inform, persuade, and influence decision makers can be a key element of modern warfare. What moves through cyberspace is information in the form of code (software) that is displayed as content on graphic user interfaces of the electronics we use daily. Effectively using information operations (IO) and cyberspace operations (CO) in support of objectives and ends will be crucial enablers in future conflict; many of our current and potential adversaries clearly understand this maxim.

B. Objectives:

- Comprehend the principles, strengths, and limitations of integrating information operations and cyberspace operations into service and joint planning.
- Comprehend how IO and CO are used to inform, persuade, and influence decision makers across the spectrum of conflict.
- Comprehend the relationships between lethal and non-lethal fires in developing IO and CO objectives and tasks that support the Joint Force Commander’s mission and objectives.
- Examine the use of cyber warfare in the pursuit of military objectives and political ends.
- Comprehend the ability of cyberspace operations to achieve mass destruction and effects.
C. Background:

Understanding *Information* as an element of national and military power; how it is moved, prioritized, analyzed and synthesized to support decision makers has been vital to warfare throughout history. 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 not new and 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. Information is also manipulated to influence friend and foe to act in specific ways.

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. What has changed in the information age are the speed at which information moves around the world, its range, and depth of penetration into society, and the continuous invention and adaptation of electronics, software, and content for human and automated use. The speed, range, and depth of the movement of information are made possible by the largely man–made domain of cyberspace.

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 rapidly accelerating. Examples of the scope of global activity in cyberspace in the early 21st century include approximately 2.5 billion internet users (or 33 percent of people on Earth); six billion mobile cellular subscriptions; and more than 1 billion Facebook™ users. In fact the U. S. Department of Defense (DoD) operates over 15,000 networks and more than seven millions edge devices (electronic computing devices that provide entry points to move code and content around the internet).

Cyberspace is defined in U. S. joint doctrine as a global domain within the information environment consisting of the interdependent network of information technology infrastructures and resident data, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers. Joint Publication 3-13 *Information Operations*, characterizes 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.”

In an effort to bring together the concepts of cyberspace operations, information operations, and warfare in the physical domains, the DoD has moved the lexicon of cyberspace operations towards terminology that is recognizable to war fighters in all domains. The constructs of Offensive Cyberspace Operations (OCO) and Defensive Cyberspace Operations (DCO) were developed to standardize the terminology and allow war fighters to better communicate across domains.

Code and content are clearly reshaping the operating environment as we continue to intertwine cyberspace with nearly all aspects of life. Understanding how they move through cyberspace and are used as force to inform, persuade, and influence decision–makers and to make electronics act independent of the owner’s intent will be fundamental to success in twenty–first century conflict. This session is intended as a foundation for understanding of how IO and CO can be leveraged to achieve success across the spectrum of operations.
The point of contact for this session is Professor Dick Crowell, C-425.

D. Discussion Topics:

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

Why is information considered an element of national power?

Identify how joint force commanders can use information-related capabilities to inform, persuade, and influence decision makers across the spectrum of conflict.

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, provide some examples.

What lessons for future operations can be drawn from both the Libyan government and the opposition forces use of cyber technologies and information-related capabilities in the 2011 revolution?

Explain how potential adversaries might use cyber warfare against the United States or our allies.

E. Products:

None.

F. Required Readings:


G. Supplementary Readings:


__________. “Hung on the Old Bridge like Slaughtered Sheep.” Newport RI: Naval War College, August 2009. (*NWC 2074*).


TABLETOP EXERCISE #5
PRC/TAIWAN CASE STUDY (Seminar and Exercise)

I would say that he (Chinese CNO Wu) doesn’t want to build a navy that’s equivalent to the U. S. He wants to build a navy that surpasses the U. S.

— Admiral Gary Roughead (USN, Ret)
Former U. S. Chief of Naval Operations.

A. Focus:

This tabletop exercise is a six-hour discussion and practical exercise spread over two days that is designed to synthesize the material covered in the trimester thus far. The session will require students to revisit the unique considerations of naval capabilities/limitations and employment considerations relevant to a variety of warfare areas. A review of operational art, maritime warfare theory, and operational law will be required to successfully complete this exercise. The PRC-Taiwan Vignette provides a fictional future scenario for students to apply knowledge and understanding of naval forces employment considerations and maritime command and control in a discussion of the operational design of a major, joint maritime operation. The focus of this session is on the operational design of a major maritime operation. This is not a planning exercise but rather a realistic backdrop to facilitate professional discussion on naval warfare.

B. Objectives:

- Apply knowledge of the naval capabilities, limitations, and employment considerations to operations in a high-intensity combat environment against a near-peer competitor.
- Reinforce knowledge of maritime force capabilities, roles, functions, employment considerations, limitations.
- Design a major naval/joint operation.

C. Background:

Designing a major naval/joint operation resembles in many ways designing a major land operation. However, considerable differences exist because of the characteristics of the physical environment in which maritime forces operate as well as other aspects of the factor of space. Clearly, maritime forces are employed very differently than forces of their terrestrial brethren. In generic terms an operational design for a major naval/joint operation includes the following elements:
ultimate operational (and sometimes limited strategic) and intermediate objectives; force requirements; balancing operational factors against the ultimate objective; identification of critical factors and centers of gravity; initial positions and lines of operations; directions/axes; the operational idea; and operational sustainment.

