Maritime Staff Operators Course (MSOC) Syllabus

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Welcome to the Maritime Staff Operators Course (MSOC). This syllabus is provided for reference and guidance throughout the course.

The primary objective of MSOC is to comprehend, analyze, and apply Maritime Operations Center (MOC) processes and procedures necessary to plan, prepare, execute, and assess complex maritime operations in a dynamic environment.

Our mission is to educate and prepare students to immediately and effectively serve on maritime operational-level staffs.

This course examines both the art and science associated with military activities across the range of military operations. It includes recently developed MOC concepts and substantial application of the Navy Planning Process (NPP). MSOC incorporates seminars, lectures, and practical exercises using a realistic maritime scenario. It culminates with a synthesizing Battle Lab exercise designed to replicate the organization, processes, procedures, and command and control tools of a nominal MOC.

The focus of this course is on maritime operations at the operational level of war. The construct is inherently joint, and uses both Navy and joint doctrine as standard references. Accordingly, it emphasizes the application of maritime capabilities through a combined/joint force maritime component commander (C/JFMCC) and its relevance and value to the joint force commander (JFC). Students apply planning skills and maritime staff processes and procedures across numerous maritime lines of operation (LOOs) which include, but are not limited to, freedom of navigation (FON), maritime interception operations (MIO), noncombatant evacuation operations (NEOs), humanitarian assistance/disaster relief (HA/DR) operations, and multi-Service/ interagency/multinational operations. This is accomplished through a regimen which uses a dynamic contemporary scenario set in 2015.

A practitioner's approach is applied requiring hands-on student participation. Student-produced deliverables include military briefings and mission-type orders (e.g., operation orders (OPORDs) and fragmentary orders (FRAGORDs) and daily intentions and directives messages (DIDMs).

Course Outcomes. The course builds on fundamentals and culminates with the planning of multiple LOOs during the execution phase of MSOC. This course is designed to produce personnel who are capable of performing in a high-tempo, fluid

operational environment. Specifically, course graduates will be:

- Skilled in providing support to the commander's decision cycle (monitor-assess-plan-direct-communicate) to command and control maritime forces;
- Skilled in applying operational art in naval, joint, interagency, and multinational maritime environments;
- Skilled in using the NPP as a member of an operational planning team (OPT) within a MOC;
- Capable of exercising and synchronizing operational-level functions: command and control (C2), intelligence, sustainment, movement and maneuver, fires, and protection;
- Capable of critical thought as it relates to operational-level leadership challenges;
- Competent in the maritime dimensions of warfare including the full range of naval capabilities, maritime C2, and operational warfare at sea;
- Capable of managing the flow of information within a staff and among subordinate commands or activities, adjacent components, and higher headquarters staffs while working within a collaborative information environment;
- Able to operate within a battle rhythm and participate effectively in any MOC cross functional team (board, bureau, center, cell or working group) and apply appropriate control measures to direct subordinate tactical forces.

MSOC Lines of Operations.

The curriculum is comprised of *four interconnected LOOs*:

1. **Strategy, Operational Art, and Operational Functions**
2. **Maritime Command and Control**
3. **Planning and Preparation**
4. **Execution**

Holistically, the LOOs are designed to meet the following objectives:

- Comprehend the strategic context, fundamentals of naval and joint operations, operational art/design and relationship of operational art to strategy and tactics.

- Analyze the organization and functions of a maritime component staff in order to command and control maritime, joint, and multinational forces across the range of military operations.

- Apply and analyze the NPP and how to use that process to create plans and orders at the operational level of war.

- Synthesize course fundamentals as a member of a MOC during execution in a realistic scenario.

1. **Strategy, Operational Art, and Operational Functions**

In the first LOO, students are introduced to the fundamental aspects of joint warfare, to include familiarization with:

- National and maritime strategies
- Operational art and design concepts
- Joint and Service references and doctrinal publications
- Levels of command and levels of war
- Theater geometry
- Operational warfare at sea
- Operational factors of space-time-force
- Principles of joint operations / principles of war
- Center-of-gravity identification and deconstruction
- Joint functions of C2, intelligence, sustainment, movement and maneuver, fires, and protection (with detailed discussions of each function)
- Joint planning guidance and execution systems

The initial LOO culminates in a comprehensive discussion of the Battle of Leyte Gulf which synthesizes the key aspects of operational art. The foundational aspects are then carried forward and used extensively throughout the remainder of the course.

