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**CURRICULUM OUTLINE OF INSTRUCTION**  
**SURFACE WARFARE OFFICER COMMANDING OFFICER COURSE**  
CIN: A-4H-0111 CDP: 0327

**MODULE 1-1: HALSEY WAR GAME**

Lesson #	Topic	Objectives
1-1-1	Overall	<p><b>Teams assigned to either Halsey A or Halsey B groups, using the following:</b></p> <ul style="list-style-type: none"><li>- Personal and professional <b>experience</b>, research, networking, SWOS Instructor <b>Led Training (ILT)</b>, previous pipeline training;</li><li>- Current in-theater CSG/ARG <b>OPTASKs</b> and OPORDs;</li><li>- Current Navy Tactical Reference <b>Publications (NTRPs)</b>/Ship Class Tactical Publications, <b>Navy Tactics</b>, Techniques, and Procedures Publications (<b>NTTPs</b>), <b>Naval Warfare Publications (NWP)</b>s, <b>TACMEMOs</b>, and <b>TACBULs</b>;</li><li>- CJCS ROE and any currently <b>approved AOR</b> specific supplemental ROE;</li><li>- Assigned Blue Force CSG/ARG assets, Joint Forces assigned to CTF/CTGs;</li><li>- Briefed and ONI AOR specific threat updates;</li><li>- NWC/SWOS AOR issued Commander' Intent;</li></ul> <p>are to develop Strike Group level thru ship specific plans to <b>DEFEAT</b> Red Forces in pre-hostility and combat operations.</p> <p><b>DESCRIBE</b> how your sensors and weapons systems will be configured during the following situations:</p> <ul style="list-style-type: none"><li>- CSG Operations</li><li>- ARG Operations</li><li>- SAG/SAU Operations</li><li>- Escort Operations</li><li>- Strait Transits</li><li>- Restricted EMCON</li><li>- Independent Steaming</li></ul> <p><b>DEVELOP</b> Daily Combat Systems(CS)/Tactical Orders for your specific ship for each War Game move. CS/Tactical Orders will be reviewed by N73 and N75.</p>

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	Information (IO) Operations	<p><b>DISCUSS and APPLY</b> the current Theater to Ship IO organization in a given AOR.</p> <p><b>IDENTIFY</b> Theater-wide Blue Force ISR capabilities and current plans and then draft RFF (if required) to support your force.</p> <p><b>COUNTER</b> Red Force ISR employment utilizing Joint, Strike Group, and Ship Specific EMCON, EA, MILDEC, and Dynamic Maneuver assets and capabilities in a given AOR.</p> <p><b>IDENTIFY</b> threats in a given AOR and prioritize them according to lethality to the Strike Group and your platform.</p> <p><b>COUNTER</b> Red Force threats utilizing Joint, Strike Group and Ship Specific ES, EA, EP, MILDEC, OPSEC (RIVER CITY), and CTTG capabilities in a given AOR.</p> <p><b>APPLY</b> ship specific EW capabilities to include SLQ 32 (V) series set up, R17/R18 software caps/lims and doctrine, NULKA, and Distraction and Seduction decoy caps/lims against AOR threats.</p> <p><b>APPLY</b> SG/Ship Specific Tactical Data Link (TDL) /Cooperative Engagement Capability (CEC) caps/lims and best practices in a given AOR.</p>
	Air and Missile Defense (AMD) Operations	<p><b>DISCUSS and APPLY</b> the current Theater to Ship Air and Missile Defense (AMD) organization in a given AOR.</p> <p>If assigned, <b>PERFORM</b> as SG Alternate Air Defense Commander.</p> <p><b>DEVELOP</b> a Strike Group AMD Battlespace based on briefed threats for a given AOR.</p> <p><b>DEVELOP</b>, based on Joint, Strike Group, and Ship specific caps/lims, a Recognized Air Picture (RAP) for a given AOR.</p> <p><b>DEVELOP</b>, based on Joint, Strike Group, and Ship Specific Offensive/Defensive AMD caps/lims, AMD postures to include air operations in support of , SAG, SAU, MIW, and other escort missions, based on briefed threats for a given AOR.</p> <p><b>DISCUSS and APPLY</b> your ship's specific Hard Kill/Soft kill tactics against briefed threats in a given AOR.</p> <p><b>DISCUSS and APPLY</b> Joint/USN BMD caps/lims against AOR specific threats to Critical Infrastructure and HVUs afloat.</p>

