

The flying phase includes flight training (with specific ground sortie options) in one block.

1.1 Number of Training Hours.

Table 1.1. Syllabus Training Hours.

Type of Training	Hours
Academic Training	
Course Academic Hours	184.0
Device Training	
Sessions/Hours	15/56.5
Full Mission Training	
Sorties/Hours	14/112.0
Mission Planning/Briefing/Debriefing	280.0
Totals	632.5
SSR = (Student Sorties) *multiplied by (1 + Refly Rate). SSR = (14) * (1 + 0.34) = 18.76*; Refly Rate = 0.34 *Refly Rate calculation based only on live flights; ground sorties are not considered.	

Chapter 2

COURSE MANAGEMENT

Section 2A—Course Training Standards

2.1 Academic Training Standards. Academic standards are contained in specific criterion- referenced objectives provided in the course training documents. Academic competence is measured by written and/or performance examinations. The minimum passing score for written examinations is 85% IAW ACCI 11-251, *ACC Operations Training Development Program*. All examinations will be critiqued and corrected to 100%.

2.2 Performance Grading Criteria.

2.2.1 The following ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*, grading criteria are designed to determine achievement of the required proficiency levels (RPL) for grading task performance listed in table 2.2.

Table 2.1. Performance Grading Criteria

Grade	Explanation of Grade
Unknown	Performance was not observed, or the element was not performed.
Dangerous	Performance was unsafe (one element marked “Dangerous” will require an overall grade of “zero”).
0	Performance indicated a lack of ability or knowledge.
1	Performance was safe, but indicated limited proficiency. Made errors of omission or commission.
2	Performance was essentially correct. Recognized and corrected errors.
3	Performance was correct, efficient, skillful and without hesitation.
4	Performance reflected an unusually high degree of ability.

2.2.2 The grading criteria stated in table 2.1 will be used to grade both specific mission elements and overall performance on each flight and Aircrew Training Device (ATD) mission.

2.2.3 Grades will be whole numbers and not fractions. Grading “on the line” or “between numbers” is prohibited.

2.2.4 Grades for each flight and ATD session are recorded on an ACC Form 206, *Individual Mission Grade Sheet* or locally generated grade sheet approved in local supplements to ACCI 11-464. Training events not requiring a grade will be documented on ACC Form 166, *Student Activity Record*, or an applicable substitute. Written student acknowledgement of training is required.

2.3 Performance Training Standards. The course training standards shown in table 2.2 specify the overall RPLs in the graded elements. Students must achieve the required proficiency level (RPL) in all tasks, subtasks, and activities prior to graduation.

2.3.1 Individual mission element grades and the overall mission grade are determined by comparing the student’s performance with the grading criteria. The overall grade will not be determined by simply averaging the mission element grades

2.3.2 Prior to graduation, the student will meet course standards indicated for the duty areas listed in table 2.2.

Table 2.2. Course Training Standards/Required Proficiency Levels.

Area	Duty	Standard
01	Mission Planning	2
02	Flight Preparation	2
03	Mission Preparation	2
04	Mission Operation	2
05	Mission Termination	2
06	Emergency Procedures	2
07	Post Flight Requirements	2
08	General Procedures, Malfunction Analysis, In-flight Repair and Alternate Procedures	2

Section 2B—General Instructions

2.4 Approval Authority. HQ ACC/A3 is the approval authority for this syllabus IAW ACCI 11-252.

2.5 Waiver Authority. HQ ACC/A3 delegates waiver authority to the 552 ACW/CC, further delegated to the 552d Training Group Commander (552 TRG/CC) and/or the 552 OG/CC. Staff waiver requests through 552 TRSS/TST and/or 552 OSS/OST. The 552 TRSS/TST and/or 552 OSS/OST will coordinate all waiver requests through ACC TRSS Det 6 to verify other implementation options are considered prior to seeking a waiver and to ensure best training practices are upheld. The 513th Air Control Group will forward waiver approval requests through HQ AFRC/A3D to 552 TRG for approval processing.

2.6 Commander's Authority. The 552 TRG/CC is responsible for conducting the training specified under the authority and direction of this syllabus. Graduation from this course requires the effective completion of all training prescribed by this syllabus.

2.6.1 Waivers/Training Deferrals. The syllabus waiver authority may waive graduation requirements. The 552 TRG/CC may defer unaccomplished tasks to the gaining unit. The graduate will be unqualified in deferred events until completed by the gaining unit. The 552 TRG/CC, if not the gaining unit GP/CC, will coordinate with the gaining unit GP/CC or equivalent on all deferments. Provide copies of all waivers and deferrals to HQ ACC/A3CA within 10 working days of approval.

2.6.2 Equivalent Training. The 552 TRG/CC may authorize equivalent training that complies with the directions and intent of this syllabus.

2.6.3 Training Deviations. The Formal Training Unit (FTU) squadron commanders may authorize deviations in the order of training to meet special weather and peculiar local conditions. Deviations will be consistent with good training management, student progress and student experience level. However, all prerequisite training must be accomplished before associated device or flying training.

2.6.4 Leave or TDY. Normally, students will not be authorized ordinary leave or extracurricular temporary duty (TDY) during formal training periods. The FTU squadron commanders may approve exceptions to this policy.

2.6.5 Documentation. Place a copy of all waivers, training deferrals, equivalent training substitutions and deviations in the affected student's training record/gradebook. Provide a copy to ACC TRSS Det 6 for

training program review and analysis.

2.6.6 Delegation of Authority. If not specifically precluded by AFMAN 11-2E-3G, Volume 1, the 552 TRG/CC may delegate Interruption in Training Flight (ITF) or Interruption in Training Sim (ITS) authority to the 552d Training Support Squadron Commander (552 TRSS/CC) and/or 966th Airborne Air Control Squadron Commander (966th AACS/CC).

2.7 Training Record Maintenance. All training records will be maintained IAW the syllabus, the AFRIMS Records Disposition Schedule, and ACCI 11-464.

Section 2C—Special Instructions

2.8 Description of Training Strategy. Prior to recommendation for a flight evaluation, all students must achieve the required proficiency levels in all job element areas. Flight evaluations will be conducted IAW AFMAN 11-202, Volume 2/ACC Supplement 1, *Aircrew Standardization/Evaluation Program*, and IAW AFMAN 11-2E-3G, Volume 2, *E-3G-Aircrew Evaluation Criteria*. Not all students progress at the same rate. Students meeting academic, ATD or flight course requirements may advance to the next training event providing the advancement can be accomplished without interruption of class flow. Students who have achieved end- of-course proficiency levels in all duty areas can be recommended for early flight evaluation. Supervisors and instructors must monitor student progress to detect marginal performance and unsafe practices.

2.9 Course Mechanics. All flight and ATD missions will be graded and recorded in the student's grade folder IAW ACCI 11-464 and 552 OGI 11-202, *Administration of Aircrew Training*.

2.10 Alternate missions.

2.10.1 Ground Sorties with the crew configuration required by AFMAN11-2E-3G, Volume 1 and AFMAN 11-2E-3G, Volume 3, *E-3G-Operations Procedures*, may be used to complete the training requirements outlined in this syllabus. See paragraph 5.2 regarding Aircraft Requirements. The following describes the options available:

2.10.1.1 Ground Sorties may be utilized for syllabus events, given the sortie profile meets standard syllabus mission time requirements IAW paragraph 5.5.1 and Table 5.3. Ground Sorties may be accomplished in flight, based on aircraft availability and student needs. The number of Ground Sorties used for syllabus sorties will not exceed four (4) in total. Any unaccomplished tasks during the Ground Sortie will be logged on an ACC Form 208, *Unaccomplished Task Log*, IAW ACCI 11-464 and should also be included in the remarks section of the ACC Form 206 IAW paragraph 2.19.3.

2.10.2 Ground sorties may be used to complete Dynamic Mission Tasks and/or Unaccomplished Tasks. If Dynamic Mission Tasks cannot be demonstrated or performed in flight on a syllabus mission sortie, Ground Sorties may be used to accomplish the tasks. Ground Sorties which are used solely to complete Dynamic Mission Tasks and/or Unaccomplished Tasks will not count as syllabus sorties IAW paragraph 2.10.1.1. Ground Sorties used solely to complete Dynamic Mission Tasks and/or Unaccomplished Tasks will be identified by the next syllabus sortie number, but shall be marked non-effective/other (NE/OTH) on the ACC Form 206 IAW paragraph 2.19.2. An entry will be made in the remarks section citing "Inability to complete Standard Mission Tasks" as the reason the Ground Sortie was non-effective. The Standard Mission Tasks which are not completed on the Ground Sortie will be accomplished on the subsequent syllabus sortie flown and will be graded "effective" or "non-effective" as appropriate.

2.11 Source Documents. USAF Weapons School texts, papers, or draft 3-series publications will not be

used as source documents for developing or describing airborne maneuvers, teaching techniques or teaching tactics until approved by ACC for incorporation in syllabi or supporting phase manuals.

2.12 Syllabus Mission Leadership. Students will not brief or lead syllabus missions. This restriction does not prohibit a student from briefing or leading specific portions of the mission (e.g., low level, range, air-to-air refueling).

2.13 Risk Management (RM)/Safety. The flying and academic challenges of this syllabus require a dedicated, daily RM focus as outlined in AFI 90-802, ACC Supplement, *Risk Management*. Nothing in this syllabus requires compromising safety. Make a RM assessment on each sortie/mission. Instilling the foundations of RM for safe, smart decision-making is crucial to developing discipline, skill, and proficiency at the individual level. Plan, brief, execute and debrief each sortie/mission with emphasis on risks, restrictions, the environment and aircraft/systems capabilities and limitations to develop sound combat habit patterns. Sound combat habit patterns are inherently safe. All those assigned to support this syllabus are responsible for executing it safely

2.14 Crew Resource Management (CRM) Training. CRM requirements will be accomplished IAW paragraph 1.6.1. and AFI 11-290, ACC Supplement, *Cockpit/Crew Resource Management and Threat & Error Management Program*.

