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CHIEF OF NAVAL AIR TRAINING

UMFO ADVANCED MARITIME COMMAND AND CONTROL (MC2) INSTRUCTOR UNDER TRAINING (IUT) CURRICULUM

2015

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL AIR TRAINING
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Subj: UNDERGRADUATE MILITARY FLIGHT OFFICER (UMFO) ADVANCED MARITIME COMMAND AND CONTROL (MC2) INSTRUCTOR UNDER TRAINING (IUT) CURRICULUM

1. Purpose. To publish the curriculum for training Instructor NFOs to qualify them for the purpose of instructing Undergraduate Military Flight Officers (UMFOs) in the Advanced Maritime Command and Control phase of Naval Air Training Command (NATRACOM) flight training.

2. Cancellation. None.

3. Action. This instruction is effective on receipt. No changes shall be made without written authorization by the Chief of Naval Air Training (CNATRA).

4. Forms. The CNATRA forms required by this instruction are automated in the Training Integration Management System (TIMS) computer program. Additional CNATRA forms are available on the CNATRA website https://www.cnatra.navy.mil/pubs/forms.htm.

D. M. EDGECOMB
Chief of Staff

Distribution:
CNATRA Website

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SUMMARY OF CHANGES

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COURSE DATA

1. Course Title. Undergraduate Military Flight Officer (UMFO) Advanced Maritime Command and Control (MC2) Instructor Under Training (IUT) Curriculum.

2. Course ID Number

E-2 IUT: Q-2D-0173
MPR IUT: Q-2D-1173
E-6 IUT: Q-2D-2173

3. Location. Naval Air Station, Pensacola, FL.

4. Course Status. Active.

5. Course Mission. UMFO Advanced MC2 IUT Curriculum is designed to provide designated Naval Flight Officers (NFOs) instruction in the techniques and procedures required to administer the approved Chief of Naval Air Training (CNATRA) Advanced MC2 training curriculum. Successful completion of applicable curricula qualifies the graduate as an Advanced MC2 phase NFO instructor.

6. Prerequisite Training. Designated NFO as required by CNATRA.

7. Security Clearance Required. None.

8. Follow-on Training. As required to maintain currency for instructors or advanced qualifications if applicable.

9. Course Length. Overall time to train is calculated in accordance with CNATRAINST 1550.6E. Training days account for factors including weather, personnel and equipment availability, briefing and preparation time, and historical delays. Calendar weeks further account for weekends, holidays, safety stand-downs, and other expected nonworking days.

	Training Days	Calendar Weeks
a. Initial IUT (E-2)	45.8	10.2
b. Initial IUT (MPR)	56.7	12.6
c. Initial IUT (E-6)	47.1	10.4
d. Core (Advanced Qualification)	8.2	1.8
e. Common Nav (Advanced Qualification)	2.1	0.5

10. Class Capacity. Variable.

11. Instructor Requirements. As established by Chief of Naval Operations (CNO) planning factors.

12. Course Curriculum Model Manager. Commander, Training Air Wing SIX (COMTRAWING SIX).

13. Quota Management Authority. Chief of Naval Air Training.

14. Quota Control. Chief of Naval Operations.

15. Course Training Subjects. The Advanced MC2 IUT curriculum trains three types of initial Instructor NFOs (INFO): E-2, Maritime Patrol and Reconnaissance (MPR), and E-6. Also, the Advanced MC2 IUT curriculum provides two advanced qualifications: Core and Common Navigation.

a. Ground Training

GROUND TRAINING (E-2)		
Stage	**Symbol**	**Hours**
Check-In, Crew Resource Management (Instructor), Flight Instructor Training Course, Simulator Familiarity, and Checkout	G02	35.0*
Operational Flight Planning, Flight Instruments, and Navigation/Exam	C01	11.0
Communications (Comm) and Navigation (Nav) Systems/Exam	C02	7.5
Multi-Crew Simulator (MCS) Familiarization and EP Boldface Procedures Test	C03	10.0
Sensor and Link Operations/Exam	C04	8.5
Fleet Operations/Exam	C05	14.5
Airborne Early Warning (AEW)/Exam	E01	9.0
Air Intercept Control (AIC)/Exam	E02	9.5
Totals		**105.0***

Note: E-2 totals* include 3.0 hours that require an MCS. These hours are also included on the E-2 Flight Training table.

GROUND TRAINING (MPR)		
Stage	**Symbol**	**Hours**
Check-In, Crew Resource Management (Instructor), Flight Instructor Training Course, Simulator Familiarity, and Checkout	G02	35.0*
Operational Flight Planning, Flight Instruments, and Navigation/Exam	C01	11.0
Communications (Comm) and Navigation (Nav) Systems/Exam	C02	7.5
Multi-Crew Simulator (MCS) Familiarization and EP Boldface Procedures Test	C03	10.0
Sensor and Link Operations (Ops)/Exam	C04	8.5
Fleet Operations/Exam	C05	14.5
Common Nav/Exam	N01	19.0
Surface Search and Littoral Surveillance/Exam	P01	9.5
Electronic Warfare and Acoustic Operations/Exam	P02	8.5
MPR/Exam	P03	6.5
Totals		**130.0***

Note: MPR totals* include 3.0 hours that require an MCS. These hours are also included on the MPR Flight Training table.

GROUND TRAINING (E-6)		
Stage	**Symbol**	**Hours**
Check-In, Crew Resource Management (Instructor), Flight Instructor Training Course, Simulator Familiarity, and Checkout	G02	35.0*
Operational Flight Planning, Flight Instruments, and Navigation/Exam	C01	11.0
Communications (Comm) and Navigation (Nav) Systems/Exam	C02	7.5
Multi-Crew Simulator (MCS) Familiarization and EP Boldface Procedures Test	C03	10.0
Sensor and Link Operations (Ops)/Exam	C04	8.5
Fleet Ops/Exam	C05	14.5
Common Nav/Exam	N01	19.0
E-6 Comm and Ops/Exam	T01	7.5
Totals		**113.0***

Note: E-6 totals* include 3.0 hours that require an MCS. These hours are also included on the E-6 Flight Training table.

GROUND TRAINING (ANNUALLY)		
Stage	**Symbol**	**Hours**
Crew Resource Management (Instructor)	G0202	2.0
MCS EP Boldface Procedures Test	C0307	1.0
Totals		**3.0**

b. Flight Support

FLIGHT SUPPORT (E-2)		
Stage	**Symbol**	**Hours**
MCS Device Indoctrination (FAM-0)	C12	1.5*
Familiarization and Nav Flight Support	C13	3.0
Sensor and Link Ops Flight Support	C14	2.0
Fleet Ops Flight Support	C15	3.5
Core Stage Preparation/Standardization Exam	C16	7.0
AEW Flight Support	E11	2.0
AIC Flight Support	E12	2.0
E-2 Stage Preparation/Standardization Exam	E13	7.0
Totals		**28.0***

Note: E-2 totals* include 1.5 hours that require an MCS. These hours are also included on the E-2 Flight Training table.

FLIGHT SUPPORT (MPR)		
Stage	**Symbol**	**Hours**
MCS Device Indoctrination (FAM-0)	C12	1.5*
Familiarization and Nav Flight Support	C13	3.0
Sensor and Link Ops Flight Support	C14	2.0
Fleet Ops Flight Support	C15	3.5
Core Stage Preparation/Standardization Exam	C16	7.0
Common Nav Flight Support	N11	4.0
Common Nav Stage Preparation/Standardization Exam	N12	7.0
Surface Search and Littoral Surveillance Flight Support	P11	4.5
Electronic Warfare and Acoustic Operations Flight Support	P12	3.5
MPR Flight Support	P13	5.5
MPR Stage Preparation/Standardization Exam	P14	7.0
Totals		**48.5***

Note: MPR totals* include 1.5 hours that require an MCS. These hours are also included on the MPR Flight Training table.

FLIGHT SUPPORT (E-6)		
Stage	**Symbol**	**Hours**
MCS Device Indoctrination (FAM-0)	C12	1.5*
Familiarization and Nav Flight Support	C13	3.0
Sensor and Link Ops Flight Support	C14	2.0
Fleet Ops Flight Support	C15	3.5
Core Stage Preparation/Standardization Exam	C16	7.0
Common Nav Flight Support	N11	4.0
Common Nav Stage Preparation/Standardization Exam	N12	7.0
E-6 Comm and Ops Flight Preparation	T11	3.0
E-6 Stage Preparation/Standardization Exam	T12	7.0
Totals		**38.0***

Note: E-6 totals* include 1.5 hours that require an MCS. These hours are also included on the E-6 Flight Training table.

FLIGHT SUPPORT (ANNUALLY)		
Stage	**Symbol**	**Hours**
Core Standardization Exam	C1690	1.0
E-2 Standardization Exam	E1390	1.0
Common Nav Standardization Exam	N1290	1.0
MPR Standardization Exam	P1490	1.0
E-6 Standardization Exam	T1290	1.0
Totals		**5.0**

c. Flight Training

FLIGHT TRAINING (E-2)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Simulator Familiarity	G0204	1	3.0
MCS Device Indoctrination (FAM-0)	C1201	1	1.5
Familiarization and Nav	C3101-2	2	3.0
Sensor and Link Ops	C3201-4	4	6.0
Fleet Ops	C3301-5	5	9.0
AEW	E3101-5	5	7.5
AIC	E3201-10	10	16.5
AIC Check Ride	E3390	1	1.5
Totals		**29***	**48.0***

* 17 of these events (28.0 hours) are scheduled in conjunction with normal SNFO training events as an observe or instruct, while the remainder are stand-alone events executed solely for IUT training.

FLIGHT TRAINING (MPR)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Simulator Familiarity	G0204	1	3.0
MCS Device Indoctrination (FAM-0)	C1201	1	1.5
Familiarization and Nav	C3101-2	2	3.0
Sensor and Link Ops	C3201-4	4	6.0
Fleet Ops	C3301-5	5	9.0
Common Navigation	N3101-3	3	4.5
Surface Search and Littoral Surveillance (SSLS)	P3101-8	8	12.0
Electronic Warfare	P3201-3	3	4.5
Acoustic Operations	P3301-3	3	4.5
MPR	P3401-3	3	9.0
MPR Check Ride	P3590	1	3.0
Totals		**34***	**60.0***

* 21 of these events (37.5 hours) are scheduled in conjunction with normal SNFO training events as an observe or instruct, while the remainder are stand-alone events executed solely for IUT training.

FLIGHT TRAINING (E-6)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Simulator Familiarity	G0204	1	3.0
MCS Device Indoctrination (FAM-0)	C1201	1	1.5
Familiarization and Nav	C3101-2	2	3.0
Sensor and Link Ops	C3201-4	4	6.0
Fleet Ops	C3301-5	5	9.0
Common Navigation	N3101-3	3	4.5
E-6 COMM and Ops	T3101-11	11	22.5
E-6 COMM and Ops Check Ride	T3290	1	1.5
Totals		**28***	**51.0***

* 17 of these events (37.5 hours) are scheduled in conjunction with normal SNFO training events as an observe or instruct, while the remainder are stand-alone events executed solely for IUT training.

FLIGHT TRAINING (CORE ADVANCED QUALIFICATION)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Familiarization and Nav	C3401-2	2	3.0
Sensor and Link Ops	C3501-4	4	6.0
Fleet Ops	C3601	1	1.5
Fleet Ops Check Ride	C3790	1	1.5
Totals		**8**	**12.0**

FLIGHT TRAINING (COMMON NAVIGATION ADVANCED QUALIFICATION)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Common Navigation	N3201	1	1.5
Common Navigation Check Ride	N3390	1	1.5
Totals		**2**	**3.0**

Note: The events for Core and Common Navigation advanced qualifications are scheduled in conjunction with normal SNFO training events as an observe or instruct. These resources are accounted for in the SNFO MCG.

FLIGHT TRAINING (ANNUALLY)			
Flight/Events	**Symbol**	**2B51**	
		Flts	**Hrs**
Fleet Operations Stan Check (Core)	C3790	1	1.5
AIC Stan Check (E-2)	E3390	1	1.5
Common Navigation Stan Check (MPR/E-6)	N3390	1	1.5
MPR Stan Check	P3590	1	3.0
E-6 Communications and Operations Stan Check	T3290	1	1.5
Totals		**5**	**9.0**

16. Training Preparation Time. In addition to the hours formally planned for classes and simulators, significant additional time to prepare and study should be expected outside of scheduled training hours. This range will vary depending on the complexity of the material and individual IUT needs, and may be up to several hours per event. For simulator events, specific brief times will be programmed into the Training Integration Management System (TIMS) and accounted for on the flight schedule, per the following table:

ADDITIONAL FORMAL TRAINING TIME PER CURRICULUM HOUR/EVENT			
Training Area	**Brief**	**Debrief**	**Total**
Simulator Events: C3302, E3206, N3101, and P3401	1.5	1.0	2.5
Simulator Events (Check Rides): C3790, E3390, N3390, P3590, and T3290	1.5	1.0	2.5
Simulator Events: All Others	1.0	1.0	2.0

17. Physical Requirements. As specified in Chapter 15 of the Manual of the Medical Department (NAVMED P-117) and all applicable anthropometric standards.

18. Obligated Service. Refer to MILPERSMAN for Naval personnel.

19. Primary Instructional Methods. Lecture, Mediated Interactive Lecture (MIL), Computer-Assisted Instruction (CAI), self- and group-paced study, and in-simulator instruction.

20. Preceding Curriculum Data. None.

21. IUT Performance Measurement/Application of Standards. The standards outlined in Chapter IX, Course Training Standards (CTS), are used to evaluate IUT performance for all items on all events. Final judgment regarding the satisfactory performance of any flight maneuver rests with the Standardization Instructor (SI). Refer to CNATRAINST 1500.4H Chapter VII, for further guidance.

22. Additional CSI Resource Requirements. Some events require a CSI to operate the MCS in addition to the CSI or INFO scheduled to instruct the event. These requirements are tabulated below. These CSIs do not attend the brief or debrief.

CSI RESOURCE REQUIREMENTS IN THE MCS		
Event	**CSI**	
	#Events	**Hrs**
Core (C3102, C3202, C3204, C3303-4)	5	7.5
Common Navigation (N3102)	1	1.5
E-2 (E3102-3, E3202, E3207-8)	5	7.5
MPR (P3102, P3106, P3202, P3302, P3402)	5	9.0
E-6 (T3102, T3106, T3110)	3	4.5
Totals	**19**	**30.0**

Note: This table accounts for dedicated OFTs where the IUT executes the event. Other events in the syllabus are designated for the IUT to observe or instruct SNFO events and these resources are accounted for in the SNFO MCG.