The operational idea (or scheme) is the very essence of a design for a major naval/joint operation. The operational idea for a campaign should be developed first, because the strategic objective always dominates the operational objectives. It provides a framework for the operational idea of each subordinate major operation. The operational commander should make sure the subordinate operational ideas in each phase of a maritime campaign are consistent with his own operational idea.

The operational idea for a major naval/joint operation is developed during the operational commander’s estimate of the situation, and the idea should be further elaborated upon and refined during the planning process. A soundly conceived operational idea should include selected principles of war; a method for defeating the enemy; application of sources of power; the sectors of effort; main forces and supporting forces, the point of main attack (or defense); concentration in the sector of main effort; operational maneuver and fires; protection of the friendly center of gravity; anticipation of the point of culmination; deception; sequencing; synchronization; branches and sequels; phasing; tempo; momentum; and reserve.

It is critical to understand how maritime forces can be used to support and enable success of the other component commander’s (land, air, SOF, and so forth) objectives, and ultimately a JTF mission. This fictional vignette is intended to generate discussion of capabilities, limitations, and operational design of a major naval operation. It is not desired that students expend time discussing the viability of the scenario presented, or the probability of American intervention in the portrayed crisis. Students need to simply accept the task of discussing potential operational designs or schemes and how maritime forces could be effectively employed in this situation.

The point of contact for this session is CDR Brad Donnelly USN, C-424.

D. Discussion Topics:

Moderators will guide seminars through discussion. The seminar discussion will be from the point of view of the U. S. Naval Joint Force Maritime Component staff with the following tasks:

Describe the employment considerations given threat, capabilities, environment, and mission.

What are some Command and Control options for naval and joint operation.

What broad capabilities and options do U. S. Naval forces bring to a Joint Force Commander and how could these be integrated in to joint operations?
What vulnerabilities exist in U. S. forces that could be exploited by the adversary in exercising sea denial operations? How could the JFMCC compensate for those vulnerabilities?

How might the U. S. commander limit threats to his/her forces and vital lines of communication (LOCs) from PRC surface, subsurface, and air threats?

E. Products:

The principal product of this tabletop exercise, exclusive of a professional discourse, are the main elements of operational design (including operational idea) for denying control of the surface / subsurface / air in the Taiwan Strait and its approaches, and obtaining control of the surface / subsurface / air in the South China Sea and the Yellow Sea. Include the integration of offensive / defensive cyber war capabilities in the struggle for sea control / denial, an operational idea for defense / protection of blue shipping in the South China Sea, and an operational idea for attack of Red maritime trade in the Sea areas adjacent to Mainland China. Moderators will issue specific taskings in seminar.

F. Required Readings:


G. Supplementary Readings:


INTRODUCTION TO THE ADAPTIVE PLANNING AND EXECUTION SYSTEM (APEX) (Seminar)

In preparing for battle I have always found that plans are useless, but planning is indispensable.

—General Dwight D. Eisenhower, USA

A. Focus:

This session introduces the Adaptive Planning and Execution System (APEX), which is designed to ‘bridge the gap’ between deliberate and crisis action planning. APEX is designed to provide the nation’s strategic leadership with a more responsive planning process, both in preparation time and option flexibility. This session begins with an overview of the Joint Strategic Planning System (JSPS) and the roles of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff (CJCS), and the service chiefs in translating national policy objectives into definitive planning guidance. Currently, planning guidance for combatant commanders and their staffs can be found in the Guidance for the Employment of the Force (GEF), the Joint Strategic Capabilities Plan (JSCP), and the Global Force Management and Implementation Guidance (GFMIG). Planning guidance may also be found in the document Sustaining U. S. Global Leadership Priorities for 21st Century Defense.

B. Objectives:

• Comprehend the purpose of the JSPS.
• Comprehend how the GEF, JSCP, and GFMIG drive the planning cycle and frame planning requirements for the combatant commander.
• Understand how APEX ‘bridges the gap’ between deliberate and crisis-action planning.

C. Background

Mandated by Title 10 USC, the Secretary of Defense and the CJCS are pivotal in translating national security objectives into definitive planning guidance for the combatant commanders and the joint force. The combatant commanders are responsible for the actual development of the GEF and JSCP-directed campaign plans, but are dependent on support from the services, other combatant commanders, and the combat support agencies during the planning and execution process.

APEX is the system used by the combatant commander’s to produce theses directed contingency, or deliberate, plans. It is a set of ideas unifying efforts across people, processes, products, and technology. It is designed to speed up the deliberate planning process—to
make deliberate plans more relevant, more usable. APEX provides for increased flexibility at the Theater Strategic and Operational levels or war, enabling a shared understanding of problems, threats, and options.

The point of contact for this session is Professor Michael McGauvran, C-425.

D. Discussion Topics:

Is there value in the enormous effort we expend on contingency planning? Explain.

What do the GEF, JSCP, and GFMIG provide planners?

Adaptive Planning is designed to ‘preserve the best characteristics of contingency planning and crisis action planning with a common process’. How does APEX meet this challenge?