2. **Maritime Command and Control**

The second LOO focuses on the core aspect of operational-level warfare – C2 of maritime forces, the employment of maritime capabilities, and how the Navy executes operational C2 via the MOC construct. Students are instructed in the fundamentals of:

- The commander's decision cycle
- COCOM, OPCON, and TACON authorities
- Supported and supporting command relationships
- Information operations (IO)
- Operational law and rules of engagement (ROE)
- Joint Service capabilities (USN, USA, USMC, USAF, USCG, SOF)
- Maritime security operations, including MIO, FON, Maritime Domain Awareness (MDA)/Maritime Operational Threat Response (MOTR)
- HA/DR and NEO
- Information management and knowledge management (IM/KM)
- Universal Joint Task List and Universal Naval Task List applications
- Operational assessment methodology

Students are also introduced to the organizational construct of a MOC and the associated processes and concepts. They are also shown the organization and missions of the individual Navy MOCs (USFF, CPF, C3F, C4F, C5F, C6F, C7F, and C10F). They explore how a C/JFMCC is formed and how a staff operates within a disciplined battle rhythm to support the decision cycle.

3. Planning and Preparation

The students then transition into the Planning and Preparation LOO that uses operational art and MOC processes as its foundation. In this LOO, the students engage in practical exercises using a contemporary scenario that reinforces class lectures and uses a "learn then do" methodology. Focus areas include:

- The six-step NPP
- Staff estimates
- Operational planning team (OPT) organization and utilization
- Risk assessment
- Commander's intent and guidance
- Intelligence support, including the joint intelligence preparation of the operational environment (JIPOE)

The students then employ the NPP, with emphasis on key techniques, supporting concepts, and doctrine. Students use the doctrine in NWP-5-01 to perform the six steps of the NPP:

- Mission Analysis
- Course of Action (COA) Development
- COA Analysis and Wargaming
- COA Comparison and Decision
- Plan or Order Development
- Transition

4. Execution

The Execution LOO is the synthesizing event of MSOC, where the class functions as a MOC staff and applies joint and Service concepts, fundamentals, doctrine and knowledge of the NPP within the context of a realistic scenario. The class executes the CFMCC operation order that they developed in the Planning and Preparation LOO. A Control Group role-plays the HHQ, adjacent components, coalition partners and subordinate task forces in the execution portion of the scenario.

The intent is to demonstrate how internal and external activities support the commander's decision cycle. It is a week-long command post exercise where students are assigned (and later rotated) among various cross functional teams. Execution

begins with a systems and applications session that effectively replicates real-world MOC C2 systems and functionality. These systems are relied on extensively during the Battle Lab week.

Students work in the Current Operations (COPS) cell, Future Operations (FOPS) cell, Future Plans Cell (FPC), and the Operational Assessment Cell (OAC), and are supported by the Control Group.

COPS will:

- Analyze, fuse, and disseminate information for shared situational awareness
- Develop and release daily intentions and directives messages (DIDMs)
- Coordinate, produce, and deliver Commander's Update Briefs (CUBs)
- Manage the common operational picture (COP)
- Coordinate and monitor execution of current directives
- Publish fragmentary orders (FRAGORDs) as required
- Release immediate messages per reporting requirements
- Develop, manage, and promulgate C/JFMCC battle rhythm
- Maintain the Significant Events Log
- Manage requests for information (RFIs)
- Communicate with higher, adjacent, and maritime subordinate commands
- Track the readiness of forces assigned to the C/JFMCC
- Coordinate operations with other joint force components
- Direct subordinates in achieving C/JFMCC objectives
- Form crisis action teams (CATs) in emergent circumstances
- Monitor, assess, and report commander's critical information requirements (CCIRs)

FOPS will:

- Draft commander's intent to include purpose, method, end state, and risk
- Develop COAs to modify maritime operations to achieve the commander's intent
- Phase and synchronize tactical concepts of operations (CONOPS)
- Conduct branch planning
- Produce CONOPS by phase with COA narratives and sketches
- Identify decision points
- Develop synchronization matrices
- Coordinate and draft requests for forces (RFFs)/requests for capabilities (RFCs)
- Present transition briefs to COPS

- Recommend CCIRs and modifications as required
- Coordinate internal staff actions as they relate to planning
- Propose targeting priorities for consideration in the targeting process

FPC will:

- Conduct analysis and coordination of future operations during execution
- Coordinate internal and external planning
- Conduct sequel planning; present transition briefs to FOPS
- Assist FOPS in crisis action planning as required
- Draft commander's intent to include purpose, method, end state, and risk

OAC will:

- Develop measures of effectiveness (MOEs)
- Develop measures of performance (MOPs)
- Develop MOE indicators (MOE-Is)
- Consolidate and assess task accomplishment
- Conduct analysis and determine trends
- Identify the operational impact of events on the LOOs
- Assess progress of each phase toward (or away from) C/JFMCC's objectives
- Provide assessment inputs to appropriate cross functional team activities
- Recommend whether or not C/JFMCC should execute branch or sequel plans
- Inform plans development (ends and means) and modify plans (ways)

Oral and Written Requirements.

