

NAVAL AIR TRAINING COMMAND



NAS CORPUS CHRISTI, TEXAS  
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20 Jul 2020

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## CHIEF OF NAVAL AIR TRAINING



# ADVANCED E-6 NAVAL FLIGHT OFFICER TRAINING SYSTEM (NFOTS) CURRICULUM

2020





DEPARTMENT OF THE NAVY  
CHIEF OF NAVAL AIR TRAINING  
250 LEXINGTON BLVD SUITE 102  
CORPUS CHRISTI TX 78419-5041

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CNATRA INSTRUCTION 1542.183

From: Chief of Naval Air Training

Subj: ADVANCE E-6 NAVAL FLIGHT OFFICER TRAINING SYSTEM (NFOTS)  
CURRICULUM

1. Purpose. To publish the curriculum for training of Naval Flight Officers in the Advance E-6 phase of Naval Air Training Command (NATRACOM) flight training.
2. Action. This curriculum is effective on receipt. No changes will be made without written authorization by the Chief of Naval Air Training (CNATRA)
3. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per Secretary of the Navy Manual 5210.1 of January 2012.
4. Review and Effective Date. Per this instruction, OPNAVINST 5215.17A, CNATRA N7 will review this instruction annually around the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, DoD, SECNAV, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.
5. Forms. The CNATRA forms required by this instruction are automated in the Training Command Learning Management System (T/LMS) computer program. Additional copies of CNATRA forms are available on the CNATRA Website <https://www.cnatra.navy.mil/pubs/forms.htm>.

  
S. B. STARKEY  
Chief of Staff

Releasability and distribution: This instruction is cleared for public release and is available electronically only via Chief of Naval Air Training Issuances Website, <https://www.cnatra.navy.mil/pubs-instructions.asp>.

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SUMMARY OF CHANGES

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COURSE DATA

1. Course Title. Advanced E-6 Naval Flight Officer Training System (NFOTS) Curriculum.
2. Course ID Number (CIN). Advanced E-6 NFOTS, Q-2D-0183
3. Locations. Naval Air Station (NAS) Pensacola.
4. Course Status. Active.
5. Course Mission. The mission of Advanced E-6 NFOTS training is to qualify student Naval Flight Officer (NFO) graduates for follow-on Fleet Replacement Squadron (FRS) flight training and prepare them for their future responsibilities as military officers. At the successful completion of this syllabus, the student will be designated a Naval Flight Officer.
6. Prerequisite Training. Successful completion of the Intermediate MC2 NFOTS curriculum (Q-2D-0180).
7. Security Clearance Requirements. None.
8. Follow-on Training. Assigned by the graduate's parent service.
9. Course Length. Training Days account directly or provide margin for factors including personnel and equipment availability, briefing and preparation time, and historical delays. Calendar Weeks further account for weekends, holidays, safety stand-downs, and other expected non-working days. Overall time to train is calculated in accordance with CNATRINST 1550.6F. Training days are as follows:

	<u>Training Days</u>	<u>Calendar Weeks</u>
Advanced E-6 NFOTS:	23.8	5.3

10. Class Capacity. Variable.
11. Instructor Requirements. As established by Chief of Naval Operations (CNO) planning factors.
12. Course Curriculum Model Manager. Commanding Officer, Training Air Wing SIX (COMTRAWING SIX).
13. Quota Management Authority. Chief of Naval Air Training.

14. Quota Control. CNO.

15. Course Training Subjects. The Advanced E-6 NFOTS curriculum gives students the skills necessary to succeed in their career as E-6 Naval Flight Officers.

a. Ground Training

<b>ADMINISTRATION</b>		
<b>Stage</b>	<b>Symbol</b>	<b>Hours</b>
Advanced E-6 NFOTS Check-In and Checkout	ADM01-2	5.0
<b>Totals</b>		<b>5.0</b>

<b>GROUND TRAINING</b>		
<b>Stage</b>	<b>Symbol</b>	<b>Hours</b>
E-6 Communications	T0101-8	16.0
E-6 Communications Exam, Remediation and Critique	T0109	2.0
E-6 Communications and Operations	T0201-4	8.0
E-6 Communications Exam, Remediation and Critique	T0205	2.0
<b>Totals</b>		<b>28.0</b>

b. Simulator Support

<b>FLIGHT SUPPORT</b>		
<b>Stage</b>	<b>Symbol</b>	<b>Hours</b>
E-6 Communications Flight Support	T1101-3	9.5
E-6 Communications and Operations Flight Support	T1201-2	5.5
<b>Totals</b>		<b>15.0</b>

Note: Simulator Support totals include 3.0 hours accomplished as Event Rehearsal time in the MCS. These hours are also included on the Simulator Training table.

c. Simulator Training

<b>SIMULATOR TRAINING</b>			
<b>Events</b>	<b>Symbol</b>	<b>MCS</b>	
		<b>Flts</b>	<b>Hrs</b>
E-6 Communications Event Rehearsal	T1102	1	1.5
E-6 Communications and Ops Event Rehearsal	T1201	1	1.5
E-6 Communications	T3101-5	5	10.5
E-6 Communications and Operations	T3201-6	6	18.0
E-6 Communications and Ops Check Flight	T3390	1	3.0
<b>Totals</b>		<b>14</b>	<b>34.5</b>

Note. Event Rehearsals (ER) are formally scheduled events which will be accomplished in the MCS with an INFO assigned.

16. Training Time Analysis. In addition to the hours formally planned and scheduled for academic classes and simulator events, significant additional time to prepare and study outside of scheduled training hours should be expected by the Student Naval Flight Officer (SNFO). The amount of time will vary depending on the complexity of the material and individual student needs, and may be up to several hours per event. For simulator events, specific brief times will be programmed into the CNATRA approved Training/Learning Manager Management System (T/LMS) and accounted for on the flight schedule, per the following table:

<b>ADDITIONAL FORMAL TRAINING TIME PER EVENT</b>			
<b>Training Area</b>	<b>Brief/ Preflight/ Taxi</b>	<b>Taxi/ Debrief</b>	<b>Total</b>
E-6/Simulator Events: All Others (INFO)	1.0	1.0	2.0

17. Physical Requirements. As specified in the Manual of the Medical Department, Chapter 15, and all applicable anthropometric standards.

18. Obligated Service. Refer to MILPERSMAN.

19. Primary Instructional Methods. Lecture, Mediated Interactive Lecture (MIL), Computer Assisted Instruction (CAI), 2B51 Multi-Crew Simulator (MCS), and self- and group-paced study.

20. Preceding Curriculum Data. None.

21. Student Performance Measurement/Application of Standards. The standards outlined in Chapter IX, Course Training Standards (CTS), are used to evaluate performance for all items on all events. Final judgment regarding the satisfactory performance of any item rests with the instructor. Refer to CNATRAINST 1500.4J, Chapter 6, for further guidance.

### ABBREVIATIONS

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

ABNCP	-	Airborne Command Post
ADMIN	-	Administration
ALCS	-	Airborne Launch Control System
ARCP	-	Aerial Refueling Control Point
ARCT	-	Aerial Refueling Control Time
ATF	-	Aviation Training Form
ATJ	-	Aviation Training Jacket
CAI	-	Computer-Assisted Instruction
CI	-	CIS Contract Instructor
CNATRA	-	Chief of Naval Air Training
CO	-	Commanding Officer
COMM	-	Communications
CO-PC	-	Commanding Officer Progress Check
CRM	-	Crew Resource Management
CTS	-	Course Training Standard
DOR	-	Drop on Request
EAM	-	Emergency Action Message
EMP	-	Electromagnetic Pulse
EOB	-	End of Block
EP	-	Emergency Procedure
ER	-	Event Rehearsal
ES	-	Electronic Support
ET	-	Extra Training

FIR	-	Flight Information Region
FMS	-	Flight Management System
FRS	-	Fleet Replacement Squadron
GPS	-	Global Positioning System
H/X	-	Hours per Event
HF	-	High Frequency
IAW	-	In Accordance With
ICS	-	Intercommunication System
IFF	-	Identification Friend or Foe
INFO	-	International Military Student Officer
IPC	-	Initial Progress Check
LECT	-	Lecture
MC2	-	Maritime Command and Control
MCG	-	Master Curriculum Guide
MCS	-	Multi-Crew Simulator
MIF	-	Maneuver Item File
MIL	-	Mediated Interactive Lecture
N/A	-	Not Applicable
NAV/Nav	-	Operational Flight Planning, Flight Instruments, and Navigation; also abbreviation for Navigation
NCA	-	National Command Authority
NFO	-	Naval Flight Officer
NFOTS	-	Naval Flight Officer Training System
NG	-	No Grade
NSS	-	Naval Standard Score
OPS	-	Operations



