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CURRICULUM OUTLINE OF INSTRUCTION
SURFACE WARFARE OFFICER DEPARTMENT HEAD COURSE
CIN: A-4H-0107 **CDP: 9545**
VER: 2.0 **CHANGE: 1**

MODULE 1-2: INFORMATION OPERATIONS		
Lesson #	Topic	Objectives
1-2-1	Introduction to IO & Information Warfare Commander (IWC) Organization, Roles, & Responsibilities	TO 1-2-1 APPLY the core, supporting, and related capabilities of Information Operations (IO) at the tactical level of war to establish and maintain Information Superiority.
		EO 1-2-1.1 LIST and DEFINE the core capabilities of IO. EO 1-2-1.2 IDENTIFY the supporting <u>and related</u> capabilities of IO. EO 1-2-1.3 DESCRIBE the contents of the key doctrinal publications and tactics, techniques, and procedures (TTP) used by the Strike Group IWC to establish and maintain Information Superiority, to include: <ul style="list-style-type: none">• Navy-Wide OPTASK IO• Navy-Wide OPTASK EW• NTTP 3-13.2 Navy IWC Manual EO 1-2-1.4 STATE the responsibilities of the Strike Group IWC. EO 1-2-1.5 STATE the doctrinal sphere of responsibility of the Strike Group IWC in accordance with NTTP 3-13.2 Navy Information Operation Warfare Commander's Manual Series. EO 1-2-1.6 DRAW the organization of the Strike Group IWC. EO 1-2-1.7 DESCRIBE the organization of and information flow within the Strike Group IWC Watch.
1-2-2	EXCOM Architecture	TO 1-2-2 Given a written or oral scenario, APPLY proper radiotelephone procedures.
		EO 1-2-2.1 SUMMARIZE the process for producing Strike Group and shipboard OPTASK COMMS. EO 1-2-2.2 DEFINE RF Spectrum frequency ranges as they apply to external communications. EO 1-2-2.3 DEFINE the purpose and significant components of the standard Strike Group communications nets, to include: <ul style="list-style-type: none">• Callsigns• Security• Controlling Authority EO 1-2-2.4 DESCRIBE proper imitative communications deception (ICD) procedures. EO 1-2-2.5 CONDUCT Beadwindow procedures. EO 1-2-2.6: LIST the contents of Strike Group and shipboard communications plans.

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1-2-6	MISO (PSYOP)	TO 1-2-6: Given a written, oral, or practical scenario, APPLY the elements of Military Information Support Operations (MISO), at the tactical level of war.
		EO 1-2-6.1: STATE the purpose of Military Information Support Operations (MISO).
		EO 1-2-6.2: DEFINE the target audiences for Military Information Support Operations (MISO). EO 1-2-6.3: LIST the major Strike Group Military Information Support Operations (MISO) assets and DESCRIBE their capabilities.
1-2-7	MILDEC	TO 1-2-7: Given a written, oral, or practical scenario, APPLY the elements of MILDEC at the tactical level of war to deceive the enemy.
		EO 1-2-7.1: STATE the purpose of Military Deception (MILDEC).
		EO 1-2-7.2: LIST and DESCRIBE the methods of signature management associated with MILDEC. EO 1-2-7.3: DESCRIBE the tactical employment of common Military Deception (MILDEC) systems and procedures on ships.
1-2-8	EW	TO 1-2-8 Given a written, oral, or practical scenario, APPLY the elements of EW at the tactical level of war.
		TO 1-2-9 Given a written, oral, or practical scenario, EMPLOY correct ASMD procedures at the tactical level of war.
		EO 1-2-8.1: STATE the purpose of Electronic Warfare (EW). EO 1-2-8.2: DESCRIBE the NAVY WIDE OPTASK EW policies and programs. EO 1-2-8.3: LIST and DEFINE the elements of Electronic Warfare (EW). EO 1-2-8.4: LIST and DEFINE Emission Control (EMCON) conditions per the NAVY WIDE OPTASK EW. EO 1-2-8.5 DESCRIBE the capabilities and limitations of the U.S. Navy's primary shipboard EW systems, to include (but not limited to): <ul style="list-style-type: none"> • Frequency bands • Versions in use (and associated platforms) • Integration with other Combat System elements • Automated functions