2.15 Progress Check. A progress check is a non-instructional ATD or flying sortie used to document a student's proficiency level and to recommend follow-up action. Identify progress checks by adding the suffix "Prog" to the normal syllabus sortie number (i.e., M103 Prog). It is not a syllabus sortie. A progress check may be conducted at any time at the discretion of the squadron commander (966th AACS/CC [flying] or 552 TRSS/CC [sim]) and will include an assessment of the student's basic skills. Recommendations of personnel conducting progress checks may be, but are not limited to, continuation in the normal course of training, additional training IAW paragraph 2.19 or elimination from the course of training. When appropriate, progress checks may be conducted in the ATD.

2.16 Extended Periods of Non-Flying. If a student has not flown or has had no simulator training for more than 14 calendar days, the 966th AACS/CC or equivalent may authorize additional training sorties or simulator training sessions before the student resumes formal training. The number and type of additional sorties or sessions is determined on an individual basis. These sorties will be designated Interruption in Training Flight (ITF) or Interruption in Training Sim (ITS) and will be graded "effective" or "non-effective" as appropriate. ITF/ITS will not be considered syllabus sorties. If more than one ITF/ITS is required, for example, for long-term Duties Not Including Flying (DNIF) students, a progress check flight may be required resulting in a specialized training plan. See paragraph 2.15. for specifics.

2.17 Proficiency Advancement (PA). The 552 TRG/CC (delegated to the FTU Commander) may proficiency advance a student in any syllabus module or phase when the student demonstrates performance to syllabus standards. PA will not be used as a management tool to graduate students by a specific date.

2.18 Substandard Performance. Remedial action for failure to meet performance standards may include training/practice using academic programs, part-task trainers, simulators, or additional sorties.

2.18.1 Non-effective Syllabus Missions.

2.18.1.1 Mark the mission non-effective/student non-progression (NE/SNP) on ACC Form 206 if student performance is not sufficient to allow progression to the next syllabus mission. An entry will be made in the remarks section citing specific performance deficiencies. For missions marked NE/SNP, an additional

instructional sortie (“X” sortie) will be flown. “X” sorties will be identified by adding the suffix “X” to the normal sortie number (i.e., if 101 is NE/SNP, 101X will be flown).

2.18.1.2 Mark a mission non-effective/other (NE/OTH) on ACC Form 206 when elements called for in the mission are not completed and cannot be incorporated into a subsequent mission. An entry will be made in the remarks section citing the specific reason the mission was non-effective (i.e., weather, air abort, inability to meet mission training objectives). For missions marked NE/OTH, the mission will be re-flown (i.e., if M101 is NE/OTH, it is re-flown); however, only the mission elements that were not completed during the non-effective mission need be accomplished on the subsequent mission.

2.18.1.3 Unaccomplished Tasks. When a sortie is effective for student training, but elements called for in a mission are not completed and can be incorporated into a subsequent mission, these elements will be logged on an ACC Form 208, *Unaccomplished Task Log*, IAW ACCI 11-464 and should also be included in the remarks section of the ACC Form 206.

2.19 Extra “X” Sortie. Additional instructional sorties (live flying or ATD) are called “X” sorties and are identified by adding the suffix “X” to the normal syllabus sortie number. An “X” sortie is flown when a mission is marked NE/SNP or after a commander directed progress check when a student fails to meet the course training standards. If an “X” sortie is not successful and additional “X” sorties are required for the same syllabus mission, these additional sorties are identified by adding the suffix “XX”, “XXX”, etc., to the normal syllabus sortie number. Additional instructional sorties are authorized only to the extent that, in the judgment of the squadron commander or designated representative, such flights would result in the student meeting course requirements.

Table 2.3. Ground Phase X Event Limits.

Granting Authority	Ground Phase	Block Max
552 TRSS/CC, or designated representative	2	2
552 TRG/CC	1	1

Table 2.4 Flight Phase X Sortie/Event Limits

Granting Authority	Phase Max
966 AACs/CC, or designated representative	3
552 TRG/CC	1

2.19.1 One or more events resulting in a NE/SNP on a single flight will only generate one “X” sortie request. A student may progress in other events that were not graded NE/SNP on an “X” sortie, but re-accomplishing the event(s) that generated the “X” sortie are priority.

2.19.2 Multiple events graded NE/SNP on a single flight will only count as 1 “X” sortie for the Phase Max in table 2.4.

2.20 Corrective Action Options. Initial failure to make satisfactory progress results in individual counseling by the student’s primary instructor. Counseling is recorded on AF Form 174, *Record of Individual Counseling*, and filed in the student’s training records. Subsequent failures will result in referral of the student’s records to the squadron commander or designated representative for review and additional corrective action. Use the following criteria for corrective action.

2.20.1 Academic Training. Students who fail a test will be given appropriate additional instruction, counseled and retested IAW ACCI 11-251. Failure of two or more tests will result in referral of the student's records to the squadron commander for review.

2.20.2 ATD. Students who receive an NE/SNP on an ATD event receive appropriate remedial instruction, counseling and re-accomplish the deficient mission elements. Remedial instruction for failure to meet performance standards may include training and practice with academic programs and ATDs IAW paragraph 2.19. A second NE/SNP results in referral of the student's records to the squadron commander for review.

2.20.3 Flying Training. Students who receive an NE/SNP on a sortie receive appropriate remedial instruction, counseling, and must repeat the sortie. Remedial instruction for failure to meet performance standards might include training and practice with academic programs, ATDs or additional flying sorties IAW paragraph 2.19. A second NE/SNP sortie results in referral of the student's records to the squadron commander for review.

2.20.4 Elimination Procedures. Failure to meet academic or flying standards while enrolled in a USAF directed formal flying training course requires an examination of the aircrew member's potential for continued aviation service. Upon referral of a student's training record, the squadron commander may direct continuation in the normal course of training, additional remedial training IAW paragraph 2.19 followed by a Training Review Board/Commander's Review Process or referral to a flying evaluation board (FEB). For students enrolled in initial Career Enlisted Aviator formal flying training courses that have not successfully completed a mission qualification flight evaluation, the preferred removal method is via a Training Review Board/Commander's Review Process (For Enlisted Aviators Only). Insert a memo for record into the student's grade folder documenting the squadron commander's review and subsequent action. To determine if an FEB is required, refer to AFMAN 11-402, *Aviation and Parachutist Service*.

2.20.5 Additional Flying Sorties. Additional X sorties/events beyond the limits in table 2.3 require a waiver from the syllabus waiver authority.

2.20.6 Re-check Event (R-event). An R-sortie is generated because of Stan/Eval flight check deficiencies and is not considered a syllabus event. Label the subsequent flight check as EVAL-R.

2.20.7 Corrective Action Event (C-event). A C-sortie is an instructional event to correct deficiencies noted in a failed flight evaluation. It is not a syllabus sortie. Label the corrective action event as EVAL-C.

Note: Sorties designated a "C", combat training sorties, should not be confused with Stan/Eval flight check corrective action "C" suffix designator sorties.

2.20.8 Non-Training Flight (NTF). An NTF is a non-syllabus sortie used to fly a student where no syllabus training activity is planned or accomplished. NTFs cannot be changed to syllabus sorties in flight. Syllabus sorties cannot be changed to an NTF during or after a flight. NTFs will be logged on the ACC Form 166.

Section 2D—Course Flow

2.21 Flight Scheduling. A minimum of two flights should be scheduled every five training days during the flight phase of this syllabus. In order to complete the flight phase in 13 flights (excluding the evaluation), schedulers should target for a student complete 5 dynamic events per flight for an ADST. Ground Sorties, when authorized IAW this syllabus, should be used to augment training to ensure students' progress when live events are not accomplished or insufficiently available. For example:

Day one: Plan an E-3 Sortie

Day two: Fly an E-3 Sortie / some standard events covered but not all, and 4 Dynamic events covered.

Day three: Debrief previous events / remaining standard events covered, and 2 Dynamic events covered on a ground sortie

Day four: Plan an E-3 Sortie

Day five: Fly an E-3 Sortie

2.21.1 Effective student critique and debrief is best accomplished the duty day following a flight when sorties land after 1600L unless the entire Flying Training Unit is conducting nighttime operations.

2.22 Lesson Designators.

First Character:	D – Airborne Data System Technician
Second Character:	I – Initial Qualification Training
Third Character:	A – Performance Lesson Plan
	E – Academic Evaluation
	P – Academic Lesson Plan
	Q – Performance Evaluation
	S – Trainee Guide
	X – Test Package
	Z – Visual Aids

Last four characters identify the subject area.

2.23 Combined Course Map/Management Flow Chart. The management flow chart assists course schedulers in scheduling activities and resources throughout the course by depicting the optimum path through the course map and the maximum time allocated for each training event.

Table 2.5. Combined Course Map/Management Flow Chart

Day	Lesson ID (Event)	Title	Instructor: Student Ratio
		Prerequisite	Method of Instruction
		Location	Time/Support
	Description		
1	DIP:OR01	01-1 Orientation and Overview	
			Lecture
		Classroom	2.0 h
	Students are welcomed to the course and are acquainted with the instructors. The students learn about the course and how objectives play a role in what is taught in each lesson. Chain of command and student/instructor responsibilities are explained. The measurement programs and grade books, critique program, graduation requirements, and classroom safety/security is taught. Students are provided a copy of the class schedule.		
	DIP:CREW	1-2 Crew Composition	
		DIP:OR01	Lecture
		Classroom	1.0 h
	The students are provided a description of and introduced to the responsibilities and duties of each E-3G crew position, their normal seating assignments and minimum manning required to power up the mission systems.		
1-2	DIP: PUBS	1-3 Posting and Use of Publications	
		DIP:CREW	Lecture
		Classroom	5.0 h
	Students are introduced to publication requirements, terms and definitions, publication layout, an overview of standard and specialized publications related to the crew position. Students are also taught how to update, and use issued publications and how to submit corrections to these publications.		
2	DIP:FLSY	1-4 Simulator/Flightline Safety and Security	
		DIP: PUBS	Lecture/Tour
		Classroom	4.0 h
	Students are taught safety and security procedures that must be adhered to when working in the simulator or in transit to and from aircraft on the flight-line. Students are briefed on flightline safety procedures, flightline hazards, and personal and foreign object damage (FOD) hazards to aircraft. There is a tour of the mission simulator and the flight-line at the end of the lesson.		