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Lesson #	Topic	Objectives
	Surface Warfare (SUW) Operations	<p><b>DISCUSS</b> and <b>APPLY</b> the current Theater to Ship SUW organization in a given AOR.</p> <p><b>DEVELOP</b> a SG SUW Battlespace based on briefed threat for a given AOR.</p> <p><b>DEVELOP</b>, based on Joint, Strike Group, and Ship specific caps/lims, a Recognized Maritime Picture (RMP) for a given AOR.</p> <p><b>DISCUSS</b> and <b>DEVELOP</b>, based on Joint, Strike Group, and Ship Specific Offensive/Defensive SUW caps/lims, SUW postures to support SG, ARG, SAG, SAU, MIW, and other escort missions based on briefed threats for a given AOR.</p> <p><b>DISCUSS</b> and <b>DEVELOP</b>, when assigned as SAG Commander, plans for taking TACON of other Surface Combatants/Aircraft and employing the SAG against a given threat.</p> <p><b>DISCUSS</b> development of an AOR Common Tactical Picture (CTP) using assets and systems available in a SG and aboard your platform.</p> <p><b>DISCUSS</b> and <b>APPLY</b>, using your ship's specific SUW weapon systems, SUW tactics against briefed threats in a given AOR. This includes applying during each move, Surface gunnery procedures using your specific gun weapon system against a given threat.</p>

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Lesson #	Topic	Objectives
	Undersea Warfare (USW) Operations	<p><b>DISCUSS and APPLY</b> the current Theater to Ship USW organization in a given AOR.</p> <p><b>DEVELOP and APPLY</b> an AOR wide Waterspace Management (WMP) Plan using Theater, Direct Support, and Strike Group assets.</p> <p><b>DEVELOP</b>, based on Joint, Strike Group, and Ship specific caps/lims, a Recognized Maritime Picture (RMP) for a given AOR.</p> <p><b>DISCUSS and DEVELOP</b>, based on Joint, Strike Group, Ship specific Offensive/Defensive ASW weapons and sensors caps/lims, and NEPOC Oceanography prediction systems, <b>ASW screens</b> to support SG, ARG, SAG, SAU, MIW, and other escort missions, based on briefed threats for a given AOR.</p> <p><b>DISCUSS and DEVELOP</b>, when assigned as SAU Commander, plans for taking TACON of other Surface Combatants/Aircraft and employing the SAU to conduct a deliberate prosecution of Datum.</p> <p><b>DISCUSS and APPLY</b> your ship's specific ASW weapon systems and tactics against briefed threats in a given AOR.</p> <p><b>EXECUTE</b> Force/Ship Torpedo Countermeasures when Torpedo detection is made.</p>

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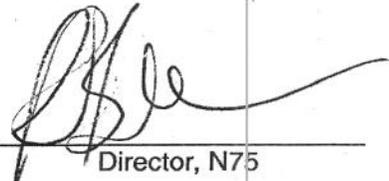
**MODULE 1-1: HALSEY WAR GAME**

Lesson #	Topic	Objectives
	Expeditionary Warfare (EXW) Operations	<p><b>DISCUSS</b> and <b>APPLY</b> the current Theater to Ship EXW organization in a given AOR.</p> <p><b>DISCUSS</b> and <b>EXECUTE</b> ARG embarked MEU(SOC) missions in support of Commanders Intent.</p> <p><b>ESTABLISH</b> the AMPHIBOUS OBJECTIVE AREA (AOA) and <b>DEVELOP</b> sea areas within the landing area for assigned forces to operate.</p> <p><b>ESTABLISH</b> a HIDACZ in support of the Amphibious landing and discuss the procedures within the ARG with CRUDES escorts to execute the HIDACZ.</p> <p>When assigned to a Fire Support Area (FSA) in support of an Amphibious Landing, <b>DISCUSS</b> your shipboard CONDITION of READINESS and NSFS procedures aboard your specific ship and <b>DICTATE</b> the operational fire that will used during the mission.</p> <p><b>EMBARK</b> a Mine Countermeasure Task Group Commander and Helicopter Mine Squadron aboard LPD Class ship and <b>IMPLEMENT</b> this capability into the conduct of the War Game.</p>

Additional Notes:

  
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<b>MODULE 1-2: EXPEDITIONARY WARFARE</b>		
Lesson #	Topic	Objectives
1-2-1	HA/DR Missions  (AMPHIB Only)  (1.0 hours)	EO: 1-2-2.1: <b>DESCRIBE</b> Proactive HA  EO: 1-2-2.2: <b>DESCRIBE</b> Reactive HA  EO: 1-2-2.3: <b>DESCRIBE</b> issues affecting HA/DR Planning  EO: 1-2-2.4: <b>DESCRIBE</b> issues affecting HA/DR Execution
1-2-2	Wet Well Operations and Ballasting  (AMPHIB Only)  (2.0 hours)	EO: 1-2-3.1: <b>DESCRIBE</b> the shipboard command-and-control structure for wet-well operations  EO: 1-2-3.2: <b>DESCRIBE</b> general launch and recover procedures for the following landing craft: <ul style="list-style-type: none"> <li>- LCU</li> <li>- LCAC</li> <li>- AAV</li> </ul> EO: 1-2-3.3: <b>DESCRIBE</b> LCU sterngate marriage  EO: 1-2-3.4: <b>STATE</b> the planning factors for ballasting/deballasting time.  EO: 1-2-3.5: <b>DESCRIBE</b> the safety concerns posed by: <ul style="list-style-type: none"> <li>- Squat</li> <li>- Free Surface Effect</li> </ul>
1-2-3	Ship-to-Shore Movement  (AMPHIB Only)  (.5 hours)	EO: 1-2-4.1: <b>LIST</b> and <b>DESCRIBE</b> the elements of the Naval Control Group and their roles in surfaceborne STS, including: <ul style="list-style-type: none"> <li>- CATF</li> <li>- CCO</li> <li>- PCO</li> <li>- LCO</li> <li>- SCO</li> </ul> EO: 1-2-4.2: <b>LIST</b> and <b>DEFINE</b> the three types of surface craft control  EO: 1-2-4.3: <b>LIST</b> and <b>DESCRIBE</b> the major Navy control stations involved in vertical assault, to include: <ul style="list-style-type: none"> <li>- CATF</li> <li>- TAO</li> </ul>

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<b>MODULE 1-2: EXPEDITIONARY WARFARE</b>		
Lesson #	Topic	Objectives
		<ul style="list-style-type: none"> <li>- TACC</li> <li>- HCS</li> </ul> <p>EO: 1-2-4.4: <b>DISCUSS</b> advantages and disadvantages associated with surface- and airborne ship-to-shore movement</p>
1-2-4	Embarkation  (AMPHIB Only)    (0.5 hours)	<p>EO: 1-2-5.1: <b>DESCRIBE</b> the requirements and regulations for embarkation to include:</p> <ul style="list-style-type: none"> <li>- Ship's Loading Characteristics Pamphlet (SLCP)</li> <li>- Troop Regulations</li> </ul> <p>EO: 1-2-5.2: <b>DESCRIBE</b> the role the following programs and messages play in the embarkation process</p> <ul style="list-style-type: none"> <li>- Integrated Computerized Deployment System (ICODES)</li> <li>- Naval Support Element Augmentation (NSEA)</li> <li>- Organization for Embarkation and Assignment to Shipping (OEAS)</li> <li>- Berthing and Loading Schedule (BALS)</li> <li>- Pre-Embarkation Shipboard Accommodation Inspection Report (PSAIR)</li> <li>- Embarked Personnel and Material Report (EPMR)</li> </ul> <p>EO: 1-2-5.3: <b>DESCRIBE</b> the shipboard concerns associated with Landing Force Operational Reserve Material (LFORM) Agricultural Wash down Operations</p>
1-2-5	SSDS (AMPHIB Only) (1.0 hours)	<p>EO: 1-2-6.1: <b>DESCRIBE</b> the weapons, sensors, and other systems integrated into the SSDS MK1 and MK2.</p> <p>EO: 1-2-6.2: <b>DESCRIBE</b> Identification and Engagement Processing.</p>

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Cell / Course Lead

*R. H. Chedler*  
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<b>MODULE 1-3: SURFACE WARFARE</b>		
<b>Lesson #</b>	<b>Topic</b>	<b>Objectives</b>
1-3-1	SUW OPS / SAG Tactics & OTH-T  (1.5 hours)	EO 1-3-1.1 <b>LIST</b> and <b>DESCRIBE</b> the SUW Kill Chain.  EO 1-3-1.2 <b>DESCRIBE</b> SUW platform sensors, offensive weapons, and employment in an SUW environment. <ul style="list-style-type: none"> <li>• Surface</li> <li>• Subsurface</li> <li>• Air</li> </ul>
	<b>(CRUDES ONLY)</b>	EO 1-3-1.3 <b>STATE</b> the purpose of a SAG and the responsibilities of the SAGC.  EO 1-3-1.4 <b>LIST</b> and <b>DESCRIBE</b> the four phases of SAG operations.  EO 1-3-1.5 <b>DESCRIBE</b> formation considerations for SAG units, to include: <ul style="list-style-type: none"> <li>• EMCON</li> <li>• Search plans</li> <li>• Maneuvering</li> <li>• Counter-detection</li> <li>• Engagement planning</li> </ul> EO 1-3-1.6 <b>LIST</b> and <b>DESCRIBE</b> OTH-T procedures, including targeting methods.  EO 1-3-1.7 <b>DESCRIBE</b> Harpoon employment considerations.
1-3-2	SUW Threat & FAC/FIAC  (1.0 hours)	EO 1-3-2.1 <b>DESCRIBE</b> Fast Attack Craft (FAC) and Fast Inshore Attack Craft (FIAC).  EO 1-3-2.2 <b>DESCRIBE</b> the current FAC/FIAC threat.  EO 1-3-2.3 <b>DESCRIBE</b> the tactics used by FAC/FIAC.  EO 1-3-2.4 <b>DESCRIBE</b> layered defense for FAC/FIAC.  EO 1-3-2.5 <b>DESCRIBE</b> and <b>APPLY</b> generic pre-planned responses (PPRs) for an inbound FAC/FIAC threat including: <ul style="list-style-type: none"> <li>- Shipboard Response</li> <li>- Helo/Fixed Wing Response</li> </ul> EO 1-3-2.6 <b>DESCRIBE</b> the role of command and control watch stations during FAC/FIAC engagement including: <ul style="list-style-type: none"> <li>- Officer of the Deck (OOD)</li> <li>- Tactical Action Officer (TAO)</li> <li>- Gun Liaison Officer (GLO)</li> </ul>