OPSO	-	Operations Officer
PAS	-	Phase Aggregate Score
RRU	-	Ready Room Unsatisfactory
SA	-	Situational Awareness
SATCP	-	Satellite Communications
SIM	-	Simulator
SNFO	-	Student NFO
SOP	-	Standard Operating Procedures
SS	-	Self-Study
SSR	-	Special Syllabus Requirement
SYS	-	Communications and Navigation Systems
TACAMO	-	Take Charge and Move Out
TACAN	-	Tactical Air Navigation
TAC C2	-	Tactical Command and Coordination
TRB	-	Training Review Board
TTO	-	Training Time Out
UNSAT	-	Unsatisfactory
USSTRATCO	-	U.S. Strategic Command
V/UHF	-	Very/Ultra High Frequency
VLF	-	Very Low Frequency
XO	-	Executive Officer

## GLOSSARY

1. Advancing X. Completed event within the normal syllabus flow. Excludes events with last characters in the range 84-89 unless specified by CNATRAINST 1500.4J.
2. Aviation Training Form (ATF). Any form used to document training performance in the Naval Aviation Training Command pipelines (computer generated grade sheets and supplemental administrative documents).
3. Aviation Training Jacket (ATJ). A complete administrative record of all aviation training received while attending flight training at Naval Aviation Training Command (NATRACOM) activities. It contains ATFs, calendar card, grade reports, and all other associated training information. ATJs are maintained in student control and follows the students through all phases of training.
4. Block of Training. A sequential series of lessons within a training stage sharing an identical MIF. The second numerical character in the lesson designator identifies a block.
5. Blue ATF. A document that states the purpose and background for CO-directed ET sortie(s) that is printed on blue paper. This document is filed on the left side of the student ATJ.
6. Check Flight (TXX90). A flight check in any stage of training.
7. Class Advisor. An INFO assigned to each class as mentor and advisor to monitor student progress, assist when difficulties arise, and instill the Naval Aviation culture.
8. Commanding Officer Progress Check (CO-PC) (TXX89). A progress check either directed by the Commanding Officer or triggered by NFS performance. A satisfactory CO-PC returns the student to normal syllabus flow. An UNSAT CO-PC results in a TRB.
9. Course of Training. The entire program of simulation, academics, and officer development conducted in all media during the programmed training days.
10. Course Training Standards (CTS). CTS define the behavior associated with each maneuver and standards or tolerances recommended for successful stage completion. These standards are defined in Chapter IX.
11. Courseware. The technical data, flight training instructions, audio, video, film, CAI, instructor guides, student study guides, and other training material developed to support and implement the syllabus of instruction.

12. Deliverables. A CNATRA 1542/1827 TRB Summary Form generated by the TRB that summarizes a specific student's progress in a given syllabus and provides detailed information on the application of NFO training for that student. Deliverables indicate whether the quality and continuity of training provided was IAW CNATRINST 1542.183.
13. Drop on Request (DOR). The self-initiated termination of training. Anytime a student makes a statement such as "I quit" or "DOR," they shall be immediately removed from the training environment and referred to the training officer for administrative action.
14. Emergency Procedures (EP). An established procedure used by aircrew to assist in safely controlling the aircraft in the event of a flight control failure or airborne emergency.
15. End of Block (EOB). Last event in a block. The student must meet or exceed MIF on all mandatory items in the block to progress past EOB.
16. Event. A scheduled period of prescribed instruction. It may be in an academic or laboratory classroom, a simulator, or flight environment.
17. Event Rehearsal (ER). A hard scheduled flight support simulator event designed to prepare the student for the next block of simulator training. This event may be scheduled as student only, or it may require the addition of an IOS operator to assist the student in using the training device. This requirement will be specified for each event.
18. Extra Training (ET) (TXX87). Extra training may be authorized by the squadron Commanding Officer to allow for correction of a training deficiency, or skillset deficiency.
19. Flight Training Instruction (FTI). Training publications that define maneuvers and acceptable performance standards for each maneuver the student is expected to perform. Each FTI covers one or more stages of instruction.
20. Hours per Event (H/X). The resourced duration for each event, rounded to the nearest tenth of an hour.
21. Initial Progress Check (TXX88). A special check given by an experienced instructor (senior O-3 or above) as designated in writing by the CO. A satisfactory IPC returns the student to normal syllabus flow. An IPC can count as a progressing event at the CO's discretion. An UNSAT IPC results in a CO-PC.
22. Lesson Designator. All syllabus events have a lesson designator consisting of a stage identifier of up to three letters and an event code of four numbers representing order and required resourcing. Refer to the CNATRA 1550.6F for further information.

Char	Meaning	Remarks
1 <sup>st</sup> - 3 <sup>rd</sup>	Stage	ADM - Administration T- Advanced E-6
4 <sup>th</sup>	Media	0 – Ground Event 1 - Flight Support 2 - CPT 3 - Simulator 4 - Aircraft
5 <sup>th</sup>	Block	Sequential, indicating block within stage.
6 <sup>th</sup> & 7 <sup>th</sup>	Event/Check Identifier	Sequential, indicating event within block, or other event types as shown below: 84 – Adaptation Flight 85 - Practice Sim 86 - Warmup 87 - Extra Training 88 - Initial Progress Check 89 - CO Progress Check 90 - Check Flight

23. Mandatory 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.

24. Maneuver Item File (MIF). A listing of required maneuvers and associated proficiency levels for each block of training.

25. Master Curriculum Guide (MCG). A publication tailored to a specific phase of training.

26. Phase of Training. The chief subdivisions of a course. The E-6 NFOTS pipeline is comprised of Primary, Intermediate MC2, and Advanced E-6 NFOTS phases of training.

27. Pink ATF. A standard ATF that is printed on pink paper. The pink ATF is used to denote an UNSAT event.

28. Progress Check (TXX88/TXX89). A student check event within a given stage of training administered by an experienced instructor IAW the CNATRAINST 1500.4J.

29. Progress Check Instructor. An INFO authorized by the CO to administer Initial or Command Directed Progress Checks.

30. Ready Room Unsatisfactory (RRU). An UNSAT grade given for inadequate knowledge of flight procedures, systems, discuss items, emergency procedures, or deficient preflight planning or failure of a non-academic examination (e.g., NATOPS quiz/exam). Missing a brief does not constitute an RRU and shall be documented on a supplemental ATF. Refer to CNATRAINST 1500.4J, Ch. 6 for further information on missed briefs.
31. Self-Study Events (SS). A hard scheduled flight support ground event designed to prepare the student for the next block of simulator training. This event may be scheduled as a monitored classroom event or it may be scheduled as individual unsupervised study time.
32. Special Syllabus Requirement (SSR). One-time, ungraded demonstration item(s).
33. Stage. A subdivision of a phase, comprised of events leading to a single set of objectives, designated by a common symbol (e.g., Radio Instruments, Carrier Qualification). Refer to CNATRAINST 1550.6F, Appendix D, for further information.
34. Standard Operating Procedure (SOP). An instruction or directive that provides guidance on TRAWING or squadron operating rules for local aircraft.
35. Training Media. NFOTS Advanced MC2 media include simulator (2B51), simulator support and ground training. Simulator support lectures may consist of MILs, off-line lectures (LECT), CAI lessons, and exams. The first numerical character in the lesson identifier designates the training media. Refer to CNATRAINST 1550.6F for further information.
36. Training Review Board (TRB). A fact-finding board appointed to conduct an administrative review of training following a failed CO-PC. Refer to CNATRAINST 1500.4J for further information.
37. Training Time Out (TTO). A pause in training when a NFS or instructor expresses concern for personal safety or a need exists to clarify procedures or requirements. Either the NFS or Instructor may call a TTO.
38. Warmup Event(s) (TXX86). Additional event(s) given to allow a student to regain a level of proficiency previously demonstrated which has diminished due to a non-syllabus break in training.

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## Chapter I

### General Instructions

#### 1. Syllabus Management

- a. Distribution. Participating TRAWING and squadron personnel.
- b. Interpretation. The syllabus is directive. Should circumstances create situations not covered within the scope of this syllabus, or specific course of action appears to conflict with other directives, consult CNATRA (N71).
- c. Deviations. Document all deviations on the event's ATF.
- d. Changes. Recommended changes shall be submitted IAW CNATRAINST 1550.6F.
- e. Execution. All students execute associated pipeline events in Chapters II through VIII.
- f. Syllabus Description. Advanced E-6 NFOTS events are executed in the 2B51 Multi-Crew Simulator (MCS), training platform and divided into stages. Stages are grouped by similar flight training regimes such as Familiarization and Navigation. Each stage may be subdivided into training blocks. If so, the training blocks consist of a specified number of events. MIFs identify the minimum acceptable level of performance in relation to the CTS that must be achieved at the completion of each training block.