Students are required to develop and deliver products, including military briefings throughout the course; most will be associated with planning and execution.

Readings.

Required readings are contained in the Session Sequence below. All readings can be found on the CD-ROM provided to the students on the first day of class. The CD also contains additional documents for future reference.

The Joint Doctrine, Education and Training Electronic Information System (JDEIS) Web Portal contains the entire Joint Electronic Library: https://jdeis.js.mil/jdeis/generic.jsp (or .smil for classified portions of the JEL). For naval references, the Navy Warfare Development Command's Navy Doctrine Library System (NDLS) can be found at: https://ndls.nwdc.navy.mil/ or http:ndls.nwdc.navy.smil.mil

MSOC Generic Session Sequence and Readings

SESSION TOPIC	READINGS
Course Introduction and Administration	(Assigned on web site as preparatory readings) - NTTP 3-32.1: sections 1.2 through 1.6 - Syllabus
Korean War Case Study	
Maritime Operations Center (MOC) Construct	- NTTP 3-32.1: pp 1-1 through 1-11 - NWP 3-32: pp 7-1 through 7-17 (Scan pp 7-5 through 7-12)
Strategies & Concepts	(Assigned on web site as preparatory readings) - NDP-1: Chap 2 & 3 - Naval Operations Concept (NOC): Chap 1 through 3 - CNO's Sailing Directions - CNO's Navigation Plan
Joint & Service References	
Levels of War, Theater Geometry, & Operational Warfare at Sea	- Staff Officer Reference Guide: pp. 23 through 27 - NWP 5-01 (Edited Final Draft): pp. A-1 through A-8
JTF/Component Organization	- NWP 3-32: pp 4-1 through 4-18 - JP 3-16: Ex. Summary
Commander's Decision Cycle	- NWP 3-32: pp 6-4 through 6-5 (para 3, CCIRs), 6-8 through 6-19
Operational Art & Operational Design	NWP 3-32: pp 5-1 through 5-13
Operational Factors; Principles of Joint Ops	- NWP 3-32: para 5.3.3.2 through 5.3.3.4 - JP 3-0: App A - Joint Military Operations Historical Collection: Chap II
Center of Gravity Analysis	- NWP 5-01 (Edited Final Draft): App C
Joint/Operational Functions and Operational Command & Control	- NWP 3-32: pp 7-18 through 7-22, App A - NWP 3-32: pp 3-1 through 3-8
Operational Intelligence; METOC & Space Support	- NTTP 3-32.1: pp 2-1 through 2-10

Operational Sustainment	**- Christiansen, Claude V. "Joint Logistics - Shaping Our Future: A Personal Perspective."**
Operational Movement & Maneuver	**- JP 3-32: pp I-8 through I-9** **- JP 3-0: pp III-27 through III-29**
Operational Fires	**- JP 3-09: Ex. Summary**
Operational Protection	**- JP 3-0: pp III-29 through III-35** **- NTTP 3-32.1: pp 3-38 through 3-39** **- Scan ADRP 3-37: pp 2-1 through 2-14**
OPART Leyte Gulf Case Study	**- JP 2-01.3: App A**
Joint Planning Guidance & Execution Systems	**- JP 5-0: pp I-1 through I-4; Scan pp II-1 through II-9 and II-11 through II-37**
Operational Law, Law of War, Rules of Engagement (ROE)	**- NTTP 3-32.1: pp 3-36 through 3-38 and A-7 through A-9** **- Scan NWP 1-14**
Service Capabilities, Limitations, and Organization; Ballistic Missile Defense (BMD) Overview	**- Scan Joint Services Integration (slides)** **- Scan The United States Naval War College Joint Military Operations Reference Guide Forces/Capabilities Handbook**
MOC Organization	**- DTD JS J7 Insights & Best Practices, Joint Operations 4th Ed.: pp 38 through 42** **- NTTP 3-32.1: pp 3-1 through 3-11, B-1 through B-6**
Humanitarian Assistance/Disaster Relief (HA/DR), Interagency (IA), Nongovernmental Organizations (NGO), Intergovernmental Organizations (IGO)	**- JP 3-29: Ex. Summary** **- JP 3-08: Ex. Summary**
Noncombatant Evacuation Operations (NEO)	**- JP 3-68: Ex. Summary**
Maritime Interception Operations (MIO)/Freedom of Navigation (FON)	**- UNCLOS: Art. 86 through 89** **- NWP 1-14: page 2-14** **- NTTP 3-07.11M: Ex. Summary, Fig 1-1 and 1-2, and pp 2-1 through 2-4**
Maritime Domain Awareness (MDA) & Maritime Operational Threat Response (MOTR)	**- National Strategy for Maritime Security: pp 16 to17 and scan pp 3 through 6** **- National Maritime Domain Awareness Plan: pp iv through vi.** **- TM 3-32.1-10: Ex. Summary, pp EX-1 through EX-3** **- Maritime Operational Threat Response Plan: pp 2 through 12**