ABBREVIATIONS

The following is a list of acronyms/abbreviations used in the curriculum:

ADMIN	-	Administration
AEW	-	Airborne Early Warning
AIC	-	Air Intercept Control
ASI	-	Aviation Student Indoctrination
ATS	-	Aviation Training Summary
BAR	-	Basic Airwork Recognition
CAI	-	Computer-Assisted Instruction
CNATRA	-	Chief of Naval Air Training
CNAV	-	Common Navigation
CNAVSTAN	-	Common Navigation Stage Standardization
Comm	-	Communications
COMMOPS	-	E-6 Communications and Operations
CORESTAN	-	Core Stage Standardization
CRM	-	Crew Resource Management
CTS	-	Course Training Standard(s)
E2STAN	-	E-2 Stage Standardization
E6STAN	-	E-6 Stage Standardization
EOB	-	End of Block
EP	-	Emergency Procedure
EWAO	-	Electronic Warfare and Acoustic Operations
FAM/Fam	-	Familiarization Stage; also Abbreviation for Familiarization
FLTOPS	-	Fleet Operations
FTI	-	Flight Training Instruction
GPS	-	Global Positioning System

H/X	-	Hours per Event
IAW	-	In Accordance With
INFO	-	Instructor NFO
INS	-	Inertial Navigation System
ISAR	-	Inverse Synthetic Aperture RADAR
ITF	-	Instructor Training Form
ITJ	-	Instructor Training Jacket
ITU	-	Instructor Training Unit
IUT	-	Instructor Under Training
LECT	-	Lecture
MC2	-	Maritime Command and Control
MCS	-	Multi-Crew Simulator
MIF	-	Maneuver Item File
MIL	-	Mediated Interactive Lecture
MILPERSMAN	-	Military Personnel Manual
MPR	-	Maritime Patrol and Reconnaissance
MPRSTAN	-	Maritime Patrol and Reconnaissance Stage Standardization
NATOPS	-	Naval Air Training Operating Procedures Standardization
NAV/Nav	-	Operational Flight Planning, Flight Instruments, and Navigation; also Abbreviation for Navigation
NFO	-	Naval Flight Officer
NG	-	No Grade
OIC	-	Officer in Charge
OM	-	Operations Manual
OPNAV	-	Office of the Chief of Naval Operations
OPNAVINST	-	OPNAV Instruction

OPS	-	Operations
ORM	-	Operational Risk Management
P/P	-	Pencil and Paper
RADAR	-	Radio Detection and Ranging
SI	-	Standardization Instructor
SL_OPS	-	Sensor and Link Operations
SOP	-	Standard Operating Procedure
SS	-	Self-Study
SSLS	-	Surface Search and Littoral Surveillance
SSR	-	Special Syllabus Requirement
SYS	-	Communications and Navigation Systems
TBD	-	To Be Determined
TIMS	-	Training Integration Management System
TRAWING	-	Training Air Wing
UMFO	-	Undergraduate Military Flight Officer
UNSAT	-	Unsatisfactory

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GLOSSARY

1. Advancing X. Completed event within the normal syllabus flow. Excludes events with last characters in the range 86-89.

2. Aviation Training Summary. A tabular sheet listing the Maneuver Item File (MIF) and maneuver grades within a training stage.

3. Block of Training. A sequential series of lessons within a training stage sharing an identical MIF. The third character in the lesson designator identifies a block.

4. Check Event (XX90). A check event in any stage of training.

5. Contact. The stage of training that combines multi-crew simulator fam, operational flight planning, flight instruments, nav, comm and nav systems, sensor and link operations, and fleet ops.

6. Course of Training. The entire program of simulation, academics, and officer development conducted in all media during the programmed training days.

7. Course Training Standard. A description of required behaviors and standards of performance for a specific maneuver. These standards are in Chapter IX.

8. Courseware. The technical data, FTIs, audio, video, film, CAI, instructor guides, student study guides, and other training material developed to support and implement the syllabus of instruction.

9. Critical Item. Any maneuver coded with a plus sign (+). This symbol indicates the maneuver is required and must be accomplished to the specified standard in that block of training.

10. End of Block. The last event in a block. The student must meet or exceed MIF on all critical items and all optional items attempted in the block to progress past EOB.

11. Extra Training (SXX87). Additional training flights ordered by the Squadron CO in order to make up for squadron instructional deficiencies.

12. Flight Training Instruction. A CNATRA-approved manual describing flight procedures and techniques for each training stage.

13. Hours per X. The average length for each event in a block, rounded to the nearest tenth of an hour.

14. Instructor Training Form. A grade sheet documenting IUT performance for all categories of training regardless of media, phase, or stage.

15. Lesson Designator. All syllabus events have a five-character lesson designator in the following format:

Char	Meaning	Remarks		
1st	Stage	G—Ground E—E-2	C—Core P—MPR	N—Common Nav T—E-6
2nd	Media	0—Ground Event	1—Flight Support 2—Not used	3—Simulator (Instructor) 4—Not used
3rd	Block	Sequential, indicating block within stage.		
4th & 5th	Event/ Check Identifier	Sequential, indicating event within block, or other event types as shown below: 84—Adaptation Events 85—Practice Sim 86—Warmup 87—Extra Training		88—Initial Progress Check 89—Final Progress Check 90—Check Ride

16. Maneuver Item File. A listing of required maneuvers and associated proficiency levels for each block of training.

17. Master Syllabus. Chapters I-VIII list all training syllabus activities, prerequisites, and desired training flow for UMFO Advanced MC2 IUT.

18. Special Syllabus Requirement. One time, ungraded demonstration item.

19. Stage of Training. All training of a particular type (Ground, Core, E-2, Common Navigation, MPR, E-6) within a phase. The first letter in the lesson designator identifies the stage of each lesson (Example: C3101 is in the Core stage).

20. Standardization Instructor. Squadron Commanding Officer will designate SIs for each stage.

21. Training Media. The media for this syllabus include multi-crew simulator (2B51), ground training, and flight support. The second character in the lesson identifier designates the training media (example: E1201 and P1490 are flight support events).

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Chapter I

General Instructions

1. Syllabus Management

a. Distribution. Participating squadron personnel.

b. Interpretation. The syllabus is directive. Should circumstances create situations not covered within the scope of this syllabus, or course of action appears to conflict with other directives, consult CNATRA (N71).

c. Deviations. Document all deviations on the event's ITF.

d. Changes. Recommended changes shall be submitted IAW CNATRAINST 1550.6E.

e. Syllabus Description. The syllabus is divided into stages; the stages are grouped by similar flight training regimes such as Contact (Core), Navigation (Common Nav), and Tactical (E-2, MPR, E-6). Each stage is subdivided into training blocks. The training blocks consist of a specified number of events. Course Training Standards are modified by the MIFs to identify the acceptable level of performance that must be achieved at the completion of each training block.

2. Training Management

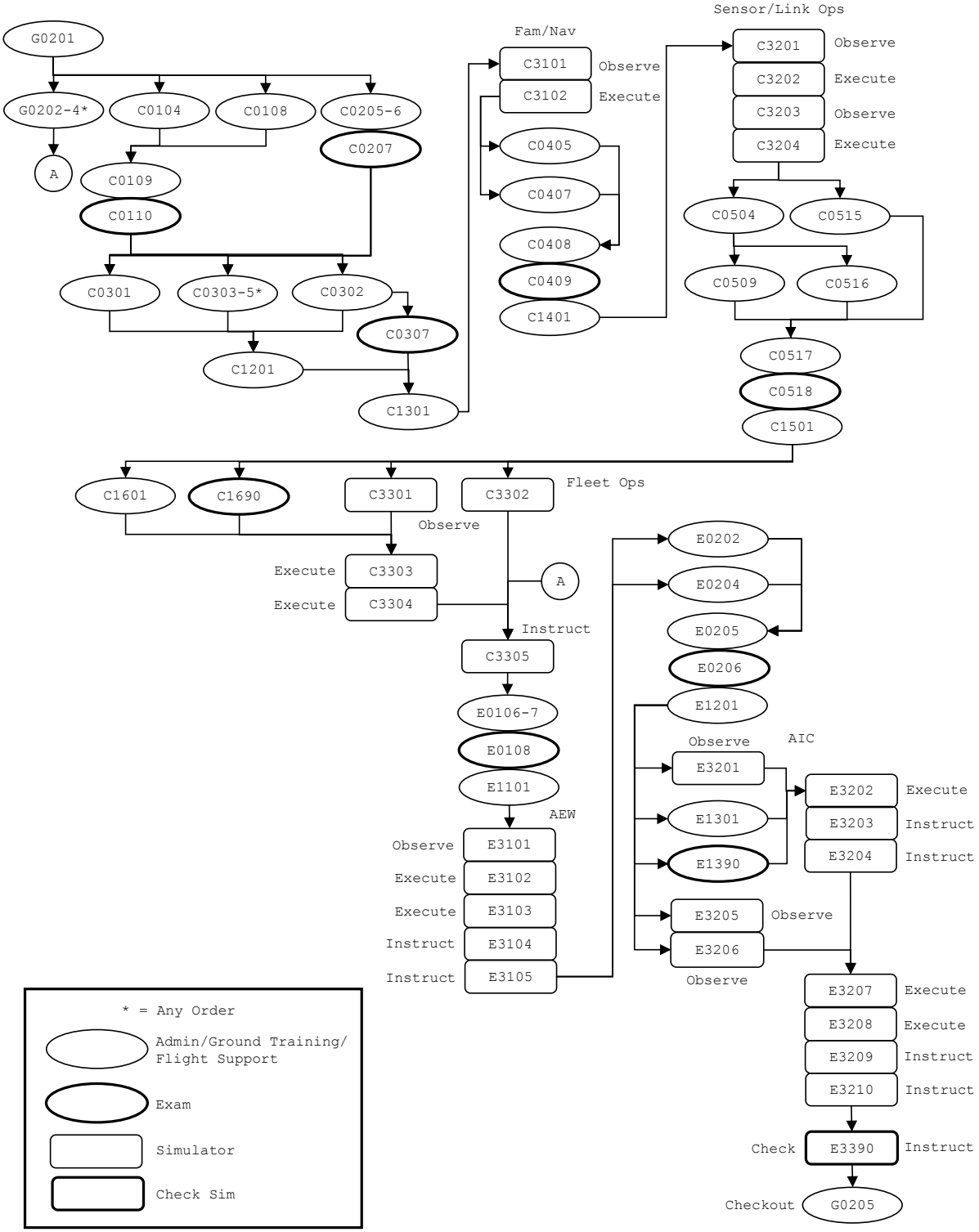
a. Syllabus Progression. Fly events within each stage sequentially, except as noted. Do not start a block without all prerequisites completed. IUTs must complete all required events unless waived by the TRAWING Commander. The flowcharts on pages I-3 through I-9 delineate the sequence of events and their training prerequisites. System training management is designed to facilitate three graded events (simulator or exam) per IUT per day.

b. Maneuver Continuity. IUTs must accomplish previously introduced maneuvers frequently enough to ensure maintaining required proficiency.

c. Hours per X. The average length for each event in a block, rounded to the nearest tenth of an hour.

d. Special Syllabus Requirements. SSRs are allocated to blocks. Unless noted otherwise, SIs may accomplish SSRs on any event within the block. SSRs shall be completed in the specified block. Annotate completed SSRs in the ITF's SSR comments section and the TIMS SSR tab. Assign NG/1 as the SSR maneuver grade.

UMFO ADVANCED E-2 INITIAL IUT COURSE FLOW
(INCLUDES CORE)



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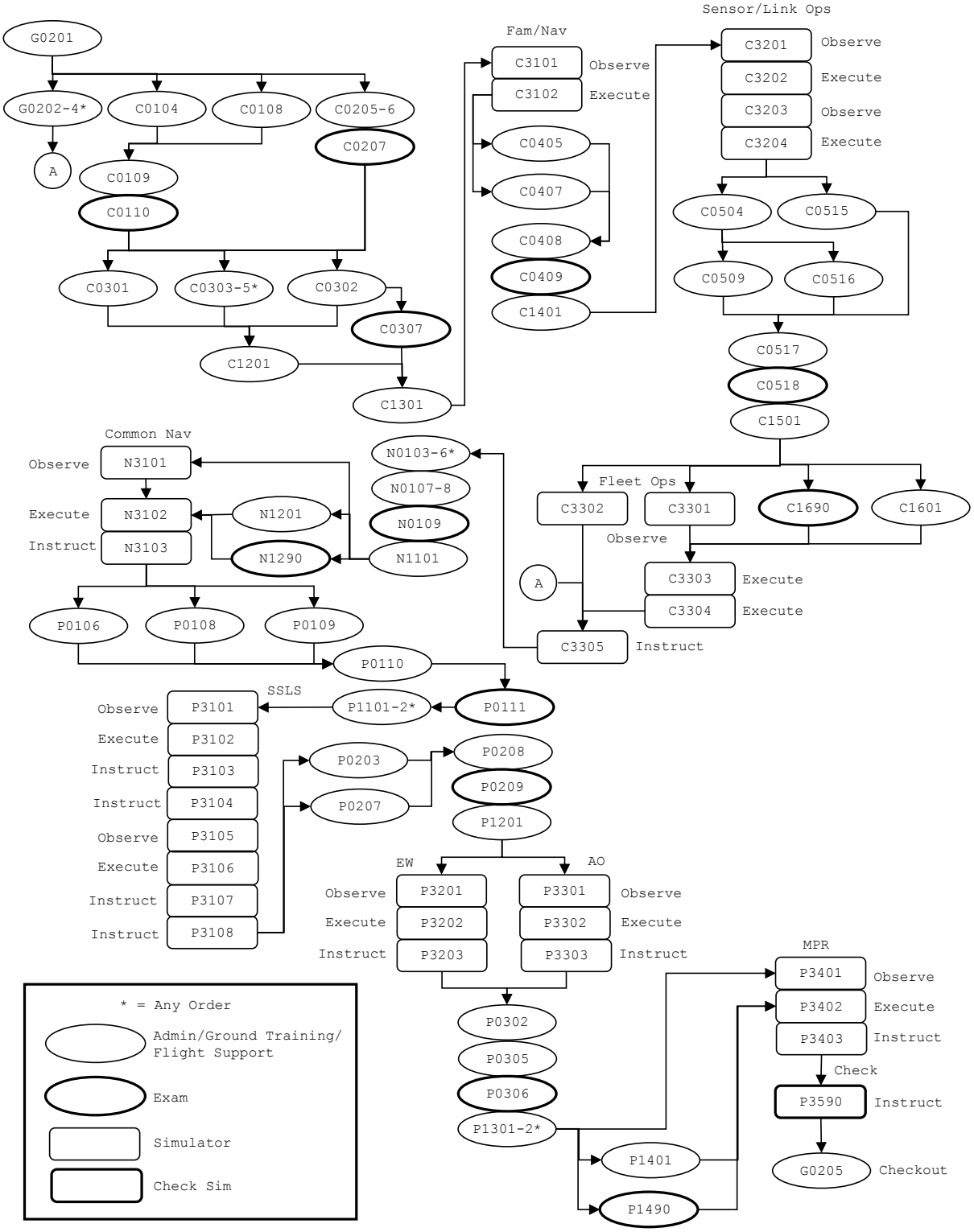
UMFO ADVANCED MPR INITIAL IUT COURSE FLOW
(INCLUDES CORE/COMMON NAVIGATION)