#### g. Grade Calculation

(1) Phase Aggregate Score (PAS). PAS is a comparative ranking based on the NFS's performance on a group of events compared against that of a previous population of completers for the same set of events.

(2) Naval Standard Score (NSS). A representation of any score relative to the average score. The scale is artificially centered at 50 (that is, 50 is average). Each NSS is a whole number and the scale is truncated at 20 and 80.

(3) NFOTS SNFO Calculations. Refer to the CNATRAINST 1500.4J for SNFO PAS and NSS calculations.

#### 2. Training Management

##### a. Syllabus Progression

(1) Other than noted exceptions, syllabus events shall be flown sequentially within each stage. Blocks shall not be started without all prerequisites completed. Students must complete all events in their assigned phase unless enrolled in an approved accelerated syllabus.

(2) Flowchart on page I-5 is a depiction of NFOTS Advanced E-6 NFOTS course flow and delineates the sequence of events and their ground training prerequisites. System training management is designed to facilitate up to two graded events (simulator or exam, or combination thereof) per student per day.

(3) The first event in stage must be completed within 14 calendar days of the associated simulator event support lecture. The associated simulator event support lecture must be redone if 14 or more days have elapsed.

(4) The first event in stage cannot be completed the same day as the associated simulator event support lecture(s).

b. Maneuver Continuity. Students should be allowed to attempt previously introduced maneuvers frequently enough to maintain required proficiency.

c. Hours per Event H/X. Instructors shall plan and execute missions to meet H/X as closely as possible. If actual sortie length varies from H/X by more than 0.3 hours, the instructor shall annotate the reason in the ATF general comments section. This only applies to flight events, as simulator events should be conducted for the entire syllabus event H/X stated in the respective MCG. Refer to CNATRINST 1500.4J, section 605, for further clarification.

d. Location of Training. Due to the unique nature of Advanced E-6 NFOTS training, student events shall be accomplished at home station.

e. Special Syllabus Requirements (SSR). Unless noted otherwise, instructors may accomplish SSRs on any event within the block. Annotate which were completed in the ATF's Maneuver Comments section. Assign NG/1 as the SSR maneuver grade and annotate date of exposure on the SSR tab.

f. Aviation Training Jacket Reviews. The Class Advisor (CA) shall conduct jacket reviews IAW CNATRINST 1500.4J.

3. Unsatisfactory (UNSAT) Performance. All training shall be suspended following an UNSAT event, except as addressed or authorized per this MCG.

a. Event Progression. Following an UNSAT event, if a PC is not required, that event shall be repeated until the NFS satisfactorily passes the event.



b. Remediation. Remediation of unsatisfactory performance may be specifically tailored to address deficient skillsets.

c. Ready Room UNSAT (RRU). A missed brief does not constitute a RRU. Missed briefs shall be documented on a Supplementary ATF and counseling or discipline shall be administered as directed by the squadron CO. RRU is defined as either of the following:

(1) A NFS is inadequately prepared for the scheduled event. The RRU always trigger a Progress Check, so they shall always be documented on a pink version of the event's ATF. The event will be marked as incomplete with a U/2 grade in the appropriate graded item column, (e.g., General Knowledge, Procedures, etc.). Upon successful completion of the Progress Check, the original RRU event shall be flown as a take two (or greater) to complete all remaining, or appropriate items, graded as a normal event.

(2) The NFS fails a nonacademic examination (e.g., NATOPS quiz).

d. Academic. An academic examination failure is UNSAT and counts towards PC triggers.

e. Simulator UNSAT. A simulator UNSAT may be awarded anytime following the successful completion of an event brief; RRUs may not be awarded after this point. Unsatisfactory performance for simulator events is defined in CNATRINST1500.4J, Chapter 7.

4. Training Review Board. The TRAWING Commander shall conduct a TRB on all NFSs recommended for attrition. Refer to the CNATRINST 1500.4J for additional information and guidance.

5. Training Delays and Warmup Events Within Stage. A Warmup (WU, TXX86) event is given to regain flight proficiency due to a training delay. Eligibility is based on the number of days since the last stage syllabus event, in the simulator. WU criteria are normally based on last event in stage because MPTS/MNTS is built on increasing levels of skill attainment between blocks or stand-alone events. Every WU event shall ensure required skills for that stage are refreshed. All Warmup events shall be coded as a TXX86 (e.g., T3186). Refer to CNATRINST 1500.4J for Warmup event guidelines.

a. Optional WUs shall be scheduled and flown as the next event. If performance warrants a WU, it shall be re-coded as the last completed event.

b. Mandatory WUs shall be scheduled and flown as the last completed event or as directed by the Commanding Officer. The event shall be coded as a WU (TXX86).

c. Individual maneuver grades on WU events will not count toward calculation of NFS stage and phase grades. WU events are however eligible for overall event UNSAT if a significant incident not related to the stage discontinuity occurred.

d. If the break in training occurs between two simulator events, a mandatory WU shall be flown and coded as the last completed event.

e. The instructor shall document on the ATF the reason and circumstances for awarding the WU event.

f. Check events (TXX90) are considered part of the stage for which they are checking for WU purposes.

g. The following table is a quick reference regarding the use of WUs with respect to stage continuity, or breaks in training:

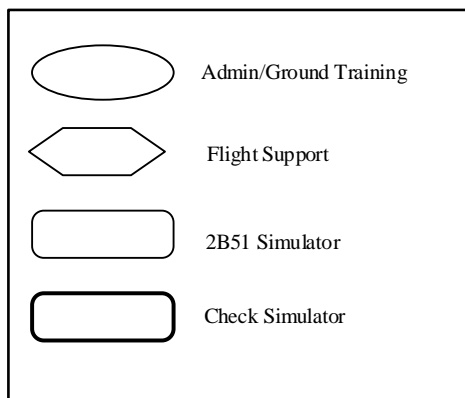
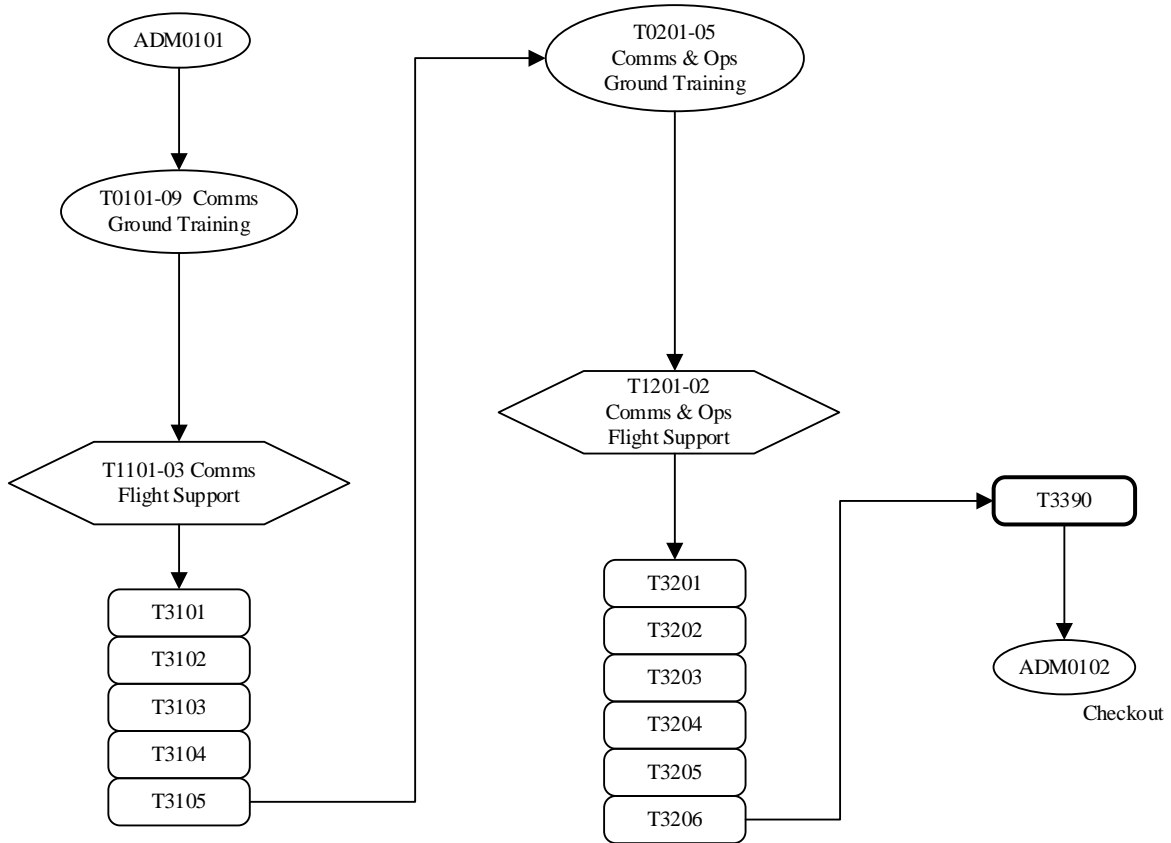
<b>CRITERIA FOR AWARDING WARMUP EVENTS IN STAGE</b>		
<b>BREAKS* (DAYS)</b>	<b>WARMUP EVENTS</b>	<b>REMARKS</b>
7-13 All Others	1 Optional or 1 Mandatory (if required)	<ul style="list-style-type: none"> <li>– Optional WU is based on performance and is required if overall grade is UNSAT.</li> <li>– WU is prohibited if demonstrated performance is sufficient, or will be sufficient within remaining block events, by EOB.</li> <li>– Mandatory Warmup is required if NFS has flown less than the sum of 11.0 simulator plus aircraft hours during the last 30 days.*</li> </ul>
14-30 All Others	1 Mandatory 1 Optional	<ul style="list-style-type: none"> <li>– Mandatory WU is not an advancing event.</li> <li>– Optional WU is based on performance and is required if overall grade is UNSAT.</li> <li>– WU is prohibited if demonstrated performance is sufficient, or will be sufficient within remaining block events, by EOB.</li> </ul>