3	DIE:BK01	1-0 Block I Test	
		DIP:FLSY	Test
		Classroom	4.0 h
	Open book test administered to cover Block I academic objectives. The test is reviewed and critiqued.		
3	DIP:IITS	2-1 Introduction to Information Technology Systems	
		DIE:BK01	Lecture
		Classroom	3.0 h
	Students will learn about network switches, blade/rack servers, and storage technologies. Students are taught the foundations needed to understand the concepts and technology necessary to become an intelligent user of information systems. This knowledge will help aid the technician in future lessons to help find problems and troubleshoot equipment.		
4-5	DIP:E74	2-2 E-74 Mission Computer Rack	
		DIP:IITS	Lecture/Tour
		Classroom	10.0 h
	Students are trained in the functionality of the E-74 rack that includes the different mission systems that interface with the E-74 rack. Included in this lesson are the controls, indicators, internal and external data flow, rack power flow, and cooling requirements. A short tour is provided in a static E-3G to reinforce the location of all equipment, controls and indicators.		
5-6	DIP:E77	2-3 E-77 Mission Computer Rack	
		DIP:E74	Lecture/Tour
		Classroom	10.0 h
	Students learn about the functionality of the E-77 rack that includes the different mission systems that interface with the E-77 rack. Included in this lesson are the controls, indicators, internal and external data flow, rack power flow, and cooling requirements. A short tour is provided in a static E-3G to reinforce the location of equipment and indicators.		
6-7	DIP:DDG	2-4 Data Display Group (DDG)	
		DIP:E77	Lecture/Tour
		Classroom	4.0 h
	Students are introduced to the DDG and an explanation is provided on the functionality of the system and its components. Data flow, power, cooling, and limitations are discussed. A tour is provided in a static E-3G to reinforce the location of equipment, controls and indicators.		

7	DIA:MCSF	2-ATD Mission Computing System (MCS) Fam	1:4 Ratio
		DIP:DDG	
		Static E-3G	3.5 h
	The students are shown and receive hands-on training with the E-74 rack, E-77 rack, operator workstations (OWS), and the workstations in the communications console. This includes the controls, indicators, internal and external data flow, power, and cooling units for these pieces of equipment.		
7-8	DIP:MCSP	2-5 Electrical Power Systems for MCS	
		DIA:MCSF	Lecture
		Classroom	3.5 h
	Students are introduced to aircraft power theory and learn about the source of Alternating Current (AC) and Direct Current (DC) power and how it is distributed from the aircraft to the mission equipment. Specific power busses required to operate the MCS are identified.		
8	DIP:MCSC	2-6 Electrical Cooling Systems	
		DIP:MCSP	Lecture/Tour
		Classroom	3.0 h
	Students are introduced to the aircraft's cooling systems and learn about the operation of each cooling system. Also presented are the panels and indicators that monitor the cooling system operation. Mission equipment is related to its appropriate cooling system. A tour is provided to a static E-3G to reinforce the location of electrical power and electronic cooling systems equipment, controls, and indicators.		
8-9	DIA:EPCS	2-ATD Electrical Power and Cooling Systems	1:4 Ratio
		DIP:MCSC	
		Static E-3G	3.0 h
	The students will be shown electrical power and cooling systems for the MCS. Power systems will include 400 Hz AC, 28V DC and 60 Hz AC power and how it is distributed from the aircraft to the MCS equipment. Students will also be shown the panels and indicators that monitor the cooling system operation.		
10	DIE:BK02	2-0 Block II Test	
		DIA:EPCS	Test
		Classroom	4.0 h
	Open book test administered to cover Block II academic objectives. The test is reviewed and critiqued.		

10-11	DIP:MCSS	3-1 MCS Software	
		DIE:BK02	Lecture
		Classroom	9.0 h
	Students are introduced to descriptions of each software module. Nomenclature, purpose and location of where the software is stored are covered. Additionally, software programs used for the operation of the Mission Computing System (MCS) are covered. Students are introduced to System Health Maintenance Monitor (SHMM). Then, students are introduced to System Management (SM) viewer, Network Attached Storage (NAS) Detox, Onload/Offload Media (OOM) scripts, and the Blade Server Onboard Administrator Interface. Finally, the students are introduced to Primary AWACS Display (PAD) software.		
11-12	DIP:MCSI	3-2 MCS Integration	
		DIE:BK02	Lecture
		Classroom	8.0 h
	Students are shown all ADST related mission equipment on the E-3G that was covered in previous classes, and how they interact with the MCS. Specifically, students learn how the servers, switches, storage, and data display group of the MCS are connected via Ethernet, Fiber, or 1553B bus. Students are also taught how the avionics systems interface with the MCS. Prerequisite is DIA:MSS3.		
13	DIE:BK03	3-0 Block III Test	
		DIP:MCSI	Test
		Classroom	4.0 h
	Open book test administered to cover Block III academic objectives. The test is reviewed and critiqued.		
13-14	DIP:MCST	4-1 MCS Testing/Malfunction Analysis	
		DIE:BK03	Lecture
		Classroom	5.0 h
	Students learn about electrostatic discharge, prevention, and how to perform procedures. Furthermore, nuclear hardness criticality and how to maintain it are covered. Students also learn how to monitor E-3G systems and troubleshoot malfunctions using SmViewer, SHMM, and other software programs. The Onboard Test, Monitor and Maintenance (OBTM&M) equipment and Identification Friendly Foe (IFF) Performance Monitoring are taught.		

14-16	DIP:MCSA	4-2 MCS Alternate Procedures	
		DIP:MCST	Lecture
		Classroom	8.0 h
	Students are introduced to the alternate procedures used to fix common mission systems malfunctions including, but not limited to, MCS startup problems, disk array boot failure, OMM not mounted at startup, SBC temperature monitor boot problems, workstation performance problems, PAD freeze, disk array alternate shutdown, manual transfer of recorded data to OOM and technician relevant anomalies. Also introduced are printer servicing, MCS data destruct, and MCS key Fob destruction procedures. Students also learn all TANS fault isolation/reconfiguration procedures and server cable reconnection/workstation cable verification procedures. Students learn RIC reconfiguration and 60 Hz power reconfiguration procedures. Specifically students learn how to interpret when a procedure should be used and the purpose of performing each step in the appropriate procedure.		
17	DIE:BK04	4-0 Block IV Test	
		DIP:MCSA	Test
		Classroom	4.0 h
	Open book test administered to cover Block IV academic objectives. The test is reviewed and critiqued.		
17-18	DIP:L16T	5-1 Link 16 Theory	
		DIE:BK04	Lecture
		Classroom	4.0 h
	The student learns about LINK 16 theory of operation that includes communication fundamentals. Time Division Multiple Access (TDMA) architecture, including LINK 16 time slot organization/assignments, and time hierarchy charts are presented. This lesson includes some technical aspects and theory of the LINK 16.		
18	DIP:MJHW	5-2 MIDS-JTRS Hardware	
		DIP:L16T	Lecture
		Classroom	4.0 h
	The student learns about the location, function, signal/power flow and cooling of the MIDS-JTRS LRUs.		
18-19	DIP:MJCR	5-3 MIDS-JTRS Crypto	Lecture
		DIP:MJHW	
		Classroom	8.0 h
	. The student learns about MIDS-JTRS crypto key loading and zeroize procedures.		

19-20	DIP:MJSW	5-4 MIDS-JTRS Software	
		DIA:MJCR	Lecture
		Classroom	6.5 h
	The student learns about Link 16 indications/messages displayed in System Health Maintenance Monitor (SHMM), Data Extraction and Reduction Guide (DERG), and Primary AWACS Display (PAD).		
21	DIE:BK05	5-0 Block V Test	
		DIA:JTPL	
		Classroom	4.0 h
	Open book test administered to cover Block V academic objectives. The test is reviewed and critiqued.		
21-22	DIP:ESMS	6-1 Electronic Support Measures Systems (ESMS)	
		DIE:BK05	Lecture
		Classroom	7.0 h
	Students are instructed in the function and characteristics of the ESMS. The lesson includes a detailed equipment location along with the function of each component. Signal flow is discussed at the component level along with the power source of the component. The students learn how the system integrates with the MCS, that includes the functions and software capabilities of the dedicated Single Board Computers in the IO Assembly. Data flow, power distribution, equipment cooling requirements, and limitations are also discussed. Students learn the system diagnostic software for malfunction analysis, the associated MCS software support given through SHMM, and PAD for operational troubleshooting the system. Also, the students learn the following alternate procedures: ESMS will not power up or ESMS shuts down unexpectedly, ESMS power recycle, and ESMS will not boot procedures.		
22	DIA:ESMS	6-ATD ESMS PAD Integration	1:2 Ratio
		DIP:ESMS	
		PAD Lab	2.0 h
	The students are shown and receive hands-on training on how ESMS is monitored/controlled through PAD. This includes the controls and indicators associated with ESMS and how they are used for troubleshooting.		
22-23	DIP:SIC	6-2 Secure Iridium Communication (SIC)	
		DIA:ESMS	Lecture
		Classroom	4.0 h
	Students are instructed on the Iridium satellite network and its basic operational characteristics. The purpose and functionality of the SIC components are taught and includes power and data flow of the system. Instruction is also provided on how to troubleshoot SIC using the procedures contained in TO 1E-3G-43-1-1, Section IV.		