E. Product:
None.

F. Required Readings:


G. Supplementary Readings:

U. S. Office of the Chairman of the Joint Chiefs of Staff. CJCSM 3130.03. Adaptive Planning and Execution (APEX) Planning Formats and Guidance. 18 October 2102.
ORDERS AND ORDER DEVELOPMENT (Seminar)

To plan well is to demonstrate imagination and not merely to apply mechanical procedures. Done well, planning is an extremely valuable activity that greatly improves performance and is an effective use of time. Done poorly, it can be worse than irrelevant and a waste of valuable time. The fundamental challenge of planning is to reconcile the tension between the desire for preparation and the need for flexibility in recognition of the uncertainty of war.

—Marine Corps Doctrinal Publication 5, Planning, 1997

A. Focus:

Planning is problem solving and orders development is the mechanism used to convey the planning groups intellectual labor to subordinate commands for execution. Orders development and orders writing is a common task that all commanders and staff officers should understand.

B. Objectives:

- Understand the Orders Development Process, the contents of an Operations Plan / Order, and the standard format used for Operations Plans / Orders.
- Understand the importance of orders reconciliation / crosswalk prior to issuing the order.
- Gain an understanding of the issues for consideration, inputs, and outputs of the Orders Development Process sufficient to produce a basic Operations Order.

C. Background:

As Spruance Course graduates, you will likely participate in the orders development process, perhaps tasked with writing a staff estimate, base plan, or a specified annex to an operations plan or order. To meet this task, you must be able to read a higher headquarters order, develop a supporting order, and communicate that order clearly to subordinate units in a timely manner.

Soon we will conduct a series of practical planning exercises that conclude with orders briefs. You will use this seminar and associated reference readings to develop portions of operations orders to communicate the commander’s intent, guidance, and decisions that are products from the planning process. Orders development communicates the commander’s intent, guidance, and decisions in a clear, useful form understandable by those executing the order. The operations order is the means of transmitting this key and pertinent information concerning execution to all units in or attached to the issuing
headquarters. The order should only contain critical or new information—not routine matters normally found in Standard Operating Procedures (SOPs). The Chief of Staff (CoS), the J-5 (Plans) or the J-3 (Operations) Officer, as appropriate, is normally responsible for orders development. Orders development also includes an essential two-step quality control approach during the writing phase of the order or plan. Reconciliation is an internal review that the staff conducts of the entire order. It identifies gaps and discrepancies in the order. Specifically, the staff compares the Commander’s Intent, the mission, and Commanders Critical Information Requirements (CCIR(s)) against the concept of operations and supporting concepts. The Crosswalk is an external review of higher and adjacent orders to ensure unity of effort and to ensure the Higher Headquarters (HHQ) Commander’s Intent is met.

The point of contact for this session is LtCol Matt Dreier USMC, C-403.

D. Discussion Topics:

How does the operational design generated as a result of the planning process become codified for action?

Do we use deductive or inductive reasoning in developing an operations order? Explain your answer.

Describe the difference between an operations order and a Commander’s Estimate.

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:

TABLETOP EXERCISE #6: AN ANALYSIS OF A NAVAL OPERATIONS ORDER (Operation DETACHMENT) (Exercise)

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 as a commander he has the strategic knowledge and the tactical skill to make a good plan.

—Navy Department, *War Instructions*, Paragraph 108, 1944

A. Focus:

During our studies of Joint Operational Warfare, Operation KING II, of the MUSKETEER Campaign Plan, provided the backdrop against which we studied the theory of warfare. In the previous session, *Orders and Orders Writing*, you were exposed to the Department of Defense processes and formats for orders. More importantly, you now understand that orders translate the critical and creative thought of a commander and his staff into products that direct actions of both subordinate elements and operational functions in time and space. This exercise builds on previous sessions and seeks to foster creative thought through the evaluation of an operations order (OPORD), the principal tool a commander uses to direct operations.

B. Objectives:

- Evaluate an operations order through the lens of Operational Art.
- Understand how Operational Art, in particular Commander’s Intent, the Operational Idea, and Operational Design, are captured and articulated in the five-paragraph OPORD.

C. Background:

As you saw in the previous session, the five-paragraph OPORD is a directive issued to subordinate commanders to coordinate and execute a specific operation(s). In short, the OPORD is the physical product of a staff or planning group’s effort and serves as a vehicle to direct the execution of an operation(s) in accordance with the commander’s intent. Effective orders will clearly articulate the commander’s vision and intent, the commander’s operational idea, and the associated operational design. They should:
Clearly convey the commander’s intent and purpose.
Be authoritative, simple, brief, clear, complete and timely.
Allow subordinates flexibility in execution.
Contain critical facts and necessary assumptions.
Be positive and authoritative in expression
Use doctrinal language and avoid meaningless or vague expressions.

The point of contact for this session is Commander Brad Donnelly USN, C-405

D. Discussion Topics:

Explain the commander’s intent. Does it effectively communicate the “personal vision of victory and the conditions and methods for obtaining it”? What would you change and why?

How well does Operational Idea (Vego) or Operational Approach (Joint Doctrine) describe the broad actions the force must take to achieve the military end state?

Does the Operations order communicate command support relationships?

Identify and describe other elements of Operational Art found in the OPORD.

Identify any additional gaps or weaknesses in the OPORD. How would you improve it?

