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Module: 1-3 Air and Missile Defense (AMD)		
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<p>Homework: Students shall review each topic's power point brief as a read ahead before class. Topic briefs are located at: SIPR L:\N73_Lessons\ILT\Warfare_Fundamentals\AMD\TGs</p> <p>Additionally students shall closely review the following four critical AMD references,</p> <ol style="list-style-type: none"> 1) Navy-wide OPTASK AMD USFF 291630Z Jun 12 2) Your Class Tactical Publication, DDG if unslated, CG if ordered to a MCM, Chapters: <ul style="list-style-type: none"> Executive Summary Combat System Overview Battle Organization Air Defense Tactics for Multi Threat Environment Role in the Force Air Craft Management (if equipped) Battle Orders Supervisory Checklists 3) SWDG TM 3-01.1-07, Single Ship Integrated Hardkill and Softkill Tactics in Anti-ship Missile Defense 4) NTPP 3-01.11 Air Defense Planning Guide <p>AMD References: All AMD readings are located in the AMD Reference Folder, at SIPR L:\N73_Lessons\ILT\Warfare_Fundamentals\AMD\References</p>		
<p>Additionally tactical aides/references</p> <ul style="list-style-type: none"> SPY-1 Slide Rule SSDS Slide rule Chaff Wheel Nulka Stationing TACAID NSWC Ship Class Warfare Area Matrices <p>The SPY-1 slide rule, SSDS slide rule and NSWC Ship Class Warfare Area Matrices are in their own folders within the AMD reference folder.</p> <p>The Chaff Wheel and the Nulka Firing Unit TDAs are Power Point files within the AMD reference folder. The Chaff Wheel is named "Chaff Wheel (9 Jun 11) [S] (U)." The Nulka Stationing TACAID is named "Nulka Stationing TACAID (07 Aug 07) [S] (U)"</p>		
<p>TAO ITS: Two scenarios are assigned to help you with internal watch team coordination. Complete AMD scenarios 1-2 before AMD MMTT Scenario One</p>		
<p>Assessments: Five AMD quizzes and the exam cover assigned lectures and may draw on all previous instruction, to include CSCS Common Core Instruction (for officers who attended CSCS Common Core).</p>		

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

Course Grade Weighting:		
Five Quizzes (20 minutes each. Note: quizzes are scheduled for 30 minutes, to allow for instructions/collection and review)		20%
AMD Exam (4 hours)		80%
1-3-1 Air Defense Overview		
Topic:		Time Req'd
1-3-1-0 Welcome to Air Defense		1 hour
Homework/Read Ahead Assignments:		0 hours
None		
1-3-1-1 AMD Roles and Responsibilities		1 hour
Homework/Read Ahead Assignments:		.5 hours
Review slides for topic 1-3-1-1 Air Defense Roles and Responsibilities		.5 hours
Recommended Reading / Viewing:		
CBT Lesson: Module 2: Lesson 1 Command and Control		
Navy-wide OPTASK AMD USFF 291630Z Jun 12 (section A1, B2, C2)		
Navy-wide OPGEN USFF (211806Z NOV 11)		
BF7F OPTASK Identification Supp, USS COWPENS 250605ZMAY2012		
NAVAIR 00-80T-105 CV NATOPS Manual (pg 3-1&2)		
NWP 3-56 Composite Warfare Doctrine (Sec 1-10, chpt 2, chpt 3 sect 2, 3, 6, 7, 8, 9, 14, 15, chpt 4 sect 2, 3, chpt 5 sect 2, 3, 4, 5, 8, 9, 15		
NTRP 3-20.6.XX Your Class Tactical Publication (Chapter 2/Air Defense)		
NTTP 3-01.11 Air Defense Planning Guide (Chapter 1, A-19)		
Suggested Reading / Viewing:		
DIMS Example		
SPINS Example		
ATO Example https://mydirect.caoc.afcent.af.rel.smil.mil/atoaco/Pages/default.aspx		
ACO Example https://mydirect.caoc.afcent.af.rel.smil.mil/atoaco/Pages/default.aspx		
JP 1-02 Department of Defense Dictionary of Military and Associated Terms (Glossary)		
1-3-1-2 Air Defense Communications		1 hour
Homework/Read Ahead Assignments:		.5 hours
Review slides for topic 1-3-1-2 Air Defense Communications		.5 hours
Recommended Reading / Viewing:		
CBT Lesson(s): Module 2: Lesson 3 Communications		
NAVEDTRA 14308 (OS vol 1) (Chapter 3)		
Navy-wide OPTASK AMD USFF 291630Z Jun 12 (section C20, C23)		
ACP-125(F) Allied Communications Procedures – Radiotelephone Procedures (Chapter 1, 3, 6)		
APP 7 Joint Brevity Words Publication (all)		