23	DIP:IPEC	6-3 Internet Protocol Enabled Communication (IPEC)	
		DIP:SIC	Lecture
		Classroom	4.0 h
	Students are instructed on the IPEC system and its basic operational characteristics. The purpose and functionality of the IPEC components are taught which includes power and data flow of the system. Instruction is also provided on how to troubleshoot IPEC system using the procedures contained in TO 1E-3G-43-1-1, Section IV.		
24	DIA: IPSE	6-ATD IPEC, SIC, and ESMS Familiarization	1:4 Ratio
		DIP:IPEC	
		Static E-3G	3.0 h
	The students are shown and receive hands-on training with the ESMS, IPEC, and SIC equipment. This includes the controls, indicators, power, and cooling units within the rack.		
25	DIE:BK06	6-0 Block VI Test	
		DIA: IPSE	Test
		Classroom	4.0 h
	Open book test administered to cover Block VI academic objectives. The test is reviewed and critiqued.		
25-26	DIP:EP01	7-1 Emergency Equipment and Procedures	
		DIP:BK06	Lecture
		Classroom	4.0 h
	Lesson covers use of checklists, crew coordination, primary and secondary emergency evacuation exits and routes, crash axes, emergency entrances, procedures for crash landing, ditching, ground evacuation, emergency equipment and procedures for fire, smoke, and fumes to include In-Flight Emergency (IFE) equipment and procedures. The lesson will also expand on the use of checklists, notes, cautions and warnings.		
26	DIP:CCLA	7-2 Cooling Loss Actions	
		DIP:EP01	Lecture
		Classroom	4.0 h
	The students are instructed in all ADST cooling loss actions procedures within TO 1E-3G-43-1-1, Section III.		
26-27	DIA:EP01	7-ATD Emergency Equipment and Procedures	1:2 Ratio
		DIP:CCLA	
		Static E-3G	3.5 h
	The instructor will show the locations of the emergency equipment, and explain the use and operation of the equipment. Also explained are emergency signals and alarms with a review of the ADST required emergency duties.		

28	DIE:BK07	7-0 Block VII Test	
		DIA:EP01	Test
		Classroom	4.0 h
	Open book test administered to cover Block VII academic objectives. The test is reviewed and critiqued.		
28-29	DIP:MSNP	8-1 Mission Planning Forms, Logs and Procedures	
		DIP:BK07	Lecture
		Classroom	6.0 h
	The students will learn the E-3G mission planning forms and mission forms that includes the correct use of the forms. Standard mission planning events will also be covered. Students are instructed on how to procure, complete, and distribute required mission logs. Current equipment sign out procedures are taught. Included in the lesson is how to interpret the E-3G Air Force Technical Order (AFTO) Form 781. The student is taught how to properly complete an AFTO Form 781 write-up, and when corrective actions are performed, how to close the write-up.		
29	DIP:ADS	8-2 Audio Distribution System	
		DIP:MSNP	Lecture
		Classroom	2.0 h
	Students are instructed in the function and operation of the Mission Audio Distribution System (ADS) panel, Special ADS panel, and mission maintenance boxes. Emphasis is given on control knob operation, indicator lights, and characteristics associated with the secure/clear interlock protection.		
29	DIP:PFLT	8-3 Preflight Academics	
		DIP:ADS	Lecture
		Classroom	2.0 h
	The students learn to perform preflight procedures IAW TO 1E-3G-43-1-1, Section II.		
30	DIA:PFT1	8-ATD Preflight Procedures 1	1:2 Ratio
		DIP:PFLT	
		Static E-3G	3.5 h
	The instructor will demonstrate the ADST preflight procedures to the students. This session will show the students the proper method of preparing ADST equipment for flight. All warnings, cautions and notes are emphasized.		
31	DIA:PFT2	8-ATD Preflight Procedures 2	1:2 Ratio
		DIA:PFT1	
		Static E-3G	2.0 h
	Each student will practice the ADST preflight procedures.		

32	DIE:BK08	8-0 Block VIII Test	
		DIA:PFT2	Test
		Classroom	4.0 h
	Open book test administered to cover Block VIII academic objectives. The test is reviewed and critiqued.		
32	DIP:CR01	8-4 Course Critique 1	
		DIE:BK08	Critique
		Classroom	1.0 h
	The students complete a formal critique of academic training and are briefed on and transferred to the 966 AACS for flying training.		
33	DIP:FAM	9-1 Squadron Introduction	
		DIP:CR01	Lecture
		966th AACS	3.0 h
	The students are welcomed and introduced to the 966 AACS. A tour of the squadron is given and the flight training program is explained.		
33	GA06	Crew Resource Management (CRM)	
			Lecture
		Classroom	4.0 h
	Aircrew members will accomplish CRM training IAW AFI 11-290, ACC Sup and MAJCOM supplement. Training will be conducted by MAJCOM approved civilian contractors if available. Otherwise conduct training using instructor qualified aircrew covering items listed in AFI 11-290.		
34	Vol1	Vol 1 Ancillary Training	
			Lecture
		Classroom	7.0 h
	Required AFMAN 11-2E-3 Volume 1 Ancillary Training must be completed before flying training.		
35-36	DIA:MSS1	9-ATD MCS Software 1	1:2 Ratio
		DIP:MCSS	
		Ground Sortie	4.5 h
	The instructor will demonstrate and then let the student practice using SHMM and SmViewer. The students practice using the equipment links menu, SHMM status panes, server state commands, and command status subpanels. The system/subsystem status tabs with all panes are opened and described. SM viewer file menu, view menu, action menus, tools menus and help menu are practiced and described. Also shown and explained is the SM viewer status bar. Also the students identify software nodes and their location. The students are shown NAS detox, Onboard/Offboard Media scripts and PuTTY.		

35-36	DIA:MCST1	9-ATD MCS Testing/Malfunction Analysis 1	1:2 Ratio
		DIP:MCST	
		Ground Sortie	4.5 h
	The students will be shown how to test systems on the aircraft in order to troubleshoot malfunctions. Specifically SmViewer, SHMM, IFF performance monitoring, and other software programs used for mission systems malfunctions.		
35-36	DIA:MCSA1	9-ATD MCS Alternate Procedures 1	1:2 Ratio
		DIP:MCSA	
		Ground Sortie	4.5 h
	The students will use available reference to perform various alternate procedures used to fix mission systems IAW TO 1E-3G-43-1-1.		
37-28	DIA:MSS2	9-ATD MCS Software 2	1:1Ratio
		DIA:MSS1	
		Ground Sortie	4.5 h
	The instructor will demonstrate and then let the student practice opening and using Primary AWACS Display (PAD). Students learn how to log into PAD and use the splash screen and main window. The students practice using the menu bar, learning the view, applications, data link, sensors, and passive detection system functions.		
37-38	DIA:MCST2	9-ATD MCS Testing/Malfunction Analysis 2	1:1 Ratio
		DIA:MCST1	
		Ground Sortie	4.5 h
	The students will be shown how to test systems on the aircraft in order to troubleshoot malfunctions. Specifically SM viewer, SHMM, IFF performance monitoring, and other software programs used for mission systems malfunctions.		
37-38	DIA:MCSA2	9-ATD MCS Alternate Procedures 2	1:1 Ratio
		DIA:MCSA1	
		Ground Sortie	4.5 h
	The students will use available reference to perform various alternate procedures used to fix mission systems IAW TO 1E-3G-43-1-1.		
39	DIA:MSS3	9-ATD MCS Software 3	1:1 Ratio
		DIA:MSS2	
		Ground Sortie	4.5 h
	The students practice all performance objectives previously performed in GDIA:MSS1 and GDIA:MSS2.		

40	DIA:MCSI	9-ATD MCS Integration	1:1 Ratio
		DIP:MCSI	
		Ground Sortie	4.5 h
	The students will expand on knowledge of equipment and protocols as it relates to the aircraft.		
41-43	M101	9-2 M101	
		DIA:MCSI, DIA MSS3, DIA MCST2	FLY
		E-3G	28.0 h
	This syllabus event is a ground sortie, which may be accomplished in flight, based on aircraft availability and student needs IAW paragraph 2.10.1.1. The student is introduced to tasks identified by a “D” in the Standard Mission Tasks matrix. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
44-46	M102	9-3 M102	
		M101	FLY
		E-3G	28.0 h
	This syllabus event is a ground sortie, which may be accomplished in flight, based on aircraft availability and student needs IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student can be evaluated on the tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix.		
47-49	M103	9-4 M103	
		M102	FLY
		E-3G	28.0 h
	This syllabus event is a ground sortie, which may be accomplished in flight, based on aircraft availability and student needs IAW paragraph 2.10.1.1. The student is introduced to tasks identified by a “D” in the Standard Mission Tasks matrix. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student can be evaluated on the tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix.		

50-52	M104	9-5 M104	
		M103	FLY
		E-3G	28.0 h
	This syllabus event is a ground sortie, which may be accomplished in flight, based on aircraft availability and student needs IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
53-55	M105	9-6 M105	
		M104	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The student is introduced to tasks identified by a “D” in the Standard Mission Tasks matrix. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
56-58	M106	9-7 M106	
		M105	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1.. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance.		

59-61	M107	9-8 M107	
		M106	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The student is introduced to tasks identified by a “D” in the Standard Mission Tasks matrix. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
62-64	M108	9-9 M108	
		M107	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
65-67	M109	9-10 M109	
		M108	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		

68-70	M110	9-11 M110	
		M109	FLY
		E-3G	28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
71-73	M111	9-12 M111	
		M110	FLY
			28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		
74-76	M112	9-13 M112	
		M111	FLY
			28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. The instructor may introduce tasks from the Dynamic Mission Tasks matrix that can be supported by the scheduled mission. The student is allowed to practice those tasks identified by a “P” in the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified or tasks from the Dynamic Mission Tasks matrix that have been practiced or proficiency-advanced tasks from either matrix. All previously certified tasks will be observed for indications of regression in performance. The student is evaluated on those tasks from the Standard Mission Tasks matrix identified by the number “2.”		