E. Products:

A critical analysis of the Iwo-Jima operations order.

F. Required Reading:


G. Supplementary Readings:


CRITICAL THINKING #4:
CRITIQUING SCHOLARLY WORK (Seminar)

To avoid criticism say nothing, do nothing, be nothing.
—Elbert Hubbard

A. Focus:

This seminar is the final formal session on critical thinking and provides an opportunity for you to critically examine the scholarly work of a peer. Building on previous sessions, this session challenges students to read and critique a fellow student’s paper and share that critique with the seminar.

B. Objectives:

• Demonstrate critical thinking skills by critiquing scholarly work.
• Analyze an argument by identifying its thesis and supporting rationale.
• Evaluate a scholarly paper and provide constructive feedback.

C. Background:

This session serves three main purposes in support of the Spruance course’s goals. First, it allows you to exercise your critical thinking skills. Secondly, it provides an opportunity to practice your communication skills by formally presenting your findings to your seminar peers. Finally, it allows you to receive peer advice on your paper. Although Critiquing Scholarly Work completes JMO’s four formal critical thinking sessions, critical thinking should continue for the remainder of your professional careers.

Critiquing a fellow student’s scholarly work is strikingly similar to the analysis you have already completed of General Lee’s decision to attack the Union center at Gettysburg or the operational decisions made at Leyte Gulf. With written work, you should identify the author’s argument along with its key elements (e.g. thesis and premises) and then apply value to them based on your understanding of the author's intent. Additionally, you will find that you cannot simply separate an author's argument from his/her ability to write clearly and correctly; the two complement one another. By using a peer review method to analyze an argument, you not only provide constructive feedback to your classmate but will also learn to be a better reader and writer.

Prior to this session you will receive a peer’s draft JMO research paper. Using techniques presented thus far in JMO, as well as those included in the provided peer review worksheet, you will identify the author's argument, deconstruct it, and evaluate its component parts. While a detailed assessment of the author's writing (e.g. usage, development,
organization, format, etc.) is not the principal objective of this assignment, you will also assess the quality of the paper’s presentation in order to provide the author a holistic review of his/her work.

Feedback to the author will be presented in two ways. First, all students will provide a 5-8 minute brief of your findings during the JMO session; this is a graded event. After the presentation, students will meet with the author (outside of class) and provide more specific feedback in a conversational format. This process requires the reviewer to carefully craft his/her critique and present it in a tactful manner while providing the author useful feedback. Additionally, the author must be receptive to the feedback in a way that shows a willingness to grow as a writer.

The point of contact for this session is COL Chris Kidd USA, C-405.

D. Discussion Topics:

Is there value in the peer review of academic work? Explain.

How can a reviewer best provide constructive feedback to an author?

Outside of the academic/publishing environment, how can peer review be applied to your professional practice?

E. Products:

1. A critique of a peer’s scholarly work presented to the seminar via a 5-8 min formal brief.

2. A completed JMO Peer Review Worksheet (provided by and returned to the moderators) covering the four areas of assessment:

   1. Thesis, premises, and assumptions
   2. Evidence and analysis
   3. Alternative Arguments
   4. Writing, structure, and presentation

F. Required Reading:


G. Supplementary Readings:


THE NAVY PLANNING PROCESS (NPP): THE STRUGGLE FOR SEA CONTROL (Planning Exercise)

He who commands the sea is at great liberty and may take as much or as little of the war as he will.

—Francis Bacon, 1561-1626

A. **Focus:**

These sessions present students the opportunity to apply the Navy Planning Process (NPP) and their knowledge of orders writing using a fictional crisis scenario in and around the island of Borneo. Students, as Joint Force Maritime Component Commander (JFMCC) staff members, will develop an operations order (OPORD) that establishes local and temporal sea control and sets conditions for a forcible entry operation onto the island of Borneo.

B. **Objectives:**

- Comprehend and employ the NPP in resolving an ill-structured problem.
- Gain an understanding and appreciation of the planning considerations associated with the employment of a naval force in a contested environment.
- Employ the concepts and principles of maritime command and control.
- Create an OPORD that captures the planning group’s operational design.

C. **Background:**

In this exercise, students will expand their understanding of the NPP through practical application. You will be assigned to a JFMCC staff Operations Planning Group (OPG) and conduct the NPP following the receipt of a Warning Order (WARNORD). More specifically, your OPG will leverage its understanding of the NPP, operational art, naval warfare theory, and operational leadership and thinking to create an OPORD (with Annexes A (Task Organization), B (Intelligence), C (Operations), D (Logistics), J (Command and Control), and a synchronization matrix that captures the OPG’s operational idea/design.

The point of contact for this session is CDR Tom Pham, USN, C-410.

D. **Discussion Topics:**

None.
E. Products:

Students, through a moderator-led application of the NPP, will develop an operational design for gaining, maintaining, and exploiting sea control in a contested environment to project power onto the island of Borneo to achieve the commander’s objectives. The end product is an OPORD ((with Annexes A, (Task Organization), B (Intelligence), C (Operations), D (Logistics), and J (Command and Control)) and supporting materials as directed.

F. Required Reading:

Specific reading guidance will be assigned by moderators.