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

	NTTP 6-02.1 Multi-service Brevity Codes (all)	
	APP 1(C) Allied Maritime Voice Reporting Procedures (Chapter 3)	
	Suggested Reading / Viewing:	
	CTF 70 OPTASK Comm's, CTF 70 010112Z May 12	
	CTF 70 OPTASK Link, CTF 70 180235Z May 12	
	C5F OPTASK Comm's, C5F 050945Z Jun 11	
	JP 1-02 Department of Defense Dictionary of Military and Associated Terms (Glossary)	
	1-3-1-3 AMD Capabilities and Limitations of Surface Ships	1 hour
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-1-3 AMD Capabilities and Limitations of Surface Ships	.5 hours
	Recommended Reading / Viewing:	
	NTRP 3-20.6.XX Your Class Tactical Publication (Executive Summary, Introduction, Combat System Overview, Air Defense Chapters)	
	Suggested Reading / Viewing:	
	SSDS Cap's and Lim's http://cnl.phdnswc.navy.smil.mil	
	Aegis Cap's and Lim's http://cnl.phdnswc.navy.smil.mil	
	1-3-1-4 Air Defense Battlespace	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-1-4 Air Defense Battlespace	.5 hours
	Recommended Reading / Viewing:	
	CBT Lesson(s): Module 2: Lesson 2 Battlespace Management	
	NTTP 3-01.11 Air Defense Planning Guide (Chapter 6, 7, page 8-2)	
	NWP 3-01.01 Fleet Air Defense (sec 3.5 - 3.7)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (sec C9, C24)	
	NWP 1-14M Commanders Handbook on Law of Naval Operations (page 1-2 through 1-3)	
	ATP 1(E) Volume I Allied Maritime Tactical Instructions and Procedures (Chapter 7)	
	NTTP 1-10-1 Force Tactical Action Officer (FTAO) (Chpt 5.5.2, Chpt 10.6.3.1, Chpt 10.8)	
	1-3-1-5 Air Defense Threat Determination	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-1-5 Air Defense Threat Determination	.5 hours
	Recommended Reading / Viewing:	
	NTTP 3-01.11 Air Defense Planning Guide (Ch 12)	
	NWP 3-01.01 Fleet Air Defense (section 3.8)	
	ATP 1(E) Volume 1 Allied Maritime Tactical Instructions and Procedures (sec 1470 and 6747)	
	Navy-wide OPTASK IO Part 2, C2F 151732Z May 06 (sec C4)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (C18, C24)	