77-79	M113	9-14 M113	
		M112	FLY
			28.0 h
	This syllabus mission is a flying sortie, a ground sortie Shall Not be substituted for this event IAW paragraph 2.10.1.1. No new tasks from the Standard or Dynamic Mission Tasks matrices will be introduced on this flight. The student is allowed to practice those tasks previously introduced from the Standard Mission Tasks matrix or those tasks previously introduced from the Dynamic Mission Tasks matrix. The student is evaluated on those tasks from the Standard Mission Tasks matrix or tasks from the Dynamic Mission Tasks matrix that have been practiced from either matrix. All previously certified tasks will be observed for indications of regression in performance. All uncompleted tasks from the Standard or Dynamic Mission Tasks matrices are to be completed on this flight. A review of all previously certified tasks is conducted on this flight in preparation for the student's flight evaluation.		
80	OGV Test	9-16 Standardization/Evaluation Written Tests	
		DIP:FAM	Test
		Test Stan/Eval Testing Room	8.0 h
	Open and closed book test are administered by 552 OG/OGV. The OGV test is a prerequisite for the Flight Evaluation.		
81-83	EVAL	9-16 Evaluation	
		OGV Test	
			28.0 h
	A standardization evaluation flight examiner evaluates performance of all tasks as specified IAW AFMAN 11-2E-3, Volume 2.		
84	DIP:CR02	9-17 End of Course Critique 2	
			Critique
		Classroom	1.0 h
	The student completes a formal critique of training. Prerequisite is the Flight Evaluation.		

Chapter 3

ACADEMIC TRAINING

Section 3A—Special Instructions

3.1 Content. This chapter outlines the subjects covered in each academic block and unit of instruction. Specific criterion-referenced objectives are provided in course training documents and are provided to the student in a trainee guide.

3.2 Facility Requirements. A classroom environment capable of supporting at least four students is required. This facility houses related equipment and provides facilities for private student study and counseling sessions.

3.3 Instructional Method/Media. The primary method is lecture and classroom discussion, supported by printed self-study material. These materials include student texts, ACC and 552 ACW instructions, manuals, handbooks, Air Force technical orders, etc. For developing supporting knowledge for skills and tasks, demonstration-performance is the preferred method used.

3.4 Academic Evaluations. Academic evaluations are administered at the end of each block of instruction. All academic evaluations are written examinations using test methods including matching, multiple choice, and completion. Each examination will be reviewed and critiqued following the test period. In case of failure, students will be given remedial training and corrective counseling and then be re-tested IAW chapter 2.

Section 3B—Academic Lesson Descriptions

3.5 Academic Training. Academic training is listed by lesson number, subject, alphanumeric identifier, instructional method, facility requirements and nominal time for completion and concise narrative of content. The instructor-to-student ratio for academics is 1:4. Lesson numbers consist of the block number followed by the sequential lesson or training event within a block.

Chapter 4

DEVICE TRAINING

Section 4A—Special Instructions

4.1 Content. This chapter outlines the performance training conducted in aircrew training devices in each block and unit of instruction. Specific criterion-referenced objectives are provided in course training documents and are provided to the student in a trainee guide. The objectives are based on skills and proficiency requirements from the E-3G ADST TTL.

4.2 Device Requirements. ATD sessions occur on a static E-3G aircraft, and the Primary AWACS Display (PAD) Trainer. Those ATD sessions conducted on a static E-3G require power be available for lighting.

4.3 Instructional Method/Media. Demonstration-performance is the preferred method for all ATD instruction. Printed materials such as trainee guides and simulator job sheets are provided to clarify procedures, compare techniques, and guide relevant practice to develop skills. Prebrief (mission planning) time is included in the prerequisite academic training for each simulator session. A nominal debriefing time of 30 minutes for each simulator evaluation is planned and is also included in the academic time devoted to each session. Mission planning will be conducted for each simulator session and all student performance will be critiqued, using the ACC Form 206 to grade the session.

4.4 Performance Evaluation. Evaluate performance objectives using the grading criteria in chapter 2. Students must demonstrate required proficiency in scheduled ATD tasks before progressing to flight training. All performance objectives will be evaluated as a normal part of the demonstration-performance method to measure student progress and ensure the effectiveness of the training. Complete preprinted ACC Form 206s for each ATD session. Block evaluations will measure overall performance.

4.5 ATD Tasks. The student is required to demonstrate progress in accordance with the following tasks. Failure to attain the overall grade required by the end of each block indicated may result in an NE/SNP and initiation of supervisory actions directed in chapter 2.

Table 4.1. ATD Task Standards.

Block	Task	Device	Standard
II	SYSTEMS, POWER, AND COOLING FOR MCS		
	Monitor/Maintain MCS Operations	Static	1
	Identify Data Display Group equipment, functional relationships, associated indicators/controls and data flow.	Static	1
	Perform identifying DDG equipment and associated indicators/controls	Static	1
	Identify Networking Group equipment and their functions	Static	1
	Perform identifying Networking Group equipment and associated indicators/controls	Static	1
	Identify Data Processing Group equipment and their functions	Static	1
	Perform identifying DPG equipment and associated indicators/controls	Static	1
	Identify Time and Azimuth Processing Group equipment and their functions	Static	1

Block	Task	Device	Standard
	Perform identifying Time/Azimuth Processing Group and associated indicators/controls	Static	1
	Identify Data Storage Group equipment and their functions	Static	
	Perform identifying Data Storage Group equipment and associated indicators/controls	Static	1
	Identify location of the circuit breakers and how power is supplied to the MCS	Static	1
	Locate Cooling Indicators for the Electronic Cooling Systems	Static	1
III	SYSTEMS SOFTWARE, APPLICATIONS, AND INTEGRATION		
	Utilize/Interpret PAD application	Pad Lab	1
	Perform messaging actions	Pad Lab	1
	Interpret/analyze PAD E-3G status window	Pad Lab	1
	Interpret/analyze alarm/alerts	Pad Lab	1
	Interpret sign-in status of other OWS	Pad Lab	1
	Interpret controls/indicators of the Menu Bar	Pad Lab	1
	Interpret/analyze system counts display	Pad Lab	1
	Load user profile	Pad Lab	1
VI	AUXILIARY SYSTEMS		
	Utilize/interpret primary AWACS display (PAD) application	Pad Lab	1
	Perform interpreting and analyzing PAD E-3G status window	Pad Lab	1
	Describe location of the ESMS circuit breakers	Static	1
	Describe how power is supplied to the ESMS	Static	1
	Monitor/maintain ESM operations	Static	1
	Show the location of ESMS components	Static	1
	Identify ICS equipment mission operational concepts	Static	1
	Show the location of the ICS circuit breakers	Static	1
	Show connections and indicators of the E3ACD	Static	1
	Show opening and stowing of the E3ACD	Static	1
	Show the locations of the IPEC components.	Static	1
	Show the location of the IPEC circuit breakers	Static	1
	Show connections and indicators of the E3ACD	Static	1
VIII	MISSION DUTIES		
	Perform interior inspection procedures	Static	1
	Review AFTO Form 781 and describe effect to equipment and mission operations IAW TO 00-20-1	Static	1
	Verify/document current software and aircraft configuration	Static	1
	Report discrepancies to the appropriate personnel and document discrepancies in the AFTO Form 781 IAW T.O. 00-20-1 prior to Before Start procedure	Static	1
	Operate ADS IAW TO 1E-3G-43-1-	Static	1
IX	FULL-MISSION TRAINING		
	Perform MCS and ESMS power preparation procedure	Ground Sortie	1
	Map OWS computers to disk array	Ground Sortie	1
	Select/delete mission maps	Ground Sortie	1
	On load mission set data from OOM	Ground Sortie	1
	Monitor SHMM for boot status of TANS	Ground Sortie	1
	Perform disk array file cleanup procedure	Ground Sortie	1

Block	Task	Device	Standard
	Perform verifying TANS operation	Ground Sortie	1
	Perform MCS application initialization	Ground Sortie	1
	Perform verifying mission recording status	Ground Sortie	1
	Perform MCS Software Load procedures	Ground Sortie	1
	Perform messaging actions	Ground Sortie	1
	Interpret/analyze PAD E-3G status window	Ground Sortie	1
	Interpret/analyze alarm/alerts	Ground Sortie	1
	Interpret sign-in status of other OWS	Ground Sortie	1
	Interpret/analyze system counts display	Ground Sortie	1
	Load user profile	Ground Sortie	1
	Interpret controls/indicators of the Menu Bar	Ground Sortie	1
	Utilize/Interpret PAD application	Ground Sortie	1
	Perform/interpret the View Menu	Ground Sortie	1
	Perform/interpret the Tools Menu	Ground Sortie	1
	Perform/interpret the SmViewer tree	Ground Sortie	1
	Perform/Interpret system manager viewer (SmViewer)	Ground Sortie	1
	Configure MCS to Standby	Ground Sortie	1
	Locate and initiate script using SMViewer	Ground Sortie	1
	Verify output Subsystem Status Summary	Ground Sortie	1
	Perform executing subsystem status summary	Ground Sortie	1
	Locate and initiate export system log script using SmViewer	Ground Sortie	1
	Verify log script	Ground Sortie	1
	Perform configuring/saving system log	Ground Sortie	1
	Perform MCS shutdown preparation	Ground Sortie	1
	Locate/initiate NAS Trans program using SmViewer	Ground Sortie	1
	Perform verifying finalized tail directory created on Mission/Recording OOM	Ground Sortie	1
	Perform the Disk Array File Transfer to OOM	Ground Sortie	1
	Verify Disk Array Controller NVMEM status	Ground Sortie	1
	Perform MCS software shutdown	Ground Sortie	1
	Perform MCS software shutdown procedure	Ground Sortie	1
	Perform OOM Installation procedure	Ground Sortie	1
	Perform OOM Removal procedure	Ground Sortie	1
	Perform Map Data Transfer procedure	Ground Sortie	1
	Perform MCS general use procedures	Ground Sortie	1

****Note**** Ground Sorties listed in this table are a substitution for the Mission Computing Maintenance Trainer, and have been shifted to from block III to block IX due to ground sortie scheduling limitations.

Section 4B—Device Session Descriptions

4.6 ATD Sessions. ATD sessions are listed by lesson ID, title, prerequisites, location, instructor-to-student ratio, method of instruction, nominal time/support time, and mission description.