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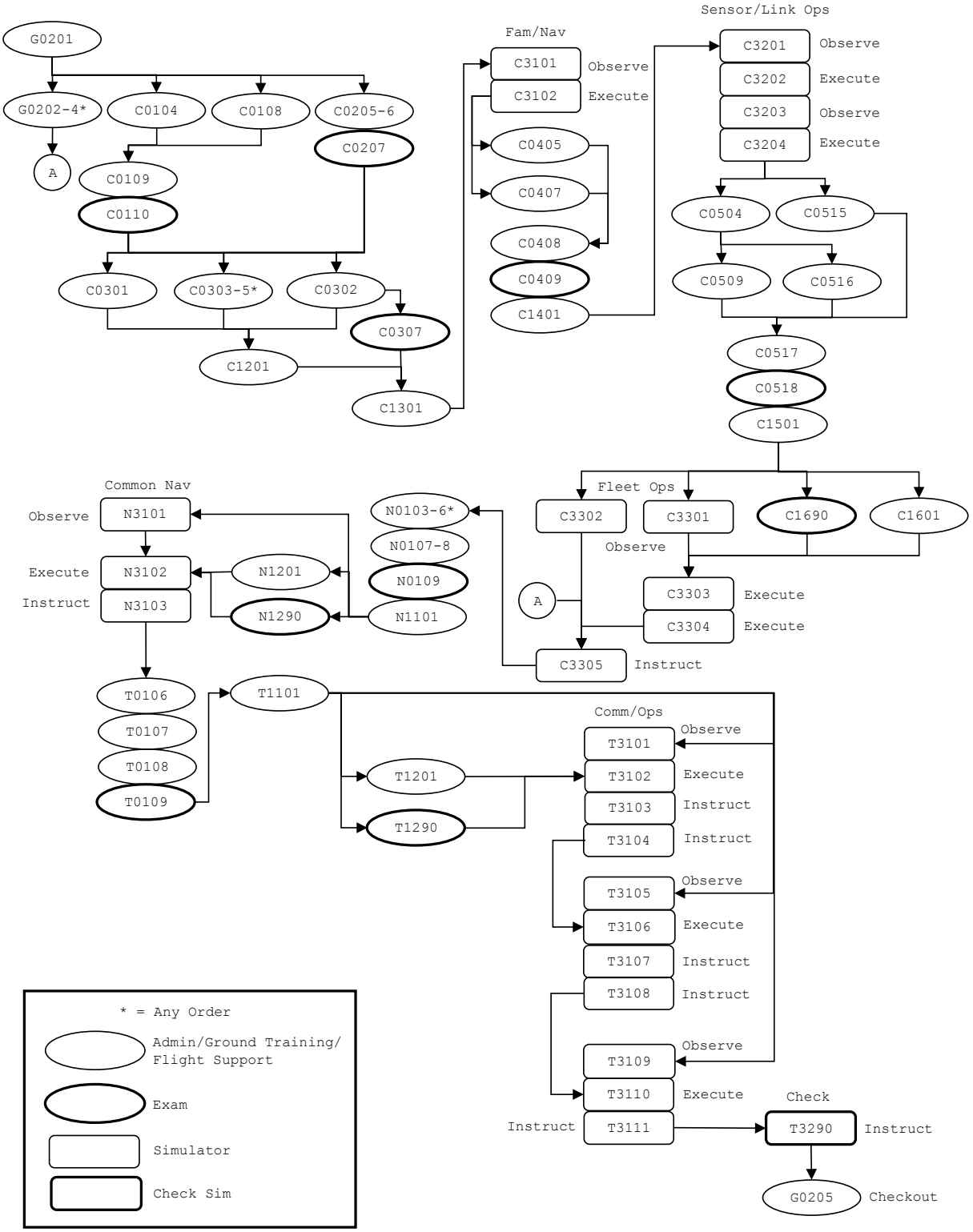
UMFO ADVANCED E-6 INITIAL IUT COURSE FLOW
(INCLUDES CORE/COMMON NAVIGATION)



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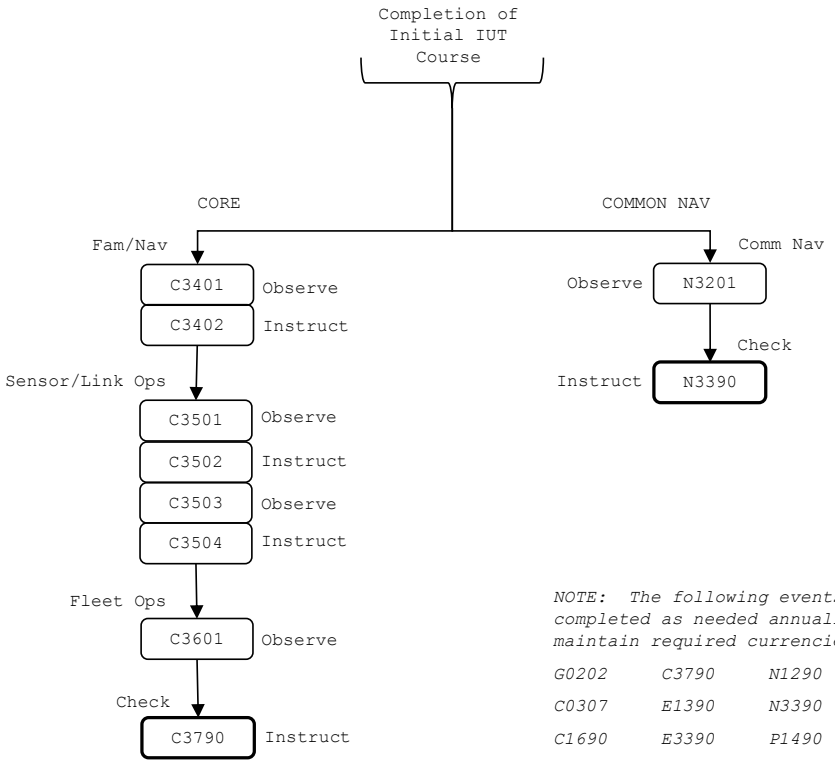
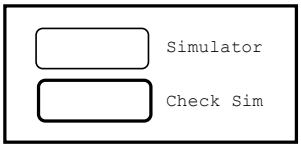
UMFO ADVANCED QUALIFICATIONS COURSE FLOW



NOTE: The following events are also completed as needed annually to maintain required currencies.

G0202	*C3790*	*N1290*	*P3590*
C0307	*E1390*	*N3390*	*T1290*
C1690	*E3390*	*P1490*	*T3290*



3. Ground Training and Briefing Requirements, Mission Preparation, Briefings, and Debriefings

a. EOB Events. The SI shall carefully review the ATS in planning the EOB event to ensure the profile includes opportunities to reach MIF on all critical and optional items attempted in the block.

b. Preparation. The IUT shall be prepared for each device event with:

(1) Thorough knowledge of:

(a) The event's Discuss Items as listed in Chapter III-VIII.

(b) Procedural knowledge of the critical and optional items for the event's training block.

(2) A simulated flight profile tailored to training requirements, weak areas, and continuity.

c. Briefing. Thoroughly cover the mission's:

(1) Specific objectives.

(2) Techniques and required procedures for accomplishing those objectives.

(3) Planned profile, contingencies, and ORM considerations.

d. Debriefing

(1) After each event, the SI shall critique the IUT's performance using cause/effect analysis, particularly with respect to the CTS.

(2) The mission's complexity and IUT's progress will govern the time required for the debrief.

(3) The SI shall provide the IUT with a copy of the event's ITF.

4. Mission Grading Procedures and Evaluation Policies

a. General Evaluation Policy. Course Training Standards listed in this instruction and the MIFs are minimum stage/phase completion standards per maneuver. CTS/MIFs are designed to allow for minimum performance in a specific area with the understanding that performance above the minimum CTS/MIF will offset the weak area.

b. Grading Procedures (Training Devices)

(1) Overall Grading. The overall grade for all device events will be pass/fail.

(2) Absolute Maneuver Grading. Use the following grading scale to document the IUT's performance on all device maneuvers attempted during each dual event. This is an absolute grading scale. Judge proficiency ***only*** against the item's CTS.

(a) Demonstrated (NG/1 Level). Enter "No Grade (NG)":

1. When the SI demonstrates the maneuver and the IUT does not subsequently perform it during the event.

2. To indicate accomplishing SSRs. Specify the completed SSRs in the ITF's SSR comments section and on the TIMS SSR tab.

(b) Unable (U/2 Level). Performance is unsafe or lacks sufficient knowledge, skill, or ability. Deviations greatly exceed CTS, significantly disrupting performance. Corrections significantly lag deviations, or aggravate the deviation.

(c) Fair (F/3 Level). Performance is safe, but with limited proficiency. Deviations exceed CTS, detracting from performance. Corrections noticeably lag deviations, and may not be appropriate.

(d) Good (G/4 Level). Characteristic performance is within CTS. Deviations outside CTS are allowed, provided they are brief, minor, and do not affect safety of flight. Corrections must be appropriate and timely.

(e) Excellent (E/5 Level). Greatly surpasses CTS. Performance is correct, efficient, and skillful. Deviations are very minor. Corrections, if required, are initiated by the IUT and are appropriate, smooth, and rapid.

(3) NATOPS Maneuver Grading. Not applicable.

(4) Progression Rule. Performance must meet MIF by the EOB. IUT shall maintain or exceed MIF performance from one block, stage, or media to the next.

(5) Maneuver Requirements. For each block:

(a) Critical Items. Items with a number and a plus (+) are mandatory and must meet the required proficiency by EOB. When a maneuver is performed multiple times in a block of training, the last grade assigned for the maneuver will determine if the IUT meets EOB MIF.

(b) Optional Items. Items with a number, but without a plus (+), are optional; however, if flown, they must meet the required EOB proficiency the last time the maneuver is graded in the block.

(6) Incomplete Events. In general, SIs should consider an event complete if able to accomplish all work. If an IUT has had ample opportunity to learn a task and subsequently executes a short mission, do not incomplete the mission solely to provide unwarranted extra training. Assess the event complete if:

(a) Seventy-five percent of the event's H/X was used for training, and

(b) Sufficient events remain in the block to redress the imbalance, and

(c) Individual maneuvers can still be accomplished within the block.

(d) Otherwise, assess the event incomplete.

(7) Completion Events. An event may both complete a previous event and count as an advancing X.

c. Policies for Evaluation Simulator Events and Ground Evaluations

(1) Check Simulator Events (XXX90). Check simulator events amount to single-event training blocks; therefore, all rules regarding progressing out of a block apply, except as noted below:

(a) Should execute a representative cross section of optional maneuvers.

(b) Up to two optional maneuvers may be graded F/3 where G/4 is required without requiring an overall UNSAT.

(c) The entire event should be devoted to assessing the IUT's ability and readiness to progress to the next stage of training. All maneuvers indicated with a plus (+) are check simulator event critical and must be accomplished to MIF.

(d) The IUT should be able to demonstrate required levels of proficiency without SI assistance; however, instruction is allowed on check simulators and IUTs may reaccomplish maneuvers at the SI's discretion.

(2) Incomplete Check Simulator Event. The check shall be incomplete when:

(a) Any critical (+) item was not executed, or

(b) The SI was unable to sample sufficient examples of a given maneuver to assess the IUT's overall performance.

Note: The subsequent simulator event need only include maneuvers required to complete the check.

(c) Exceptions: The check is complete, and the overall grade is UNSAT if:

1 Any critical item is below MIF, or

2 More than two optional items were graded F/3 where G/4 is required, or

3 Any maneuver is U/2.

5. Special Instructions and Restrictions

a. Schedule Limitations. Schedule limitations for IUTs will be left to the discretion of the ITU or cognizant squadron, but consistent with the provisions of OPNAVINST 3710.7U.

b. Deviations from Standard Maneuvers. All IUT simulator events will be conducted in accordance with the current OM, FTIs, and local SOPs.

c. Minimum IUT/Student Turn-Times. The ITU instructor shall ensure adequate debrief and brief time is allocated between back-to-back simulator events.

d. Crew Day. Crew day and device-hour limitations are established by OPNAVINST 3710.7U.

e. Crew Rest. Crew rest limitations are established by OPNAVINST 3710.7U and applicable NATOPS.

f. Previous Experience or Demonstrated Ability. Reasonable accelerations and decelerations in the curriculum are authorized when warranted by previous experience or demonstrated ability; combination of any two events is authorized. Accelerations of the curriculum require TRAWING Commander or Squadron Commanding Officer approval and shall be annotated in writing in the ITJ.

Chapter II

Ground Training

Blk #	Media	Title	Events	Hrs	Blk Name
G02	Class/ 2B51	Administration	5	35.0	See Below

1. Prerequisites

   a. None prior to G0201.

   b. G0201 prior to G0202-4 in any order.

   c. E3390, P3590, T3290 prior to G0205.

2. Events

G0201	Admin	ITU Check-In	2.0	ASI
G0202	Lect	Crew Resource Management (Instructor)	2.0	CRM
G0203	Lect	Flight Instructor Training Course	26.0	ASI
G0204	Lect/ 2B51	Simulator Familiarity	3.0	ASI
G0205	Admin	ITU Checkout	2.0	ASI

3. Syllabus Notes. G0202 is required annually to fulfill currency requirements. G0204 should be accomplished in the MCS (2B51) with a qualified instructor.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C01	Class	Operational Flight Planning, Flight Instruments, and Navigation	4	11.0	NAV

1. Prerequisites

a. G0201 (ITU Check-In) prior to C0104 and C0108 in any order.

b. C0104 and C0108 prior to C0109-10 in order.