\*Break = (Current Julian data) – (Julian date of last simulator or flight event in stage.)

h. Training Delays and Warmups Between Stages. WUs are intended for non-curriculum breaks in training. Each curriculum is designed to allow sufficient time for academics, simulators, and flights. First events in stage following ground training are designed and graded with the delay factored in and normally do not require a WU.

i. Between stages, a mandatory WU is required if 14 to 30 days have elapsed since any curriculum event.

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j. All WU events between stages shall be recorded on an ATF, and will include all required and relevant information to record the conduct and performance of that WU event.

k. Extended Training Delays. If the period between events is greater than 30 days, the squadron CO shall determine an appropriate WU training plan to regain NFS proficiency. Refer to the CNATRAINST 1500.4J for further guidance.

6. Additional Simulators. Extra Training (ET) Events (TXX87): ET events may be awarded by the CO to compensate for either syllabus-related training deficiencies (e.g., MCG deviation) or to correct NFS performance skillset deficiencies. Refer to CNATRAINST 1500.4J for ET event guidelines.

## 7. Ground Training and Briefing Requirements

### a. Mission Preparation, Briefings, and Debriefings

(1) EOB Events. The instructor shall carefully review the student's previous ATFs in planning the EOB event to ensure the profile includes opportunities to reach MIF on all mandatory items and demonstration items attempted in the block.

(2) Preparation. Students shall arrive for each flight or simulator with:

(a) Thorough knowledge of:

1. The "Discuss" items as listed in Chapter II-VIII.

2. Procedural knowledge of the mandatory and demonstration items for the event's training block.

(b) An event profile tailored to training requirements, weak areas, and continuity.

(c) The latest ATF for the stage.

(d) discuss items from the daily squadron flight schedule.

(3) Briefing. The instructor shall review the NFS's previous block ATFs before each event. Thoroughly cover the current mission's:

(a) Discuss Items, as listed in Chapters II-VIII.

(b) Specific objectives.

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

(d) Planned profile and contingencies.

(4) Debriefing

(a) After each event, the instructor shall critique the student's performance using cause/effect analysis, particularly with respect to the CTS.

(b) The mission's complexity and student's progress will govern the time required for debrief, not to exceed one hour. For simulator events conducted by Contract Instructors, at no time shall the debrief time be less than MCG stated time. In some cases, an extended CI debrief may be required due to student performance.

(c) Debriefing must be detailed and comprehensive. The ATF shall be completed prior to the NFS's next event IAW CNATRAINST 1500.4J.

b. Emergency Procedures (EP) Briefing and Training. EP training builds the student's confidence in the aircraft. Incorporate EP training into simulator events when practical; however, instructional block objectives take precedence. Grade the student's overall EP knowledge and performance under EPs.

8. Mission Grading Procedures and Evaluation Policies

a. General Grading and Evaluation Policy. MIFs listed are minimum block completion standards per maneuver. Students who consistently perform at the absolute minimum standard through multiple blocks of training may not possess the skills required to complete follow-on training. MIF is designed to allow for minimum performance in a specific area, with the understanding that performance in other areas above the minimum MIF, will offset the weak area.

b. Grading Procedures

(1) Absolute Maneuver Grading. The following scale shall be used to document NFS performance on maneuvers attempted during each event. This is an absolute grading scale. It shall be interpreted and used by instructors the same way for all items on all events. NFS performance as referred to in the scale below should be judged only against the CTS provided for a given item in the MCG.

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

1. When the instructor demonstrates the maneuver and the student does not subsequently perform it during the event.

2. To indicate accomplishing all SSRs for that block or event. Also specify completed SSRs in the ATF's maneuver item content line and document date of exposure via the SSR button on the ATF menu bar.

(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 deviations.

(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). Performance meets or positively exceeds CTS. Deviations outside CTS tolerances are brief, minor, and do not affect safety of flight. Corrections are appropriate and timely.

(e) Excellent (E/5 Level). 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 timely.

(2) Overall Event Grades. Overall event grades represent the student's progression through the syllabus. Every training event shall be marked Pass or Unsatisfactory (UNSAT). Use the following definitions to characterize event grades. See ***Awarding Overall Event Grades*** for specific rules defining UNSAT performance.

(a) Pass

1. Prior to EOB: level of performance is generally adequate to meet or exceed levels of expected performance by EOB necessary to continue training.

2. EOB: NFS performance meets or exceeds performance necessary to continue to the next block, stage, or phase training.

(b) UNSAT. NFS exhibits dangerous tendencies or progress toward meeting EOB standards is insufficient. An overall UNSAT is at the instructor's discretion. It should be noted that an event may be graded UNSAT without any individual maneuvers graded U/2. UNSAT events that do not result in an IPC or CO-PC shall be printed on pink paper; UNSAT Progress Checks and UNSAT events that result in a Progress Check shall also be printed on pink paper. If the NFS receives an UNSAT on any event, to include TXX86 or TXX87, the ATF shall be printed on pink paper. If an overall UNSAT grade is awarded on any event other than normal syllabus flow events, the instructor shall clearly state the justification in the General Comments section of the ATF. Any UNSAT event, starting with failed academics exams in API, through the final event prior to designations as a Naval Flight Officer, shall cumulatively be used in Progress Check triggers.

(3) Overall Event Grades. Overall event grades represent NFS progression through the curriculum. Every training event shall be marked Pass or Unsatisfactory (UNSAT).

(a) Prior to EOB. Level of performance is generally adequate to meet or exceed levels of expected performance by EOB necessary to continue training.

(b) EOB MIF Performance. NFS performance meets or exceeds performance necessary to continue to the next block, stage, or phase training. If the student has previously met MIF in the block, he or she must still meet MIF in the EOB event if the maneuver is reattempted.

(c) MIF Performance Maintenance. Students shall maintain or exceed MIF performance from one block to the next within stage or between media within stage, except as noted below or when MIF on a subsequent block is below the preceding block MIF.

(4) Maneuver Requirements. For each block:

(a) Mandatory Items. Items with a number and a plus sign (+) are mandatory and the student 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 student meets EOB MIF.

(b) Demonstration Items. Items with the number 1, but without a plus (+), are demonstration items. If one or more is flown within a block, the NFS must meet the preparation and knowledge requirements to safely attempt the item; NFSs may receive a U/2 for a Demonstration item if they are not adequately prepared for, or do not have the requisite knowledge to perform the item.

(5) Complete and Incomplete Events

(a) An event may both complete a previous event and count as an advancing event.

(b) For events flown exclusively to clear an incomplete, grades on maneuvers repeated from the incomplete event do not count toward the student's score, except where the grade assigned for the repeated item is lower than the lowest grade previously assigned on that item from all previous attempts at that event.

(c) Simulator Event Completion. Assess a simulator event complete if the student has received the full training period per the MCG. If required, the simulator event may be conducted for a time period greater than that stated in the MCG. If the actual simulator sortie length is greater than stated H/X by more than 0.3 hours, the instructor shall annotate the reason in the ATF's General Comments section. The simulator event shall not be conducted for a time less than stated in the MCG, unless it is completing a previously incomplete event.

c. Policies for Evaluation Flights and Ground Evaluations

(1) Authorized Evaluators. The CO shall designate check event instructors for each stage.