Chapter 5

FLYING TRAINING

Section 5A—Special Instructions

5.1 Content. This chapter outlines the training conducted on each flying mission and describes required student progress. Course training documents provides specific criterion-referenced objectives are provided in course training documents and are provided to the student in a trainee guide. These objectives are based on skills and proficiency requirements from the ADST TTL and Objective Hierarchy.

5.2 Aircraft Requirements. An E-3G aircraft with the crew configuration required by AFMAN 11-2E-3G, Volume 1 and AFMAN 11-2E-3G, Volume 3, *E-3G—Operations Procedures*, will be used for all training sorties.

5.3 Instructional Method/Media. Use the demonstration-performance method for all flight instruction. Flight training uses the matrices in tables 5.1 and 5.2. These matrices are event based. Task areas are listed on the left side and the event number across the top. Within this matrix a “D” indicates the instructor will demonstrate or lead the student through the procedure or task. A “P” indicates the student may perform the task for practice rather than certification. When unable to accomplish a task on a sortie, then the instructor must document the training on an ACC Form 208 IAW paragraph 2.18.1.3 and complete ATD top-off as prescribed in table 2.5. Table 5.1 contains standard mission tasks that should occur on every mission. Table 5.2 contains those dynamic tasks that may not occur on every mission. These matrices allow the instructor to tailor required training to the individual and the scheduled mission. Complete required demonstration/practice events prior to scheduling the student for evaluation and certification. This applied building block approach allows the demonstration-performance method of explanation, demonstration, supervised performance, and evaluation develops the student’s skills. Students may progress at a faster or slower rate as long as the minimum training requirements indicated in the matrices occur. All instruction occurs under the direct supervision of a qualified instructor ADST.

5.3.1. Progression. All blocks of training in the fly phase are executed concurrently. Lack of available resources or student performance in one block will not hinder progression in other blocks if all block requirements are met.

5.4 Certification. Certify student performance on mission tasks in accordance with the matrix, tables 5.1 and 5.2. The number on the matrix indicates the required proficiency levels for that task. Grade student performance on the preprinted ACC Form 206 for that mission. Document student failure or non-performance on the ACC Form 206, and take action IAW Chapter 2 of this syllabus.

5.4.1 The student’s instructor will determine achievement of course training standards in each major section and will enter the following statement in the remarks section of the final ACC Form 206 for that section: “Course Training Standards Achieved for Block(s) _____” entered on an ACC Form 89, *Flying Training Record*.

5.4.2 In addition to the tasks scheduled for evaluation on any sortie, all previously certified tasks will be observed for regression in performance. Note any substandard performance in the remarks section of the ACC Form 206 and action taken IAW Chapter 2 of this syllabus.

Table 5.1. Standard Mission Tasks.

Obj. Num.	Task	M 101	M 102	M 103	M 104	M 105	M 106	M 107	M 108	M 109	M 110	M 111	M 112	M 113
01. Mission Planning														
01.01	General mission planning:													
01.01.01	Post/maintain issued publications	P	P	P	P	1	2							
01.01.02	Review FCIF/ORF	D/P	P	P	P	1	2							
01.01.03	Verify training requirements									D/P	P	1	2	
01.01.04	Certify flight order request/flight orders/risk management									D/P	P	1	2	
01.01.05	Comply with required crew report/briefing activities									D/P	P	1	2	
01.02	Mission information:													
01.02.01	Obtain mission forms	D/P	P	P	1	2								
01.02.02	Review/develop mission information									D	P	1	2	
01.02.03	Coordinate Link 16 requirements									D	P	1	2	
01.02.04	Comply with OPSEC/COMSEC	D/P	P	P	P	P	1	2						
01.03	Coordinate/inventory mission kit(s):	D/P	P	P	1	2								
02. Flight Preparation														
02.01	Report with required professional equipment:													
02.02	Comply with flight-line security/safety directives	D/P	P	P	1	2								
02.03	Preflight procedures:													
02.03.01	Perform interior inspection	D/P	P	P	P	P	P	1	1	1	2			
02.03.02	Review AFTO Form 781	D/P	P	P	P	P	P	1	1	1	2			
02.03.03	Load crypto with SKL	D/P	P	P	P	P	1	2						
02.03.04	Report/document discrepancies	D/P	P	P	P	P	1	1	1	1	1	2		
02.04	Perform before start procedure	D/P	P	P	P	1	2							
03. Mission Preparation														
03.01	Perform ESMS and MCS power preparation procedure	D/P	P	P	P	1	1	1	1	1	1	2		
03.02	Perform MCS Software Load procedure	D	P	P	1	1	1	2						
03.03	Perform MIDS-JTRS Power Up procedure	D	P	P	1	1	1	2						
04. Mission Operation														
04.01	Maintain mission logs/forms	D/P	P	P	P	P	1	1	1	1	1	2		
04.02	Perform crew coordination									D/P	P	P	1	2
04.03	Perform mission support and assuming station responsibilities													
04.03.01	Monitor/maintain MCS operations	D/P	P	P	P	P	1	1	1	1	1	1	1	2
04.03.02	Monitor/maintain Link 16 Operations					D/P	P	P	P	P	1	1	1	2

Obj. Num.	Task	M 101	M 102	M 103	M 104	M 105	M 106	M 107	M 108	M 109	M 110	M 111	M 112	M 113
04.03.03	Monitor/maintain ESM operations							D	P	P	1	1	1	2
04.03.05	Verify mission recording	D	P	P	1	1	2							
04.05	Utilize MCS PAD application			D/P	P	P	1	1	1	1	1	1	2	
04.06	MCS system management viewer application:		D/P	P	P	1	2							
04.07	Perform/interpret system health and maintenance monitor client:		D/P	P	P	1	1	1	1	1	1	2		
05. Mission Termination														
05.01	MCS shutdown preparation procedure		D	P	P	P	P	1	2					
05.02	Perform disk array file transfer to OOM procedure		D	P	P	P	P	1	2					
05.03	Perform MIDS-JTRS Power Down		D	P	P	P	P	1	2					
05.04	Perform MCS software shutdown procedure	D/P	P	P	P	P	P	1	1	1	2			
05.05	Perform MCS power down procedure	D/P	P	P	P	P	P	1	1	1	2			
05.06	Perform Mission Systems power removal procedure	D/P	P	P	P	P	P	1	2					
05.07	Perform descent procedure	D/P	P	P	P	P	P	1	1	1	2			
05.08	Perform taxi back, boarding/deplaning procedures									D/P	P	1	2	
05.09	Perform before leaving airplane procedure					D/P	P	P	1	1	2			
07. Post Flight Requirements														
07.01	Debrief mission:													
07.01.01	Maintenance									D	P	P	1	2
07.01.02	Crew									D	P	P	1	2
07.02	Control classified material	D/P	P	P	P	1	1	1	2					
07.03	Complete mission documentation	D/P	P	P	P	P	1	1	1	1	1	1	2	

* **Note:** Sortie may be accomplished using ground sortie, given the sortie profile reflects standard syllabus mission sortie timings. Number of ground sorties used for syllabus mission sorties will not exceed five in total.

Table 5.2. Dynamic Mission Tasks.

Obj. Num.	Task	Opportunity			
		First	Second	Third	Fourth
04.	Mission Operation				
04.04	Perform air to air refueling procedures	D	P	2	
04.03.04	Monitor/maintain SIC operations	D	P	1	2
05.	Inbound Procedures				

Obj. Num.	Task	Opportunity			
		First	Second	Third	Fourth
05.01.01	Perform ESMS LRUD	D	P	1	2
06. Emergency Duties					
06.01	Perform, direct or lead E-3 emergency procedures:				
06.01.03	Perform fire, smoke, or fumes procedures	D	P	1	2
06.01.04	Perform smoke evacuation, inadequate ventilation	D	P	1	2
06.01.05	Perform sudden loss of cabin pressure	D	P	1	2
06.01.06	Nuclear event, system recovery	P	2		
06.01.07	Crash landing/ditching	D	P	2	
06.01.08	Workstation overheat indication	P	2		
06.01.09	Classified destruction	P	2		
06.02	Locate, explain, or perform proper use of emergency equipment	D	P	1	2
06.02.01	Charging portable oxygen bottle procedure	P	2		
06.02.02	Purging portable oxygen bottle procedure	P	1	2	
06.02.03	Perform firefighter's smoke mask preflight procedure	P	2		
06.03	Perform cooling loss action procedures:				
06.03.01	FWD FORCED Indicator	D	P	1	2
06.03.02	AFT FORCED Indicator	D	P	1	2
06.03.03	RACK E20	D	P	1	2
06.03.04	SHMM indicates ESM equipment overheat	D	P	1	2
06.03.05	Cooling air monitor panel E28 rack	D	P	1	2
08. General Use Procedures					
08.03	Perform GINS SKL key setup	D	P	1	2
08.04	Perform MODE 5 IFF key loading	D	P	1	2
08.05	OOM installation	D	P	1	2
08.06	OOM removal	D	P	1	2
08.07	Map data transfer	D	P	1	2
08.15	Perform MIDS-JTRS key loading & zeroize procedures.				
08.15.01	Preparing the MIDS-JTRS key payload	D	P	1	2
08.15.02	Loading MIDS-JTRS RT with a preconfigured SKL	D	P	1	2
08.15.03	Zeroizing using SKL	D	P	1	2
09. Malfunction Analysis, Inflight repair and Alternate Procedures					
09.01	Perform MCS inflight fault isolation procedures:				
09.01.01	IP address/hostname correlation	D	P	1	2
09.01.02	Troubleshooting recording applications	D	P	1	2
09.01.03	Time Server possible false failure indication	D	P	1	2
09.02	Perform MCS alternate procedures:				
09.02.01	Perform Disk Array Boot Failure procedure.	D	P	1	2