G. Supplementary Reading:


TABLETOP EXERCISE #7: CRITIQUING THE OPERATIONS ORDER (Exercise)

My mental faculties remained in suspended animation while I obeyed the orders of higher ups. This is typical with everyone in the military.

—MajGen Smedley Butler USMC, 1933

A. Focus:

The purpose of an operations order is to translate the commander’s decision into oral, written, and/or graphic communication sufficient to guide implementation and promote initiative by subordinates. The operations order, once completed, becomes the principal means by which the commander expresses his or her decision, intent, and guidance. It is the physical product of our intellects and our processes for understanding problems and coming up with creative and innovative ways of resolving them. Previously, you analyzed and critiqued the order was developed for the seizure of Iwo Jima. During this session, you will again demonstrate critical thought by a through a critique of another seminar’s operations order.

B. Objectives:

- Analyze a commander’s operational idea, the articulation of decisions, and how a commander directs military operations through written operations orders.
- Apply the order development process which includes preparation of the base order and annexes, reconciliation, and crosswalks to the evaluation of another seminar’s operations order.

C. Background:

Commanders are the most important participants in the planning process, with the staff performing essential functions that amplify the effectiveness of operations. One of the most important tasks of the staff is to clearly articulate the commander’s operational idea/design to subordinates in the form of an order. The development of the order begins during mission analysis and continues throughout the planning process. The orders development step; however, is the formal part of the process that communicates the plan to subordinate units for execution. It is important to understand that operations orders are not meant for those who write them but for those who receive and execute them. As such, operations orders should be as clear, simple, and as concise as each situation permits.
This session provides yet another opportunity for critical thought. You will analyze another seminar’s operations order to gain a better understanding of how an operations order communicates a commander’s operational idea/design to subordinates—and brief your fellow seminar on your conclusions. The other seminar will do the same for your seminar. At the conclusion of this seminar, students will be able to identify positive practices and pitfalls in orders writing to improve future orders development and will have selected an order for execution.

The point of contact for this session is Professor John Houfek, C-409.

D. Discussion Topics:

Is the operations order clear and does it use simple, understandable English and proper military (doctrinal) terminology?

Is the operations order concise and complete, stating all major tasks to subordinates clearly to include the task’s purpose?

Is the affirmative form of expression used throughout to reinforce the authoritativeness of the operations order?

Is the plan simple, eliminating all reasonable possibilities for misunderstanding?

Is the plan flexible? Does the operations order instruct only as far as conditions can be reasonably foreseen?

Based on our understanding of mission command, evaluate the order from the perspective of the ones tasked to execute it. Does it allow for initiative?

How well does the operations order express the commander’s intent behind the ordered actions to ensure the intelligent cooperation and initiative of subordinates?

To what extent does the operations order provide the necessary command organization and clearly articulate command-and-support relationships and assign responsibilities?

To what extent is the operations order internally valid—meaning are the annexes supportive of the base plan mission, tasks, and specific coordinating instructions?

E. Products:

Seminars will provide candid, constructive feedback to the seminar whose order has been critiqued. Students, led by the moderator team, will then combine the best aspects of each operations order for execution. It is essential that the combined order to be reconciled in order to ensure that it is internally valid.
F. Required Reading:


G. Supplementary Readings:


Maritime security protects U.S. sovereignty and maritime resources, supports free and open seaborne commerce, and counters weapons proliferation, terrorism, transnational crime, piracy, illegal exploitation of the maritime environment, and unlawful seaborne immigration.


A. Focus:

The focus of this lecture is on the range of activities that navies conduct in support of national interests at sea that are short of war. The growing complexity and strategic importance of today’s globalized maritime domain suggests the need for a firm understanding of the principles that underpin naval operations outside the context of high intensity armed conflict.

B. Objectives:

- Examine the objectives and methods of naval operations short of war.
- Understand the role of the principle of legitimacy in naval operations short of war.

C. Background:

The role of naval power in circumstances short of war is much different today than it was in the days of Mahan. Naval forces have always been used for non-war-fighting tasks during times of peace, but naval activities short of war now can have strategic effects like never before. The modern context is different from the last due to three factors: the impact of globalization on maritime commerce, changes in the threat environment, and the evolution of international maritime law.

The first of these, the impact of globalization on maritime commerce, has made the global web of maritime trade more complex, more interdependent, and more vital to the world’s economic well-being than ever before. It has also made the maritime transportation system more vulnerable to disruption. Protecting this critical economic link is a vital national interest and a pillar of global stability. The second element that has changed the maritime operating environment is the evolution of the threat. New technologies and the vulnerabilities of the increasingly interconnected maritime transportation system have raised the potential impact of crime and terrorism to a strategic level. Today, small sub-national groups and rogue states can create devastating effects with far-reaching consequences.
The third factor that makes the peacetime naval operating environment different today is the continuing evolution of international maritime law. For centuries, international maritime law was essentially restrictive in nature, aiming to impose a degree of fairness on the conduct of belligerents. In recent years a number of treaties and agreements have changed the dominant maritime law paradigm from one of separation to one of cooperation on matters of common interest. A level of international maritime cooperation in pursuit of common interests is possible today that would have been inconceivable a generation ago.