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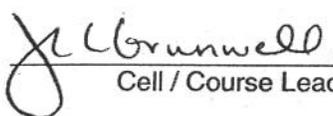
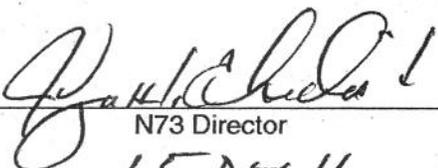
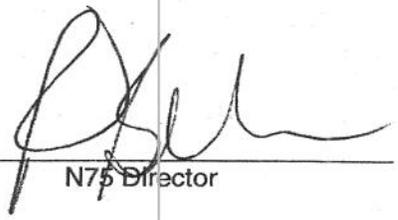
<b>MODULE 1-3: SURFACE WARFARE</b>		
Lesson #	Topic	Objectives
1-3-3	FMB Scenario Brief  (0.5 hours)	<b>DESCRIBE</b> pre-planned responses by platform type to be used to counter small boat threats.
1-3-4	FMB Scenario  (5.0 hours)	Strait of Hormuz FIAC/PPR and Bahrain Harbor Transit FIAC/PPR
1-3-5	Counter-Piracy  (1.0 hours)	<p>EO 1-3-5-1.1 <b>LIST</b> the UNCLOS and U.S. piracy definitions.</p> <p>EO 1-3-5-1.2 <b>DESCRIBE</b> the Command and Control structure for Counter-Piracy operations in Fifth Fleet.</p> <p>EO 1-3-5-1.3 <b>DESCRIBE</b> ROE considerations for Counter-Piracy operations in Fifth Fleet.</p> <p>EO 1-3-5-1.4 <b>DESCRIBE</b> pirate tactics for vessel takedown.</p> <p>EO 1-3-5-1.5 <b>DESCRIBE</b> U.S. Counter-Piracy measures.</p> <p>EO 1-3-5-1.6 <b>DESCRIBE</b> CTF 151 Counter-Piracy Tools to include:</p> <ul style="list-style-type: none"> <li>• AIS</li> <li>• Coalition Translators</li> <li>• Tripwires</li> <li>• PPRs</li> <li>• Maritime Awareness Calls (MAC)</li> <li>• Vulnerable Shipping List (VSL)</li> <li>• SITREP</li> </ul> <p>EO 1-3-5-1.7 <b>DISCUSS</b> Safety of Life at Sea (SOLAS) situations and best practices.</p>

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<b>MODULE 1-3: SURFACE WARFARE</b>		
<b>Lesson #</b>	<b>Topic</b>	<b>Objectives</b>
1-3-6	MIO / VBSS  (1.0 hours)	EO 1-3-6-1.1 <b>DESCRIBE</b> the basic elements of Maritime Interception Operations to include the following: <ul style="list-style-type: none"><li>• Training</li><li>• Equipment</li><li>• Command and Control</li><li>• Missions</li><li>• Contribution to Recognized Maritime Picture (RMP)</li><li>• Post-boarding Requirements (Messages, Storyboards)</li></ul> EO 1-3-6-1.2 <b>LIST</b> and <b>DESCRIBE</b> the three types of boardings and four levels of force associated with MIO. EO 1-3-6-1.3 <b>LIST</b> the Go/No-Go Criteria for MIO. EO 1-3-6-1.4 <b>DISCUSS</b> generic pre-planned responses for non-routine situations and available tactics for compelling compliance.