Obj. Num.	Task	Opportunity			
		First	Second	Third	Fourth
09.02.02	Perform OWS Display Blank After Power is Applied procedure.	D	P	2	
09.02.03	Perform PAD Freeze procedure.	D	1	2	
09.02.04	Blade server troubleshooting	D	1	2	
09.02.07	Manual transfer of recorded data to OOM	D	P	1	2
09.02.09	Service printer paper	P	2		
09.02.12	TANS fault isolation	D	P	1	2
09.02.13	Reboot primary TANS	D	P	1	2
09.02.14	Reboot secondary TANS	D	P	1	2
09.02.15	Change primary TANS manually	D	P	1	2
09.02.16	Reset TANS failover	D	P	1	2
09.02.17	Time servers not operational after 8-minute warm-up period procedure	D	P	1	2
09.02.18	E-3 (ownship) shows up at a random location in PAD procedure	D	P	1	2
09.02.19	SHMM TANS tab overall status is red or yellow procedure	D	P	1	2
09.03	Perform MCS inflight repair procedures				
09.03.01	Cable reconnection	D	P	1	2
09.03.02	Communications Console monitor opening/closing	D	P	1	2
09.03.03	Operator Workstation monitor opening/closing	D	P	1	2
09.03.04	Communications Console USB Access	D	P	1	2
09.03.05	Ethernet port reconfiguration	D	P	1	2
09.03.06	RIC reconfiguration	D	P	1	2
09.03.08	60 Hz power reconfiguration	D	P	1	2
09.04	Perform ESM malfunction analysis/inflight fault isolation/alternate procedures:				
09.04.01	In-flight fault isolation	D	P	1	2
09.04.02	Operational troubleshooting	D	P	1	2
09.04.03	System will not power up or shuts down unexpectedly	D	P	1	2
09.04.04	System power recycle	D	P	1	2
09.05	Perform ICS alternate procedures:				
09.05.01	Iridium connection fails instantly	D	P	1	2
09.05.02	One handset display fails (not instantly)	D	P	1	2
09.05.03	Unable to connect to chat server	D	P	1	2
09.05.04	Iridium constantly disconnects due to poor or weak signal	D	P	1	2
09.05.05	E3ACD master/slave reconfiguration	D	P	1	2
09.05.06	KM switch does not go from OWS position to chat position	D	P	1	2

Obj. Num.	Task	Opportunity			
		First	Second	Third	Fourth
09.05.07	KM switch does not go from chat position to OWS position	D	P	1	2
09.07	MIDS-JTRS inflight fault isolation procedures	D	P	1	2
09.07.01	Perform MIDS-JTRS terminal is unable to synchronize to an established Link 16 network; Terminal has no fault indications.	D	P	1	2
09.07.02	Perform MIDS-JTRS terminal is unable to initially synchronize a Link 16 network between two stations; Terminal has no fault indications	D	P	1	2
09.07.03	Perform MIDS-JTRS terminal is in course synchronization for extended period of time.	D	P	1	2
09.07.04	Perform MIDS-JTRS terminal is unable to exchange data in Link 16 network; All terminals are synchronized and have no fault indications.	D	P	1	2

Note: If dynamic mission tasks cannot be demonstrated or performed in flight, ground sorties may be used to complete the tasks, Ground sorties used solely to accomplish dynamic mission tasks will not count for syllabus mission sorties. See paragraph 2.10.2 for specifics.

Section 5B—Flying Mission Descriptions

5.5 General.

5.5.1 Scheduling of events must allow adequate time for crew rest and debriefing. Delays between events should be minimized while allowing the student time to absorb feedback. A typical E-3 training turn schedule for three training days is indicated in table 5.3.

Table 5.3. E-3 Mission Time Requirements.

Training Day	Event	Hours
1	Mission Planning	8.0
2	Prebrief/Preflight	2.0
	Sortie	8.0
	Maintenance/Operations Debriefs	2.0
3	Student Critique/Debrief	4.0
	Ground Sortie Top Off Opportunity	4.0
Total		28.0

5.6 Flight Training. Flight training is listed by lesson number, nominal time for completion, type of aircraft required and mission objective. Criterion-referenced objectives for each mission will be provided to the student in the trainee guide. Instructors and evaluators may instruct tasks to multiple aircrew during the same event, without regard to instructor-student ratio. However, the total student/instructor ratio for the mission crew will not exceed 1:1. When multiple instructors provide training to a student, the instructors may collaborate to document ground and flight events on a single ACC Form 206 per sortie. Document unaccomplished training in the unaccomplished task log and document the affected sortie as effective. A downgrade in an individual area does not necessitate a downgrade of the overall grade, but instructors should weigh these downgrades against syllabus intent before making a final decision. A Student Nonprogress (SNP) in a specific task group does not necessitate a SNP for all attempted task group events on the sortie. Any event that results in a student SNP should be a separate ACC Form 206 from any other passing graded events. The substandard performance in the respective task group (or groups) will be annotated IAW Chapter 2 of this syllabus, but the student may continue to progress normally for all other task groups.

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

ACCI 11-251, ACC Operations Training Development Program, 23 Nov 2021

ACCI 11-252, ACC Formal Operations Training Publication Management, 7 May 2020

ACCI 11-464, Training Records and Performance Evaluation in Formal Flying Training Programs, 28 Aug 2019

AFI 16-1007, Management of Air Force Operational Systems, 30 Sep 2019

DAFH 36-2675, Information for Designers of Instructional Systems, 15 Apr 2022

AFMAN 11-2E-3G, Volume 1, E-3G–Aircrew Training, 22 Jun 2022

AFTTP 3-3 AWACS, Combat Aircraft Fundamentals, 16 Aug 2022

Abbreviations and Acronyms

AC – Alternating Current

ADS – Audio Distribution System

AFTO – Air Force Technical Order

ATD – Aircrew Training Device

AWACS – Airborne Warning and Control System

COMSEC – Communications Security

CRM – Crew Resource Management

CT – Continuation Training

DC – Direct Current

DDG – Data Display Group

ESM – Electronic Support Measures

ESMS – Electronic Support Measures Systems

FCIF – Flight Crew Information File

FEB – Flying Evaluation Board

FTU – Formal Training Unit

h – Hours

IFF – Identification Friendly Foe

IO – Input Output

IPEC – Internet Protocol Enabled Communication

IQT – Initial Qualification Training

ITF – Interruption in Training Flight

ITS – Interruption in Training Sim

LRUD – Line Replaceable Unit Diagnostics

LRU – Line Replaceable Unit

MCMT – Mission Computing Maintenance Trainer

MCS – Mission Computing System

NAS – Network Attached Storage

NE/OTH – Non-effective/Other

NE/SNP – Non-effective/Student Non-progression

NTF – Non-Training Flight

OOM – Onload/Offload Media

ORF – Operations Read File

OWS – Operator Workstations

PA – Proficiency Advancement

PAD – Primary Airborne Warning and Control System Display

RIC – Radar Interface Card

RM – Risk Management

SIC – Secure Iridium Communications

SHMM – System Health Maintenance Monitor

SM – System Management

Stan/Eval – Standardization/Evaluation

TANS – Time Azimuth and Navigation System

TTL – Training Task List

Terms

C-sortie – Corrective action sortie.

Flying Training Days – Include all training days in which mission planning, actual flying, mission debriefing, and other activities directly related to actual flying training missions occurs.

Ground Training Days – Include all training days in which no actual flying or activities directly related to actual flying training missions occurs.

PA authority – A person with the authority to proficiency advance a student.

R-sortie – Re-check sortie.

Refly Rate – A reflly rate is calculated by the syllabus OPR using historical or estimated attrition due to weather, maintenance, non-effective/student non-progression (NE/SNP), non-effective/other (NE/OTH), etc.

Student Sortie Requirement (SSR) – $SSR = [(Student\ Sorties) *multiplied\ by\ (1 + Refly\ Rate)]$.

“X” sortie – Additional instructional sortie.

Attachment 3
E-3G AIRBORNE DATA SYSTEMS TECHNICIAN TRAINING TASK LIST

GENERAL INSTRUCTIONS

1.1 Purpose. This training task list (TTL) documents the duties that the E-3G Airborne Data Systems Technician (ADST) is required to perform and prescribes the training requirements for skill set development to support E-3G formal operations training.

1.2 Scope. Scope. The training proficiencies identified in this TTL will be reflected as course training standards in the course control documents for the Initial Qualification Training (IQT) and Continuation Training (CT) programs. Units may supplement this TTL with additional unit-level requirements. Forward unit-supplemented task lists to ACC TRSS Det 6 Education and Training.

1.3 Use. Management at all levels should use this listing as one of the source references when developing training and evaluation programs and documents. Units developing training for the tasks identified in this document will develop detailed objectives IAW DAFH 36-2235, *Information for Designers of Instructional Systems*, for each task trained. All objectives for a given duty area must, as a minimum, support the tasks listed in this document. Detail all objectives developed to accomplish this TTL in the appropriate course control documents

1.4 Training Task List Matrix. The TTL matrix consists of a series of columns.

1.4.1 The first column contains the Task Number to establish a hierarchical order of training elements.

1.4.2 The second column lists the duties, tasks, subtasks, and activities organized in a logical, hierarchical order. Tasks are derived from various E-3G Task Analysis Task Description Worksheets, AFTTP 3-3 AWACS, *Combat Aircraft Fundamentals* and AFMAN 11-2E-3G, Volume 1.

1.4.3 The next three columns identify the various training phases.

1.4.3.1 ENTRY. This column reflects the assumed or documented proficiency levels for students entering IQT. The skills are based on published course prerequisites and may have been acquired from formal training or job experience.

1.4.3.2 IQT. This column lists the training proficiencies prescribed by the IQT syllabus.

1.4.3.3 CT. This column lists the training proficiencies for advanced formal training programs leading to qualification or certifications as prescribed in AFMAN 11-2E-3G, Volume 1, *E-3G – Aircrew Training*.

1.5 Knowledge/Performance Standards

Use the standards in Table 1.1 to document the training proficiency required for the task elements in the various formal training phases, and not for evaluating individual crew members. Use grading standards in ACCI 11-464, *Training Records and Performance Evaluation in Formal Flying Training Programs*, for grading crew member performance according to the proficiency standards identified in the respective syllabus or training program. After completing training, the crew member maintains task proficiency through continued job experience.