(2) Check Event (TXX90)

(a) Check events are single-event training blocks. Therefore, all expectations regarding progressing out of a block apply, except:

1. NFS should fly a cross section of Demonstration items (NG/1) after all (+) graded items are adequately performed.

2. The NFS should be able to demonstrate required levels of proficiency without instructor assistance. However, instruction is allowed on check events and NFSs may re-attempt maneuvers at the instructor's discretion. If the flight profile was incomplete because too much time was dedicated to re-attempting maneuvers, or too much event time utilized for additional training, the item should be graded "U/2" and the flight should be graded UNSAT/incomplete.

3. The entire event duration should be devoted to assessing NFS skill attainment, ability, and readiness to progress to the next block of training. All required maneuvers must be completed to MIF.

(b) Incomplete Check Event

1. A check event shall be graded as incomplete when:

a. Any (+) graded item was not flown, or



b. The instructor was unable to observe sufficient examples of a given maneuver to assess overall NFS performance. If the flight profile is incomplete because too much time was dedicated to re-attempting maneuvers, or excessive additional training was required, overall event grade should be UNSAT/Incomplete.

2. The subsequent completion flight need only include maneuvers required to complete the check event.

3. Exceptions

a. Any graded item is below expected performance levels needed to succeed in follow-on training, or

b. Any NG/1 item was not adequately prepared for, or required item knowledge was insufficient resulting in a grade of U/2 for the Demonstration item, or

c. The instructor determines inadequate performance was demonstrated on any item, or items, that will not predicate successful follow-on normal course flow training.

(3) Progress Check Procedures

(a) Progress checks conducted in the simulator are holistic reviews of a NFS's proficiency, judgment, air sense, and overall ability to complete the mission. The intent of every PC is to determine whether the NFS has the potential to reach the defined training standards of the current phase of training within the designated TTT, while demonstrating the potential to successfully complete remaining undergraduate and, for Advanced NFSs, FRS-level training. Refer to the CNATRAINST 1500.4J for further guidance and requirements.

(b) IPC. The following defines when to conduct an IPC, and IPC outcomes.

1. IPC Triggers:

a. Two consecutive UNSATs.

b. Three cumulative UNSATs in NATRACOM.

c. An UNSAT check event (TXX90).

d. A Ready Room UNSAT (RRU).

e. At the discretion of the OPSO or CO when there is doubt regarding the student's potential to successfully complete training within one programmed TTT.

2. IPC Outcomes:

a. Pass. Returns the student to normal syllabus flow. This will normally return the student to the event that triggered the IPC.

b. Fail. Results in a CO-PC.

(c) CO-PC. The following defines when to conduct a CO-PC and CO-PC outcomes.

3. CO-PC triggers:

a. Failure of an IPC.

b. In any case where a student has undergone an IPC in phase and subsequently meets any of the IPC triggers listed above.

c. Two academic examination failures in a phase.

d. Four cumulative UNSATs in a phase, starting with API academics.

e. At the discretion of the CO when there is doubt regarding the student's potential to successfully complete training within one programmed TTT.

4. CO-PC outcomes:

a. Pass. Returns the NFS to normal syllabus flow. This will normally return the NFS to the event that triggered the CO-PC. The CO-PC may be considered an advancing event if the CO prescribed that course of action during the post-UNSAT CO's review.

b. Fail. An UNSAT CO-PC results in an attrition recommendation to the TRAWING Commander and a TRB.

d. Progress Check Counseling

(1) Prior to an IPC (TXX88). The NFS's Class Advisor (CA), Student Control Officer, or Operations Officer (OPSO) shall counsel the NFS on the IPC process and document counseling on a Supplementary ATF. CO's guidance, ET authorization, and intent to count the PC as an Advancing X shall be included on the Supplementary ATF.

(2) Upon completion of an IPC. The IPC INFO shall counsel the NFS on the IPC results, recommendations, and future courses of action. The IPC INFO should also strive to ensure the NFS is coping with the IPC process appropriately, and notify appropriate squadron leadership immediately if there are any concerns. Post-IPC counseling shall be documented on the IPC (TXX88) ATF.

(3) Prior to a Commanding Officer Progress Check (CO-PC) (TXX89). The CO shall counsel the NFS on the CO-PC process. This counseling, including ET authorization and intent to count the CO-PC as an advancing event, shall be documented on the CO-PC (TXX89) ATF. If the CO is not the CO-PC instructor, the CO shall document counseling on a Supplementary ATF.

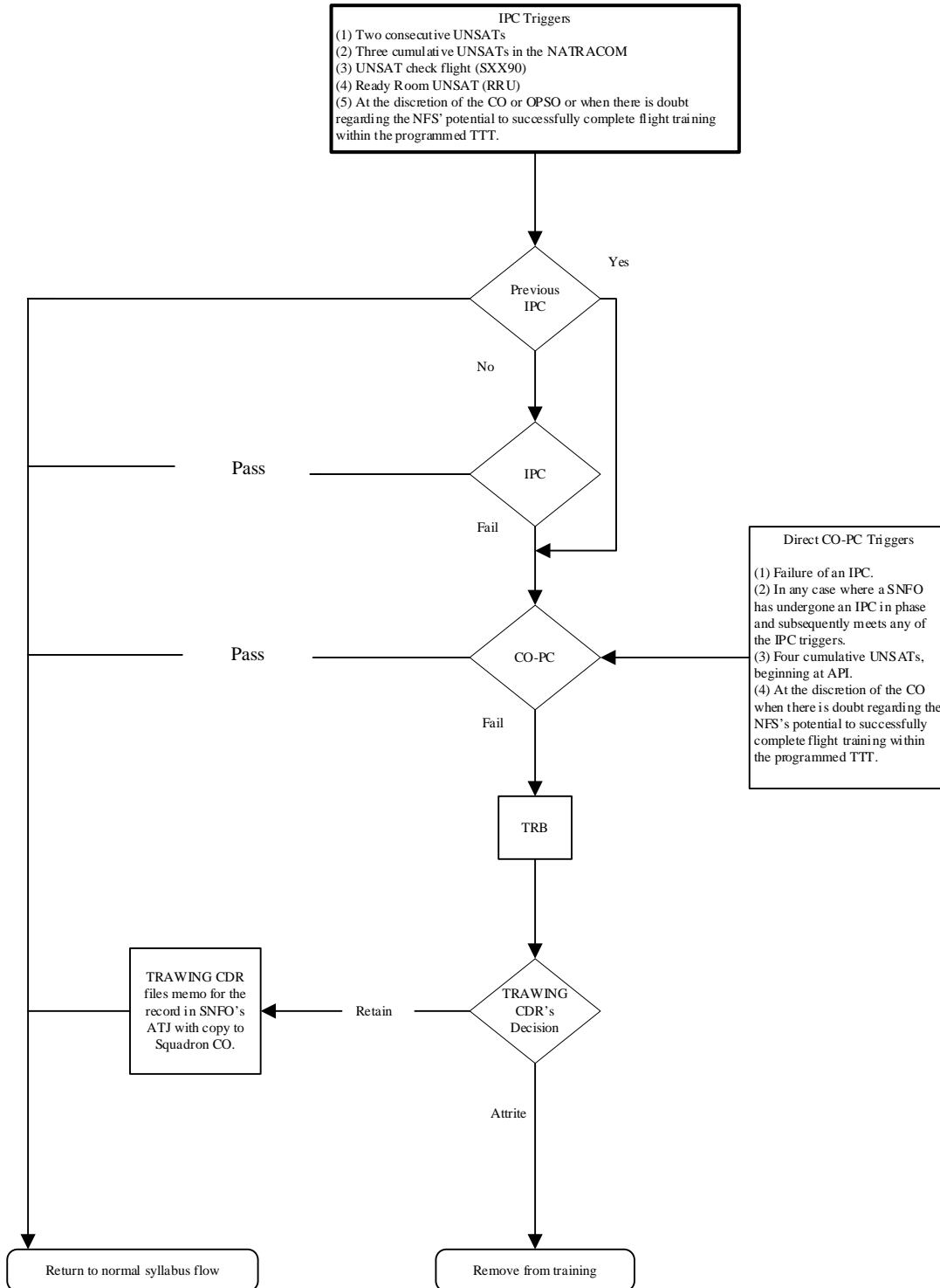
(4) Upon completion of a CO-PC. The CO-PC Instructor shall counsel the NFS and document on the (TXX89) ATF. Counseling should consist of the CO-PC results, attrition or retention recommendations, and future courses of action. The CO-PC Instructor should also strive to ensure the NFS is coping with the CO-PC process appropriately, and notify appropriate squadron leadership immediately if there are any concerns. If the CO was not the CO-PC instructor, the CO shall counsel the NFS and document counseling on a Supplementary ATF.