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<b>MODULE 1-4: INFORMATION OPERATIONS</b>		
<b>Lesson #</b>	<b>Topic</b>	<b>Objectives</b>
1-4-1	Tactical Data Links & C4I Systems	<p>1-4-1.1 <b>DESCRIBE</b> the operating characteristics of Link-11, to include frequency spectrum, operating modes, protocols, critical nodes and platforms.</p> <p>1-4-1.2 <b>DESCRIBE</b> the operating characteristics of Link-16, to include frequency spectrum, critical nodes, protocols, and platforms.</p> <p>1-4-1.3 <b>DESCRIBE</b> the Tactical Data Links used in support of Ballistic Missile Defense operations.</p> <p>1-4-1.4 <b>DESCRIBE</b> Tactical Data Link (TDL) Best Practices and standards.</p> <p>1-4-1.5 <b>DESCRIBE</b> the capabilities and limitations of Cooperative Engagement Capability</p>
1-4-2	IO Update	<p>1-4-2.1 <b>DESCRIBE</b> the importance of Information Assurance (IA) and Computer Network Defense (CND) within your ship/squadron.</p> <p>1-4-2.2 <b>DESCRIBE</b> the notional Cyber training cycle, to include training and certifying commands.</p> <p>1-4-2.3 <b>DESCRIBE</b> the U.S. Navy Cyber chain of command.</p> <p>1-4-2.4 <b>DESCRIBE</b> Navy Cyber Defense Operations Command's (NCDOC) Online Compliance Reporting System, to include items tracked and methods to verify accuracy.</p> <p>1-4-2.5 <b>DESCRIBE</b> the roles executed by ships/squadrons in Psychological Operations (PSYOP) during recent HA/DR operations, to include shipboard systems utilized and methods of delivery.</p> <p>1-4-2.6 <b>DESCRIBE</b> the capabilities and limitations of surface ship cryptology assets.</p>
1-4-3	Electronic Warfare	<p>1-4-3.1 <b>STATE</b> the purpose of Electronic Warfare (EW) in accordance with current doctrine, tactics, techniques, and procedures.</p> <p>1-4-3.2 <b>DESCRIBE</b> the elements of Electronic Warfare (EW) to include:</p> <ul style="list-style-type: none"> <li>• Electronic Support (ES)</li> <li>• Electronic Attack (EA)</li> <li>• Electronic Protection (EP)</li> </ul> <p>1-4-3.3 <b>DESCRIBE</b> the capabilities and limitations of your ship-specific Electronic Warfare system, to include frequency spectrum, automated system responses, version differences, and electronic attack (if equipped).</p>

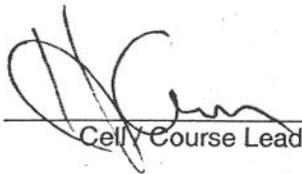
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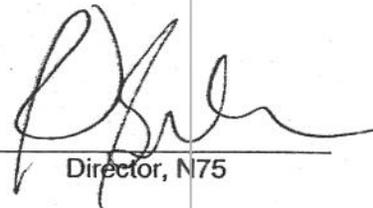
**MODULE 1-4: INFORMATION OPERATIONS**

Lesson #	Topic	Objectives
		1-4-3.4 <b>DESCRIBE</b> the tactical employment of Electronic Warfare decoys to include decoy characteristics, appropriate threats, maneuvering requirements, push fire ranges, and ship-specific automatic decoy employments.  1-4-3.5 <b>LIST</b> and <b>DESCRIBE</b> the categories of ZIPPOs.  1-4-3.6 <b>DESCRIBE</b> the phases of Anti-Ship Missile Defense (ASMD).

Additional Notes:

  
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**MODULE 1-5: AIR AND MISSILE DEFENSE**

Lesson #	Topic	Objectives
1-5-1	Air and Missile Defense 101	<p>EO 1-5-1.1 <b>DESCRIBE</b> the responsibilities of the AMDC/ADC.</p> <p>EO 1-5-1.2 <b>DESCRIBE</b> the responsibilities of the FADIZ(PIRAZ).</p> <p>EO 1-5-1.3 <b>DESCRIBE</b> the responsibilities of the CFACC/JFACC.</p> <p>EO 1-5-1.4 <b>DESCRIBE</b> the responsibilities of the AADC.</p> <p>EO 1-5-1.5 <b>DESCRIBE</b> the responsibilities of the RADC/MRADC /SADC.</p> <p>EO 1-5-1.6 <b>LIST</b> and <b>DESCRIBE</b> the elements of the AMD Battlespace, including:</p> <ul style="list-style-type: none"> <li>• Territorial Airspace</li> <li>• Territorial Airspace Buffer</li> <li>• Relevant Geographic Considerations</li> <li>• Threat SAM sites/arcs of fire</li> <li>• Threat CDCM sites/arcs of fire</li> <li>• Threat Air Bases</li> <li>• Threat Axis</li> <li>• Threat Sector</li> <li>• Vital Area (VA)</li> <li>• Classification, Identification, and Engagement Area (CIEA)</li> <li>• Surveillance Area (SA)</li> <li>• Weapon Employment Zones (MEZ/FEZ/Crossover Zone/JEZ)</li> <li>• Minimum Risk Routes (MRR)</li> <li>• High Density Air Control Zone (HIDACZ)</li> </ul> <p>EO 1-5-1.7 <b>LIST</b> and <b>DESCRIBE</b> the elements required to operate in a joint engagement zone (JEZ).</p> <p>EO 1-5-1.8 <b>LIST</b> and <b>DESCRIBE</b> the Combat Systems and Air Defense weapons and sensors for the following ship classes:</p> <ul style="list-style-type: none"> <li>• CVN 68</li> <li>• LHD 1</li> <li>• LHA 1</li> <li>• CG 47</li> <li>• DDG 51</li> <li>• FFG 7</li> <li>• LPD 17, 4</li> <li>• LSD 41</li> <li>• LCS 1, 2</li> <li>• MCM 1</li> <li>• PC</li> </ul>