Information Operations	**- JP 3-13: Chap 2, pp II-1 through II-13** **- NTTP 3-32.1: pp 3-25 through 3-30** **- Commander's Handbook for Strategic Communication and Communication Strategy: Ex. Summary pp. xi through xvii** **- Scan: Info Ops and Related Definitions** **- Scan Info Ops Planning & Execution Considerations**
Cyberspace Operations	**Stuxnet Case Study**
Information Management & Collaborative Information Environment (CIE)	**- JFCOM Insights, Gen Luck Focus Paper # 2, Information Management, Executive Summary**
Fleet Orientation	
Introduction to Planning & Navy Planning Process Overview	**- NWP 5-01 (Edited Final Draft): Chap 1**
Universal Joint Task List & Universal Naval Task List (UJTL & UNTL)	**- NWP 3-32: pp B-1 through B-7** **- CJCSM 3500.04F (UJTM): pp A-1 through A-3**
Operational Planning Team (OPT) & Staff Estimates	**- NTTP 3-32.1: pp 5-5 through 5-8** **- NWP 5-01 (Edited Final Draft): App K, Scan Annexes K-1 through K-7,** **- Staff Estimates Matrix handout**
Operational Assessment (Session 1)	**- NWP 5-01 (Edited Final Draft): pp G-1 through G-14** **- NWP 3-32: pp 6-11 through 6-14**
Risk Assessment	**- Scan NWP 5-01 (Edited Final Draft): App F**
CDR's Intent and Planning Guidance	**- JP 5-0: pp III-16 through III-18** **- NWP 5-01 (Edited Final Draft): para 2.4.15**
Intelligence Support to Planning (JIPOE)	**- NWP 5-01 (Edited Final Draft): App B**
Mid-course Critique	
CaS Introduction & Gamenet Introduction	
Indonesia Case Study "Road to Crisis" and JIPOE Steps 1-3	**- Ocean Promise Case Study (class handout)**
Operational Assessment (Session 2)	**- CDR's Handbook for Assessment Planning & Execution, Chap III**
JIPOE Step 4	**- NWP 5-01 (Edited Final Draft): pp Q-1-1 through Q-1-8 and review App C**
Mission Analysis	**- NWP 5-01 (Edited Final Draft): Chap 2, App M and Annex Q-1** **- CJTF OCEAN PROMISE WARNORD (class handout)**

Case Study Operations & Intelligence Briefs	**- Class handouts**
COA Development	**- NWP 5-01 (Edited Final Draft): Chap 3, App E, Annex Q-2, and scan App I** **- CJTF WARNORD (class handout)** **- CFMCC Intent & Guidance (class handout at end of session)**
Targeting	**- JP 3-09: Chap II** **- NTTP 3-60.2: Chaps 1, 2, and pp 3-1 through 3-6** **- NTTP 3-32.1: pp 3-15 through 3-22, App E**
Component/UNMTF CONOPS Briefs	**- Component and UNMTF CONOPS (Briefs on Collaboration at Sea site)**
COA Analysis (Wargaming)	**- NWP 5-01 (Edited Final Draft): Chap 4**
Decision Tools and Templates	**- NWP 5-01 (Edited Final Draft): App I**
COA Comparison & Decision	**- NWP 5-01 (Edited Final Draft): Chap 5, App H** **- CFMCC Governing Factors (class handout)**
Orders Development	**- NWP 5-01 (Edited Final Draft): Chap 6, pp L-1 through L-8, L-2-1 through L-2-6, scan JFMCC OPORD example pp L-2-7 through L-2-22**
Transition	**- NWP 5-01 (Edited Final Draft): Chap 7 and App O**
Battle Lab Familiarization	