(5) An NFS being processed for an IPC or CO-PC and subsequently submits a Drop on Request (DOR) shall be processed as a DOR.

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**NFOTS PROGRESS CHECK TRAINING REVIEW PROCESS**



9. Special Instructions and Restrictions

a. Simulator Hour/Event Requirements and Restrictions

(1) Maximum Daily Student Activities (Simulator or Academic). Students shall not exceed two graded activities during one duty day.

(2) Minimum Student Turn-Times. The instructor shall ensure at least one hour is allocated between debrief and brief of back-to-back simulator events.

(3) Crew Day. The period from the beginning of the student's first event or official duty of the day until the completion of the last event of the day, including associated debrief and paperwork. Student crew day shall not exceed 12 hours.

(4) Crew Rest. A minimum of 12 hours shall elapse between the conclusion of the student's last scheduled event of the day (including associated debrief) and his or her first scheduled event (including associated brief) of the following day. After six consecutive scheduled days, students shall receive one day off. Official duty, squadron training, and standby scheduling do not qualify as a day off.

b. Source Documents. Students are responsible for reviewing applicable source documents (NATOPS, FTIs, local SOPs, etc.) prior to commencing each stage of training.

c. Maneuver Demonstrations. Item demonstrations will be accomplished as required.

## Chapter II

### Ground Training

1. Use of Preflight Training Time. Hours are available during the ground stage and other stages associated with academic media to schedule briefings, device familiarization, learning center programs, study sessions, or any other activities that will enhance the student's training and preparation for Advanced E-6 NFOTS. These hours may be used for academic training conducted early in each block; however, all prerequisites must be met.

Blk #	Media	Title	Events	Hrs	Blk Name
ADM01	Class	Administration	2	5.0	ADMIN

1. Prerequisites

- a. Completion of Intermediate MC2 NFOTS.
- b. T3390 prior to ADM0102.

2. Events

ADM0101	Admin	Advanced E-6 NFOTS Check-In	2.5
ADM0102	Admin	Advanced E-6 NFOTS Checkout	2.5

3. Syllabus Notes. None.

4. Discuss Items. None.



Blk #	Media	Title	Events	Hrs	Blk Name
T01	Class	E-6 Communications	9	18.0	COMM

1. Prerequisites

- a. ADM0101 prior to T0101-5 (any order).
- b. T0105 prior to T0106-9 (in order).

2. Events

T0101	CAI	E-6 Community		2.0
T0102	CAI	E-6 Aircraft, Roles, Mission, and Systems		2.0
T0103	CAI	Nuclear Triad, Command Structure, And Authentication		2.0
T0104	CAI	E-6 Communications		2.0
T0105	CAI	E-6 Communications Security and Alert Conditions		2.0
T0106	MIL	E-6 Communications Overview		2.0
T0107	MIL	E-6 Operational Considerations		2.0
T0108	MIL	E-6 Communications Exam Review		2.0
T0109	CAI Test	E-6 Communications Exam, Remediation and Critique		2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
T02	Class	E-6 Communications and Operations	5	10.0	COMMOPS

1. Prerequisite. T3105 prior to T0201-5 (in order).

2. Events

T0201	MIL	Electromagnetic Wave/Radio Propagation	2.0
T0202	MIL	Transmission Control Protocol/Internet Protocol (TCP/IP) Fundamentals	2.0
T0203	MIL	Allied Communications Publication Message Formatting	2.0
T0204	MIL	E-6 Communications and Ops Exam Review	2.0
T0205	CAI Test	E-6 Communications and Ops Exam, Remediation and Critique	2.0

3. Syllabus Notes. None.

4. Discuss Items. None.

Chapter III

NATOPS Training

This chapter does not apply to Advanced E-6 NFOTS phase of training.

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Chapter IV

Contact Training

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Chapter V

Instrument Training

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Chapter VI

Navigation Training

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Chapter VII

Formation Training

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Chapter VIII

Tactical Training

1. Seating. Student shall occupy a student MCS station.
2. Matrices. The following matrices are an overview of Advanced E-6 NFOTS simulator training. The purpose of these matrices is to provide the student and instructor the easiest way to track progress and overall status in relation to the MIF. In addition, there is a single matrix following each block description throughout this chapter.
3. E-6 Stage MIF



Check Flight Event

<b>E-6 STAGE MANEUVER ITEM FILE</b>				
<b>CTS REF</b>	<b>MANEUVER</b>	<b>T3105</b>	<b>T3206</b>	<b>T3390</b>
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	System Knowledge	4+	4+	4+
6	Mission Planning (Operations)	4+	4+	4+
7	Brief	4+	4+	4+
8	Equipment Operation	3+	4+	4+
9	Checklists	4+	4+	4+
10	Tactical Radio Procedures	3+	4+	4+
11	Crew Resource Management	3+	4+	4+
12	Mission Ownership	3+	4+	4+

MIF continued on next page.

<b>E-6 STAGE MANEUVER ITEM FILE</b>				
<b>CTS REF</b>	<b>MANEUVER</b>	<b>T3105</b>	<b>T3206</b>	<b>T3390</b>
13	Prioritization	3+	4+	4+
14	Scan	3+	4+	4+
15	E-6 Equipment Utilization	3+	4+	4+
16	E-6 Operations	3+	4+	4+
17	Aerial Refueling	3+	4+	4+
18	Logging Procedures	3+	4+	4+
19	Communication Relay	3+	3+	4+
20	Communication Rebroadcast	3+	3+	4+
21	Debrief	4+	4+	4+

Blk #	Media	Title	Events	Hrs	Blk Name
T11	MCS/ Class	E-6 Communications Flight Support	3	9.5	COMMFS

1. Prerequisites

- a. T10190 prior to T1101.
- b. T1101 prior to T1102-3 (any order).

2. Events

T1101	MIL	E-6 Communications Flight Preparation	4.0
T1102	ER/MCS	E-6 Communications Event Rehearsal	1.5
T1103	SS	E-6 Communications Self-Study	4.0

3. Syllabus Notes. T1102 will be accomplished in the MCS with an INFO assigned.
4. Discuss Items. None.

Blk #	Media	Title	Events	Hrs	Blk Name
T12	MCS/ Class	E-6 Communications and Operations Flight Support	2	5.5	COMM/ OPSFS

1. Prerequisite. T0205 prior to T1201-2 (any order).

2. Events

T1201	ER/MCS	E-6 Communications and Ops Event Rehearsal		1.5	
T1202	SS	E-6 Communications and Ops Self-Study		4.0	

3. Syllabus Notes. T1201 will be accomplished in the MCS with an INFO assigned.

4. Discuss Items. None.



Blk #	Media	Title	Events	Hrs	H/X
T31	MCS	E-6 Communications	5	10.5	See Note 2. a.

1. Prerequisites. T1101-3 prior to T3101.
2. Syllabus Notes
  - a. Allow 1.5 H/X for T3101-3 and allow 3.0 H/X for T3104-5.
  - b. Students will begin the event on-station.
3. Special Syllabus Requirements. None.
4. Discuss Items

T3101 E-6 Communications 1

TACAMO mission, VLF, and MILSTAR.

T3102 E-6 Communications 2

Due regard and EAM.

T3103 E-6 Communications 3

ABNCP mission and ALCS.

T3104 Communications 4

Air refueling procedures.

T3105 E-6 Communications 5

Any previous discussion item.

5. Block MIF

<b>CTS REF</b>	<b>MANEUVER</b>	<b>T3105</b>
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	System Knowledge	4+
6	Mission Planning (Operations)	4+
7	Brief	4+
8	Equipment Operation	3+
9	Checklists	4+
10	Tactical Radio Procedures	3+
11	Crew Resource Management	3+
12	Mission Ownership	3+
13	Prioritization	3+
14	Scan	3+
15	E-6 Equipment Utilization	3+
16	E-6 Operations	3+
17	Aerial Refueling	3+
18	Logging Procedures	3+
19	Communication Relay	3+
20	Communication Rebroadcast	3+
21	Debrief	4+

Blk #	Media	Title	Events	Hrs	H/X
T32	MCS	E-6 Communications and Operations	6	18.0	3.0

1. Prerequisites. T1201-2 prior to T3201.
2. Syllabus Note. Students will begin the even on-station.
3. Special Syllabus Requirements. Events T3202-T3205 are designed as dual-platform events and should be flown with another student in the same block. If no additional student is available, the instructor of record will act as the other platform during specified periods of the event.

4. Discuss Items

T3201 E-6 Comm and Ops 1

Battlestaff and origination.