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**MODULE 1-5: AIR AND MISSILE DEFENSE**

Lesson #	Topic	Objectives
		<p>EO 1-5-1.9 <b>LIST</b> and <b>DRAW</b> the Air Defense weapons systems firing arcs (includes illuminators) for your ship class.</p> <p>EO 1-5-1.10 <b>DESCRIBE</b> the Air Defense weapons postures for your ship class.</p> <p>EO 1-5-1.11 <b>DESCRIBE</b> the layout of your ship class's CIC and the watchstanders who support the AMD Mission.</p> <p>EO 1-5-1.12 <b>LIST</b> USN, USMC, and USAF Fighter Aircraft and <b>DESCRIBE</b> their capabilities and limitations.</p> <p>EO 1-5-1.13 <b>LIST</b> USN and USAF EA Capable Aircraft and <b>DESCRIBE</b> their capabilities and limitations.</p> <p>EO 1-5-1.14 <b>LIST</b> USN and USAF Airborne Early Warning Aircraft and <b>DESCRIBE</b> their capabilities and limitations.</p>
1-5-2	ASMD/Self-Defense	<p>EO 1-5-2.1 <b>DESCRIBE</b> the Self Defense Detect to Engage sequence for your ship class.</p> <p>EO 1-5-2.2 <b>LIST</b> and <b>DESCRIBE</b> the elements comprising Positive Hostile Identification (PHID), per the Navy Wide OPTASK Air Defense.</p> <p>EO 1-5-2.3 <b>LIST</b> and <b>DESCRIBE</b> the elements comprising Positive Friendly Identification (PFID), per the Navy Wide OPTASK Air Defense.</p> <p>EO 1-5-2.4 <b>DESCRIBE</b> the process to determine whether Hard Kill and/or Soft Kill procedures need to be implemented.</p> <p>EO 1-5-2.5 <b>LIST</b> the Electronic Warfare (EW) push fire ranges for Distraction and Seduction tactics, given a specific threat.</p> <p>EO 1-5-2.6 <b>DESCRIBE</b> proper Soft Kill procedures for a given threat for your ship class.</p> <p>EO 1-5-2.7 <b>DESCRIBE</b> the procedures to counter a Sea Skimming Cruise Missile for your ship class.</p> <p>EO 1-5-2.8 <b>DESCRIBE</b> the procedures to counter a High Diving Cruise Missile for your ship class.</p> <p>EO 1-5-2.9 <b>DESCRIBE</b> the procedures to counter a Low Slow Flyer (LSF) for your ship class.</p> <p>EO 1-5-2.10 <b>DESCRIBE</b> the use of NULKA to protect a Mission Essential Unit (MEU).</p> <p>EO 1-5-2.11 <b>DEFINE</b> our Navy's doctrinal Shotgun stations.</p>

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**MODULE 1-5: AIR AND MISSILE DEFENSE**

Lesson #	Topic	Objectives
1-5-3	Alternate AMDC/Task Force Operations	<p>EO 1-5-3.1 <b>DESCRIBE</b> the duties of an alternate Air and Missile Defense Commander.</p> <p>EO 1-5-3.2 <b>DEFINE</b> the tripwires to activate the alternate Air and Missile Defense Commander.</p> <p>EO 1-5-3.3 <b>DESCRIBE</b> the factors to be considered when developing a screen that meets Air and Missile Defense requirements.</p> <p>EO 1-5-3.4 <b>DESCRIBE</b> an Asset Protection Zone.</p> <p>EO 1-5-3.5 <b>DESCRIBE</b> Deck Launch Intercept (DLI) Alert Postures.</p> <p>EO 1-5-3.6 <b>EXPLAIN</b> the process to launch and control a DLI aircraft.</p> <p>EO 1-5-3.7 <b>DESCRIBE</b> the Silent Sam Tactic.</p> <p>EO 1-5-3.8 <b>DESCRIBE</b> the Laser Beam Tactic.</p> <p>EO 1-5-3.9 <b>DESCRIBE</b> how ADU stationing affects the Classification Identification and Engagement Area (CIEA) and Surveillance Area (SA).</p> <p>EO 1-5-3.10 <b>DRAW</b> and <b>DESCRIBE</b> the elements of an Area Air Defense battlespace and stationing plan.</p>