Success in this environment will depend on a firm understanding of the underlying principles of contemporary naval operations short of war, especially where they differ from the more familiar principles of naval warfare. Arguably the most important of these is the principle of legitimacy. Naval activities short of war aim to influence behavior and their efficacy often hinges on the activities being seen as legitimate. Legitimacy in turn is largely contingent on the right choice of a regime of authority for action. Where the law of armed conflict governs conduct during high intensity conflict, there is a broad and growing array of legal regimes that both enable and constrain activities short of war. Choosing the right regime of authority for action and fully understanding the implications of that choice can make the difference between strategic success and failure.

The point of contact for this session is Professor I. T. Luke, C-431.

D. Discussion Topics:

Describe some of the tasks that make up the contemporary range of naval operations short of war.

What are the objectives of the various naval operations short of war? How do these tasks contribute to the furtherance of national interests at sea?

What features make the peacetime naval operating environment different from the wartime environment? How should these influence the planning and conduct of naval operations short of war?

What role does the principle of legitimacy play in naval operations short of war?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


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NAVAL SUPPORT TO FOREIGN POLICY (Seminar)

A man-of-war is the best ambassador.

—Oliver Cromwell, September 1643

A. Focus:

This session will analyze the use of naval forces in support of national foreign policy. The focus of the session is on the methods of naval diplomacy, the use of naval forces in conflict prevention and management, and advantages/disadvantages in the employment of naval forces as a tool of foreign policy.

B. Objectives:

- Understand the diplomatic value of naval power.
- Comprehend the similarities and differences between coercive forms of naval diplomacy and collaborative forms of naval diplomacy.
- Know the main methods in applying coercive and/or collaborative forms of naval diplomacy.

C. Background:

Navies have been used in support of foreign policy by major powers throughout history. Naval forces can be employed in support of a country’s diplomatic initiatives in peacetime and time of crisis. Naval diplomacy is defined as the employment of naval forces to further foreign policy objectives by influencing foreign decision-makers’ thoughts and actions. Naval diplomacy functions on a cooperative to coercive spectrum; supporting allies and deterring adversaries or compelling them to change policies. A single maritime force may simultaneously engage in more than one type of military/diplomatic activity.

The point of contact for this session is Captain Frederick Mosenfelder, USN, C-412.

D. Discussion Topics:

Naval ships are specifically designed for naval warfare. Why is there value in employing naval power in a diplomatic role? Why are there disadvantages?

Compare coercive forms of naval diplomacy with collaborative forms of naval diplomacy.
What are the fundamental principles that underpin the employment of naval forces for diplomatic tasks?

E. Products:
None.

F. Required Reading:


G. Supplementary Readings:


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


On the other side—the side of the counterrevolutionaries—the crucial question concerns the relative importance of violence and persuasion, in effect the choice between war and politics. How far is a revolutionary movement dependent upon popular political support, and thus how vulnerable is it to political action designed to undermine popular support? This is the recurring question for the opponents of revolution.


A. Focus:

This session focuses on the fundamental characteristics and types of insurgencies. By framing the operational environment to distill the root causes of insurgency, students will better understand the challenge of designing counterinsurgency operations. Using Design methodology, elements of operational art, and specific analytical tools, students will first 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. Finally, students will consider operational considerations for planning the employment of Naval Forces in the insurgency/counterinsurgency environment.

B. Objectives:

- Comprehend the role of violence in revolutionary warfare.
- Comprehend the joint doctrine perspective on insurgency.
- Using theory, doctrines, and analysis of historical case studies, understand the common causes of insurgency, the fundamental structure of insurgencies, and how insurgencies are generally sustained.
- Comprehend the fundamental elements of planning for and conducting COIN operations with Naval forces.
• Comprehend the relevance of various elements of operational art in planning COIN operations.
• Apply analytical frameworks for analyzing counterinsurgency operational approaches.
• Using theory, doctrines, and analysis of historical case studies, compare the relative effectiveness of military power against the other instruments of national power in COIN.

C. Background:

Although the U. S. military has historically participated in numerous conflicts against insurgent opponents, it has been 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 conventional application of purely military force. We 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 “weak” foes that play by very different rules.

To fight 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, they remain 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.

The employment of Naval forces in the insurgency/counterinsurgency environment requires a theoretical understanding of insurgency, operational art, sea control/sea denial principles and planning. Historical analysis demonstrates Naval forces have been used effectively (and ineffectively) by both insurgents and those attempting to fight them. As in the land domain, an understanding of the environment is critical to success.

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 contemporary environment. This first session is devoted to the theory and analysis of insurgency. The second session focuses on both understanding and fighting insurgencies through the continued examination of historical case studies, with an emphasis on the employment of Naval Forces in one case study.

The point of contact for this session is COL Joe McGraw USA (SF), C-431.

D. Questions:

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

Explain how environmental factors determine the nature of the insurgency.

Describe the factors that must be present for an insurgency to develop and possibly succeed.
Which are the most important? Why?

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 outlook? Why?

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

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

Analyze the factors that are commonly found in historical and contemporary insurgencies. Which are the most important? Why?

Explain how environmental factors determine counterinsurgent objectives, approaches, and access to resources.

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

Explain the unique considerations for employment of Naval Forces in an insurgency environment. How might Sea Control/Sea Denial theory assist Joint Planners?

E. Products:

Students are assigned three case studies in seminar and will examine then brief the seminar on specific and relevant insurgency/COIN practices.