2. Events

C0104	MIL	Flight Planning Lab	2.0
C0108	MIL	Overwater Nav Procedures	3.0
C0109	MIL	Operational Flight Planning, Flight Instruments, and Nav Exam Review	4.0
C0110	CAI Test	Operational Flight Planning, Flight Instruments, and Nav Exam	2.0

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C02	Class	Communications and Navigation Systems	3	7.5	SYS

1. Prerequisite. G0201 (ITU Check-In).

2. Events

C0205	MIL	Navigating Using INS, GPS, and RADAR System	4.0
C0206	MIL	Comm and Nav Systems Exam Review	2.0
C0207	CAI Test	Comm and Nav Systems Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C03	Class	MCS Familiarization	6	10.0	MCS

1. Prerequisites

a. C0110 (Operational Flight Planning, Flight Instruments, and Nav Exam) prior to C0301-5 in any order.

b. C0207 (Comm and Nav Systems Exam) prior to C0301-5 in any order.

c. C0302 prior to C0307.

2. Events

C0301	MIL	MCS Ops Manual Overview	2.0
C0302	MIL	MCS System Failures and EPs	2.0
C0303	MIL	MC2 Crew Resource Management	2.0
C0304	MIL	MCS Operational Risk Management	1.0
C0305	MIL	Introduction to the MCS Capabilities, Procedures, and Crew Interface	2.0
C0307	P/P Test	MCS EP Boldface Procedures Test	1.0

3. Syllabus Notes

a. All instructors are required to successfully accomplish a boldface exam, C0307. Successful accomplishment of the boldface exam requires 100 percent accuracy. Less than 100 percent on the boldface exam will result in an UNSAT. C0307 is required annually to fulfill currency requirements.

b. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C12	2B51	MCS Device Indoctrination (FAM-0)	1	1.5	MCS

1. Prerequisites. C0301-5 (MCS Fam).

2. Events

C1201	2B51	MCS Device Indoctrination (FAM-0)	1.5

3. Syllabus Notes

a. The IUT will accomplish or simulate the following items during C1201: device familiarization (identify all electronic displays and functions), checklist procedures, malfunction procedures, and emergency procedures.

b. Event names match the MC2 student syllabus.

4. Discuss Items. Briefing requirements, MCS procedures, emergency procedures, malfunctions, and crew resource management (CRM). General discussion of all planned items in paragraph 3 above.

Blk #	Media	Title	Events	Hrs	Blk Name
C13	Class	Familiarization and Navigation Flight Support	1	3.0	NAV

1. Prerequisites

   a. C0307 (MCS EP Boldface Procedures Test).

   b. C1201 (MCS Device Indoctrination (FAM-0)).

2. Events

   C1301 MIL Fam and Nav Flight Preparation 3.0

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C04	Class	Sensor and Link Operations	4	8.5	SL_OPS

1. Prerequisites

   a. C3102 prior to C0405 and C0407 in any order.

   b. C0405 and C0407 prior to C0408-9 in order.

2. Events

C0405	MIL	MCS Sensor Capabilities and Procedures	3.5
C0407	MIL	Data Link Employment	1.5
C0408	MIL	Sensor and Link Ops Exam Review	2.0
C0409	CAI Test	Sensor and Link Ops Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C14	Class	Sensor and Link Operations Flight Support	1	2.0	SL_OPS

1. Prerequisite. C0409 (Sensor and Link Ops Exam).

2. Events

C1401	MIL	Sensor and Link Ops Flight Preparation	2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C05	Class	Fleet Operations	6	14.5	FLTOPS

1. Prerequisites

   a. C3204 prior to C0504 and C0515 in any order.

   b. C0504 prior to C0509 and C0516 in any order.

   c. C0509, C0515, and C0516 prior to C0517-18 in order.

2. Events

C0504	MIL	Data Link and Tactical Comm Integration	2.0
C0509	MIL	Strike and Fleet Support Overview	4.0
C0515	MIL	Anti-Surface Warfare Overview	2.0
C0516	MIL	Search and Rescue	3.0
C0517	MIL	Fleet Ops Exam Review	2.0
C0518	CAI Test	Fleet Ops Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C15	Class	Fleet Operations Flight Support	1	3.5	FLTOPS

1. Prerequisite. C0518 (Fleet Ops Exam).

2. Events

C1501	MIL	Fleet Ops Flight Preparation	3.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
C16	Class	Core Stage Standardization	2	7.0	CORESTAN

1. Prerequisite. C1501 (Fleet Ops Flight Preparation) prior to C1601 and C1690 in any order.

2. Events

C1601	SS	Core Stage Preparation	6.0
C1690	P/P Test	Core Standardization Exam	1.0

3. Syllabus Note. C1690 is required annually to fulfill currency requirements.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
E01	Class	Airborne Early Warning	3	9.0	AEW

1. Prerequisite. C3305.

2. Events

E0106	MIL	AEW Procedures Lab	4.0
E0107	MIL	AEW Exam Review	3.0
E0108	CAI Test	AEW Exam	2.0

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
E11	Class	Airborne Early Warning Flight Support	1	2.0	AEW

1. Prerequisite. E0108 (AEW Exam).

2. Events

E1101	MIL	AEW Flight Preparation	2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
E02	Class	Air Intercept Control	4	9.5	AIC

1. Prerequisites

   a. E3105 prior to E0202 and E0204 in any order.

   b. E0202 and E0204 prior to E0205-6 in order.

2. Events

E0202	MIL	AIC Comm and Tactics/ Timeline	4.0
E0204	MIL	Strike Techniques	2.0
E0205	MIL	AIC Exam Review	2.0
E0206	CAI Test	AIC Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
E12	Class	Air Intercept Control Flight Support	1	2.0	AIC

1. Prerequisite. E0206 (AIC Exam).

2. Events

E1201	MIL	AIC Flight Preparation	2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
E13	Class	E-2 Stage Standardization	2	7.0	E2STAN

1. Prerequisite. E1201 (AIC Flight Preparation) prior to E1301 and E1390 in any order.

2. Events

E1301	SS	E-2 Stage Preparation	6.0
E1390	P/P Test	E-2 Standardization Exam	1.0

3. Syllabus Note. E1390 is required annually to fulfill currency requirements.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
N01	Class	Common Navigation (MPR and E-6)	7	19.0	CNAV

1. Prerequisites

   a. C3305 prior to N0103-6 in any order.

   b. N0103-6 prior to N0107-9 in order.

2. Events

N0103	MIL	Chart Preparation and Nav Fixing Sources	4.0
N0104	MIL	Overwater Nav Procedures	4.0
N0105	MIL	Terrain Avoidance and Standoffs	3.0
N0106	MIL	Overwater Comm Procedures	3.0
N0107	MIL	Nav Log Keeping	1.5
N0108	MIL	Common Nav Exam Review	2.0
N0109	CAI Test	Common Nav Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
N11	Class	Common Navigation Flight Support (MPR and E-6)	1	4.0	CNAV

1. Prerequisite. N0109 (Common Nav Exam).

2. Events

N1101	MIL	Common Nav Flight Preparation	4.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
N12	Class	Common Navigation Stage Standardization (MPR and E-6)	2	7.0	CNAV

1. Prerequisite. N1101 (Common Nav Flight Preparation) prior to N1201 and N1290 in any order.

2. Events

N1201	SS	Common Nav Stage Preparation	6.0
N1290	P/P Test	Common Nav Standardization Exam	1.0

3. Syllabus Note. N1290 is required annually to fulfill currency requirements.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P01	Class	Surface Search and Littoral Surveillance (MPR)	5	9.5	SSLS

1. Prerequisites

   a. N3103 prior to P0106, P0108, and P0109 in any order.

   b. P0106, P0108, and P0109 prior to P0110-11 in order.

2. Events

P0106	MIL	Surface Search Sensor Employment and Procedures	2.0
P0108	MIL	Littoral Surveillance Sensor Employment and Procedures	2.0
P0109	MIL	Mission Log Keeping	1.5
P0110	MIL	SSLS Exam Review	2.5
P0111	CAI Test	SSLS Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P11	Class	Surface Search and Littoral Surveillance Flight Support (MPR)	2	4.5	SSLS

1. Prerequisite. P0111 (SSLS Exam) prior to P1101-2 in any order.

2. Events

P1101	CAI	MCS ISAR Identification	1.0
P1102	MIL	SSLS Flight Preparation	3.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P02	Class	Electronic Warfare and Acoustic Operations (MPR)	4	8.5	EWAO

1. Prerequisites

   a. P3108 prior to P0203 and P0207 in any order.

   b. P0203 and P0207 prior to P0208-9 in order.

2. Events

P0203	CAI	ESM and Emitter Collection Fundamentals	2.0
P0207	MIL	Acoustic Sensor Employment and Terminology	2.0
P0208	MIL	EWAO Exam Review	3.0
P0209	CAI Test	EWAO Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P12	Class	Electronic Warfare and Acoustic Operations Flight Support (MPR)	1	3.5	EWAO

1. Prerequisite. P0209 (EWAO Exam).

2. Events

P1201	MIL	EWAO Flight Preparation	3.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P03	Class	Maritime Patrol and Reconnaissance (MPR)	3	6.5	MPR

1. Prerequisites

   a. P3203 and P3303 prior to P0302.

   b. P0302 prior to P0305-6 in order.

2. Events

P0302	MIL	MPR Coordinated Operations Overview	2.0
P0305	MIL	MPR Exam Review	3.0
P0306	CAI Test	MPR Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P13	Class	Maritime Patrol and Reconnaissance Flight Support (MPR)	2	5.5	MPR

1. Prerequisite. P0306 (MPR Exam) prior to P1301-2 in any order.

2. Events

P1301	MIL	MPR CRM and Multitasking	2.0
P1302	MIL	MPR Flight Preparation	3.5

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
P14	Class	MPR Stage Standardization (MPR)	2	7.0	MPRSTAN

1. Prerequisites. P1301-2 (MPR CRM and Multitasking/Flight Preparation) prior to P1401 and P1490 in any order.

2. Events

P1401	SS	MPR Stage Preparation	6.0
P1490	P/P Test	MPR Standardization Exam	1.0

3. Syllabus Note. P1490 is required annually to fulfill currency requirements.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
T01	Class	E-6 Communications and Operations	4	7.5	COMMOPS

1. Prerequisite. N3103.

2. Events

T0106	MIL	E-6 Comm Overview	2.0
T0107	MIL	E-6 Operational Considerations	2.0
T0108	MIL	E-6 Comm and Ops Exam Review	2.0
T0109	CAI Test	E-6 Comm and Ops Exam	1.5

3. Syllabus Note. Event names match the MC2 student syllabus.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
T11	Class	E-6 Communications and Operations Flight Support	1	3.0	COMMOPS

1. Prerequisite. T0109 (E-6 Comm and Ops Exam).

2. Events

T1101	MIL	E-6 Comm and Ops Flight Preparation	3.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
T12	Class	E-6 Stage Standardization	2	7.0	E6STAN

1. Prerequisite. T1101 (E-6 Comm and Ops Flight Preparation) prior to T1201 and T1290 in any order.

2. Events

T1201	SS	E-6 Stage Preparation	6.0
T1290	P/P Test	E-6 Standardization Exam	1.0

3. Syllabus Note. T1290 is required annually to fulfill currency requirements.

4. Discuss Items. None.

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Chapter III

NATOPS Training

This chapter does not apply to UMFO Advanced MC2 IUT training.

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Chapter IV

Contact Training

1. Training Philosophy. IUTs observe, execute, and instruct simulator events in all stages under supervision of an SI.

2. Matrices. The following matrices are an overview of the Core stage and Core Advanced Qualification blocks. The purpose of these matrices is to provide the IUT and SI the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

3. Core Stage MIF

CORE STAGE MANEUVER ITEM FILE				
CTS REF	**MANEUVER**	**C3102**	**C3204**	**C3305**
1	General Knowledge/Procedures	4+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+
4	Basic Airwork Recognition	4+	4+	4+
5	Mission Planning	4+	4+	4+
6	Briefing	4+	4+	4+
7	Crew Resource Management/Crew Coordination	4+	4+	4+
8	Ground Operations	4+	4+	
9	Departure	4+	4+	
10	In-Flight Checks	4+	4+	
11	Enroute Procedures	4+	4+	
12	On-Station/Check-In Procedures			4+
13	On-Station Navigation (Core)			4+
14	Equipment Operation		4+	4+
15	Air/Ground RADAR Utilization		4+	4+
17	Electro-Optical/Infrared Utilization		4+	4+

MIF continued on next page.

CORE STAGE MANEUVER ITEM FILE				
CTS REF	**MANEUVER**	**C3102**	**C3204**	**C3305**
19	Data Link Utilization		4+	4+
20	Surface Search (Core)			4+
25	Off-Station/Turnover			4+
26	Approach	4+		
27	Checklists	4+	4+	4+
28	Fuel Management/Analysis	4+	4+	4+
29	ATC Radio Procedures	4+	4+	
30	Tactical Radio Procedures			4+
33	Scan			4+
55	Flight Instruction/Detect and Correct Student Errors			4+
56	Instructional Assistance			4+
57	Aviation Training Jacket Review			4+
58	Grading			4+
59	Debriefing	4+	4+	4+

4. Core Stage Advanced Qualification MIF

Check Ride Event

CORE STAGE ADVANCED QUALIFICATION MANEUVER ITEM FILE					
CTS REF	**MANEUVER**	**C3402**	**C3504**	**C3601**	**C3790**
1	General Knowledge/Procedures	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+
4	Basic Airwork Recognition	4+	4+	4+	4+
5	Mission Planning	4+	4+		4+
6	Briefing	4+	4+		4+
7	Crew Resource Management/Crew Coordination	4+	4+		4+
55	Flight Instruction/Detect and Correct Student Errors	4+	4+		4+
56	Instructional Assistance	4+	4+		4+
57	Aviation Training Jacket Review	4+	4+		4+
58	Grading	4+	4+		4+
59	Debriefing	4+	4+		4+

Blk #	Media	Title	Events	Hrs	H/X
C31	2B51	Familiarization and Navigation (Core)	Observe/1 Execute/1	3.0	1.5

1. Prerequisite. C1301 (Fam and Nav Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during C3102.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for C3102. This additional CSI will not attend the brief or debrief.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3101	Observe	Any C31XX	Fam and Nav
C3102	Execute	C3104	Fam and Nav

3. Special Syllabus Requirements. None.

4. Discuss Items

C3101. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

C3102
DD-175 requirements, FAA communications review, MCS flight equipment (barometric altimeter, airspeed indicator, vertical speed indicator, RADAR altimeter), HSI, TACAN system, and EPs; INS, GPS, FMS, and HF radio; DD-1801 requirements and ICAO procedures; ADIZ and FI.