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**MODULE 1-6: UNDERSEA WARFARE**

<b>Lesson #</b>	<b>Topic</b>	<b>Objectives</b>
1-6-3	ASW C2 & Water space Management  (1.5 hours)	<p>TO 1-6-3-1 Given an ASW scenario, employ multiple assets in an ASW environment, to include:</p> <ul style="list-style-type: none"> <li>- Waterspace Management (WSM)</li> <li>- Prevention of Mutual Interference (PMI)</li> </ul> <p>EO 1-6-3.1 <b>LIST</b> and <b>DESCRIBE</b> the different Command and Control operations and relationships that US submarines operate in to include OPCON/TACOM/TACON.</p> <p>EO 1-6-3.2 <b>LIST</b> and <b>DESCRIBE</b> the procedure and methods to communicate with an organic submarine.</p> <p>EO 1-6-3.3 <b>LIST</b> and <b>DESCRIBE</b> the procedure and methods for organic submarines to communicate with shore installations and surface ships.</p> <p>EO 1-6-3.4 <b>DESCRIBE</b> and <b>APPLY</b> the Waterspace Management (WSM) areas and principles to conduct an effective ASW operation while minimizing the likelihood of fratricide.</p> <p>EO 1-6-3.5 <b>DESCRIBE</b> and <b>APPLY</b> the Prevention of Mutual Interference (PMI) principles to conduct an effective ASW operation while minimizing the likelihood of underwater collisions.</p>
1-6-4	Target Motion Analysis (TMA) Fundamentals  (1.0 hours)  <b>(CRUDES ONLY)</b>	<p>TO 1-6-4-1 Given a scenario, demonstrate application of passive ASW principals.</p> <p>EO 1-6-4.1 <b>DESCRIBE</b> and <b>EXPLAIN</b> passive techniques to include:</p> <ul style="list-style-type: none"> <li>- Area search</li> <li>- Sensor performance</li> <li>- Uniform and efficient search rules</li> <li>- Maneuver</li> <li>- Detect</li> <li>- Tracking/Target Motion Analysis (TMA)</li> </ul> <p>EO 1-6-4.2 <b>EXPLAIN</b> the principals and construction of an Evaluator's Plot</p>
1-6-5	Search and Attack Unit (SAU) Procedures  (2.0 hours)  <b>(CRUDES ONLY)</b>	<p>TO 1-6-5-1 Given a scenario, conduct active ASW.</p> <p>EO 1-6-5.1 <b>DESCRIBE</b> and <b>APPLY</b> correct SAU active DTE procedures to include:</p> <ul style="list-style-type: none"> <li>- Execution of datum search</li> <li>- Execution of area search</li> <li>- Actions outside of the TDAWEZ</li> <li>- Actions on entering the TDAWEZ</li> <li>- Actions on gaining initial sonar contact</li> <li>- Actions on losing contact</li> </ul>

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**MODULE 1-6: UNDERSEA WARFARE**

Lesson #	Topic	Objectives
		<ul style="list-style-type: none"> <li>- Application of attack train principles</li> <li>- Application of BDA</li> </ul>
1-6-6	Mine Warfare Fundamentals and Tactics  (1.0 hours)	TO 1-6-6-1 Given in-class discussions and activities, determine the actions taken by ownship prior to entering a mine threat area and after sighting a mine.  EO 1-6-6.1 <b>DEFINE</b> Mine Warfare and the classifications of mines.  EO 1-6-6.2 <b>DISCUSS</b> the advantages and disadvantages of minesweeping and minehunting.  EO 1-6-6.3 <b>DESCRIBE</b> the types of active mine countermeasures.  EO 1-6-6.4 <b>DESCRIBE</b> the types of passive mine countermeasures.
1-6-7	SSK/7 <sup>th</sup> Fleet Tactics (1.5 hours)	Guest Lecture: Royal Australian Navy (RAN) Submarine Commanding Officer  EO 1-6-7.1 <b>DESCRIBE</b> the capabilities and limitations affecting tactical employment of SSKs and of Air Independent Propulsion (AIP) submarines.  EO 1-6-7.2 <b>DESCRIBE</b> the missions and tactics of the diesel, and Air Independent Propulsion (AIP) submarines
1-6-8	Ship Radiated Noise  (2.0 hours)	Guest Lecture: Mr. Craig Walker – NAVSEA/NMAWC SSRNM Subject Matter Expert (SME)  EO 1-6-8.1 <b>RECOGNIZE</b> the benefits to the ASW environment of properly controlled radiated noise to include maintenance of sound dampening equipment.  EO 1-6-8.2 <b>DESCRIBE</b> the benefits of a Ship's Radiated Noise Measurement (SSRNM)  EO 1-6-8.3 <b>EXPLAIN</b> the relationship between ships noise and speed to include: <ul style="list-style-type: none"> <li>- How to <b>EMPLOY</b> the PRAIRIE &amp; MASKER air system.</li> <li>- <b>EXPLAIN</b> the effects of cavitation.</li> </ul> EO 1-6-8.4 <b>EXPLAIN</b> what equipment and procedures would be found in a Quiet Ship Bill.  EO 1-6-8.5 <b>EXPLAIN</b> the benefits of deperming and degaussing.