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

	C5F OPTASK Air Defense, C5F 111242Z Mar 11 (sec Y2)	
	BF7F OPTASK Identification Supp, USS COWPENS 250605ZMAY2012	
	Draft CJCSI 3121.01C Standing Rules of Engagement/Rules for the Use of Force (Encl C & J)	
	Suggested Reading / Viewing:	
	JP 1-02 Department of Defense Dictionary of Military and Associated Terms (Glossary)	
	ONI Sealink (http://other-high-oniportal.oni.nmic.navy.smil.mil/portal/server.pt/community/oni_main/230#)	
1-3-2 Air Defense Self Defense		
	Topic:	
	1-3-2-1 Air Defense Self Defense	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-2-1 Air Defense Self Defense	.5 hours
	Recommended Reading / Viewing:	
	CBT Lesson(s): Module 2: Lesson 4 ZIPPO Calls	
	SWDG TM 3-01.1-07, Single Ship Integrated Hardkill and Softkill Tactics in Anti-ship Missile Defense (All)	
	Draft NTTP 1-10-1 Force Tactical Action Officer (chpt 5)	
	SWDG TB MULTIMSN-06-01, SWO Top Ten (sec 5)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (C15)	
	Tactical Bulletin AD-09-01 USN Surface Weapon System Capabilities and Limitations against Low Slow Flyers	
	NTTP 3-01.9 SWY/ACDS Core Tactics (Appendix D)	
	NTTP 3-13.14 Surface EW Guide (Appendix B)	
	Suggested Reading / Viewing:	
	TM 3-51.1-05 Nulka Tactical Employment Guide	
	NTTP 3-13.14 Surface EW Guide (pg 4-1 through 4-6)	
1-3-3 Air Defense Point Defense		
	Topic:	
	1-3-3-1 Air Defense Point Defense	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-3-1 Air Defense Point Defense	.5 hours
	Recommended Reading / Viewing:	
	NTTP 3-01.5 Aegis Core Tactics (app C and pg D-5, D-6, D-7)	
	NTTP 3-01.11 Air Defense Planning Guide (ch 7)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (section C2/E/6)	
	TM 3-51.1-07 Nulka in the vicinity of High Value Units (all)	
1-3-4 Area Air Defense		
	Topic:	
	1-3-4-1 Capabilities and Limitations of Air Defense Aircraft	2 hours

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

Homework/Read Ahead Assignments:		.5 hours
	Review slides for topic 1-3-4-1 Capabilities and Limitations of Air Defense Aircraft	.5 hours
Recommended Reading / Viewing:		
	TOPGUN Manual http://www.nsawc.navy.smil.mil/i_pages/WeaponsSchools/Topgun/TopgunWS.htm	
	USAF Factsheets, http://www.af.mil/information/factsheets/index.asp	
Suggested Reading / Viewing:		
	US Navy Fact File, http://www.navy.mil/navydata/fact.asp	
1-3-4-2 Air Operations		2 hours
Homework/Read Ahead Assignments:		.5 hours
	Review slides for topic 1-3-4-2 Air Operations	.5 hours
Recommended Reading / Viewing:		
	NAVAIR 00-80T-105 CV NATOPS, July 2009 (Chpt 4, 5, 6)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (Sec C2, C4, C24)	
	NTTP 3-01.11 Air Defense Planning Guide (Chpt 7.4.4.3)	
	Draft NTTP 1-10-1 Force Tactical Action Officer (FTAO) (Sect 5.12.1.2 &3)	
	NTRP 3-20.6.xx Your Class Tactical Manual (Chpt – Aircraft Management)	
Suggested Reading / Viewing:		
	TOPGUN Manual http://www.nsawc.navy.smil.mil/i_pages/WeaponsSchools/Topgun/TopgunWS.htm Chapter 42, Section 1, pages 24-48 Chapter 42, Section 2, page 68 and 73	
1-3-4-3 Maritime Ballistic Missile Defense		2 hours
Homework/Read Ahead Assignments:		.5 hours
	Review slides for topic 1-3-4-3 Maritime Ballistic Missile Defense	.5 hours
Recommended Reading / Viewing:		
	Navy-wide OPTASK BMD Homeland Defense Part 1, C3F 242126Z Apr 09 (all)	
	Navy-wide OPTASK BMD Homeland Defense Part 2, C3F 242127Z Apr 09 (sec B4, B6/B)	
	Navy-wide OPTASK BMD Regional Defense, CFFC 170901Z Feb11 (sec A1 through B5, B10 through B11, B17)	
	TM 3-01.3-09 Aegis BMD Baseline 3.6.1 Core Tactics (Executive Summary, Ch 2)	
Suggested Reading / Viewing:		
	Navy-wide OPTASK BMD Homeland Defense Part 2, C3F 242127Z Apr 09 (all)	
	Navy-wide OPTASK BMD Regional Defense, CFFC 170901Z Feb11 (all) http://cnl.phdnswc.navy.smil.mil/platform/menu/DiscussionFrameSet.htm PHDNSWC Cap's and Lim's (Platform C &Ls, BMD DDG or CG)	
	SM-3 Capabilities and Limitations Document, MDA (DRAFT), 10 Jan 06	