5. Block MIF

CTS REF	MANEUVER	C3102
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
8	Ground Operations	4+
9	Departure	4+
10	In-Flight Checks	4+
11	Enroute Procedures	4+
26	Approach	4+
27	Checklists	4+
28	Fuel Management/Analysis	4+
29	ATC Radio Procedures	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
C32	2B51	Sensor and Link Operations (Core)	Observe/2 Execute/2	6.0	1.5

1. Prerequisite. C1401 (Sensor and Link Ops Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during C3202 and C3204.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for C3202 and C3204. This additional CSI will not attend the brief or debrief for these events.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3201	Observe	Any C3201-5	Sensor and Link (emphasize sensors)
C3202	Execute	C3205	Sensors
C3203	Observe	Any C3206-8	Sensor and Link (emphasize link)
C3204	Execute	C3208	Data link

3. Special Syllabus Requirements. None.

4. Discuss Items

C3201
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

C3202
RADAR system components and operation; IFF modes and operation; ESM system components and operation and EW; EO/IR system components and operation.

C3203
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

C3204
Sensor integration and prioritization; data link system components and operation; data link integration and dissemination; data link and prioritization with supporting sensors.

5. Block MIF

CTS REF	MANEUVER	C3204
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
8	Ground Operations	4+
9	Departure	4+
10	In-Flight Checks	4+
11	Enroute Procedures	4+
14	Equipment Operation	4+
15	Air/Ground RADAR Utilization	4+
17	Electro-Optical/Infrared Utilization	4+
19	Data Link Utilization	4+
27	Checklists	4+
28	Fuel Management/Analysis	4+
29	ATC Radio Procedures	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
C33	2B51	Fleet Operations (Core)	Observe/2 Execute/2 Instruct/1	9.0	See Syl Note a.

1. Prerequisites

a. C1501 (Fleet Ops Flight Preparation) prior to C3301-2 in any order.

b. C3301, C1601 (Core Stage Preparation), and C1690 (Core Standardization Exam) prior to C3303-4 in order.

c. G0202-4 (CRM, FITC, Simulator Familiarity), C3302, and C3304 prior to C3305.

2. Syllabus Notes

a. Allow 3.0 hours for C3302 and 1.5 H/X for remaining events.

b. The IUT will occupy the MCS student position during C3303 and C3304.

c. In addition to the scheduled instructor, a CSI is required to operate the MCS for C3303 and C3304. This additional CSI will not attend the brief or debrief for these events.

d. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3301	Observe	Any C33XX	Fleet Operations
C3302	Observe	Any C33XX or C3490 (preferred)	Fleet Operations
C3303-4	Execute	C3305	Fleet Operations
C3305	Instruct	Any C33XX	Fleet Operations

e. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

C3301-2
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

C3303
SATCOM, CWC doctrine, and SSC; SAG, ACU, ACU check-in/check-out, weapon/warning status, search area, COI, CCOI, and ASUW operations; national/international airspace, law of sea convention, maritime query challenge, turnover procedures, ship standoff, and SURPIC report.

C3304
SAR operations; carrier/expeditionary strike group operations, MEZ, JEZ, FEZ, threat standoff, MAS, sledgehammer/gangplank, AIMT, types of kill (mobility/firepower/catastrophic), and BDA.

C3305
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	C3305
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
12	On-Station/Check-In Procedures	4+
13	On-Station Navigation (Core)	4+
14	Equipment Operation	4+
15	Air/Ground RADAR Utilization	4+
17	Electro-Optical/Infrared Utilization	4+
19	Data Link Utilization	4+
20	Surface Search (Core)	4+
25	Off-Station/Turnover	4+
27	Checklists	4+
28	Fuel Management/Analysis	4+
30	Tactical Radio Procedures	4+
33	Scan	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
C34	2B51	Familiarization and Navigation (Core Advanced Qualification)	Observe/1 Instruct/1	3.0	1.5

1. Prerequisite. Completion of IUT Course (G0205).

2. Syllabus Note. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3401	Observe	Any C31XX	Fam and Nav
C3402	Instruct	Any C31XX	Fam and Nav

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" or "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	C3402
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
C35	2B51	Sensor and Link Operations (Core Advanced Qualification)	Observe/2 Instruct/2	6.0	1.5

1. Prerequisite. C3402.

2. Syllabus Note. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3501	Observe	Any C3201-5	Sensor and Link (emphasize sensors)
C3502	Instruct	Any C3201-5	Emphasize sensors
C3503	Observe	Any C3206-8	Sensor and Link (emphasize link)
C3504	Instruct	Any C3206-8	Emphasize link

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Observe” or “Instruct” event.

5. Block MIF

CTS REF	MANEUVER	C3504
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
C36	2B51	Fleet Operations (Core Advanced Qualification)	Observe/1	1.5	1.5

1. Prerequisite. C3504.

2. Syllabus Note. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3601	Observe	Any C33XX	Fleet Operations

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

5. Block MIF

CTS REF	MANEUVER	C3601
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+

Blk #	Media	Title	Events	Hrs	H/X
C37	2B51	Fleet Operations Check Ride (Core Advanced Qualification)	Instruct/1	1.5	1.5

1. Prerequisite. C3601.

2. Syllabus Notes

a. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
C3790	Instruct	Any C33XX (C3301 preferred)	Fleet Operations

b. The instructor will not instruct a student check ride event.

c. C3790 is required annually to fulfill currency requirements.

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	C3790
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Chapter V

Instrument Training

This chapter does not apply to UMFO Advanced MC2 IUT training.

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Chapter VI

Navigation Training

1. Training Philosophy. IUTs observe, execute, and instruct simulator events in all stages under supervision of an SI.

2. Matrices. The following matrices are an overview of the Common Navigation stage and Common Navigation Advanced Qualification. The purpose of these matrices is to provide the IUT and SI the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

3. Common Navigation Stage MIF

COMMON NAVIGATION STAGE MANEUVER ITEM FILE		
CTS REF	**MANEUVER**	**N3103**
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
8	Ground Operations	4+
9	Departure	4+
10	In-Flight Checks	4+
11	Enroute Procedures	4+
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
19	Data Link Utilization	4+
25	Off-Station/Turnover	4+

MIF continued on next page.

COMMON NAVIGATION STAGE MANEUVER ITEM FILE		
CTS REF	**MANEUVER**	**N3103**
26	Approach	4+
27	Checklists	4+
29	ATC Radio Procedures	4+
30	Tactical Radio Procedures	4+
32	Prioritization	4+
33	Scan	4+
39	Operational Charts	4+
40	On-Station Navigation (Common Nav and MPR)	4+
41	Terrain Avoidance/Standoffs	4+
42	Operational Record Keeping	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

4. Common Navigation Stage Advanced Qualification MIF

[redacted] Check Ride Event

COMMON NAVIGATION STAGE ADVANCED QUALIFICATION MANEUVER ITEM FILE			
CTS REF	**MANEUVER**	**N3201**	**N3390**
1	General Knowledge/Procedures	4+	4+
2	Emergency Procedures	4+	4+
3	Headwork/Situational Awareness	4+	4+
4	Basic Airwork Recognition	4+	4+
5	Mission Planning		4+
6	Briefing		4+
7	Crew Resource Management/Crew Coordination		4+
55	Flight Instruction/Detect and Correct Student Errors		4+
56	Instructional Assistance		4+
57	Aviation Training Jacket Review		4+
58	Grading		4+
59	Debriefing		4+

Blk #	Media	Title	Events	Hrs	H/X
N31	2B51	Common Navigation (MPR and E-6)	Observe/1 Execute/1 Instruct/1	4.5	1.5

1. Prerequisites

a. N1101 (Common Nav Flight Preparation) prior to N3101.

b. N1201 (Common Nav Stage Preparation), N1290 (Common Nav Standardization Exam), and N3101 prior to N3102-3 in order.

2. Syllabus Notes

a. The IUT will occupy the MCS student position during N3102.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for N3102. This additional CSI will not attend the brief or debrief.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
N3101	Observe	N3290	Common Nav Check
N3102	Execute	N3104	Common Nav
N3103	Instruct	Any N31XX	Common Nav

d. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

N3101
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

N3102
HF procedures, review DD-1801 and ICAO requirements, position reports, MSA, and MESA; fix procedures, SAC, operational reporting, and MOSA; due regard and territorial standoff; threat standoff.

N3103
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	N3103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
8	Ground Operations	4+
9	Departure	4+
10	In-Flight Checks	4+
11	Enroute Procedures	4+
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
19	Data Link Utilization	4+
25	Off-Station/Turnover	4+
26	Approach	4+
27	Checklists	4+
29	ATC Radio Procedures	4+
30	Tactical Radio Procedures	4+
32	Prioritization	4+
33	Scan	4+

MIF continued on next page.

CTS REF	MANEUVER	N3103
39	Operational Charts	4+
40	On-Station Navigation (Common Nav and MPR)	4+
41	Terrain Avoidance/Standoffs	4+
42	Operational Record Keeping	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
N32	2B51	Common Navigation Advanced Qualification	Observe/1	1.5	1.5

1. Prerequisite. Completion of IUT Course (G0205).

2. Syllabus Note. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
N3201	Observe	Any N31XX	Common Nav

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

5. Block MIF

CTS REF	MANEUVER	N3201
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+

Blk #	Media	Title	Events	Hrs	H/X
N33	2B51	Common Navigation Check Ride Advanced Qualification	Instruct/1	1.5	1.5

1. Prerequisite. N3201.

2. Syllabus Notes

a. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
N3390	Instruct	N3101 preferably	Common Nav

b. The instructor will not instruct a student check ride event.

c. N3390 is required annually to fulfill currency requirements.

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Instruct” event.

5. Block MIF

CTS REF	MANEUVER	N3390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

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Chapter VII

Formation Training

This chapter does not apply to UMFO Advanced MC2 IUT training.

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Chapter VIII

Tactical Training

1. Training Philosophy. IUTs observe, execute, and instruct simulator events in all stages under supervision of an SI.

2. Matrices. The following matrices are an overview of the E-2, MPR, and E-6 stages. The purpose of these matrices is to provide the IUT and SI the easiest way to track progress, regression, and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.

3. E-2 Stage MIF

Check Ride Event

E-2 STAGE MANEUVER ITEM FILE				
CTS REF	**MANEUVER**	**E3105**	**E3210**	**E3390**
1	General Knowledge/Procedures	4+	4+	4+
2	Emergency Procedures	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+
4	Basic Airwork Recognition	4+	4+	4+
5	Mission Planning	4+	4+	4+
6	Briefing	4+	4+	4+
7	Crew Resource Management/Crew Coordination	4+	4+	4+
14	Equipment Operation	4+	4+	
16	Air-to-Air RADAR Utilization	4+	4+	
19	Data Link Utilization	4+	4+	
22	Battle Space Management	4+	4+	
23	Threat Recognition		4+	
24	Search and Rescue		4+	
27	Checklists	4+	4+	

MIF continued on next page.

E-2 STAGE MANEUVER ITEM FILE				
CTS REF	**MANEUVER**	**E3105**	**E3210**	**E3390**
30	Tactical Radio Procedures	4+	4+	
31	Mission Ownership		4+	
32	Prioritization		4+	
33	Scan	4+	4+	
34	AEW Manual Tracking	4+	4+	
35	AEW Near Collision Intercepts	4+		
36	On-Station Air Defense		4+	
37	Air Intercept Control		4+	
38	Strike		4+	
55	Flight Instruction/Detect and Correct Student Errors	4+	4+	4+
56	Instructional Assistance	4+	4+	4+
57	Aviation Training Jacket Review	4+	4+	4+
58	Grading	4+	4+	4+
59	Debriefing	4+	4+	4+

4. MPR Stage MIF

Check Ride Event

MPR STAGE MANEUVER ITEM FILE						
CTS REF	**MANEUVER**	**P3108**	**P3203**	**P3303**	**P3403**	**P3590**
1	General Knowledge/Procedures	4+	4+	4+	4+	4+
2	Emergency Procedures	4+	4+	4+	4+	4+
3	Headwork/Situational Awareness	4+	4+	4+	4+	4+
4	Basic Airwork Recognition	4+	4+	4+	4+	4+
5	Mission Planning	4+	4+	4+	4+	4+
6	Briefing	4+	4+	4+	4+	4+
7	Crew Resource Management/Crew Coordination	4+	4+	4+	4+	4+
12	On-Station/Check-In Procedures	4+	4+	4+	4+	
14	Equipment Operation	4+	4+	4+	4+	
15	Air/Ground RADAR Utilization	4+			4+	
17	Electro-Optical/Infrared Utilization	4+			4+	
18	ESM Utilization		4+		4+	
19	Data Link Utilization	4+	4+	4+	4+	
21	Electronic Warfare		4+		4+	
22	Battle Space Management	4+	4+	4+	4+	
23	Threat Recognition				4+	
24	Search and Rescue	4+				
25	Off-Station/Turnover			4+	4+	
27	Checklists	4+	4+	4+	4+	
30	Tactical Radio Procedures	4+	4+	4+	4+	
31	Mission Ownership				4+	
32	Prioritization	4+	4+	4+	4+	
33	Scan	4+	4+	4+	4+	

MIF continued on next page.