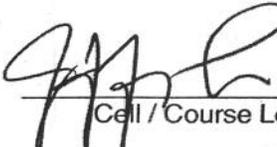
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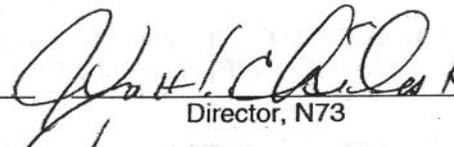
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**MODULE 1-6: UNDERSEA WARFARE**

Lesson #	Topic	Objectives
1-6-9	US SSN Operations (2.0 hours)	Guest Lecture: US SSN Post Commanding Officer  EO 1-6-9.1 <b>DESCRIBE</b> and <b>DISCUSS</b> US SSNs national-level tasking and tactical employment.  EO 1-6-9.2 <b>DESCRIBE</b> and <b>DISCUSS</b> the principles/challenges for conducting ASW operations in a multi-platform environment. Including WSM/PMI and Command and Control challenges/limitations/best practices.  EO 1-6-9.3 <b>DESCRIBE</b> and <b>DISCUSS</b> the capabilities and limitations affecting tactical employment of US SSNs. Describe strengths and weaknesses of SSN vs. USN surface ships, and specifics of how surface ships can enhance or minimize their capabilities and limitations to gain contact, deter or defeat a submarine threat, and counter SSN capabilities.

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**MODULE 1-7: U.S. STANDING RULES OF ENGAGEMENT**

Lesson #	Topic	Objectives
1-7-1	Rules of Engagement	<p>1-7-1.1 <b>DEFINE</b> the Standing Rules of Engagement for U.S. Forces to include the following definitions and authorities:</p> <ul style="list-style-type: none"><li>• Inherent Right of Self-Defense</li><li>• National Self-Defense</li><li>• Collective Self-Defense</li><li>• Declared Hostile Force</li><li>• Hostile Act</li><li>• Hostile Intent</li><li>• Imminent Use of Force</li></ul> <p>1-7-1.2 <b>DEFINE</b> the Standing Rules of Engagement for U.S. Forces to include the following procedures and principles of self-defense:</p> <ul style="list-style-type: none"><li>• De-escalation</li><li>• Necessity</li><li>• Proportionality</li><li>• Pursuit</li></ul> <p>1-7-1.3 <b>DEFINE</b> the application of Standing Rules of Engagement for U.S. Forces to Defense of U.S. persons and their property, and designated foreign persons.</p> <p>1-7-1.4 <b>DEFINE</b> the application of Standing Rules of Engagement for U.S. Forces to Piracy.</p> <p>1-7-1.5 <b>DEFINE</b> the application of Standing Rules of Engagement for U.S. Forces to Right of Assistance Entry.</p> <p>1-7-1.6 <b>DEFINE</b> the following Self-Defense policies and procedures:</p> <ul style="list-style-type: none"><li>• Authority to Declare Forces Hostile</li><li>• Authority to Exercise National Self-Defense</li></ul> <p>1-7-1.7 <b>DEFINE</b> the application of Standing Rules of Engagement for Defense of U.S. Nationals and their property at sea.</p> <p>1-7-1.8 <b>DEFINE</b> the application of Standing Rules of Engagement for Protection and Disposition of Foreign Nationals in the Control of U.S. Forces to include the following:</p> <ul style="list-style-type: none"><li>• Asylum</li><li>• Temporary Refuge</li><li>• Shipwrecked and Rescued Foreign Nationals and Persons in Distress at Sea</li><li>• Migrants</li><li>• Self-Defense</li><li>• Use of Force</li></ul>

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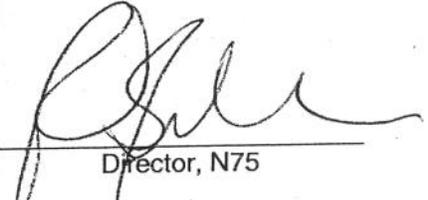
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