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

	COMUSNAVCENT M-IAMD CONOPS, 17 Apr 10	
	1-3-4-4 Area Defense Battlespace and Stationing	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-4-4 Area Defense Battlespace and Stationing	.5 hours
	Recommended Reading / Viewing:	
	NTTP 3-01.11 Air Defense Planning Guide (Ch 6, 7)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (sec C24, C4, C5, C9)	
	Draft NTTP 1-10-1 Force Tactical Action Officer (FTAO)(Ch 5)	
	1-3-4-5 Area Air Defense Employment	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review slides for topic 1-3-4-5 Area Air Defense Employment	.5 hours
	Recommended Reading / Viewing:	
	Draft NTTP 1-10-1 Force Tactical Action Officer (Ch 5)	
	SWDG TB MULTIMSN-06-01, SWO Top Ten (sec 5)	
	Navy-wide OPTASK AMD USFF 291630Z Jun 12 (sec C15)	
	NTTP 3-01.11 Air Defense Planning Guide (ch 7)	
	SWDG TM 3-01.1-07, Single Ship Integrated Hardkill and Softkill Tactics in Anti-ship Missile Defense (Chapter 4)	
	TM 3-51.1-07 Nulka in the vicinity of High Value Units (ch 2)	
1-3-5 Air and Missile Defense MMTT Scenarios		
	Topic:	
	1-3-5-1 MMTT In-Brief	1 hour
	Homework/Read Ahead Assignments: None	
	1-3-5-2 MMTT Familiarization	2 hours
	Homework/Read Ahead Assignments: None	
	1-3-5-3 AMD MMTT Scenario One	4 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review Air Defense DIMS for AD MMTT Scenario One	.5 hours
	1-3-5-4 AMD MMTT Scenario Two	4 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review Air Defense DIMS for AD MMTT Scenario Two	.5 hours
	1-3-5-5 AMD MMTT Scenario Three	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review Air Defense DIMS for AD MMTT Scenario Three	.5 hours
	1-3-5-6 AMD MMTT Scenario Four	2 hours
	Homework/Read Ahead Assignments:	.5 hours
	Review Air Defense DIMS for AD MMTT Scenario Four	.5 hours
	1-3-5-7 AMD MMTT Student Brief	1 hour

UNCLASSIFIED

Updated: 16 October 12

UNCLASSIFIED

	Homework/Read Ahead Assignments: Students provide the brief. Details SEPCOR	2 hours
	1-3-5-8 AMD MMTT Scenario Five	1.5 hours
	Homework/Read Ahead Assignments:	
	Review student generated Air Defense DIMS for AMD MMTT Scenario Five	.5 hours
1-3-6 Air Defense Assessments		
	1-3-6-1 AMD Quiz 1	20 min
	1-3-6-2 AMD Quiz 2	20 min
	1-3-6-3 AMD Quiz 3	20 min
	1-3-6-4 AMD Quiz 4	20 min
	1-3-6-5 AMD Quiz 5	20 min
	1-3-6-6 AMD Exam Review	1 hour
	1-3-6-7 AMD Exam	4 hours
-	1-3-6-8 AMD Exam Debrief	1 hour

UNCLASSIFIED

Updated: 16 October 12