MPR STAGE MANEUVER ITEM FILE						
CTS REF	**MANEUVER**	**P3108**	**P3203**	**P3303**	**P3403**	**P3590**
39	Operational Charts	4+	4+	4+	4+	
40	On-Station Navigation (Common Nav and MPR)	4+			4+	
41	Terrain Avoidance/Standoffs	4+			4+	
42	Operational Record Keeping				4+	
43	ISAR Utilization	4+			4+	
44	Surface Search (MPR)	4+			4+	
45	SAR Utilization	4+			4+	
46	Littoral Surveillance	4+	4+		4+	
47	Signal Collection		4+		4+	
48	Environmental Data Collection			4+	4+	
49	Acoustic Tracking			4+	4+	
50	Coordinated Operations				4+	
55	Flight Instruction/Detect and Correct Student Errors	4+	4+	4+	4+	4+
56	Instructional Assistance	4+	4+	4+	4+	4+
57	Aviation Training Jacket Review	4+	4+	4+	4+	4+
58	Grading	4+	4+	4+	4+	4+
59	Debriefing	4+	4+	4+	4+	4+

5. E-6 Stage MIF

Check Ride Event

E-6 STAGE MANEUVER ITEM FILE			
CTS REF	**MANEUVER**	**T3111**	**T3290**
1	General Knowledge/Procedures	4+	4+
2	Emergency Procedures	4+	4+
3	Headwork/Situational Awareness	4+	4+
4	Basic Airwork Recognition	4+	4+
5	Mission Planning	4+	4+
6	Briefing	4+	4+
7	Crew Resource Management/Crew Coordination	4+	4+
14	Equipment Operation	4+	
27	Checklists	4+	
28	Fuel Management/Analysis	4+	
30	Tactical Radio Procedures	4+	
31	Mission Ownership	4+	
32	Prioritization	4+	
33	Scan	4+	
51	E-6 Equipment Utilization	4+	
52	E-6 Communications	4+	
53	E-6 Operations	4+	
54	Aerial Refueling	4+	
55	Flight Instruction/Detect and Correct Student Errors	4+	4+
56	Instructional Assistance	4+	4+
57	Aviation Training Jacket Review	4+	4+
58	Grading	4+	4+
59	Debriefing	4+	4+

Blk #	Media	Title	Events	Hrs	H/X
E31	2B51	Airborne Early Warning (E-2)	Observe/1 Execute/2 Instruct/2	7.5	1.5

1. Prerequisite. E1101 (AEW Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during E3102 and E3103.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for E3102-3. This additional CSI will not attend the brief or debrief for these events.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
E3101	Observe	E3290	AEW Check
E3102-3	Execute	E3105	AEW/NCI
E3104-5	Instruct	Any E31XX	AEW

d. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

E3101
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Observe” event.

E3102
AEW, manual tracking (course, speed, altitude), and goals of manual tracking (detect, evaluate, classify, report); link-16 and detect-to-engage sequence.

E3103
Air-to-air specific brevity words, NCI, BRAA, bogey bearing, target aspect, bogey's reciprocal, angle off, fighter heading, near-collision intercept, compute collision course, and bogey heading; NCI procedures.

E3104-5
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	E3105
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
14	Equipment Operation	4+
16	Air-to-Air RADAR Utilization	4+
19	Data Link Utilization	4+
22	Battle Space Management	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+
33	Scan	4+
34	AEW Manual Tracking	4+
35	AEW Near Collision Intercepts	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
E32	2B51	Air Intercept Control (E-2)	Observe/3 Execute/3 Instruct/4	16.5	See Syl Note a.

1. Prerequisites

a. E1201 (AIC Flight Preparation) prior to E3201, E3205, and E3206.

b. E3201, E1301 (E-2 Stage Preparation), and E1390 (E-2 Standardization Exam) prior to E3202-4 in order.

c. E3204-6 prior to E3207-10 in order.

2. Syllabus Notes

a. Allow 3.0 hours for E3206 and 1.5 H/X for remaining events.

b. The IUT will occupy the MCS student position during E3202, E3207, and E3208.

c. In addition to the scheduled instructor, a CSI is required to operate the MCS for E3202, E3207, and E3208. This additional CSI will not attend the brief or debrief for these events.

d. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
E3201	Observe	Any E31XX	AIC
E3202	Execute	E3304	AIC/DCA
E3203-4	Instruct	Any E31XX	AIC
E3205	Observe	Any E31XX	AIC
E3206	Observe	E3290	AIC Check
E3207	Execute	E3307	OCA
E3208	Execute	E3308	ABCC
E3209-10	Instruct	Any E31XX	AIC

e. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

E3201
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

E3202
Five components of AIC core information (call sign, number of groups, location of anchor point, altitude, fill-ins), AIC, and CAP; types of control (broadcast/tactical/close); Carrier strike group air defense, and DCA.

E3203-6
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" or "Observe" event.

E3207
Timeline, multigroup labels, brevity, communications format, communications priority, and information priority; TOPGUN standard control, timeline critical points, groups, arms, group maneuvers, and amplifier; data link utilization; Defense in-depth force concentration, OCA, and return-to-force.

E3208
ABCC, CAS assets, forward line of own troops, fire support coordination line, KI, blue kill box, purple kill box, CAS stack, CAS check-in, time-sensitive target, and high-priority task lists.

E3209-10
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	E3210
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
14	Equipment Operation	4+
16	Air-to-Air RADAR Utilization	4+
19	Data Link Utilization	4+
22	Battle Space Management	4+
23	Threat Recognition	4+
24	Search and Rescue	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+
31	Mission Ownership	4+
32	Prioritization	4+
33	Scan	4+
34	AEW Manual Tracking	4+
36	On-Station Air Defense	4+
37	Air Intercept Control	4+
38	Strike	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
E33	2B51	Air Intercept Control Check Ride (E-2)	Instruct/1	1.5	1.5

1. Prerequisite. E3210.

2. Syllabus Notes

a. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
E3390	Instruct	E3301 preferably	Early block AIC

b. The IUT will not instruct a student check ride event.

c. E3390 is required annually to fulfill currency requirements.

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	E3390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
P31	2B51	Surface Search and Littoral Surveillance (MPR)	Observe/2 Execute/2 Instruct/4	12.0	1.5

1. Prerequisites. P1101 (MCS ISAR Identification) and P1102 (SSLS Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during P3102 and P3106.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for P3102 and P3106. This additional CSI will not attend the brief or debrief for these events.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
P3101	Observe	Any P31XX	SSLS (emphasize surface search)
P3102	Execute	P3104	Surface search
P3103-4	Instruct	Any P31XX	SSLS (emphasize surface search)
P3105	Observe	Any P31XX	SSLS (emphasize littoral surveillance)
P3106	Execute	P3108	Littoral surveillance
P3107-8	Instruct	Any P31XX	SSLS (emphasize littoral surveillance)

3. Special Syllabus Requirements. None.

4. Discuss Items

P3101
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

P3102
MPR SSC, review search sensors, determining primary search sensor, review COI and CCOI, classification of ships (category, type, class), and identification (hull number, name, flag); review of U.S. Naval asset capabilities, surface contact reporting (voice and data link), and review SAR procedures.

P3103-5
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" or "Observe" event.

P3106
AIS, merchant ships, appearance groups, hull types, upright sequence, bow/stern types, and combatant ships; RADAR overt/covert and ISAR operations; straits transit, littoral operations, and littoral threats; SAR and order of battle; maritime query challenge; rigging procedures.

P3107-8
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	P3108
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management\Crew Coordination	4+

MIF continued on next page.

CTS REF	MANEUVER	P3108

CTS REF	MANEUVER	P3108
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
15	Air/Ground RADAR Utilization	4+
17	Electro-Optical/Infrared Utilization	4+
19	Data Link Utilization	4+
22	Battle Space Management	4+
24	Search and Rescue	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+
32	Prioritization	4+
33	Scan	4+
39	Operational Charts	4+
40	On-Station Navigation (Common Nav and MPR)	4+
41	Terrain Avoidance/Standoffs	4+
43	ISAR Utilization	4+
44	Surface Search (MPR)	4+
45	SAR Utilization	4+
46	Littoral Surveillance	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
P32	2B51	Electronic Warfare (MPR)	Observe/1 Execute/1 Instruct/1	4.5	1.5

1. Prerequisite. P1201 (EWAO Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during P3202.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for P3202. This additional CSI will not attend the brief or debrief for this event.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
P3201	Observe	Any P32XX	Electronic Warfare
P3202	Execute	P3202	Electronic Warfare
P3203	Instruct	Any P32XX	Electronic Warfare

3. Special Syllabus Requirements. None.

4. Discuss Items

P3201
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

P3202
EW support, electronic protection, electronic attack, ES phases (search, intercept, locate, identify, report), PRF, PRI, PD, review scan types (Alpha, Bravo, and Charlie), recovery time, duty cycle, boresight, main lobe, range resolution, azimuth angle, and bearing resolution; continuous wave, pulse doppler, frequency modulation, stagger, jitter, dwell, switch, atmospheric conditions effect on RADARs and wave propagation, and RADAR modulation types (intrapulse, interpulse).

P3203
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	P3203
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
18	ESM Utilization	4+
19	Data Link Utilization	4+
21	Electronic Warfare	4+
22	Battle Space Management	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+
32	Prioritization	4+
33	Scan	4+
39	Operational Charts	4+
46	Littoral Surveillance	4+
47	Signal Collection	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
P33	2B51	Acoustic Operations (MPR)	Observe/1 Execute/1 Instruct/1	4.5	1.5

1. Prerequisite. P1201 (EWAO Flight Preparation).

2. Syllabus Notes

a. The IUT will occupy the MCS student position during P3302.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for P3302. This additional CSI will not attend the brief or debrief for this event.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
P3301	Observe	Any P33XX	Acoustic Operations
P3302	Execute	P3302	Acoustic Operations
P3303	Instruct	Any P33XX	Acoustic Operations

3. Special Syllabus Requirements. None.

4. Discuss Items

P3301
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

P3302
ASW specific brevity words, MAD, BT sonobuoy, BT trace, AN processing, passive sonobuoys, sonobuoy deployment safety, DRT, sonobuoy drop timing, search patterns, localization patterns, CPA, LOFAR/Doppler tracking, and the 3-minute rule; DIFAR/bearing tracking, speed fitting, generating a track, active sonobuoys, and DICASS/active tracking.

P3303
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	P3303
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
19	Data Link Utilization	4+
22	Battle Space Management	4+
25	Off-Station/Turnover	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+
32	Prioritization	4+
33	Scan	4+
39	Operational Charts	4+
48	Environmental Data Collection	4+
49	Acoustic Tracking	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
P34	2B51	Maritime Patrol and Reconnaissance (MPR)	Observe/1 Execute/1 Instruct/1	9.0	3.0

1. Prerequisites

a. P1301 (MPR CRM and Multitasking) and P1302 (MPR Flight Preparation) prior to P3401.

b. P3401, P1401 (MPR Stage Preparation), and P1490 (MPR Standardization Exam) prior to P3402-3 in order.

2. Syllabus Notes

a. The IUT will occupy the MCS student position during P3402.

b. In addition to the scheduled instructor, a CSI is required to operate the MCS for P3402. This additional CSI will not attend the brief or debrief.

c. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
P3401	Observe	Any P34XX or P3590 (preferred)	MPR
P3402	Execute	P3402	MPR
P3403	Instruct	Any P34XX	MPR

d. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

P3401
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Observe” event.

P3402
ASW naval platforms, SURTAS, TACTAS, SOSUS, ASW localization, datum, dog box, coordinated operations low-altitude rules, lateral/vertical separation, and ASW turnover; ASW SAC, SAU, air plans, contact classifications, ASW attack policy, WSM, compensatory allowance, and vectored attacks.

P3403
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	P3403
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
12	On-Station/Check-In Procedures	4+
14	Equipment Operation	4+
15	Air/Ground RADAR Utilization	4+
17	Electro-Optical/Infrared Utilization	4+
18	ESM Utilization	4+
19	Data Link Utilization	4+
21	Electronic Warfare	4+
22	Battle Space Management	4+
23	Threat Recognition	4+
25	Off-Station/Turnover	4+
27	Checklists	4+
30	Tactical Radio Procedures	4+

MIF continued on next page.

CTS REF	MANEUVER	P3403
31	Mission Ownership	4+
32	Prioritization	4+
33	Scan	4+
39	Operational Charts	4+
40	On-Station Navigation (Common Nav and MPR)	4+
41	Terrain Avoidance/Standoffs	4+
42	Operational Record Keeping	4+
43	ISAR Utilization	4+
44	Surface Search (MPR)	4+
45	SAR Utilization	4+
46	Littoral Surveillance	4+
47	Signal Collection	4+
48	Environmental Data Collection	4+
49	Acoustic Tracking	4+
50	Coordinated Operations	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
P35	2B51	Maritime Patrol and Reconnaissance Check Ride (MPR)	Instruct/1	3.0	3.0

1. Prerequisite. P3403.

2. Syllabus Notes

a. The IUT should instruct the first MPR event (preferred P3401 student event).

b. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
P3590	Instruct	P3401 preferably	MPR

c. The IUT will not instruct a student check ride event.

d. P3590 is required annually to fulfill currency requirements.

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Instruct” event.

5. Block MIF

CTS REF	MANEUVER	P3590
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
T31	2B51	E-6 Communications and Operations (E-6)	Observe/3 Execute/3 Instruct/5	22.5	See Syl Note a

1. Prerequisites

a. T1101 (E-6 Comm and Ops Flight Preparation) prior to T3101, T3105, and T3109 in any order.

b. T3101, T1201 (E-6 Stage Preparation), and T1290 (E-6 Standardization Exam) prior to T3102-4 in order.

c. T3104-5 prior to T3106-8 in order.

d. T3108-9 prior to T3110-11 in order.

2. Syllabus Notes

a. Allow 1.5 H/X for T3101-4, T3106, and T3110-11; allow 3.0 H/X for T3105 and T3107-9.

b. The IUT will occupy the MCS student position during T3102, T3106, and T3110.

c. In addition to the scheduled instructor, a CSI is required to operate the MCS for T3102, T3106, and T3110. This additional CSI will not attend the brief or debrief for these events.

d. The IUT will complete events as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
T3101	Observe	Any T3101-3	E-6 Comm and Ops
T3102	Execute	T3103	E-6 Comm and Ops
T3103-4	Instruct	Any T3101-3	E-6 Comm and Ops
T3105	Observe	Any T3104-T3290	E-6 Comm and Ops
T3106	Execute	T3106	E-6 Comm and Ops

T3107-8	Instruct	Any T3104-9	E-6 Comm and Ops
T3109	Observe	Any T3104-T3290	E-6 Comm and Ops
T3110	Execute	T3108	E-6 Comm and Ops
T3111	Instruct	Any T3104-9	E-6 Comm and Ops

e. The IUT will not instruct a student check ride event.

3. Special Syllabus Requirements. None.

4. Discuss Items

T3101
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Observe" event.

T3102
TACAMO mission, VLF, and MILSTAR; due regard, EAM, and AUTODIN; ABNCP mission and ALCS; air refueling procedures.

T3103-5
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" or "Observe" event.

T3106
Long trailing wire antenna, short trailing wire antenna, VLF trail modes, and VLF trail speeds; verification and authentication.

T3107-9
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" or "Observe" event.

T3110
Nuclear triad, USSTRATCOM, and NCA; electromagnetic pulse; communications security.

T3111
Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled "Instruct" event.