F. Required Reading:

First Session:


**Second Session:**


**Case Studies:*** Students will read the case studies below as directed by seminar moderators.


**G. Supplementary Reading:**


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If the war [between Israel and Hizballah] showed anything, it was how insidious the effect of “professional” lingo can be. How does one distinguish “strategic intelligence superiority” from “operational-tactical intelligence dominance”...so thick was the nonsense, and such the resulting verbal confusion, that the need to reform officer training and education...became one of the cardinal lessons to emerge from the conflict.


A. Focus:

This session complements the preceding two seminars on Insurgency and Counterinsurgency With Naval Forces by examining the concepts of hybrid, asymmetric, and irregular warfare in order to address the challenges of determining the patterns of conflict in the contemporary environment as well as the challenges of shaping an effective operational approach for seemingly incomprehensible (and therefore insoluble) conflicts. While the nature of warfare arguably remains unchanged, its character, or how warfare is waged, changes on an evolutionary (and sometimes revolutionary) scale. This session will examine this changing character of warfare where diplomatic, informational and economic applications of power appear to take priority over the employment of military power towards attaining operational objectives.

B. Objectives:

• Comprehend evolving trends in warfare and the implications of these for operational planning and execution.
• Understand contemporary notions of hybrid warfare, asymmetric warfare, unrestricted warfare and irregular warfare, and their effect on joint doctrine.
• Evaluate the effectiveness of contemporary state and non-state actors in achieving their objectives through use of hybrid, asymmetric, unrestricted and irregular warfare operational approaches.

C. Background:

Hybrid, asymmetric, unrestricted and irregular warfare are terms that are used to capture multiple and evolving patterns of modern conflict. For example, strategists and military experts struggle to categorize the current conflict in eastern Ukraine or the multiple conflicts sweeping Syria/Northwestern Iraq. While the former example could be a state (Russia) fomenting instability in another state (Ukraine) through irregular means, the latter
includes a chaotic mix of insurgent groups vying for political control of Syria; internationally recognized terrorist groups with opaque agendas; and non-state actors that are seeking to establish regional political control irrespective of the international borders of several states. In the past, conflicts such as these may not have figured largely in U. S. strategic calculations. In today’s global security environment, where second and third order effects are not limited by geography, this is no longer true. Non-state actors and terrorist organizations actively recruit and procure resources using information networks that span the globe and easily cross language, culture, ethnic, and religious boundaries. Insurgent groups have a far greater access to successfully co-opt external military and diplomatic support in order to negate the traditional advantages possessed by adversarial government regular forces. Weaker states increasingly are turning to the cyber domain in order to find asymmetric ways to compete with stronger military and economic powers. Strong regional powers are using unconventional warfare and proxy forces to pursue strategic objectives while avoiding diplomatic and economic condemnation by the international community. While history may provide comparable examples, most would agree that the exponential growth of computer networking over the last 20 years has afforded new and innovative opportunities for armed groups and organizations to successfully pursue their objectives while avoiding the debilitating blows by strong, professional military forces such as the U. S. military.

Naval Forces are not exempt from this seemingly evolving and increasingly prevalent character of warfare. In fact, Naval Forces—military, para-military and non-state—are becoming central in such environments. Conflict and competition ongoing in the South China Sea and East China Sea already exhibit asymmetric, hybrid and irregular warfare characteristics. Operational Law and the perception of legitimacy are components of this environment, and opponents appear to target the vulnerabilities of an American Way of War to achieve national or organizational objectives.

The term, “American Way of War” has historically suggested an ‘on/off’ switch indicating whether the nation is at war or at peace. Other cultures embrace a tradition where the nation (or an organization) is always at war, and the application of power is determined by the conditions, opportunities and the adversary’s strategic vulnerabilities. Unconventional Statecraft—the application of the nation’s power towards objectives in an environment not dominated by military forces—seeks to address this dichotomy. The term may be useful in determining how best to plan operations in an environment where combatants and competitors seek to gain objectives through hybrid, asymmetric or irregular means; in other words, achieving objectives without flipping the American war-switch to ‘on’.

The points of contact for this session is COL Joe McGraw USA (SF), C-431.

D. Discussion Topics:

Are emerging trends in warfare new, or do they represent a return to historical ways of prosecuting war?

Discuss the common threads in several concepts of conventional, irregular, hybrid, asymmetric, political, and unrestricted warfare. How do these concepts differ?
How do irregular forces use Land, Sea, Air, and Cyber domains asymmetrically against a state that employs traditional regular military forces?

How can the U.S. counter states engaging in these types of warfare? How does the concept of Unconventional Statecraft fit?

What complexities do hybrid warfare and irregular warfare present to the joint force commander and staff when conceptualizing military operations? Are existing planning processes adequate for addressing these challenges?

E. Products:
None.

F. Required Readings:


G. Supplementary Readings:


Maxwell, David S. “‘Do We Really Understand Unconventional Warfare?’” *Small Wars Journal,* October 23, 2014. (*NWC 3204*).
In the absence of orders, go find something and kill it.