T3202 E-6 Comm and Ops 2

Nuclear Triad, USSTRATCOM, and NCA.

T3203 E-6 Comm and Ops 3

HF and UHF systems, ranges, and capabilities.

T3204 E-6 Comm and Ops 4

Electromagnetic pulse weapons effects and E-6 hardening.

T3205 E-6 Comm and Ops 5

Communications security. TCP/IP network management.

T3206 E-6 Comm and Ops 6

Long trailing wire antenna, short trailing wire antenna, VLF trail modes, and VLF trail speeds.

5. Block MIF

<b>CTS REF</b>	<b>MANEUVER</b>	<b>T3206</b>
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	System Knowledge	4+
6	Mission Planning (Operations)	4+
7	Brief	4+
8	Equipment Operation	4+
9	Checklists	4+
10	Tactical Radio Procedures	4+
11	Crew Resource Management	4+
12	Mission Ownership	4+
13	Prioritization	4+
14	Scan	4+
15	E-6 Equipment Utilization	4+
16	E-6 Operations	4+
17	Aerial Refueling	4+
18	Logging Procedures	4+
19	Communication Relay	3+
20	Communication Rebroadcast	3+
21	Debrief	4+

Blk #	Media	Title	Events	Hrs	H/X
T33	MCS	E-6 Communications and Operations Check Flight	1	3.0	3.0

1. Prerequisite. T3206.
2. Syllabus Note. Students will begin the event on-station.
3. Special Syllabus Requirements. None.
4. Discuss Items. Any previously discussed items.
5. Block MIF

CTS REF	MANEUVER	T3390
1	General Knowledge/Procedures	4+
2	Emergency Procedures	4+
3	Headwork/Situational Awareness	4+
4	Basic Airwork Recognition	4+
5	System Knowledge	4+
6	Mission Planning (Operations)	4+
7	Brief	4+
8	Equipment Operation	4+
9	Checklists	4+
10	Tactical Radio Procedures	4+
11	Crew Resource Management	4+
12	Mission Ownership	4+
13	Prioritization	4+
14	Scan	4+
15	E-6 Equipment Utilization	4+
16	E-6 Operations	4+

MIF continued on next page.

<b>CTS REF</b>	<b>MANEUVER</b>	<b>T3390</b>
17	Aerial Refueling	4+
18	Logging Procedures	4+
19	Communication Relay	4+
20	Communication Rebroadcast	4+
21	Debrief	4+

Chapter IX

Course Training Standards

1. Purpose. These standards outline the tasks and proficiency required of SNFOs during the Advanced E-6 NFOTS phase.
2. Student Duties and Responsibilities
  - a. Plan the mission.
  - b. Ensure the MCS is inspected and configured for the assigned mission.
  - c. Operate the MCS to accomplish the mission using sound judgment and airmanship.
3. General Standards
  - a. “Standard” equates to *good* (G/4).
  - b. Momentary deviations outside CTS that do not compromise flight safety are acceptable if subsequent corrections are timely.
  - c. Procedural knowledge and application must comply with applicable directives and allow efficient mission accomplishment.
4. Execution. The MIF regulates student progression to meet required standards prior to phase completion. Instructors shall evaluate student performance against these standards.
5. Job Tasks. Specific performance and standards required are described as follows:

BEHAVIOR STATEMENT	STANDARDS
Graded Item	
<ul style="list-style-type: none"><li>● A brief description of the behavior, required action, and/or conditions.</li></ul>	<ul style="list-style-type: none"><li>● The specific standards for the action. May be read as “The SNFO...”</li></ul>

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 followed by the Course Training Standards unique to each stage.

7. Course Training Standards

BEHAVIOR STATEMENT	STANDARDS
1. General Knowledge/Procedures	
<ul style="list-style-type: none"> <li>● Maintain working knowledge of all appropriate flight training instructions and directives.</li> </ul>	<ul style="list-style-type: none"> <li>● Recites, discusses, and/or performs all applicable items essential to the operation of the aircraft and completion of the mission.</li> </ul>
2. Emergency Procedures	
<ul style="list-style-type: none"> <li>● Maintain in-depth knowledge of all MCS Student Guide emergency procedures.</li> <li>● Utilize the Multi-Crew Simulator Pocket Checklist IAW MCS Student Guide and FTI guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>● Recognizes the occurrence of an immediate action item within one minute.</li> <li>● Performs/recites critical action steps from memory with 100 percent accuracy.</li> <li>● Correctly prioritizes tasks to include aviate, navigate, communicate, and checklists during simulated abnormal conditions.</li> <li>● Uses correct emergency checklist to complete procedures when conditions permit.</li> <li>● Proactively responds to compound emergencies and engages in discussion with crewmembers to achieve a resolution.</li> <li>● Initiates procedures in a timely manner.</li> </ul>
3. Headwork/Situational Awareness	
<ul style="list-style-type: none"> <li>● Comply with the FTI and MCS Operating Manual while maintaining SA IAW safety-of-flight and mission objectives.</li> </ul>	<ul style="list-style-type: none"> <li>● Understands instructions, demonstrations, and explanations.</li> <li>● Foresees and avoids possible difficulties by making recommendations that enhance the situation and/or overall mission effectiveness.</li> <li>● Remains alert and spatially oriented during all phases of the event.</li> <li>● Maintains overall awareness with regard to fuel state, aircraft configuration, traffic in vicinity of own ship, and dynamic weather conditions.</li> </ul>