5. Block MIF

CTS REF	MANEUVER	T3111
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
14	Equipment Operation	4+
27	Checklists	4+
28	Fuel Management/Analysis	4+
30	Tactical Radio Procedures	4+
31	Mission Ownership	4+
32	Prioritization	4+
33	Scan	4+
51	E-6 Equipment Utilization	4+
52	E-6 Communications	4+
53	E-6 Operations	4+
54	Aerial Refueling	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

Blk #	Media	Title	Events	Hrs	H/X
T32	2B51	E-6 Communications and Operations Check Ride (E-6)	Instruct/1	1.5	1.5

1. Prerequisite. T3111.

2. Syllabus Notes

a. The IUT will complete event as follows:

IUT Event	IUT Role	Corresponding SNFO Event	Description
T3290	Instruct	Any T31XX	E-6 Comm and Ops

b. The IUT will not instruct a student check ride event.

c. T3290 is required annually to fulfill currency requirements.

3. Special Syllabus Requirements. None.

4. Discuss Items. Refer to CNATRAINST 1542.171 for applicable discuss items from the scheduled “Instruct” event.

5. Block MIF

CTS REF	MANEUVER	T3290
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	Mission Planning	4+
6	Briefing	4+
7	Crew Resource Management/Crew Coordination	4+
55	Flight Instruction/Detect and Correct Student Errors	4+
56	Instructional Assistance	4+
57	Aviation Training Jacket Review	4+
58	Grading	4+
59	Debriefing	4+

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Chapter IX

Course Training Standards

1. Purpose. These standards outline the tasks and proficiency required of IUTs during Advanced MC2 training.

2. IUT Duties and Responsibilities

a. Plan the mission.

b. Help the student operate the simulator or simulator systems, as applicable, to accomplish the mission using sound judgment and airmanship.

c. Operate the simulator to accomplish the mission.

3. General Standards

a. Achieve training standards to be qualified as an Advanced E-2, MPR, or E-6 NFO instructor.

b. Unless otherwise specified, use ***Basic Airwork Recognition (BAR)*** standards for all items with altitude, airspeed, or heading parameters.

c. "Standard" equates to ***good*** (G/4).

d. Momentary deviations outside CTS that do not compromise simulated flight safety are acceptable if subsequent corrections are timely.

e. Procedural knowledge and application must comply with applicable directives and allow efficient mission accomplishment. If individual tasks require pre-mission planning, the standards from ***Mission Planning*** apply.

4. Execution. The MIF regulates IUT progression to meet required standards prior to phase completion. SIs shall evaluate IUT performance against these standards.

5. Job Tasks. Specific performance and standards required are described as follows:

BEHAVIOR STATEMENT	STANDARDS
Graded Item	
• A brief description of the behavior, required action, and/or conditions.	• The specific standards for the action. May be read as "The IUT…"

6. Graded Items. The MIF for specific graded items varies for each stage. Several items are graded on all complete syllabus events. The standards for these Universally Graded Items are listed first.

7. Course Training Standards

BEHAVIOR STATEMENT	STANDARDS
1. General Knowledge/Procedures	
• Maintain working knowledge of all appropriate flight training instructions and directives.	• Recites, discusses, and/or performs all applicable items essential to the aircraft and mission. • Demonstrates knowledge of the student master curriculum guide and CNATRAINST 1500.4H.
2. Emergency Procedures	
• Maintain in-depth knowledge of emergency procedures and appropriate directives.	• Correctly analyzes situation and provides the proper course of action. • Performs/recites critical action steps from memory, with 100 percent accuracy. • Uses correct checklist when appropriate and conditions permit. • Completes procedures in a timely manner. • Correctly prioritizes tasks to include aviation, navigation, communication, and checklists.

BEHAVIOR STATEMENT	STANDARDS
3. Headwork/Situational Awareness	
• Comply with the FTI while maintaining situational awareness sufficient for flight safety and mission completion.	• Understands instructions, demonstrations, and explanations. • Foresees and avoids possible difficulties. • Remains alert and spatially oriented.
4. Basic Airwork Recognition	
• Establish and maintain or monitor, as required, desired altitude, airspeed, and heading during flight.	• Monitors aircraft within ±100 feet of assigned or directed altitude. • Monitors aircraft within ±10 knots of assigned or directed airspeed. • Monitors aircraft within ±5° of assigned or directed heading. • Recognizes deviations within 30 seconds and immediately directs corrections upon recognition.
5. Mission Planning	
• Perform mission planning with mission specific data.	• Uses required directives and forms. • Plans mission to meet all mission requirements. • Completes all forms with 100 percent accuracy. • Complies with all applicable directives.
6. Briefing	
• Review student mission brief, objectives, and conduct.	• Provides meaningful discussion of administration and mission procedures. • Contributes experience to briefing items. • Ensures applicable procedures are understood by student. • Ensures student covers all pertinent information in the briefing guide.

BEHAVIOR STATEMENT	STANDARDS
7. Crew Resource Management/Crew Coordination	
● Use available crew and cockpit resources to minimize workload and enhance situational awareness. ● Effective communication of mission essential information, and interaction between crew members.	● Effectively utilizes seven key skills of CRM throughout all portions of flight training. ● Delegates cockpit tasks as appropriate. ● Makes timely recommendations to maintain flight parameters through all regimes of flight. ● Uses appropriate interaction between crewmembers with regard to normal aircraft procedures. ● Uses SA building communication.
8. Ground Operations	
● Performs/Directs all ground procedure requirements.	● Performs initialization and ground mission requirements. ● Prepares the tactical display. ● Performs required radio checks. ● Performs a heading check and properly sets up flight instruments and navigation systems. ● Marks the position at the runway numbers and verifies with the known coordinates.
9. Departure	
● Monitors the proper IFR procedures while safely navigating the aircraft during the departure stage of flight.	● Monitors compliance with departure procedures and ATC instructions. ● Monitors headings to maintain IFR course ±5°. ● Executes the off-deck call with base and tactical authority.

BEHAVIOR STATEMENT	STANDARDS
10. In-Flight Checks	
• Directs flight course and deviations as appropriate for weather, fuel, or emergencies.	• Adjusts the mission profile for external factors (weather, traffic, etc.). • Adjusts the mission profile for fuel considerations. • Identifies nearest suitable landing field during emergency procedures. • Performs PCL checks as required.
11. Enroute Procedures	
• Performs the proper IFR procedures while safely navigating the aircraft during the enroute stage of flight.	• Monitors course while radial tracking ±5° or 3 NM (whichever is less). • Makes appropriate recommendations for enroute flight plan changes given direction of flight, weather, and mission requirements. • Changes NAVAID and CDI course at the proper switchover point while on an IFR airway. • Maintains course centerline between all NAVAIDs and fixes, leads turns when required. • Navigates to fixes within ±3 NM.

BEHAVIOR STATEMENT	STANDARDS
12. On-Station/Check-In Procedures	
• Directs/performs on-station and check-in procedures during ingress to the operations area with the aid of checklists and mission tasking brief.	• Activates mission sensors IAW the mission tasking brief. • Directs/performs proper ingress procedures IAW the mission tasking brief. • Completes on-station checklist before entering the operations area. • Properly assesses mission equipment status. • Communicates with the controlling authority IAW checklists and mission tasking brief. • Directs/performs mission tasking updates received from the controlling authority.
13. On-Station Navigation (Core)	
• Directs/performs on-station navigation with the aid of checklists and mission tasking brief.	• Maintains aircraft inside surface search operating area. • Maintains safe distance from standoffs to include land, weapons, and ships. • Maintains terrain avoidance. • Updates/validates planned time and fuel computations as required to safely and efficiently accomplish the mission. • Executes operations normal reports as required.

BEHAVIOR STATEMENT	STANDARDS
14. Equipment Operation	
• Directs/performs equipment operations with the aid of checklists and mission tasking brief.	• Properly operates all functions and locates equipment to include the TACAN, INS, GPS, FMS, flight instruments, and computer display. • Properly operates all functions and locates equipment to include the ICS, V/UHF, HF, and SATCOM. • Monitors the status of the TACAN and acknowledges degradations within 5 minutes of the malfunction. • Properly troubleshoots all TACAN malfunctions. • Monitors the status of the GPS and acknowledges degradations within 5 minutes of the malfunction. • Properly troubleshoots all GPS malfunctions. • Monitors the status of the INS and acknowledges degradations within 5 minutes of the malfunction. • Properly troubleshoots all INS malfunctions. • Monitors the status of the ICS and radios and acknowledges degradations within 5 minutes of the malfunction. • Properly troubleshoots all ICS and radios malfunctions.

BEHAVIOR STATEMENT	STANDARDS
15. Air/Ground RADAR Utilization	
• Directs/performs air/ground RADAR operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the air/ground RADAR equipment. • Utilizes the proper RADAR horizon to allow for an effective air/ground RADAR plot. • Properly operates the air/ground RADAR equipment to determine ground features. • Properly operates the air/ground RADAR equipment to identify, assess, and avoid weather hazards. • Properly operates the air/ground RADAR equipment to effectively plot surface contacts. • Monitors the status of the air/ground RADAR and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all air/ground RADAR malfunctions.
16. Air-to-Air RADAR Utilization	
• Directs/performs air-to-air RADAR operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the air-to-air RADAR equipment. • Utilizes the proper RADAR horizon to allow for an effective air-to-air RADAR plot. • Properly operates the air-to-air RADAR equipment to determine targets. • Monitors the status of the air-to-air RADAR and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all air-to-air RADAR malfunctions.

BEHAVIOR STATEMENT	STANDARDS
17. Electro-Optical/Infrared Utilization	
• Directs/performs EO/IR operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the EO/IR equipment. • Properly operates the EO/IR equipment to determine static and dynamic contacts. • Monitors the status of the EO/IR equipment and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all EO/IR equipment malfunctions.
18. ESM Utilization	
• Directs/performs ESM operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the ESM equipment. • Properly operates the ESM equipment to evaluate the emitter type and platform location/association. • Monitors the status of the ESM equipment and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all ESM equipment malfunctions.

BEHAVIOR STATEMENT	STANDARDS
19. Data Link Utilization	
• Directs/performs data link operations with the aid of checklists, appropriate messages, and mission tasking brief.	• Properly operates all functions of the data link equipment. • Describes all nomenclature as it pertains to data link employment. • Properly operates the data link equipment to transmit and/or receive sensor contacts. • Inserts sensor contacts into the data link within five minutes of request. • Monitors status of the data link and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all data link malfunctions.
20. Surface Search (Core)	
• Directs/performs surface search procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Completes sensor status checks as it pertains to surface search. • Completes environmental assessment as it pertains to surface search. • Directs/performs surface search strategy. • Identifies surface contacts utilizing sensors available. • Reports at least 80 percent of the surface contacts of assigned search area via link or voice report (if link degraded). • Reports COIs and CCOIs IAW the mission tasking brief within 5 minutes of identifying. • Reports unusual or suspicious surface traffic IAW the mission tasking brief within 5 minutes of the incident. • Performs proper localization procedures. • Performs proper tracking procedures.

BEHAVIOR STATEMENT	STANDARDS
21. Electronic Warfare	
• Directs/performs EW procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Correlates EW information with other sensors. • Prioritizes EW contacts with regard to importance and threat. • Adjusts aircraft altitude and position for optimal EW reception. • Clearly and concisely communicates EW threat data to friendly assets utilizing brevity.
22. Battle Space Management	
• Directs/performs battle space management procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Correctly analyzes the tactical situation. • Demonstrates effective time management. • Maintains positional awareness with friendly assets. • Performs and prioritizes transmissions in a multiple communications environment. • Executes proper Rules of Engagement (ROE) procedures. • Properly utilizes friendly assets within respective capabilities.
23. Threat Recognition	
• Directs/performs threat recognition upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Conducts proper self-defense procedures by properly positioning the aircraft to counter threats. • Performs and utilizes aircraft capabilities and limitations for the most advantageous method to counter a threat. • Directs the proper search strategy to identify threats. • Conducts proper analysis of a threat.

BEHAVIOR STATEMENT	STANDARDS
23. Threat Recognition (continued)	
	• Directs the proper threat localization strategy. • Directs the proper threat tracking strategy. • Directs the proper threat attack strategy per the ROE. • Directs friendly assets to optimal positioning to counter threats. • Determines status/condition of attacked target. • Conducts proper BDA procedures.
24. Search and Rescue	
• Directs/performs Search and Rescue procedures with the aid of checklists, mission tasking brief, and sensor utilization.	• Determines the best known position of the missing entity utilizing all available information to include parachute drift if applicable. • Determines the proper search altitude based on the type of missing asset, environment, and the best sensor available. • Determines the proper search pattern based on the missing asset information and environment. • Directs the proper search strategy. • Directs search assets to the scene. • Optimizes search sensors of all participating units. • Executes appropriate Search and Rescue reports when required.

BEHAVIOR STATEMENT	STANDARDS
25. Off-Station/Turnover	
• Directs/performs off-station and turnover procedures during egress from the operations area with the aid of checklists and mission tasking brief.	• Directs/performs proper egress procedures IAW the mission tasking brief. • Completes off-station checklist during the exit from the operations area. • Communicates with the controlling authority and passes turnover to the relieving unit (if applicable) IAW checklists and mission-tasking brief.
26. Approach	
• Monitors the aircraft, as needed, to properly comply with the published procedures of an approach.	• Complies with published approach procedures and controller instructions; efficiently makes use of all onboard navigational equipment to maximize SA. • Briefs missed approach or climbout instructions prior to MAP/DA. • Conducts appropriate CRM with flight station.
27. Checklists	
• Completes mission specific checklists.	• Correctly and expeditiously performs all required checklists in accordance with the MCS Student Guide and FTI.
28. Fuel Management/Analysis	
• Maintain fuel awareness throughout flight.	• Monitors fuel state and directs deviations if needed to accomplish mission and land with adequate fuel reserve. • Uses groundspeed to update estimated fuel at on-station entry point or IAF within 500 pounds of instructor's calculation. • Analyzes actual fuel state and correctly states any trend in fuel consumption.