—General Erwin Rommel

A. Focus:

This session is designed to allow Spruance Course students to demonstrate a synthesis of the education presented to date and to demonstrate higher order thinking skills in a complex, uncertain, and ambiguous situation involving the use or contemplated use of military force. The scope of the examination is trimester-wide, meaning that any topic or combination of topics can be expected to be examined. As such, students must apply their understanding of the discrete sessions previously addressed in a holistic manner in creating a suitable answer to the presented question(s).

B. Objectives:

- Synthesize course concepts 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.
- Demonstrate critical thinking skills.

C. Background:

The examination questions will be issued on Tuesday, 30 May 2017 at 1145 and student responses are due to the moderators NLT Wednesday, 31 May at 0800. Grading criteria for Spruance Course examinations may be found on page xxv of this syllabus.

The point of contact for this session is Professor Gannon, C-424.

D. Discussion Topics:

See examination question sheet.

E. Products:

A written examination that demonstrates student mastery of the subject matter presented in the Spruance Course Joint Maritime Operations trimester thus far.
F. Required Reading:

   The examination will be based on JMO course material presented to date.

G. Supplementary Reading:
None.
THE WAR AT SEA EXERCISE (Wargame)

….With regard to China, our policy emphasizes opportunities to cooperate, but frankly we’re closely tracking their rapid military modernization, their expanded presence in Asia, and their increased military presence outside of Asia. While Chinese military investments, capability development, and intentions are opaque, it’s clear they’re investing in a manner that balances requirements for large conventional forces, a growing navy, an increasingly sophisticated air force, and advancements in nuclear, space, and cyberspace.

—General Joseph Dunford USMC, CJCS
Remarks at the Center for Strategic and International Studies, 2016

A. Focus:

The final event in the JMO curriculum is a continuation of the sea control exercise. In this phase of the exercise, students will ‘fight’ their order against a thinking entity that knows his/her enemy’s capabilities and can deduce with fair accuracy his/her intentions. This is an educational wargame that requires students to apply many of the principles and concepts studied throughout the trimester in order to accomplish the assigned mission. While the challenges confronting the students in this exercise are realistic, the situations used to highlight these issues and the solutions the students select are strictly hypothetical. The goal for the College of Naval Command and Staff and Naval Staff College students is understand the challenges in gaining and maintaining sea control in order for the joint force to exploit it.

B. Objectives:

- In addressing a complex conflict that is both volatile and unpredictable, and under time constraints, assess combat actions and adjust accordingly.
- Apply the analytic framework of the Navy / Joint Planning Process for developing potential solutions to military problems.
- Determine objectives and operational approaches that support major combat operations and theater strategy and synchronize efforts at the operational level to facilitate component tactical success.
- Develop and present a series of plans through military briefs and written products associated with the Navy / Joint Operation Planning Process (NPP/JOPP).
C. Background:

This final planning exercise is an opportunity for students to re-examine the ill-structured problems presented in the Borneo scenario and develop a creative operational approach that addresses the requirements levied on the Joint Force. The strategic environment constrains resources and political patience is fleeting. U. S. military dominance in each domain is not assured at all times. These constraints and limitations require critical and creative thought that balance the competing objectives of the joint force and must result in a unified effort.

This scenario picks up from The Struggle for Sea Control exercise. Your Commander, the Joint Force Maritime Component Commander, has approved your operations order to establish local sea control in the vicinity of Bintulu, Sarawak Province, East Malaysia. Day One of this exercise is also day one of combat at sea. Adjudication of your operations order by the Wargaming Department will present new conditions that you will have to assess and readdress using the Navy Planning Process. You may be required to develop fragmentary orders or in some cases generate a new operations order (with selected annexes) in a time constrained environment. The role of cyber operations will be exercised by both sides; both offensively and defensively, meaning students may be operating for periods of time in a cyber denied environment. Maritime operational law and the Law of Armed Conflict will impact combat actions for the U. S. Commander and staff and present ethical dilemmas which students will have to address.

In addition to planning, assessing, and developing orders to gain and maintain local sea control, students will also be presented with an opportunity to interface with media through a series of press briefings and other engagements throughout the exercise. A media team will serve as a simulated press-corps, asking JFMCC representatives questions about combat operations. These engagements provide practice in communicating effectively with the press and understanding how to convey messages and themes in support of joint force objectives.

The point of contact for this session is Professor Bill Hartig, C-428.

D. Discussion Topics:

How does an Operations Planning Team (OPT) adapt a planning process to solve an ill-structured problem?

Describe a method for analyzing combat reports in the absence of perfect knowledge.

Describe how an OPT anticipates future changes in the operating environment caused by military or other actions.

How does an OPT effectively leverage joint force capabilities when planning and executing operations?
How does a Joint Force best integrate elements of national power to accomplish operational objectives?

How does the Commander provide information to the American public and international audiences, to include enemy forces, to best support operational objectives?

E. Products:

Products developed during the Final Planning Event may include Fragmentary Orders, Warning Orders, Operations Orders with selected Annexes, Staff Estimates, Courses of Action and Mission Briefings, and other Joint Planning related products depending on the situation presented by the enemy and the reaction of the Planning Group.

F. Required Reading:


U. S. Office of the Chairman of the Joint Chiefs of Staff. CJCSM 3130.03. Adaptive Planning and Execution (APEX) Planning Formats and Guidance. Scan. (Issued).

G. Supplementary Readings:

None.