BEHAVIOR STATEMENT	STANDARDS
4. Basic Airwork Recognition	
<ul style="list-style-type: none"> <li>● Recognize and direct desired altitude, airspeed, and heading during flight.</li> </ul>	<ul style="list-style-type: none"> <li>● Monitors aircraft within <math>\pm 100</math> feet of assigned or directed altitude.</li> <li>● Monitors aircraft within <math>\pm 10</math> knots of assigned or directed airspeed.</li> <li>● Monitors aircraft within <math>\pm 5^\circ</math> of assigned or directed heading.</li> <li>● Recognizes deviations within 30 seconds and immediately directs corrections upon recognition.</li> </ul>
5. System Knowledge	
<ul style="list-style-type: none"> <li>● Comply with the FTI and MCS Student Guide while maintaining a working knowledge of directives.</li> </ul>	<ul style="list-style-type: none"> <li>● Describes the correct nomenclature, purpose, characteristics, functions, and limitations of MCS systems.</li> </ul>
6. Mission Planning (Operations)	
<ul style="list-style-type: none"> <li>● Performs operational mission planning with the aid of E-6 Supplemental PCL checklists and mission tasking brief.</li> </ul>	<ul style="list-style-type: none"> <li>● Identifies appropriate message traffic to properly plan the mission.</li> <li>● Acquires appropriate mission and weather data for the operational area.</li> <li>● Clearly defines the mission overview and mission goals utilizing the appropriate message traffic and mission tasking brief.</li> <li>● Completes mission log.</li> <li>● Completes mission charts with minimal error (less than 3 hits).</li> <li>● Plans the ops portion of the mission in a timely manner to meet all requirements IAW mission tasking brief.</li> </ul>
7. Brief	
<ul style="list-style-type: none"> <li>● Performs a proper mission brief.</li> </ul>	<ul style="list-style-type: none"> <li>● Is thoroughly prepared for the brief and as applicable, briefs the flight to include specific mission objectives, flight conduct, and contingency planning.</li> <li>● Conducts an accurate mission and safety brief given a standard mission briefing guide.</li> <li>● Interacts with instructors and other crewmembers in a professional manner.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
8. Equipment Operation	
<ul style="list-style-type: none"> <li>● Directs/performs equipment operations with the aid of E-6 Supplemental PCL checklists and mission tasking brief.</li> </ul>	<ul style="list-style-type: none"> <li>● Properly describes theory of operation and function of the TACAN, INS, GPS, FMS, flight instruments, and computer display.</li> <li>● Properly operates all functions of the TACAN, INS, GPS, FMS, flight instruments, and computer display.</li> <li>● Properly operates all functions of the ICS, V/UHF, HF, and SATCOM.</li> <li>● Monitors the status of the TACAN and acknowledges degradations within 5 minutes of the malfunction.</li> <li>● Properly troubleshoots all TACAN malfunctions.</li> <li>● Monitors the status of the GPS and acknowledges degradations within 5 minutes of the malfunction.</li> <li>● Properly troubleshoots all GPS malfunctions.</li> <li>● Monitors the status of the INS and acknowledges degradations within 5 minutes of the malfunction.</li> <li>● Properly troubleshoots all INS malfunctions.</li> <li>● Monitors the status of the ICS and radios and acknowledges degradations within 5 minutes of the malfunction.</li> <li>● Properly troubleshoots all ICS and radios malfunctions.</li> </ul>
9. Checklists	
<ul style="list-style-type: none"> <li>● Completes mission specific checklists.</li> </ul>	<ul style="list-style-type: none"> <li>● Correctly and expeditiously performs all required checklists IAW the MCS Student Guide and FTI.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
10. Tactical Radio Procedures	
<ul style="list-style-type: none"> <li>● Communicates/performs with standard terminology IAW the unclassified tactical aid, E-6 Supplemental PCL checklists, and FTI.</li> <li>● Performs tactical radio procedures at the MCS crew station and directs via the use of V/UHF/HF/SATCOM/J-Voice radios and ICS.</li> </ul>	<ul style="list-style-type: none"> <li>● Responds correctly to 90 percent or more of tactical incoming calls.</li> <li>● Acknowledges all appropriate communications.</li> <li>● Communicates clearly and concisely with appropriate tactical unit using standard tactical radio procedures.</li> <li>● Makes timely transmissions without blocking other radio calls.</li> <li>● Communicates using standard terminology and brevity.</li> <li>● Communicates precise formatted radio transmissions when applicable.</li> <li>● Communicates properly during secure radio transmissions.</li> <li>● Properly encrypts sensitive information during an unsecure transmission utilizing the card-of-the-day.</li> <li>● Executes operations normal report, as required.</li> </ul>
11. Crew Resource Management	
<ul style="list-style-type: none"> <li>● Directs aircrew and other resources to minimize workload in order to enhance SA.</li> </ul>	<ul style="list-style-type: none"> <li>● Directs aircrew using standard communications.</li> <li>● Communicates with brevity to crewmembers and outside agencies.</li> <li>● Coordinates with crewmembers to conduct mission duties.</li> <li>● Delegates aircrew tasks as appropriate.</li> <li>● Makes timely recommendations to maintain aircraft flight parameters through all regimes of flight.</li> <li>● Uses appropriate interaction between crewmembers with regard to normal aircraft procedures.</li> <li>● Uses SA building communications with crewmembers and outside agencies.</li> <li>● Displays assertive behavior with crewmembers when necessary.</li> <li>● Demonstrates the use of all CRM skills to effectively use all resources, information, and knowledge to guide the crew to the successful achievement of all tasks in flight.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
12. Mission Ownership	
<ul style="list-style-type: none"> <li>● Takes charge of the mission in all aspects of planning and execution.</li> <li>● Exhibits aviation leadership.</li> </ul>	<ul style="list-style-type: none"> <li>● Leads planning, briefing and execution of the mission.</li> <li>● Confidently influences aircrew to work in a coordinated effort toward successful task completion within the parameters of the mission objectives.</li> <li>● Determines actionable solutions to potential problems articulating proactive alternatives/courses of action.</li> <li>● Takes command of mission execution and provides reasonable alternatives to mission plan due to evolving and dynamic circumstances.</li> </ul>
13. Prioritization	
<ul style="list-style-type: none"> <li>● Manages task loading in the proper order of precedence per FTI recommended minimum requirements.</li> </ul>	<ul style="list-style-type: none"> <li>● Effectively prioritizes task loading in descending order of importance (e.g., aviate, navigate, communicate, and checklists).</li> </ul>
14. Scan	
<ul style="list-style-type: none"> <li>● Exhibits proper recognition of system and flight instrumentation.</li> <li>● Exhibits proper tactical scan to enhance situational awareness.</li> </ul>	<ul style="list-style-type: none"> <li>● Executes IAW FTI and AFM/POH.</li> <li>● Ascertains wind direction with or without visible wind direction indicators.</li> <li>● Maintains runway centerline within 10 feet.</li> <li>● Establishes a pitch attitude that will maintain <math>V_Y +10/-5</math> knots</li> <li>● Applies appropriate crosswind controls.</li> <li>● Maintains takeoff power and <math>V_Y +10/-5</math> knots to a safe maneuvering altitude.</li> <li>● Complies with departure and noise abatement procedures.</li> <li>● Completes the appropriate checks.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
15. E-6 Equipment Utilization	
<ul style="list-style-type: none"> <li>● Directs/performs E-6 equipment utilization.</li> </ul>	<ul style="list-style-type: none"> <li>● Properly locates the MILSTAR radio and operates all functions.</li> <li>● Monitors the status of the MILSTAR radio and acknowledges degradations within 10 minutes of the malfunction.</li> <li>● Properly troubleshoots all MILSTAR malfunctions.</li> <li>● Properly locates the VLF radio and operates all functions.</li> <li>● Monitors the status of the VLF and acknowledges degradations within 10 minutes of the malfunction.</li> <li>● Properly troubleshoots all VLF malfunctions.</li> <li>● Properly monitors the mission computer system.</li> </ul>
16. E-6 Operations	
<ul style="list-style-type: none"> <li>● Directs/performs E-6 operations procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Conducts proper handover for relieved aircraft.</li> <li>● Properly directs the crew in the operations area.</li> <li>● Properly directs the flight deck and crew in response to an EAM.</li> <li>● Coordinates with the flight deck and reel operator during trailing wire operations.</li> <li>● Properly manages time constraints.</li> <li>● Conducts proper handover for relief aircraft.</li> </ul>
17. Aerial Refueling	
<ul style="list-style-type: none"> <li>● Directs E-6 aerial refueling procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Directs air refueling procedures.</li> <li>● Directs the flight deck to the air refueling initial point.</li> <li>● Operates appropriate sensors and communications equipment as it pertains to air refueling.</li> <li>● Utilizes proper radio procedures as it pertains to air refueling.</li> <li>● Properly manages time considerations as it pertains to air refueling.</li> <li>● Arrives at the ARCP +/-1 minute of ARCT and within 1 mile of ARCP.</li> </ul>
18. Logging Procedures	
<ul style="list-style-type: none"> <li>● Annotates receipt of messages received and transmitted.</li> </ul>	<ul style="list-style-type: none"> <li>● Logs messages using correct number annotations.</li> <li>● Logs all messages received.</li> <li>● Logs all messages transmitted.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
19. Communication Relay	
<ul style="list-style-type: none"> <li>● Directs and performs E-6 relay procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Coordinates all communication systems with the proper prioritization for reception and transmission.</li> <li>● Properly prioritizes message precedence.</li> <li>● Properly prioritizes recipient precedence.</li> <li>● Properly identifies and relays messages over appropriate radio net.</li> <li>● Emergency Command Precedence messages are relayed immediately.</li> <li>● Flash messages are relayed within 10 minutes of Time of Receipt.</li> <li>● Operationally Immediate messages are relayed within 30 minutes of Time of Receipt.</li> <li>● Priority and Routine messages are relayed before end of scenario.</li> <li>● Properly manages time constraints for communication activities.</li> </ul>
20. Communication Rebroadcast	
<ul style="list-style-type: none"> <li>● Directs and performs E-6 rebroadcast procedures.</li> </ul>	<ul style="list-style-type: none"> <li>● Properly manages SAI queue.</li> <li>● Maintains a maximum of three SAIs in any queue.</li> <li>● Properly prioritizes relays over rebroadcasts.</li> <li>● Begins rebroadcast within two minutes of assigned time. Rebroadcast is not to exceed three minutes, unless chaining exception applies.</li> </ul>

BEHAVIOR STATEMENT	STANDARDS
21. Debrief	
<ul style="list-style-type: none"><li>● Performs a proper debrief.</li></ul>	<ul style="list-style-type: none"><li>● If appropriate, reports unusual deviations, potential hazardous conditions, or unusual operations to controlling authority.</li><li>● Conducts an accurate mission debrief given a standard mission debriefing guide.</li><li>● Reports status of mission objectives.</li><li>● Updates threat intelligence, on-station weather, status of friendly forces, command and control issues, BDA, and navigation with controlling authority.</li><li>● Reconstructs mission for lessons- learned purposes.</li><li>● Displays professional attitude and ability accept instruction.</li><li>● Recalls specifics of the mission and is able to accurately assess aircrew performance.</li></ul>

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Chapter X

Master Materials List

1. Individually Issued Materials

<u>NOMENCLATURE</u>	<u>IDENTIFICATION</u>	<u>QTY PER STUDENT</u>
a. Advanced E-6 NFOTS Master Curriculum Guide	CNATRAINST 1542.183	1
b. E-6 Flight Training Instructions	CNATRA P-Pubs	1

2. Aircraft and/or Major Training Devices

- a. Multi-Crew Simulator (2B51) quantity controlled by Naval Air Warfare Center Training Systems Division (NAVAIRWARCENTRASYS DIV), Training Material Management Division, Inventory Control Branch.

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