BEHAVIOR STATEMENT	STANDARDS
29. ATC Radio Procedures	
• Communicates/performs with standard terminology IAW directives from the AIM/FAR/ICAO and FTI. • Performs ATC radio procedures at the MCS crew station and directs via the use of V/UHF/HF radios and ICS.	• Responds correctly to 90 percent or more of ATC incoming calls. • Communicates clearly and concisely with appropriate agencies using standard military and FAA terminology. • Communicates clearly and concisely with appropriate agencies using standard ICAO terminology. • Transmits position reports in the proper format for overwater navigation. • Makes timely transmissions without blocking other radio calls. • Performs no radio (NORDO) procedures, as required.
30. Tactical Radio Procedures	
• Communicates/performs with standard terminology IAW the unclassified tactical aid, checklists, and FTI. • Performs tactical radio procedures at the MCS crew station and directs via the use of V/UHF/HF/SATCOM radios and ICS.	• Responds correctly to 90 percent or more of tactical incoming calls. • Acknowledges all communications. • Communicates clearly and concisely with appropriate tactical unit using standard tactical radio procedures. • Makes timely transmissions without blocking other radio calls. • Communicates using standard terminology and brevity. • Communicates precise formatted radio transmissions when applicable. • Communicates properly during secure radio transmissions. • Properly encrypts sensitive information during an unsecure transmission utilizing the card-of-the-day.

BEHAVIOR STATEMENT	STANDARDS
31. Mission Ownership	
• Takes charge of the mission in all aspects of planning and execution. • Exhibit aviation leadership.	• Leads planning, briefing and execution of the mission. • Confidently influences aircrew to work in a coordinated effort toward successful task completion within the parameters of the mission objectives. • Determines actionable solutions to potential problems articulating proactive alternatives/courses of action. • Takes command of mission execution and provides reasoned alternatives to mission plan due to evolving and dynamic circumstances.
32. Prioritization	
• Manages task loading in the proper order of precedence per FTI-recommended minimum requirements.	• Effectively prioritizes task loading in descending order of importance (i.e., aviate, navigate, communicate, and checklists).
33. Scan	
• Exhibits proper recognition of system and flight instrumentation.	• Recognizes any abnormal system indications. • Recognizes any deviations from desired heading, airspeed, or altitude and makes recommendations for appropriate and timely corrections. • Makes required altitude calls.
34. AEW Manual Tracking	
• Directs/performs AEW manual tracking procedures.	• Correctly analyzes the target tracks course and speed. • Correctly labels and reports track into the Link. • Utilizes voice communications to report track to the Air Warfare Commander.

BEHAVIOR STATEMENT	STANDARDS
35. AEW Near Collision Intercepts	
• Directs/performs AEW near collision procedures.	• Employs proper RADAR modes and mechanics. • Directs fighter to a proper intercept course in a timely manner, intercept CPA ±2 NM. • Provides updated Bingo information after each intercept. • 80 percent accurate bearing, range, and altitude information provided. • Maintains SA to each fighter's fuel state.
36. On-Station Air Defense	
• Directs/performs on-station air defense procedures.	• Directs friendly assets to optimal intercept geometry, speed, and altitude. • Maintains proper Air Defense Posture. • Communicates airborne decisions/ posture to the Air Warfare Commander. • Understands and executes the Air Defense plan according to Daily Intentions Message and Air Warfare instructions.

BEHAVIOR STATEMENT	STANDARDS
37. Air Intercept Control	
• Directs/performs AIC procedures.	• Tactically/safely directs fighter aircraft to a beyond-visual-range weapons employment opportunity. • Reacts appropriately to established timeline. • 80 percent accurate AIC calls according to FTI. • 80 percent accurate spike calls when provided a spike vector. • 80 percent accurate threat calls to untargeted groups within briefed threat range. • Utilizes off-board sensors to identify and classify targets. • Targets all bandits/hostile aircraft that present a threat to mission or meet ROE/PHID.
38. Strike	
• Directs strike procedures.	• Directs friendly assets to optimal strike positions. • Determines tactically when an intercept is necessary or should be avoided with regards to established timeline.
39. Operational Charts	
• Prepares operational charts.	• Utilizes the proper chart for the terminal and on-station environments. • Annotates NAVAIDs, magnetic variation, compass rose, and route on the appropriate chart. • Annotates special use airspace, MSA, MESA, MOSA, and standoffs on the appropriate chart. • Properly labels each chart.

BEHAVIOR STATEMENT	STANDARDS
40. On-Station Navigation (Common Nav and MPR)	
• Directs/performs on-station navigation with the aid of checklists and mission tasking brief.	• Maintains aircraft inside surface search operating area. • Maintains safe distance from standoffs to include land, weapons, and ships. • Maintains terrain avoidance. • Updates/validates planned time and fuel computations as required to safely and efficiently accomplish the mission. • Executes fixing within ±1 NM. • Performs SAC prior to and upon leaving on-station. • Performs hourly fixes (Common Nav only). • Performs 30-minute DRs (Common Nav only).
41. Terrain Avoidance/Standoffs	
• Directs/performs terrain avoidance procedures. • Directs/performs standoff procedures.	• Performs proper MSA calls within 30 NM of the departure/arrival airfield. • Performs proper MESA calls along the route of flight if applicable. • Performs proper MOSA calls within 30 NM of a landmass threat. • Performs proper standoff calls for land, weapons, and ships. • Coordinates a CPA with the pilot for MSA, MESA, MOSA, and standoff calls. • Performs 30-minute fixes in a MOSA environment (Common Nav only). • Performs 15-minute DRs in a MOSA environment (Common Nav only).

BEHAVIOR STATEMENT	STANDARDS
42. Operational Record Keeping	
• Performs operational record keeping procedures.	• Properly fills out the administrative, communications, and preflight data without error. • Logs 100 percent of all fixes, DRs, and SACs. • Logs 80 percent of all tactical-related events.
43. ISAR Utilization	
• Directs/performs ISAR operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the ISAR equipment. • Directs the optimal flight conditions to achieve a proper ISAR image. • Properly identifies the surface contact features utilizing the ISAR mode. • Monitors the status of the ISAR mode and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all ISAR mode malfunctions.

BEHAVIOR STATEMENT	STANDARDS
44. Surface Search (MPR)	
• Directs/performs surface search procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Completes sensor status checks as it pertains to surface search. • Completes environmental assessment as it pertains to surface search. • Directs/performs surface search strategy. • Performs RADAR plot. • Updates surface plot every five minutes unless mission tasking prohibits (e.g., ASW prosecution). • Identifies surface contacts utilizing sensors available. • Properly identifies hull profiles and features as required. • Logs 90 percent or more of surface COIs'/CCOIs' position, course/speed, and description. • Reports 100 percent of the surface contacts via link or voice report (if link degraded). • Reports COIs and CCOIs IAW the mission tasking brief within five minutes of identifying. • Reports unusual or suspicious surface traffic IAW the mission tasking brief within five minutes of the incident. • Performs proper localization procedures. • Performs proper tracking procedures. • Directs rigging procedures IAW the mission tasking brief.

BEHAVIOR STATEMENT	STANDARDS
45. SAR Utilization	
• Directs/performs SAR operations with the aid of checklists and mission tasking brief.	• Properly operates all functions of the SAR equipment. • Directs the optimal flight conditions to achieve a proper SAR image. • Properly operates the SAR mode to acquire usable images. • Monitors the status of the SAR mode and acknowledges sensor degradations within 5 minutes of the malfunction. • Properly troubleshoots all SAR mode malfunctions.
46. Littoral Surveillance	
• Directs/performs littoral surveillance procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Completes sensor status checks as it pertains to littoral surveillance. • Completes environmental assessment as it pertains to littoral surveillance. • Directs/performs littoral surveillance strategy. • Directs the aircraft altitude and position for optimal coverage. • Properly compares order of battle imagery of port facilities to the mission tasking brief. • Reports COIs and CCOIs IAW the mission tasking brief within five minutes of identifying within a port facility. • Reports unusual or suspicious port facility actions IAW the mission tasking brief within five minutes of the incident.

BEHAVIOR STATEMENT	STANDARDS
47. Signal Collection	
• Determine and act upon signals prioritization and mission requirements. • Identify signals necessary for successful mission completion and mission requirements. • Execute ESM reporting procedures and mission profile.	• Properly locates 80 percent or more of tasked and/or priority signals. • Completes 80 percent or more of tasked signals. • Leaves no more than two high-priority signals unprocessed/reported. • Makes no more than three errors identifying signals. • Identifies threat signals with no more than two errors. • Identifies signals in a timely manner so as not to hinder mission accomplishment. • Makes 80 percent or more of tactical reports (TACREPS) within five minutes of threat recognition. • Updates 80 percent or more of TACREPS as appropriate for DF location and emitter mode changes. • Uses the correct brevity codes on 80 percent of reports or greater. • Correctly annotates 80 percent of TACREP calls on log. No more than eight log errors. • ESM log entries include emitter name, type, location, TACREPs, SITREPs, and malfunctions.
48. Environmental Data Collection	
• Directs/performs environmental data collection procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Simulates safe deployment of BT and AN sonobuoy in the vicinity of on-station area. • Properly logs environmental data forms and reports it to other assets as applicable.

BEHAVIOR STATEMENT	STANDARDS
49. Acoustic Tracking	
• Directs/performs acoustic tracking procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Directs all sonobuoy drops with the pilot. • Properly and safely deploys a basic passive sonobuoy search pattern. • Properly and safely deploys a basic passive sonobuoy localization pattern. • Tracks a contact utilizing Doppler contact from passive sonobuoys. • Tracks a contact utilizing passive bearings and develops a track. • Tracks a contact utilizing simulated active contact.
50. Coordinated Operations	
• Directs/performs coordinated operations procedures upon arriving on-station with the aid of checklists, mission tasking brief, and sensor utilization.	• Maintains safety of flight as the priority at all times. • Utilizes all airborne and surface asset sensors to aid in the search of hostile forces. • Aids mission commander with the proper determination of classification of a subsurface contact. • Communicates contact reports within two minutes of discovery and updates authority every ten minutes or at each dynamic change. • Communicates pertinent information to the proper controlling authority in less than five minutes of discovery. • Properly communicates with other airborne assets and surface assets.

BEHAVIOR STATEMENT	STANDARDS
50. Coordinated Operations (continued)	
	• Coordinates airborne assets and surface assets as directed by tasking authority. • Maintains SA of water space management. • Immediately communicates "Dog Box" reports. • Immediately communicates hostile actions towards a friendly asset.
51. E-6 Equipment Utilization	
• Directs/performs E-6 equipment utilization.	• Properly operates all functions and locates the MILSTAR radio. • Monitors the status of the MILSTAR and acknowledges degradations within ten minutes of the malfunction. • Properly troubleshoots all MILSTAR malfunctions. • Properly operates all functions and locates the VLF radio. • Monitors the status of the VLF and acknowledges degradations within ten minutes of the malfunction. • Properly troubleshoots all VLF malfunctions. • Properly monitors the mission computer system.
52. E-6 Communications	
• Directs/performs E-6 comm procedures.	• Coordinates all comm systems with the proper prioritization in regards to receiving and transmitting. • Properly prioritizes message traffic. • Authenticates messages with no mistakes. • Properly manages time constraints for communication activities.

BEHAVIOR STATEMENT	STANDARDS
53. E-6 Operations	
• Directs/performs E-6 operations procedures.	• Conducts proper handover for relieved aircraft. • Properly directs the crew in the operations area. • Properly directs the flight deck and crew in response to an EAM. • Coordinates with the flight deck and reel operator during trailing wire operations. • Properly manages time constraints. • Conducts proper handover for relief aircraft.
54. Aerial Refueling	
• Directs E-6 aerial refueling procedures.	• Directs air refueling procedures. • Directs the flight deck to the air refueling initial point. • Operates appropriate sensors and comm equipment as it pertains to air refueling. • Utilizes proper radio procedures as it pertains to air refueling. • Properly manages time considerations as it pertains to air refueling.
55. Flight Instruction/Detect and Correct Student Errors	
• Maintain vigilance in order to recognize student errors and correct them effectively. • Help student improve individual performance.	• Identifies and understands typical student errors for the specific stage. • Detects and corrects student errors IAW FTI and standardization. • Ensures student understands his/her errors and how to avoid them in the future.

BEHAVIOR STATEMENT	STANDARDS
56. Instructional Assistance	
• Provide appropriate guidance to ensure mission completion and safety.	• Provides helpful techniques to student to improve airmanship and increase overall situational awareness. • Assists student in decision-making process. • Allows student to recognize mistakes. • Allows student to correct self to maximum extent. • Provides helpful techniques to improve student performance consistent with FTIs.
57. Aviation Training Jacket Review	
• Perform thorough review of student training jacket, including previous simulator and flight grades.	• Demonstrates knowledge of syllabus and flight requirements (understands required MIF items to be performed). • Recognizes overall student trends.
58. Grading	
• Objective measure of performance for specific graded items for the event.	• Conducts all student training objectives IAW student master curriculum guide. • Grades appropriately IAW established UMFO CTS. • Completes gradesheet IAW applicable directive without error.

BEHAVIOR STATEMENT	STANDARDS
59. Debriefing	
• Conduct thorough review of overall mission conduct and effectiveness. • Review overall student performance and effectiveness. • Provide instruction to correct student deficiencies. • Document student performance.	• Demonstrates knowledge of syllabus and mission requirements. • Recognizes overall student trends. • Identifies student strengths/ weaknesses IAW FTIs and applicable directives. • Presents strengths/weaknesses in a manner conducive to a positive learning environment. • Describes how student strengths/ weaknesses contributed to mission effectiveness. • Reviews overall strengths and weaknesses exhibited by the student for the mission event. • Provides feedback to improve techniques and make subsequent events better. • Proposes additional techniques, if applicable, to aid student comprehension of procedures and improve future performance.

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Chapter X

Master Materials List

Individually Issued Materials

NOMENCLATURE	IDENTIFICATION	QTY PER STUDENT
1. UMFO Advanced Maritime Command and Control Master Curriculum Guide	CNATRAINST 1542.171	1
2. UMFO Advanced Maritime Command and Control IUT Master Curriculum Guide	CNATRAINST 1542.173	1
3. Core Flight Training Instruction	CNATRA P-875	1
4. E-2 Flight Training Instruction	CNATRA P-877	1
5. Common Navigation Flight Training Instruction	CNATRA P-876	
6. MPR Flight Training Instruction	CNATRA P-878	1
7. E-6 Flight Training Instruction	CNATRA P-879	1
8. MC2 Common Core Flight Preparation Guide	CNATRA P-822	1
9. MC2 E-2 Flight Preparation Guide	CNATRA P-829	1
10. MC2 MPR Flight Preparation Guide	CNATRA P-830	1
11. MC2 E-6 Flight Preparation Guide	CNATRA P-831	1
12. Major Training Device. Multi-Crew Simulator (2B51) quantity controlled by Naval Air Warfare Center Training Systems Division (NAVAIRWARCENTRASYSDIV), Training Material Management Division, Inventory Control Branch.		

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