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		<p>EO 1-2-8.6 DESCRIBE the purpose, capabilities and use of shipboard auxiliary and supporting EW systems in the U.S. Navy, to include (but not limited to):</p> <ul style="list-style-type: none"> • SSX-1 SEI • GALE LITE • High Gain High Sensitivity Antennae <p>EO 1-2-9.1: LIST and DEFINE the categories of ZIPPOs.</p> <p>EO 1-2-9.2 LIST and DEFINE the phases of Anti-Ship Missile Defense (ASMD) and the appropriate Electronic Warfare measures within each phase.</p> <p>EO 1-2-9.3 LIST the Electronic Warfare decoys used in the U.S. Navy and DESCRIBE their purpose, capabilities, and employment requirements.</p>
1-2-9	TDL	<p>TO 1-2-10: Given a written, oral, or practical scenario, CONSTRUCT a viable TDL architecture.</p> <p>EO 1-2-10.1 LIST and DESCRIBE the Tactical Data Link (TDL) capabilities of US forces.</p> <p>EO 1-2-10.2 DESCRIBE the operating characteristics, control elements, and capabilities and limitations of Link-11, to include (but not limited to):</p> <ul style="list-style-type: none"> • Frequency spectrums • Satellite protocols • Duties • Data rates • Critical nodes <p>EO 1-2-10.3 DESCRIBE the operating characteristics, control elements, and capabilities and limitations of Link-16 to include (but not limited to):</p> <ul style="list-style-type: none"> • Frequency spectrums • Satellite protocols • Duties • Data rates • Network design principles • Critical Nodes <p>EO 1-2-10.4 LIST the Identification Systems used by the U.S. Navy and DESCRIBE their basic operations.</p> <p>EO 1-2-10.5 LIST and DESCRIBE the Tactical Data Links used in support of Ballistic Missile Defense operations.</p>

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		EO 1-2-10.6 IDENTIFY required control elements of a viable TDL architecture.
1-2-10	GCCS and C4I Management	<p>TO 1-2-11 Given a written or oral scenario, EXPLAIN your role as TAO in managing your ship's Over-the-Horizon Targeting (OTHT) and Command, Control, Communications, Computers, and Intelligence (C4I) systems.</p> <p>EO 1-2-11.1 DESCRIBE the fundamentals of OTHT and C4I systems used to develop and maintain a Common Maritime Picture.</p> <p>EO 1-2-11.2 STATE the purpose and use of Global Command and Control System – Maritime (GCCS-M).</p> <p>EO 1-2-11.3 LIST and DESCRIBE the communications channels used by GCCS-M.</p> <p>EO 1-2-11.4 LIST the communications pathways used by GCCS-M to transmit and receive tracks.</p> <p>EO 1-2-11.5 DESCRIBE the duties and responsibilities of the management nodes associated with GCCS-M.</p> <p>EO 1-2-11.6 DESCRIBE the major systems that interface with GCCS-M.</p>
1-2-11	Tactical METOC	<p>TO 1-2-12 Given a written or oral scenario, DETERMINE the impact atmospheric conditions will have on your ship's ability to operate effectively.</p> <p>EO 1-2-12.1: DESCRIBE meteorological conditions and their effect on shipboard sensors and weapons.</p> <p>EO 1-2-12.2: DESCRIBE the structure of the atmosphere.</p> <p>EO 1-2-12.3: DESCRIBE atmospheric electromagnetic propagation, and its effects on shipboard sensors.</p> <p>EO 1-2-12.4: DESCRIBE the purpose and use of the Advanced Refractive Environmental Prediction System (AREPS) program.</p>
1-2-12	ISR&T	<p>TO 1-2-13 Given a tactical scenario, APPLY counter Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) techniques and procedures to counter the threat.</p> <p>EO 1-2-13.1: DESCRIBE likely adversary Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) threats in accordance with current threat and intelligence estimates.</p> <p>EO 1-2-13.2: DETERMINE which U.S. Navy systems or technique would be most effective to counter the threat.</p>

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1-2-13	Spectrum Management	TO 1-2-14 Given a tactical scenario detailing your Strike Group's composition, DISCUSS your concerns with regard to electromagnetic interference and the mechanisms available to mitigate these concerns.
		EO 1-2-14.1: DESCRIBE the purpose and use of the Afloat Electromagnetic Spectrum Operations Program (AESOP) program.
		EO 1-2-14.2: DESCRIBE the purpose and use of the Joint Restricted Frequency List.
		EO 1-2-14.3: LIST and DESCRIBE Navy Strike Group and shipboard Electromagnetic Interference concerns identified in NTTP 3-13.14 Surface EW Guide, to include mitigating actions.

//SIGNED//

SWO DH (A-4H-0107) CCMM

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