Table 1.1 – Knowledge/Performance Standards

	Scale Value	Definition: The individual:
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. May not meet load demands for speed or accuracy. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. Meets minimum load demands for speed and accuracy. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
Task Knowledge Levels*	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step-by-step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, identify, and resolve problems about the task. (ADVANCED THEORY)
Subject Knowledge Levels**	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATIONS)
-Explanations-		
* A task knowledge scale value may be used alone or with a task performance scale to define a level of knowledge for a specific task. (Example: b and 1b)		
** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.		
- A dash indicates training is not required during that phase or, in the case of the Entry column, there is no proficiency assumed upon entry.		

E-3G Airborne Data Systems Technician Training Task List

Task Number	XX Duty XX.XX Task XX.XX.XX Subtask XX.XX.XX.XX Activity	Entry	IQT	CT
01	Mission Planning			
01.01	General mission planning	-	-	-
01.01.01	Post/maintain issued publications	-	3b	3c
01.01.02	Review FCIF/ORF	-	3b	3c
01.01.03	Verify training requirements	-	3b	3c
01.01.04	Certify flight order request/flight orders/risk management	-	3b	3c
01.01.05	Comply with required crew report/briefing procedures	-	3b	3c
01.02	Mission information	-	-	-
01.02.01	Obtain mission forms	-	3b	3c
01.02.02	Review/develop mission information	-	3b	3c
01.02.03	Coordinate Link 16 requirements	-	3b	3c
01.02.04	Comply with OPSEC/COMSEC	2b	3b	3c
01.03	Coordinate/inventory mission kit(s)	2b	3b	3c
02	Flight Preparation			
02.01	Report with required professional equipment	-	3b	3c
02.02	Comply with flight-line security/safety directives	-	3b	3c
02.03	Preflight procedures:	-	-	-
02.03.01	Perform interior inspections	-	3b	3c
02.03.02	Review AFTO Forms 781	-	3b	3c
02.03.03	Report/document discrepancies	-	3b	3c
02.03.04	Perform cocking procedures	-	-	3c
02.04	Perform before start procedure	-	3b	3c
03	Mission Preparation			
03.01	Perform MCS and ESMS power preparation procedure	-	3b	3c
03.02	Perform MCS software load procedure	-	3b	3c
03.03	Perform MIDS-JTRS Power Up procedure	-	3b	3c
04	Mission Operation			
04.01	Maintain mission logs/forms	-	3b	3c
04.02	Perform crew coordination	-	3b	3c
04.03	Perform mission support and assuming station responsibilities	-	-	-
04.03.01	Monitor/maintain MCS operations	-	3b	3c
04.03.02	Monitor/maintain Link 16 Operations	-	3b	3c
04.03.03	Monitor/maintain ESM operations	-	3b	3c
04.03.04	Monitor/maintain SIC operations	-	3b	3c
04.03.05	Monitor/maintain IPEC operations	-	b	c
04.03.06	Verify mission recording	-	3b	3c
04.04	Perform air to air refueling procedures	-	3b	3c
04.05	Utilize MCS PAD application	-	3b	3c
04.06	Utilize MCS SMviewer application	-	3b	3c
04.07	Utilize MCS SHMM client application	-	3b	3c
05	Inbound Procedures			
05.01	Perform MCS shutdown preparation procedure	-	3b	3c

Task Number	XX Duty XX.XX Task XX.XX.XX Subtask XX.XX.XX.XX Activity	Entry	IQT	CT
05.01.01	Perform ESMS LRUD	-	3b	3c
05.02	Perform disk array file transfer to OOM procedure	-	3b	3c
05.03	Perform MIDS-JTRS Power Down	-	3b	3c
05.04	Perform MCS software shutdown procedure	-	3b	3c
05.05	Perform MCS power down procedure	-	3b	3c
05.06	Perform Mission Systems power removal procedure	-	3b	3c
05.07	Perform descent procedure	-	3b	3c
05.08	Perform taxi back, boarding/deplaning procedure	-	3b	3c
05.09	Perform before leaving airplane procedure	-	3b	3c
06	Emergency Procedures			
06.01	Perform, direct or lead E-3G emergency procedures	-	3c	-
06.02	Locate, identify, & properly utilize emergency equipment	-	3c	-
06.03	Perform cooling loss action procedures	-	3b	3c
07	Post Flight Requirements			
07.01	Debrief mission:	-	-	-
07.01.01	Maintenance	-	3b	3c
07.01.02	Crew	-	3b	3c
07.01.03	Intelligence	-	-	C
07.02	Control classified material	-	3b	3c
07.03	Complete mission documentation	-	3b	3c
08	General Use Procedures			
08.01	Perform IPEC turn on procedure	-	b	-
08.02	Perform IPEC checkout and shut down procedure	-	b	-
08.03	Perform GINS SKL key setup	-	3b	3c
08.04	Perform MODE 5 IFF key loading	-	3b	3c
08.05	OOM installation	-	3b	3c
08.06	OOM removal	-	3b	3c
08.07	Map data transfer	-	3b	3c
08.08	SWT installation	-	3b	3c
08.09	SWT removal	-	3b	3c
08.10	E3ACD hard drive installation	-	3b	3c
08.11	E3ACD hard drive removal	-	3b	3c
08.12	E3ACD optical drive installation	-	b	-
08.13	E3ACD optical drive removal	-	b	-
08.14	Iridium communication system ground use	-	3b	3c
08.15	Perform MIDS-JTRS key loading and zeroize procedures.	-	-	-
08.15.01	Preparing the MIDS-JTRS key payload	-	3b	3c
08.15.02	Loading MIDS-JTRS RT with a preconfigured SKL	-	3b	3c
08.15.03	Zeroizing using SKL	-	3b	3c
09	Malfunction Analysis, In-flight Repair & Alternate Procedures			
09.01	Perform MCS inflight fault isolation procedures:	-	3b	3c
09.01.01	Identify IP address/hostname correlation	-	3b	3c
09.01.02	Troubleshooting recording applications	-	3b	3c
09.02	Perform MCS alternate procedures	-	3b	3c

Task Number	XX Duty XX.XX Task XX.XX.XX Subtask XX.XX.XX.XX Activity	Entry	IQT	CT
09.02.01	Disk array boot failure	-	b	-
09.02.02	OWS Display Blank After Power is applied	-	3b	3c
09.02.03	PAD freeze	-	3b	3c
09.02.04	Blade server troubleshooting	-	3b	3c
09.02.05	Operator workstation time correction	-	b	-
09.02.06	Disk array alternate shutdown	-	b	-
09.02.07	Manual transfer of recorded data to OOM	-	3b	3c
09.02.08	Technician relevant anomalies	-	b	c
09.02.09	Service Printer Paper	-	3b	3c
09.02.10	Replace ink cartridges	-	b	-
09.02.11	MCS key fob destruction	-	b	-
09.02.12	TANS fault isolation	-	3b	3c
09.02.13	Rebooting primary TANS	-	3b	3c
09.02.14	Rebooting secondary TANS	-	3b	3c
09.02.15	Change primary TANS manually	-	3b	3c
09.02.16	Reset TANS failover	-	3b	3c
09.02.17	Time servers not operational after 8-minute warm-up period	-	3b	3c
09.02.18	E-3G (ownership) shows up at a random location in PAD	-	3b	3c
09.02.19	SHMM TANS tab overall status is red or yellow	-	3b	3c
09.03	Perform MCS inflight repair procedures:		3b	3c
09.03.01	Cable reconnection	-	3b	3c
09.03.02	Communications Console monitor opening/closing	-	3b	3c
09.03.03	Operator Workstation monitor opening/closing	-	3b	3c
09.03.04	Communications Console USB Access	-	3b	3c
09.03.05	Ethernet port reconfiguration	-	3b	3c
09.03.06	RIC reconfiguration	-	3b	3c
09.03.07	Synchro Power Supply Replacement	-	b	-
09.03.08	60 Hz power reconfiguration		3b	3c
09.04	Perform ESMS inflight fault isolation/alternate procedures:	-	-	-
09.04.01	In-flight fault isolation	-	3b	3c
09.04.02	Operational troubleshooting	-	3b	3c
09.04.03	System will not power up or shuts down unexpectedly	-	3b	3c
09.04.04	System power recycle	-	3b	3c
09.05	Perform ICS alternate procedures:	-	-	-
09.05.01	Iridium connection fails instantly	-	3b	3c
09.05.02	One handset display fails (not instantly)	-	3b	3c
09.05.03	Unable to connect to chat server	-	3b	3c
09.05.04	Iridium constantly disconnects due to poor or weak signal	-	3b	3c
09.05.05	E3ACD master/slave reconfiguration	-	3b	3c
09.05.06	KM switch does not go from OWS position to chat position	-	3b	3c
09.05.07	KM switch does not go from chat position to OWS position	-	3b	3c
09.06	Perform IPEC system alternate procedures:	-	b	-
09.06.01	Black side control computer system crash	-	b	-
09.06.02	Red side control computer system crash	-	b	-

Task Number	XX Duty XX.XX Task XX.XX.XX Subtask XX.XX.XX.XX Activity	Entry	IQT	CT
09.06.03	Air-to-ground link appears to freeze or to be non-responsive	-	b	-
09.06.04	Zabbix® displays colored alert	-	b	-
09.07	MIDS-JTRS inflight fault isolation procedures	-	3b	3c
09.07.01	Perform MIDS-JTRS terminal is unable to synchronize to an established Link 16 network; Terminal has no fault indications.	-	3b	3c
09.07.02	Perform MIDS-JTRS terminal is unable to initially synchronize a Link 16 network between two stations; Terminal has no fault indications	-	3b	3c
09.07.03	Perform MIDS-JTRS terminal is in course synchronization for extended period of time.	-	3b	3c
09.07.04	Perform MIDS-JTRS terminal is unable to exchange data in Link 16 network; All terminals are synchronized and have no fault indications.	-	3b	3c
09.08	Loss of PTS 3V 1 PPS Discrete	-	b	c